

**PEER REVIEW
COORDINATING DRAFT**

**TASK ANALYSIS
FOR**

**EMPLOY FIELD ARTILLERY
(CRITICAL COMBAT FUNCTION 8)**

AS ACCOMPLISHED BY A BATTALION TASK FORCE

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**Task Analysis for Employ Field Artillery
as Accomplished by a Battalion Task Force.
Critical Combat Function 8 (CCF 8)**

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BDM Federal, Inc.

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13. ABSTRACT (Maximum 200 words) The purpose of CCF 8 is employment of field artillery assets under control or in support of the TF to provide indirect fires on enemy terrain in accordance with TF commanders concept and intent. The outcomes include: 1) Fire support plan includes positioning and employment of FOs, COLTs, and FIST-Vs, as well as integration of field artillery fires, to support the TF plan and commanders guidance. 2) FOs, COLTs, and FIST-Vs are positioned to observe, process and control indirect fire missions on NAIs, TAI's, preplanned targets, or immediate calls for fire. 3) Coordination with supporting field artillery firing headquarters during mission execution is continuous, ensuring that the processing and control of fires supports the TF plan and commanders intent. 4) Planned artillery fires are provided in a timely and accurate manner. 5) During mission execution, TF FSO and fire support assets provide expertise and recommendations to the Command Group on employment of field artillery fires.				
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PREFACE

This task analysis of **EMPLOY FIELD ARTILLERY, Critical Combat Function 8** (CCF 8), is an intermediate product of the process of developing a training strategy for the CCF. The analysis reflects tasks, products, participants and processes required by the TF to place field artillery fires on the enemy or terrain to support a task force commander's concept and intent.

CRITICAL COMBAT FUNCTIONS: *The integration of related players and tasks that represent a source of combat power. The synchronization of critical combat functions provides maneuver commanders at any echelon with a definable outcome that materially affects the battle.*

The battalion phases PLAN, PREPARE, and EXECUTE relate to the entire battalion task force (TF) battle vice phasing for this particular task analysis.

This analysis identifies the tasks that the TF Commander, the TF Staff, key officers and NCO's and all subordinate and supporting elements of the TF must perform to employ field artillery. The processes outlined in this task analysis are never initiated from a standing start due to the continuous nature of the battle. For the purposes of analysis and for portrayal, the analysis is depicted as beginning with the receipt of the brigade order. It addresses the actions and coordination activities initiated by the TF commander and staff (Planning Phase); continues through the TF preparation for battle by detailing the modification and refinement of the artillery plan process (Preparation Phase), and culminates with the employment of field artillery fires and support during the conduct of battle and consolidation/reorganization following the battle (Execution Phase).

The fire support coordination tasks necessary to integrate field artillery and the maneuver units are the primary focus of this task analysis. This CCF does not address those field artillery tasks associated directly with those actions taken by the field artillery battalion or the firing batteries in the conduct of their support mission, such as FDC and gun operations.

In this analysis, a deliberate effort was made to identify specific task titles taken directly from the appropriate ARTEP Mission Training Plan (AMTP). Those task titles not taken from the MTP are derived titles that may apply to only part of a subtask or some other element of the AMTP; to multiple subtasks from different, but related, task; or to tasks that are not directly stated in the AMTP, but are implied by other tasks or by requirements in an applicable field manual (FM) or other related document.

Battalion task force tasks identified in CCF 18 (Plan for Combat Operations), 19 (Lead and Direct Units During Preparations for the Battle), and 20 (Lead and Direct Units in Execution of Battle) have been integrated into this task analysis because they relate to the battle command of the TF.

**INDEX OF
CRITICAL COMBAT FUNCTIONS**
Grouped By Battlefield Operating System (BOS)

INTELLIGENCE	(1)	Conduct Intelligence Planning
	(2)	Collect Information
	(3)	Process Information
	(4)	Disseminate Intelligence
MANEUVER	(5)	Conduct Tactical Movement
	(6)	Engage Enemy with Direct Fire and Maneuver
AIR DEFENSE	(16)	Take Active Air Defense Measures
	(17)	Take Passive Air Defense Measures
FIRE SUPPORT	(7)	Employ Mortars
	(8)	Employ Field Artillery
	(9)	Employ Close Air Support
	(10)	Conduct Electronic Collection and Jamming
	(11)	Conduct Battlefield PsyOps
	(12)	Employ Chemical Weapons
	(13)	Conduct Counter Target Acquisition Operations
	(14)	Employ Naval Gunfire
MOBILITY AND SURVIVABILITY	(15)	Coordinate, Synchronize and Integrate Fire Support
	(21)	Overcome Obstacles
	(22)	Enhance Movement
	(23)	Provide Countermobility
	(24)	Enhance Physical Protection
	(25)	Provide Operations Security
	(26)	Conduct Deception Operations
	(27)	Provide Decontamination
COMMAND AND CONTROL	(18)	Plan for Combat Operations
	(19)	Direct and Lead Unit During Preparation for the Battle
	(20)	Direct and Lead Units in Execution of Battle
COMBAT SERVICE SUPPORT	(28)	Provide Transport Services
	(29)	Conduct Supply Operations
	(30)	Provide Personnel Services
	(31)	Maintain Weapons Systems and Equipment
	(32)	Provide Health Services
	(33)	Treat and Evacuate Battlefield Casualties
	(34)	Conduct Enemy Prisoners of War (EPW) Operations
	(35)	Conduct Law and Order Operations
	(36)	Conduct Civil Affairs Operations
	(37)	Provide Sustainment Engineering
	(38)	Evacuate Non-combatants from Area of Operations
	(39)	Provide Field Services

STRUCTURE OF CRITICAL COMBAT FUNCTIONS RELEVANT TO BATTALION TASK FORCE OPERATIONS

CRITICAL COMBAT FUNCTION: *The integration of related players and tasks that represent a source of combat power. The synchronization of critical combat functions provides maneuver commanders at any echelon with a definable outcome that materially affects the battle.*

- I. **Intelligence BOS** — The ways and means of acquiring, analyzing and using knowledge of the enemy, weather and terrain required by a commander in planning, preparing and conducting combat operations. These CCF are continuous throughout the planning, preparation and execution phases of the battle.
 1. **CCF (1) Conduct Intelligence Planning** — The development and coordination of information relative to the enemy, weather and terrain prior to and during the development of the unit OPORD; the planning to collect information from battlefield sources and to acquire intelligence from other headquarters. Focus of this CCF is the Intelligence Preparation of the Battlefield (IPB). This CCF addresses:
 - a. Reconnaissance and Surveillance plan.
 - b. Integrated threat templates (doctrinal; event; input to DST).
 - c. Terrain and Weather analysis.
 2. **CCF (2) Collect Information** — Obtaining information in any manner from TF elements and from sources outside the TF (e.g., higher headquarters; adjacent units); this CCF includes the tasks associated with managing the processes and activities necessary to collect battlefield information which may eventually be used to provide intelligence relative to the enemy, terrain and weather. This CCF addresses:
 - a. Information collected as a result of R & S plan.
 - b. Continuous information collection and acquisition from all sources.
 3. **CCF (3) Process Information** — The conversion of information into intelligence through collation, evaluation, analysis, integration and interpretation in a continual process. This CCF addresses:
 - a. Evaluation of threat information.
 - b. Evaluation of physical environment information.
 - c. Integration of intelligence information.
 - d. Development of enemy intentions.
 - e. Development of targeting information.
 - f. Preparation of intelligence reports.
 - g. Update of situational template.
 - h. Provision of battlefield area reports.
 4. **CCF (4) Disseminate Intelligence** — Transmission of information by any means (verbal, written, electronic etc.), from one person or place to another to provide timely dissemination of critical intelligence to all appropriate members of the combined arms team. This CCF addresses:
 - a. The sending of processed intelligence in a timely manner to those on the combined arms team who can by its receipt, take appropriate actions to accomplish the mission. This includes intelligence on the enemy, terrain and weather.

- b. The sending of raw intelligence directly from those responsible for reconnaissance and surveillance to the commander should that raw intelligence be time sensitive (and not be subject to receipt and processing by intelligence analysts).
- c. Dissemination of battlefield reports.

II. **Maneuver BOS** — The employment of direct fire weapons, platforms and systems through movement and fire and maneuver to achieve a position of advantage in respect to enemy ground forces, in order to accomplish the mission. The direct fire weapons are: tank guns; BFV 25mm; anti-tank guns and rockets; attack helicopter guns and rockets; small arms; crew served weapons; directed energy weapons systems.

1. **CCF (5) Conduct Tactical Movement** — Position direct fire weapons systems relative to the enemy to secure or retain positional advantage making full use of terrain and formations. Tactical movement occurs when contact with the enemy is likely or imminent but direct fire engagement has not yet occurred. Units supporting maneuver units are included. This CCF addresses:

- a. Subordinate element OPORD preparation and dissemination.
- b. Preparation for movement.
- c. Movement, mounted and dismounted; on and off road.
- d. Closure of movement — tactical assembly area; tactical positions.
- e. Navigation.
- f. Force protection.
- g. Air movement.

2. **CCF (6) Engage Enemy with Direct Fire and Maneuver** — Entering into ground combat with the enemy using direct fire and/or close combat in order to destroy the enemy or cause him to withdraw. This CCF relates only to those direct fire weapons systems associated with the Maneuver BOS. This CCF is initiated with the OPORD at the completion of the planning phase of the battle and includes all tasks associated with subordinate echelon planning, preparation and execution of the battle. This CCF addresses:

- a. Subordinate element OPORD preparation and dissemination.
- b. Preparation of engagement areas.
- c. Rehearsals of battle plans.
- d. Pre-combat prepare to fire checks.
- e. Target acquisition.
- f. Fire control and distribution.
- g. Fratricide.
- h. Conduct close combat.
- i. Integration of direct fire with maneuver.
- j. Control of terrain.
- k. Prestocked ammunition.
- l. Resupply during operations.
- m. Maintenance during operations.
- n. Consolidation and reorganization.

III. **Fire Support BOS** — The collective, coordinated, and synchronized use of target acquisition data, indirect fire weapons, armed aircraft (less attack helicopters) and other lethal and non-lethal means against ground targets in support of maneuver force operations and to achieve the commanders intent and scheme of maneuver. The Fire Support BOS addresses these weapons: mortars; field artillery; close air support; electronic measures; naval gunfire.

1. **CCF (7) Employ Mortars** — Employment of mortars by the maneuver unit to place fires on the enemy or terrain to support the commander's concept and intent. This CCF initiates with the receipt of an OPORD by the maneuver commander and address those tasks required during the preparation and execution phases of the battle. This CCF addresses:
 - a. Subordinate element OPORD preparation and dissemination.
 - b. Prepare to fire checks.
 - i. Rehearsals.
 - c. Pre-combat checks.
 - d. Development of order to fire.
 - e. Tactical movement.
 - f. FDC operations.
 - g. Target engagements with illumination, smoke, HE.
 - h. Sustainment operations.
2. **CCF (8) Employ Field Artillery** — The ways and means employed by the maneuver unit to cause indirect artillery fires to be placed on the enemy or terrain to support the commander's concept and intent. This CCF initiates upon receipt of an OPORD by the maneuver commander and includes tasks performed during the preparation and execution phases of the battle. The Fire Support Coordination tasks necessary to integrate the field artillery and the maneuver units are the primary focus. This CCF does not address those field artillery tasks associated directly with those actions taken by the batteries of the artillery battalion in the conduct of their support mission such as FDC operations, gun operations, etc. This CCF addresses:
 - a. Fire Support — Maneuver unit rehearsals.
 - b. FSE operations during the preparation and execution phase of the battle.
 - c. FSO and FIST operations in coordination with their maneuver commander.
 - d. Positioning and movement within the maneuver unit sector or zone.
 - e. Indirect fire missions in support of maneuver commander's concept and intent.
 - f. Sustainment operations.
 - g. Indirect fire planning as battlefield METT-T change.
3. **CCF (9) Employ Close Air Support** — Planning for, requesting and employing armed aircraft (less attack helicopters) in coordination with other fire support (lethal and non-lethal) against ground targets in support of the maneuver force commander's concept and intent. This CCF addresses:
 - a. Air-ground attack requests.
 - b. Air space coordination and management.
 - c. Air Liaison Officer, Forward Air Controller; other Army Fire Support Coordination Officer; USN/USMC Bde Team Commander, SALT-O and FCT-O tasks that enable air to ground attacks.
4. **CCF (10) Conduct Electronic Collection and Jamming** — Actions taken to deny the enemy effective command, control and communications of his own tactical force in support of maneuver commander's concept and intent. This CCS includes jamming, deception, and collection.
5. **CCF (11) Conduct Battlefield PsyOps** — Conduct psychological activities as an integral part of combat operations to bring psychological pressure to bear on enemy forces and civilians under enemy control in the battle area, to assist in the achievement of tactical objectives in support of maneuver commander's concept and intent.

6. **CCF (12) Employ Chemical Weapons** — Employ chemical agents or other means to degrade enemy capabilities in support of maneuver commander's concept and intent.
 7. **CCF (13) Conduct Counter Target Acquisition Operations** — Suppress (e.g. using smoke or dazzling illumination) or degrade enemy direct observation, optics, radar, sensors, electronic DF equipment, and imaging systems in support of maneuver commander's concept and intent.
 8. **CCF (14) Employ Naval Gunfire** — The means and ends to provide naval gunfire in support of the maneuver commander's tactical operation.
 9. **CCF (15) Coordinate, Synchronize and Integrate Fire Support** — Coordination of all fire support means in support of the maneuver commanders concept and intent. This CCF addresses the preparation and execution of tasks necessary to integrate the fire support detailed in the OPORD. The CCF integrates CCF 7-14 in support of maneuver commander's concept and intent.
- IV. **Air Defense BOS** — The means and measures organic or assigned to the maneuver commander which when employed successfully will nullify or reduce the effectiveness of attack by hostile aircraft or missiles after they are airborne.
1. **CCF (16) Take Active Air Defense Measures** — Application of firepower to destroy enemy air targets. This CCF addresses the coordinating tasks which enable the maneuver commander to successfully employ any attached or assigned air defense weapons system as well as the tasks necessary to employ all organic weapons systems against enemy air targets. This CCF addresses:
 - a. Employment of Air Defense Artillery guns and missiles.
 - b. Employment of maneuver unit weapons systems such as small arms, automatic weapons, BFV 25 mm and TOW missiles, tank main gun against enemy air.
 - c. Airspace management.
 - d. Early warning.
 - e. Sustainment.
 2. **CCF (17) Take Passive Air Defense Measures** — The protection of the maneuver force from enemy air by means other than weapons. This CCF will focus on the preparation and execution phases of the battle. This CCF addresses:
 - a. Early warning.
 - b. Dispersion.
 - c. Cover and concealment.
 - d. Air watch.
 - e. Deception.
- V. **Command and Control BOS** — The way and means a maneuver commander exercises authority and direction over organic and assigned combat power in the accomplishment of the mission.
1. **CCF (18) Plan for Combat Operations** — The integration of all members of the combined arms team in the coordinated development of the maneuver unit Operations Order which will guide the activities of the combined arms team in conducting combat operations to accomplish assigned missions. The product/outcome of this CCF is a briefed, understood OPORD. This CCF addresses:

- a. Receipt and analysis of higher HQ OPORD.
 - b. Issuance of Warning Order.
 - c. Restated mission statement.
 - d. Commander's estimate process/troop leading procedures.
 - e. Commander's guidance.
 - f. Mission analysis (includes course of action development).
 - g. Decision brief to commander.
 - h. Development of a synchronized OPORD.
 - i. Reproduction and distribution of OPORD to all participants.
 - j. Briefing of OPORD; understanding of order by participants.
 - k. FRAGO planning and issue.
2. **CCF (19) Direct and Lead Unit during Preparation for the Battle** — The ways and means to prepare combined arms task force for the battle so that the combined arms task force is ready to support the maneuver commander's concept and intent. This CCF addresses:
- a. Commander's activities.
 - b. Communicating information.
 - c. Briefbacks and backbriefs.
 - d. Rehearsals.
 - e. Management of the means of communicating information.
 - f. Maintaining and updating information and force status.
 - g. Managing information distribution.
 - h. Decisions to act or change ongoing actions.
 - i. Confirming IPB through the reconnaissance effort.
 - j. Determining actions to implement decisions.
 - k. Providing command presence.
 - l. Maintaining unit discipline.
 - m. Synchronizing tactical operations (e.g., execution matrix DST).
 - n. TOC operations (e.g., staff integration and battle tracking).
 - o. Continuity of command.
 - p. Second in command (2IC responsibilities).
 - q. Continuous and sustained operations.
 - r. Communications (e.g., planning, installation and operation of system, management, site selection).
3. **CCF (20) Direct and Lead Units in Execution of Battle** — The ways and means to command and control in the combined arms task force execution of the battle plan (engaging the enemy in battle) to accomplish the maneuver commander's concept and intent. This CCF addresses:
- a. Directing the conduct of the battle.
 - b. Issue orders.
 - c. Command presence.
 - d. Information distribution.
 - e. Decide on need for action or change.
 - f. Maintaining unit discipline.
 - g. Synchronizing tactical operations.
 - h. TOC operations (includes CP displacement, security, survivability).
 - i. Continuity of command (e.g., C2 redundancy).
 - j. Second in command (2IC) responsibilities.
 - k. Continuous and sustained operations.
 - l. Consolidation and reorganization.

- VI. **Mobility and Survivability BOS** — The ways and means of the force that permit freedom of movement, relative to the enemy, while retaining the task force ability to fulfill its primary mission as well as the measures the force takes to remain viable and functional by protection from the effects of enemy weapons systems and natural occurrences.
1. **CCF (21) Overcome Obstacles** — Enabling the maneuver force to maintain its mobility by removing or clearing/reducing natural and man-made obstacles. This CCF will initiate after receipt of the OPORD and address subordinate echelon planning as well as task force preparation and execution tasks necessary to achieve the maneuver commander's concept and intent. This CCF addresses:
 - a. Breach obstacle. Clearing a path or lane for personnel and equipment through a battlefield obstacle.
 - b. Cross gaps. Passing through or over any battlefield terrain feature, wet or dry, that is too wide to be overcome by organic/self bridging.
 2. **CCF (22) Enhance movement** — Provision of adequate mobility for the maneuver unit in its area of operations. This CCF addresses:
 - a. Construction and repair of combat roads and trails.
 - b. Construction or repair of forward airfields.
 - c. Facilitating movement on routes. (This includes control of road traffic and control of refugees and stragglers.)
 - d. Tracking status of routes.
 - e. Host nation support.
 3. **CCF (23) Provide Countermobility** — Delaying, channeling, or stopping offensive movement by the enemy consistent with the commander's concept and intent by enhancing the effectiveness of friendly direct and indirect weapons systems. This CCF addresses:
 - a. Emplacement of mines and complex obstacles.
 - b. Digging tank ditches.
 - c. Creation of road craters with explosives.
 - d. Terrain enhancement.
 4. **CCF (24) Enhance Physical Protection** — Providing protection of friendly forces on the battlefield by enhancing the physical protection of personnel, equipment and weapons systems, and supplies. This CCF addresses:
 - a. Construction of fighting positions.
 - b. Preparation of protective positions.
 - c. Employment of protective equipment.
 5. **CCF (25) Provide Operations Security** — Denying information to the enemy about friendly capabilities and intentions by identifying, controlling, and protecting indicators associated with planning and conducting military operations. This CCF addresses:
 - a. Analysis to determine key assets and threats to them.
 - b. Cover and concealment.
 - c. Camouflage.
 - d. Noise and light discipline.
 - e. Counter reconnaissance.
 - f. Smoke/obscurants.
 - g. Physical security measures.

- h. Signal security.
 - i. Electronic security.
6. **CCF (26) Conduct Deception Operations** — Taking actions to mask the real objectives of tactical operations in order to delay effective enemy reaction. This CCF addresses:
- a. Physical deception.
 - b. Electronic deception.
7. **CCF (27) Provide Decontamination** — Making any person, object or area safe by absorbing, destroying, neutralizing, making harmless or removing chemical or biological agents, or by removing radioactive material. This CCF addresses:
- a. Decontamination of individual soldiers and equipment.
 - b. Decontamination of weapon systems and supplies.
 - c. Hasty and deliberate decontamination.
- VII. **Combat Service Support BOS** — The support, assistance and service provided to sustain forces, primarily in the area of logistics, personnel services and health services.
1. **CCF (28) Provide Transport Services** — Providing or coordinating for transportation which will assure sustainment support operations in support of the maneuver commander. Upon receipt of an OPORD, this CCF addresses preparation and execution tasks necessary to achieve transportation support of the maneuver force. This CCF addresses:
- a. Movement of cargo, equipment and personnel by surface or air.
 - b. Loading, transloading and unloading material and supplies.
2. **CCF (29) Conduct Supply Operations** — Providing the items necessary to equip, maintain and operate the force during the preparation and execution phases of the battle. This CCF addresses:
- a. Requesting, receiving, procuring, storing, protecting, relocating and issuing supplies to the specific elements of the force.
 - b. Providing munitions to weapons systems.
 - c. Providing fuel and petroleum products to equipment and weapons systems.
 - d. Reporting status.
3. **CCF (30) Provide Personnel Services** — Management and execution of all personnel-related matters to sustain the force. This CCF addresses:
- a. Personnel Administrative Services.
 - 1) Replacement, casualty reporting.
 - 2) Awards and decorations.

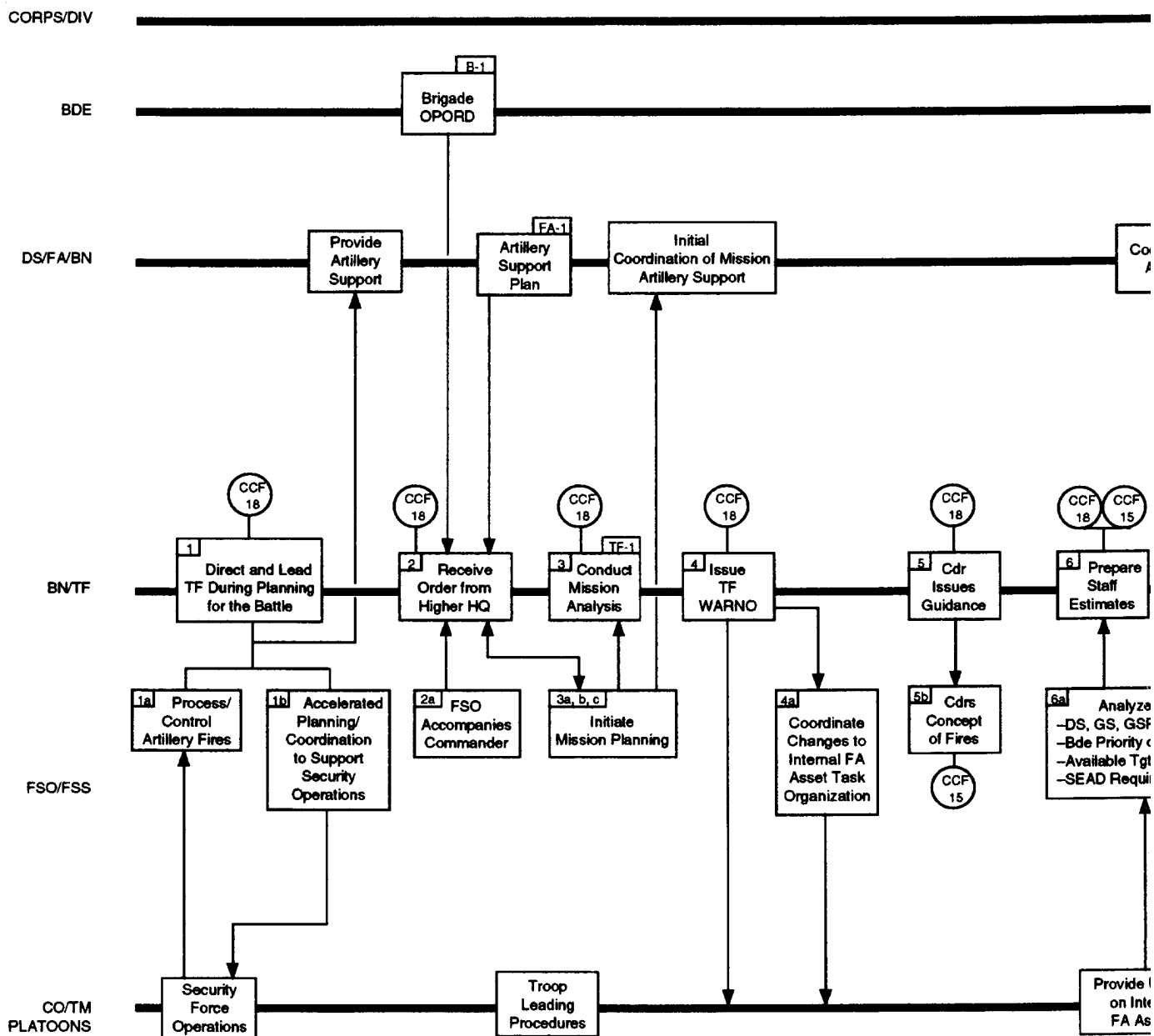
- 3) Postal Operations.
 - 4) Promotions, reductions.
 - b. Financial services.
 - c. Unit Ministry team.
 - d. Legal.
 - e. Public Affairs.
 - f. Reporting personnel status.
 - g. Preservation of the force through safety.
 - h. Management of stress.
4. **CCF (31) Maintain Weapons Systems and Equipment** — Preservation and repair of weapons systems and equipment. This CCF includes the provision of repair parts and end items to all members of the combined arms team before, during and after the battle. Included also is doctrinal echeloning of maintenance (organization, DS, GS). This CCF addresses:
- a. Preventative Maintenance.
 - b. Recovery.
 - c. Diagnosis, substitution, exchange, repair and return of equipment and weapons systems to the combined arms force.
 - d. Reporting status.
5. **CCF (32) Provide Health Services** — Performance, provision or arrangement for health services regardless of location, to promote, improve, conserve or restore the mental or physical well-being of individuals or groups. This CCF addresses
- a. Preventive medicine.
 - b. Field sanitation.
6. **CCF (33) Treat and Evacuate Battlefield Casualties** — Application of medical procedures on battlefield casualties beginning with "buddy aid" through trained medical personnel. The CCF includes movement of casualties from the forward edge of the battlefield back to division-level medical facilities. This CCF addresses:
- a. Triage of battlefield casualties.
 - b. Treatment and movement of casualties to rear (medevac).
 - 1) Identification of levels of care and locations.
 - 2) Synchronization and coordination of movement of medical facilities to ensure continuity of care.
 - 3) Establishment and maintenance of communications with redundant means.
 - 4) Rehearsals.
 - 5) Resupply.
 - c. Evacuation:
 - 1) Ground ambulance.
 - 2) Aero medevac.
 - 3) Non-standard evacuation.
 - d. Handling and processing the remains of soldiers who have died of wounds.
 - e. Reporting status.
7. **CCF (34) Conduct Enemy Prisoners of War (EPW) Operations** — The collection, processing, evacuation and safeguarding of enemy prisoners of war. This CCF addresses:
- a. Collecting and evacuating EPW.
 - b. Searching, segregating, safeguarding, silencing, and rapid rearward movement of EPW.

8. **CCF (35) Conduct Law and Order Operations** — Enforcement of laws and regulations and maintenance of units and personnel discipline.
9. **CCF (36) Conduct Civil Affairs Operations** — Conduct of those phases of the activities of a tactical commander which embrace the relationship between the military forces and civil authorities, and the citizens in a friendly or occupied country or area when U.S. military forces are present.
10. **CCF (37) Provide Sustainment Engineering** — The repair and construction of facilities and lines of communication. This CCF addresses:
 - a. Rear area restoration.
 - b. Construction and maintenance of lines of communication (roads, railroads, ports, airfields).
 - c. Construction support:
 - 1) Marshaling, distribution and storage facilities.
 - 2) Pipelines.
 - 3) Fixed facilities.
 - 4) Drill wells.
 - 5) Dismantlement of fortifications.
11. **CCF (38) Evacuate Non-combatants from Area of Operations** — The use of available military and host-nation resources for the evacuation of US forces, dependents, US government civilian employees, and private citizens (US and other). This CCF addresses:
 - a. Medical support.
 - b. Transportation.
 - c. Security.
 - d. Preparation of temporary shelters.
 - e. Operation of clothing exchange facilities.
 - f. Operation of bathing facilities.
 - g. Graves registration.
 - h. Laundry.
 - i. Feeding.
12. **CCF (39) Provide Field Services** — Performance of service logistics functions by and for Army elements in the field. This CCF addresses:
 - a. Clothing exchange.
 - b. Bathing facilities.
 - c. Graves registration.
 - d. Laundry and clothes renovation.
 - e. Bakeries.
 - f. Feeding (rations supply, kitchens).
 - g. Salvage.

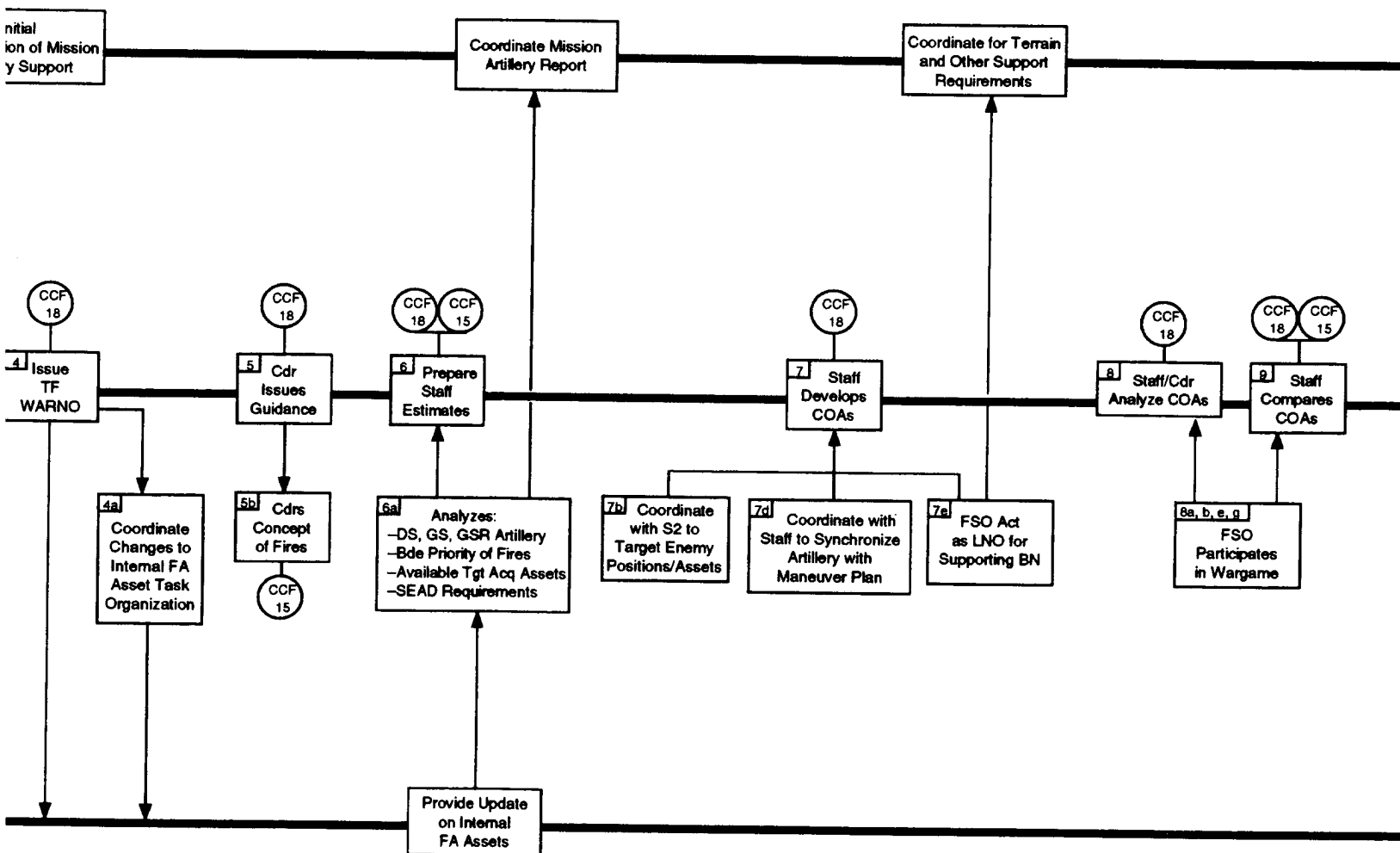
OUTCOMES AND PURPOSE OF CCF 8

<u>OUTCOMES</u>	<u>PURPOSE</u>
1. Fire support plan includes positioning and employment of FOs, COLTs, and FIST-Vs, as well as integration of field artillery fires, to support the TF plan and commanders guidance. 2. FOs, COLTs, and FIST-V's are positioned to observe, process and control indirect fire missions on NAIs, TAIs, preplanned targets, or immediate calls for fire. 3. Coordination with supporting field artillery firing headquarters during mission execution is continuous, ensuring that the processing and control of fires supports the TF plan and commanders intent. 4. Planned artillery fires are provided in a timely and accurate manner; artillery fires plan is flexible to allow the TF Cdr and his subordinates to process and control fires on unplanned targets. 5. During mission execution, TF FSO and fire support assets provide expertise and recommendations to the Command Group on employment of field artillery fires.	Employment of field artillery assets under control or in support of the TF to provide indirect fires on enemy and terrain in accordance with TF commanders concept and intent.

TASK FL PLAN

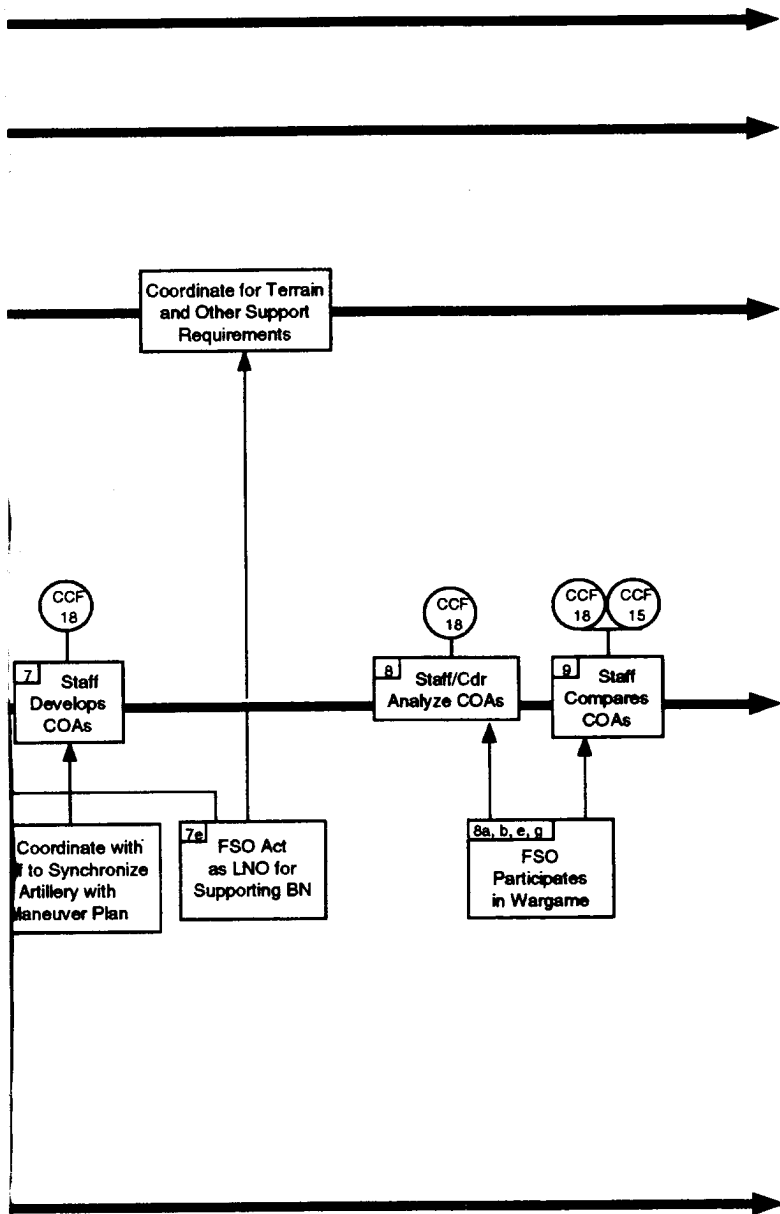


TASK FLOW PLAN



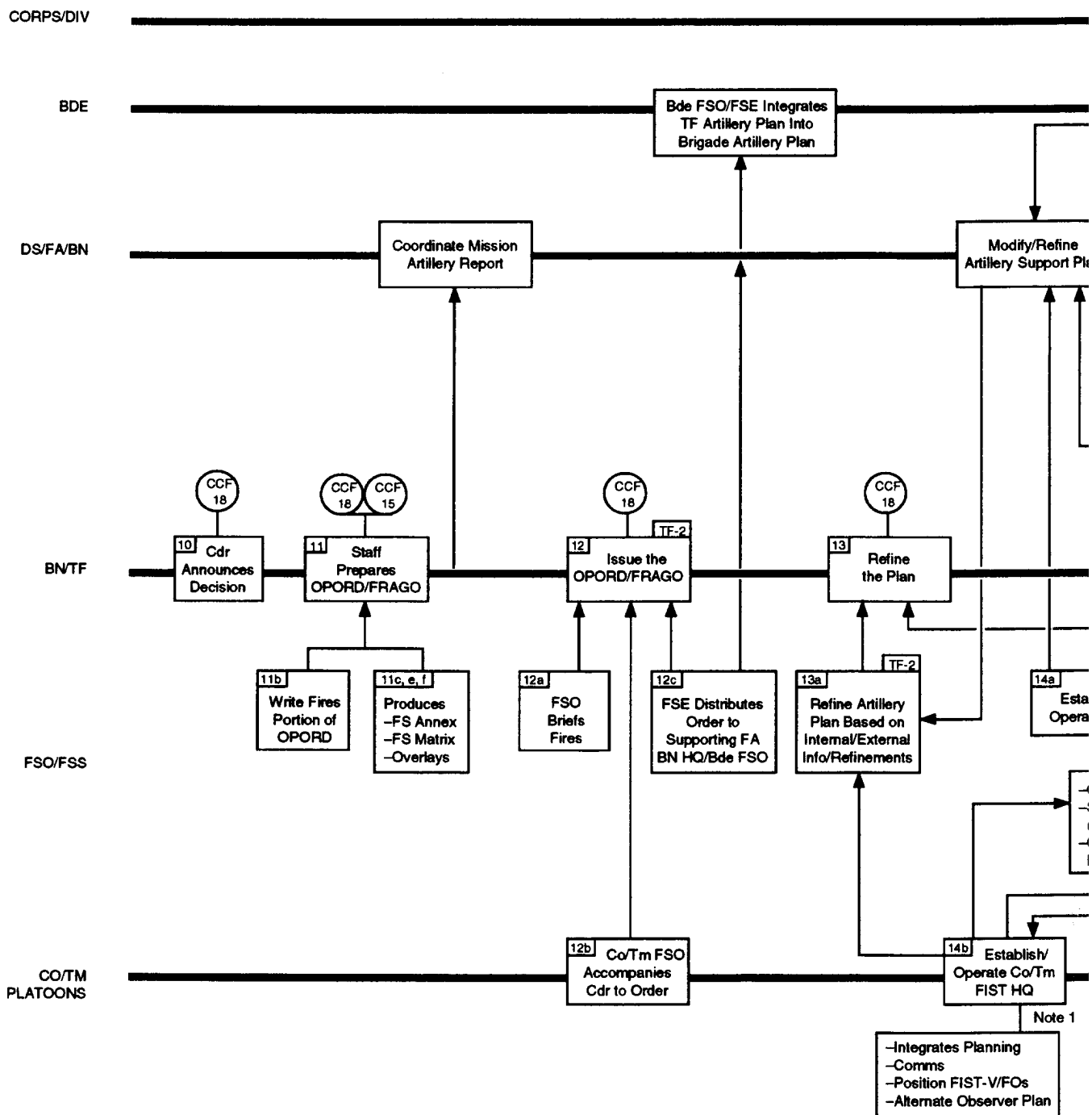
November 23, 1993

CCF 8 — Employ Field Artillery



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TASK PLAN (Co)

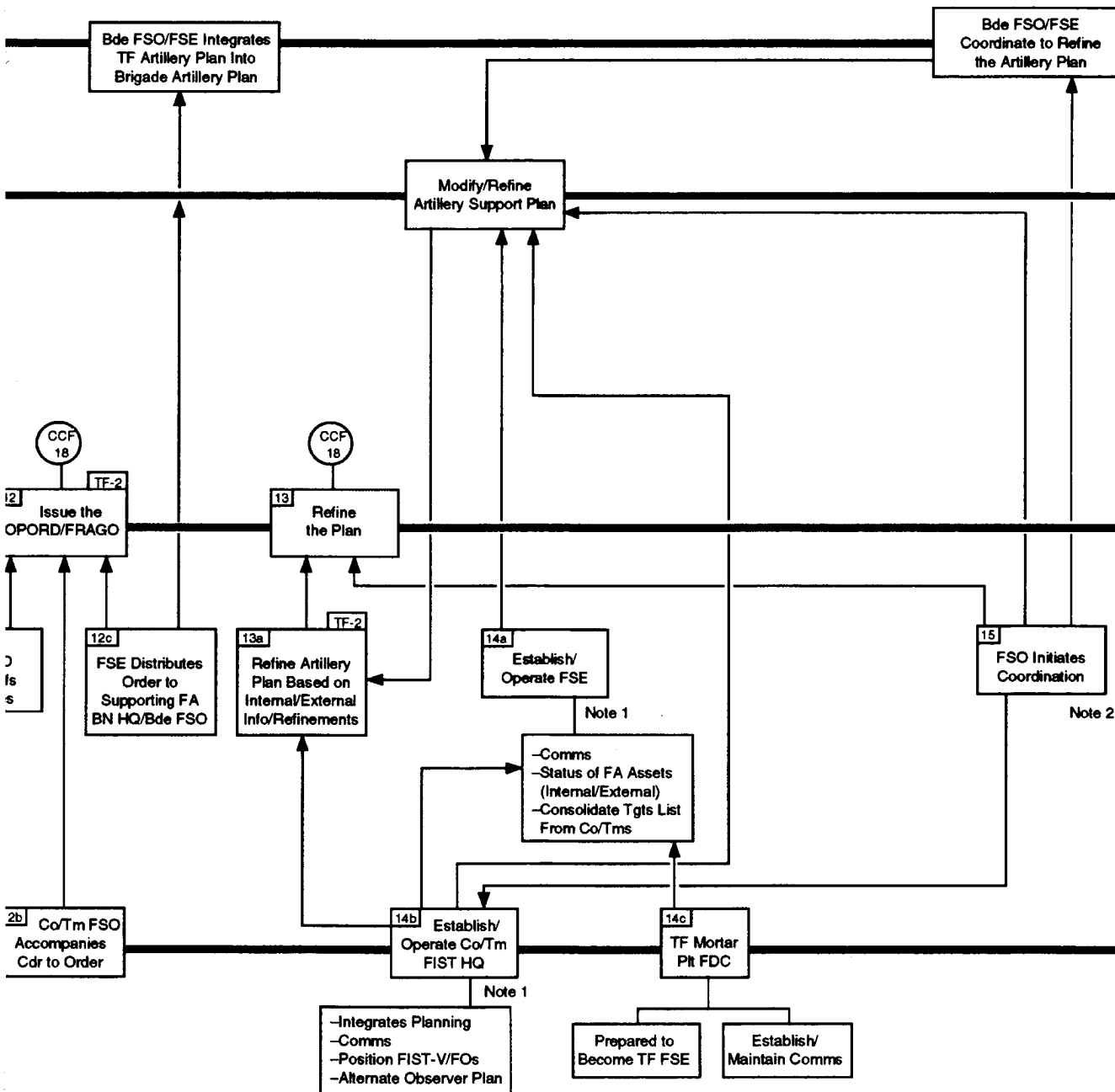


○ CCF □ (outside) Input or Output (inside) Task

Note 1: The TF FSE and the Co/Tm FIST HQ operate continuously.

Note 2: The FSO conducts continuous coordination with internal, TF-conti and with external headquarters (Bde FSO/FSE, FA BN TOC/S3,

TASK FLOW PLAN (Continued)

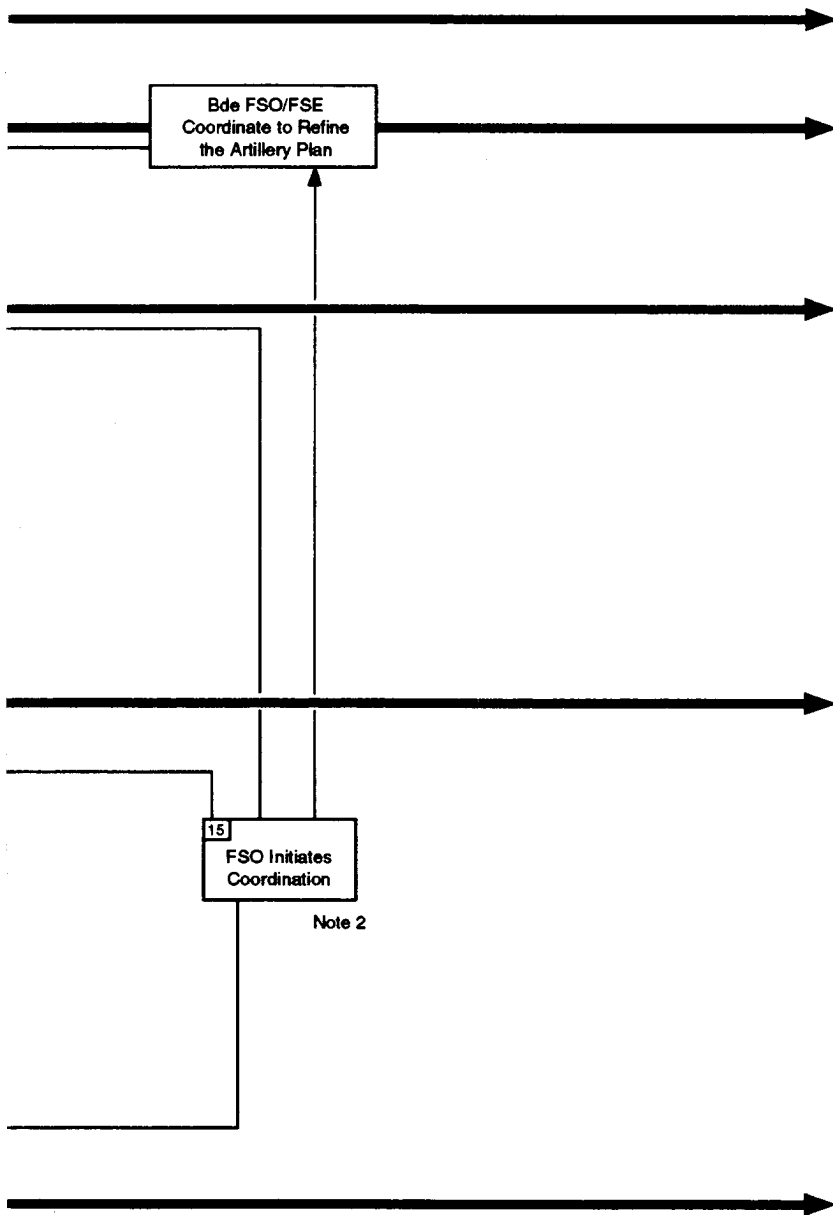


Note 1: The TF FSE and the Co/Tm FIST HQ operate continuously.

November 23, 1993

Note 2: The FSO conducts continuous coordination with internal, TF-controlled assets (FISTs, COLTs) and with external headquarters (Bde FSO/FSE, FA BN TOC/S3, adjacent unit FSOs/FSEs)

CCF 8 — Employ Field Artillery



Note 2

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TASK FL PREPAR

CORPS/DIV

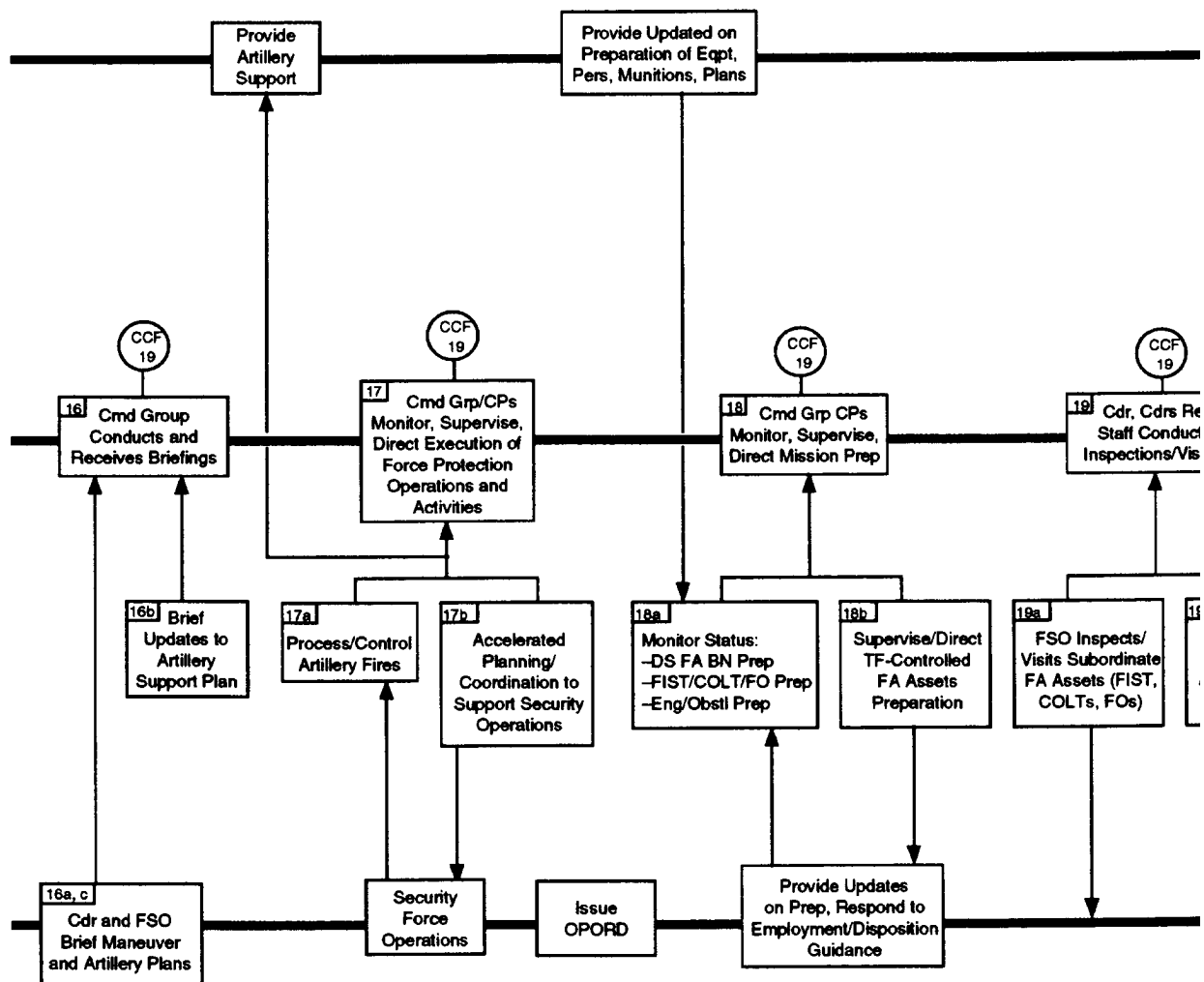
BDE

DS/FA/BN

BN/TF

FSO/FSS

CO/TM
PLATOONS

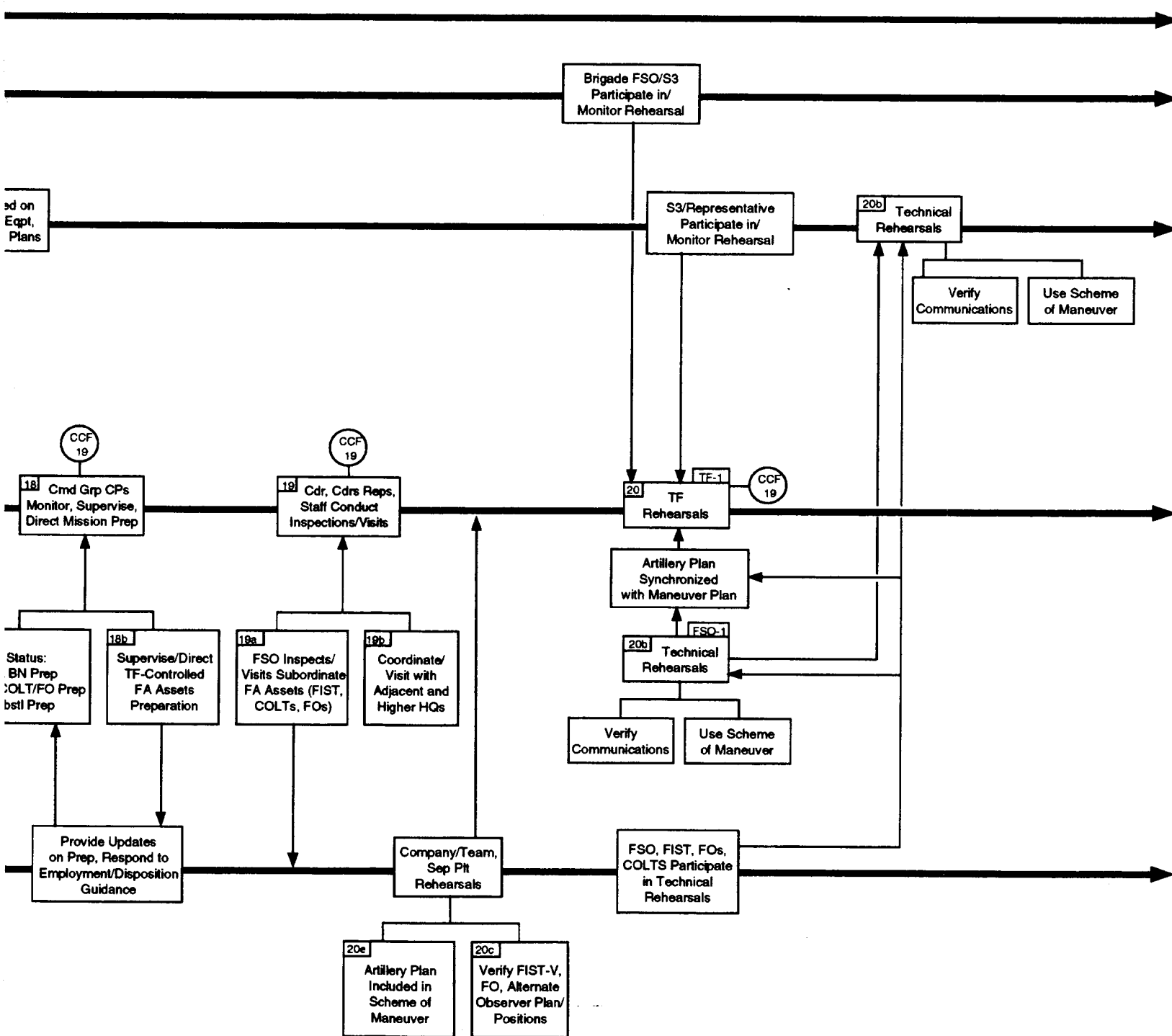


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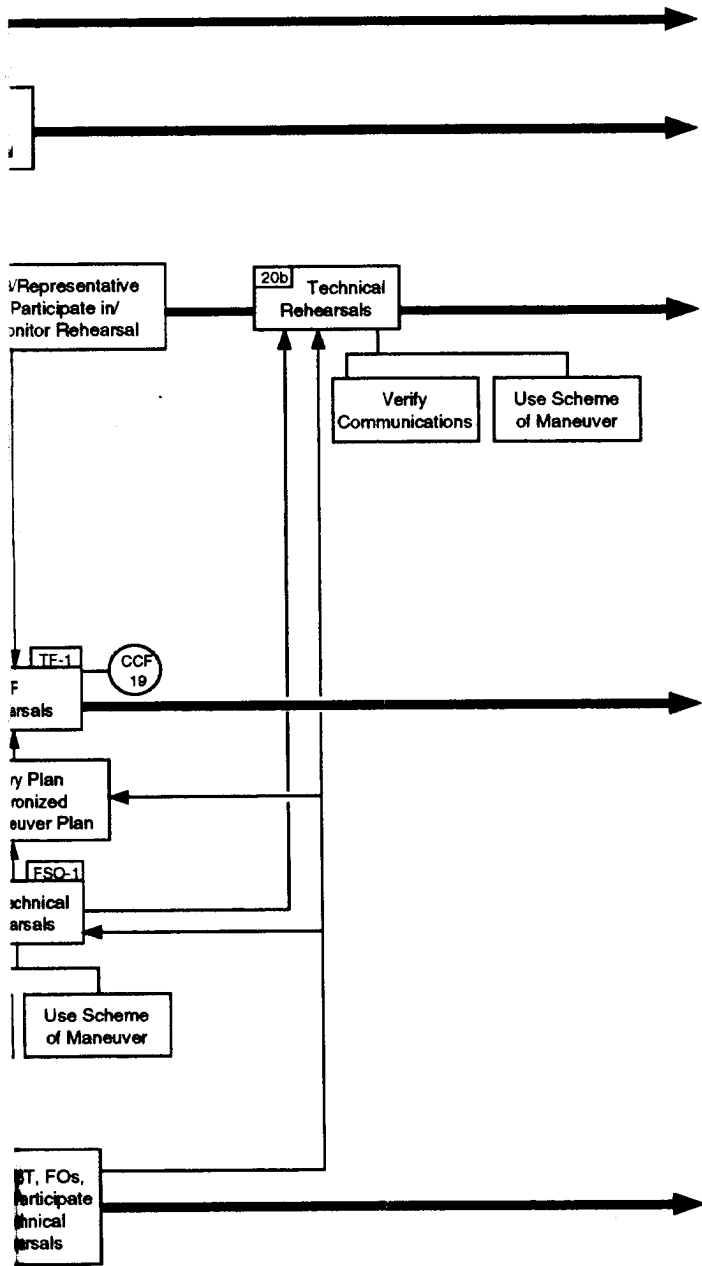
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TASK FLOW PREPARE



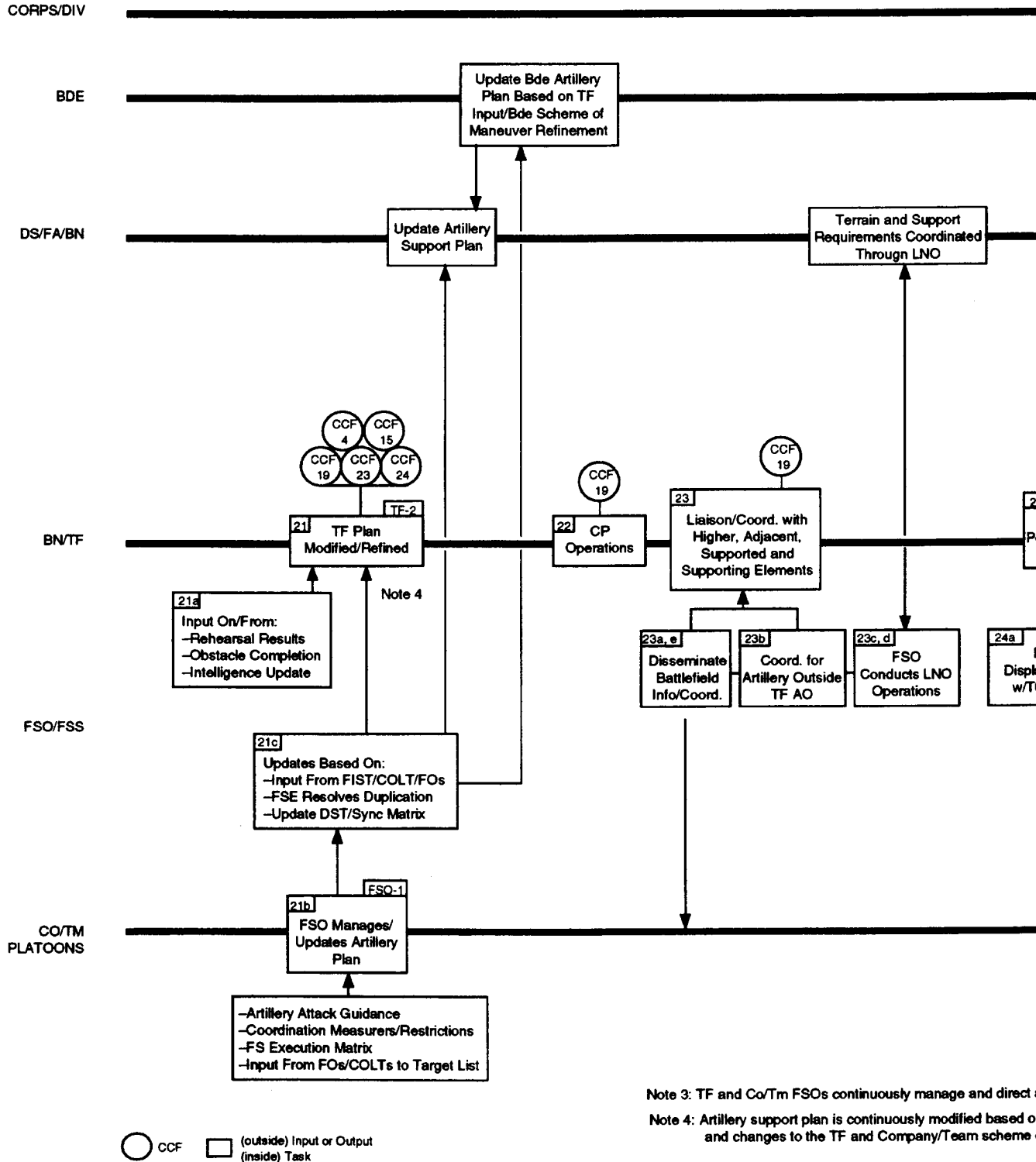
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CCF 8 — Employ Field Artillery

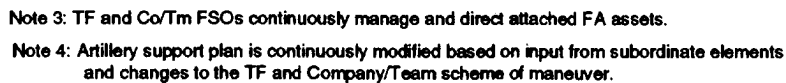


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TASK PREPARE

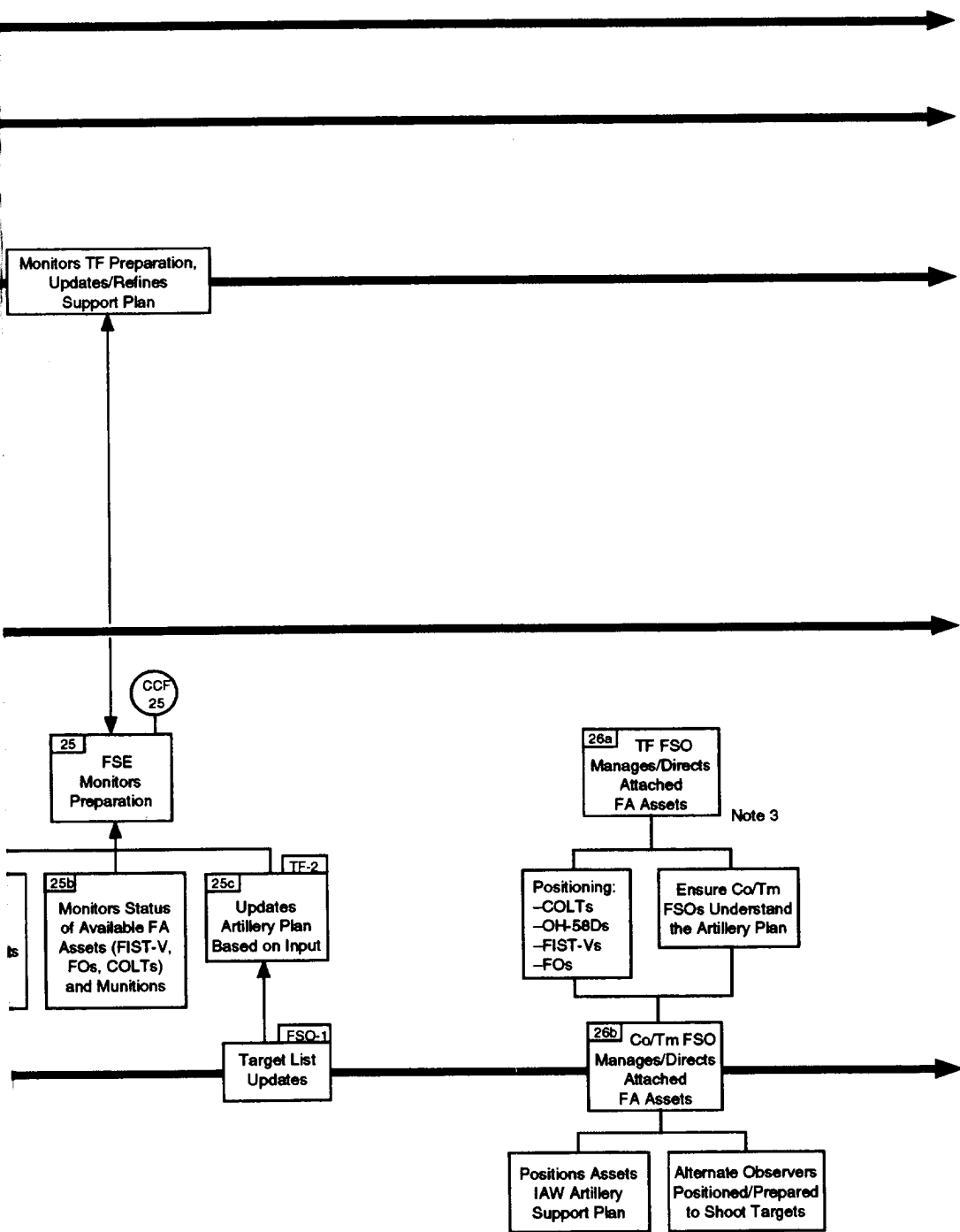


• Artillery and on TF Scheme of Refinement



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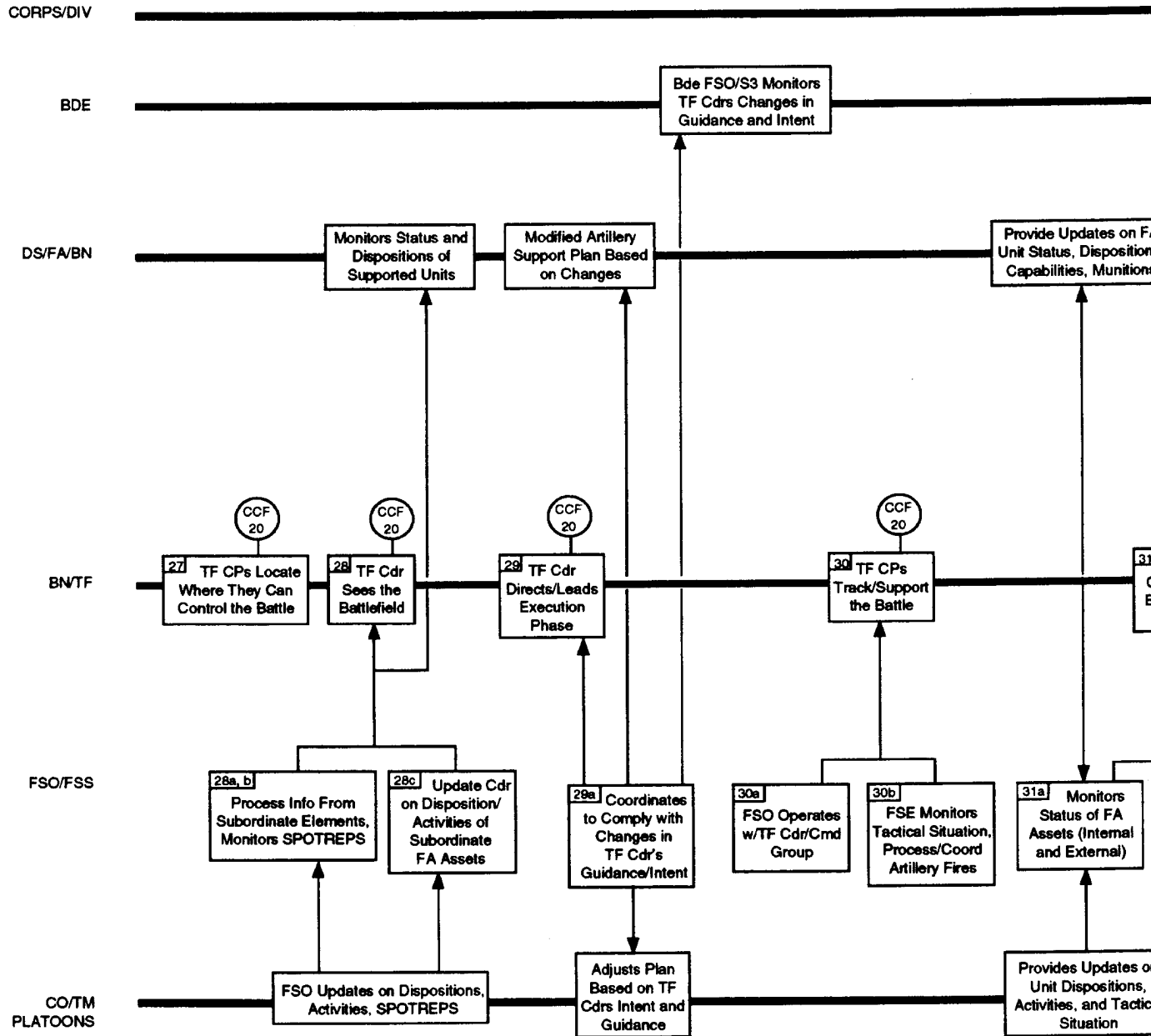
CCF 8 — Employ Field Artillery



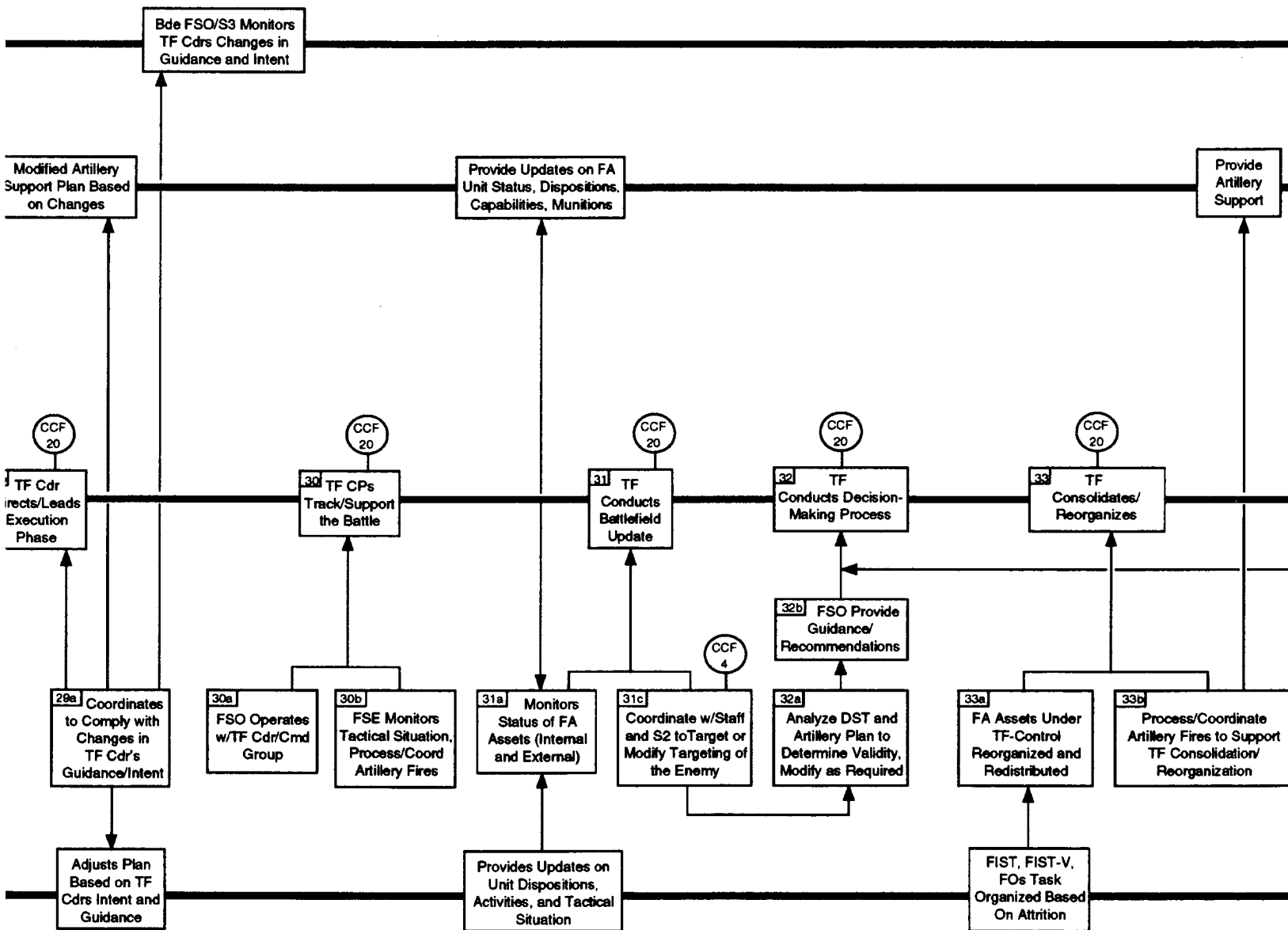
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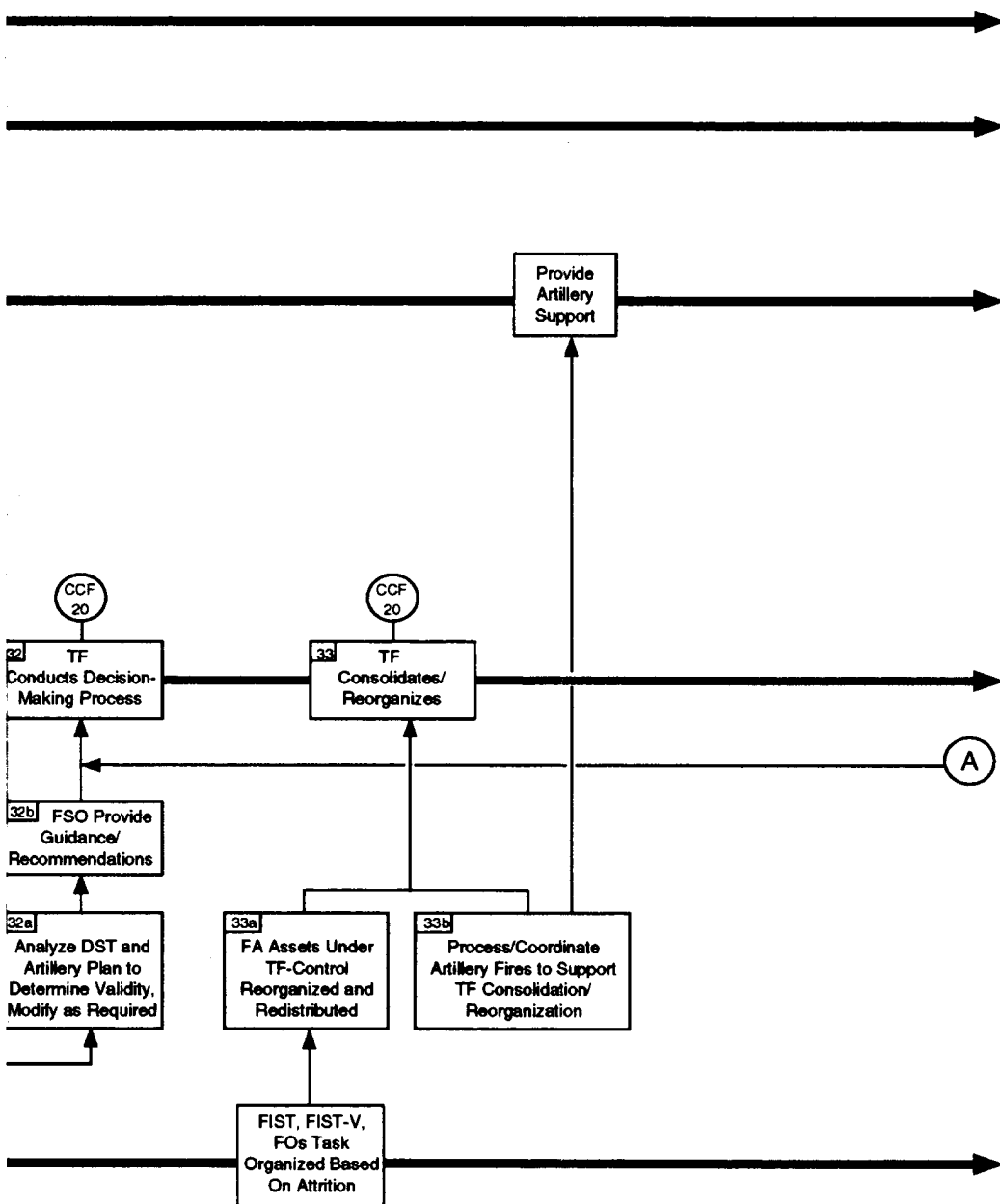
TASK FL EXECU



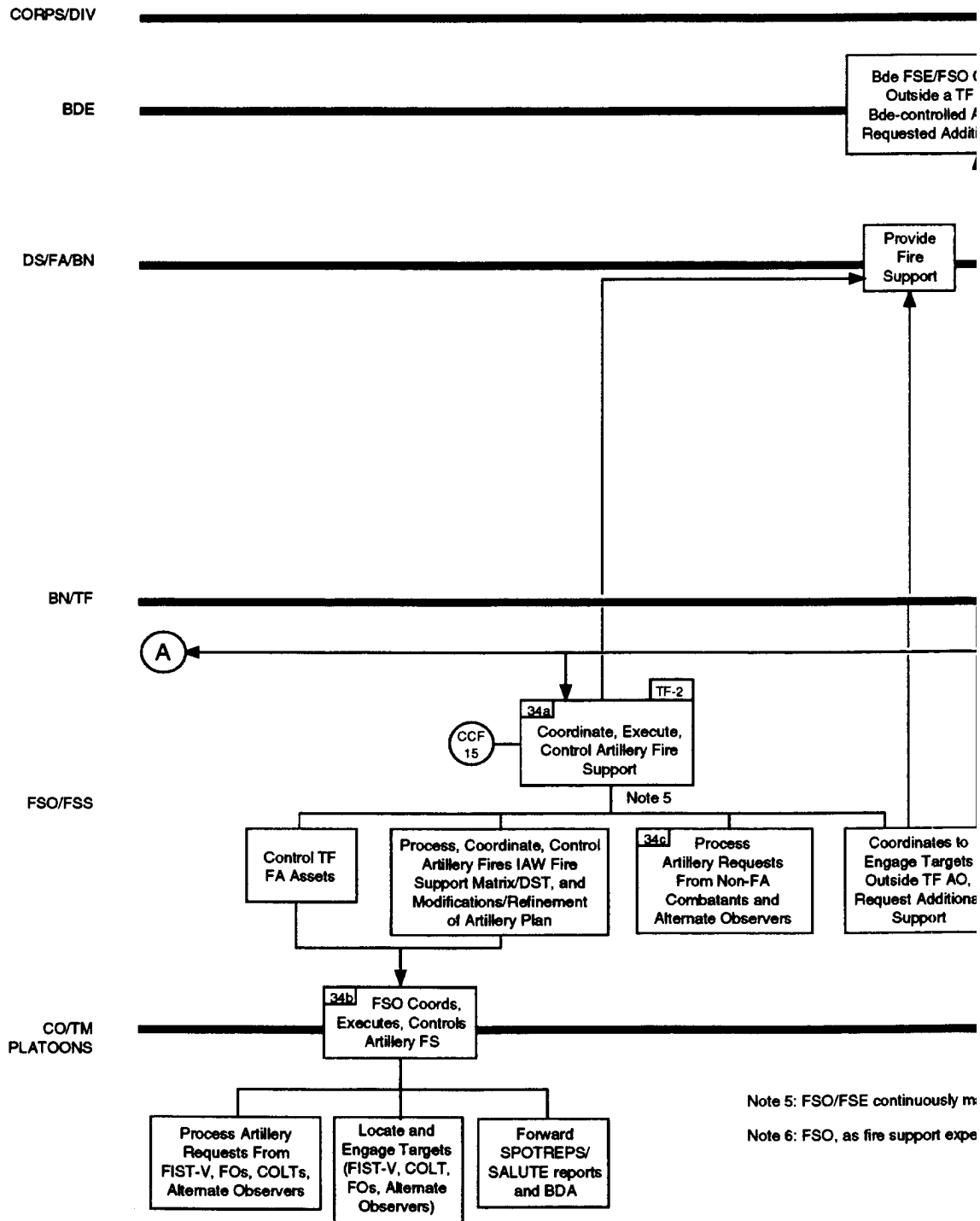
TASK FLOW EXECUTE



CCF 8 — Employ Field Artillery



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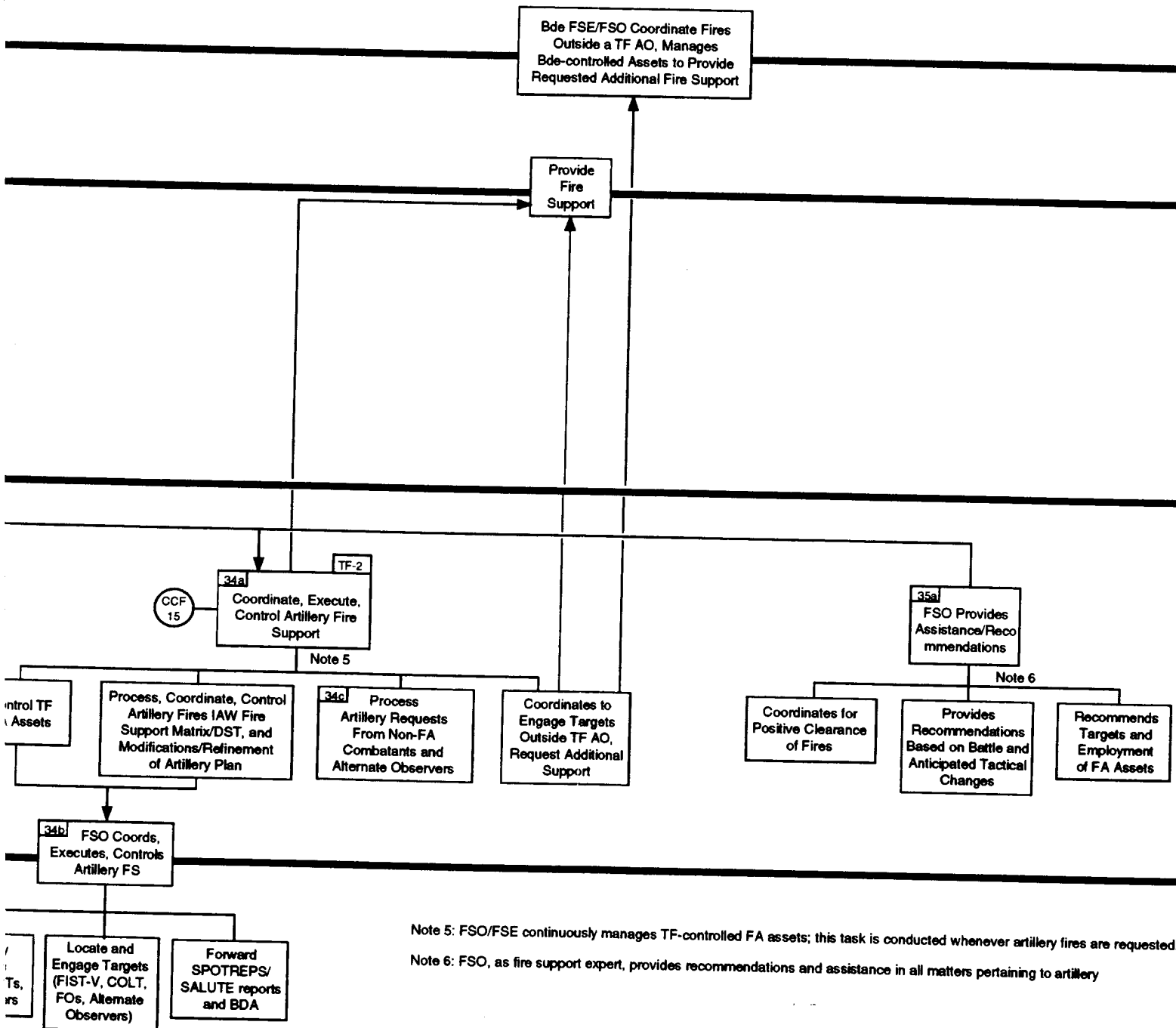


Note 5: FSO/FSE continuously m

Note 6: FSO, as fire support expe

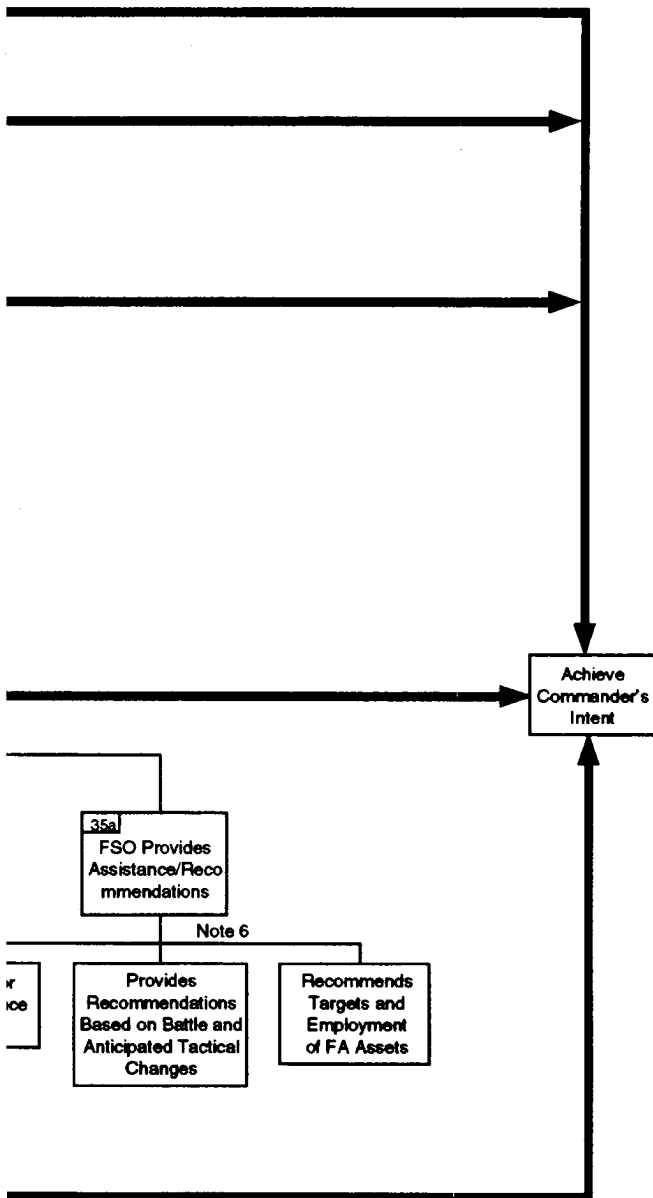
○ CCF □ (outside) Input or Output
 □ (inside) Task

TASK FLOW EXECUTE (Continued)



CCF 8 — Employ Field Artillery

ued)



ask is conducted whenever artillery fires are requested.

istance in all matters pertaining to artillery

November 23, 1993

OTHER CCF WHICH INTERACT WITH CCF 8

CCF #	TITLE	LOGIC
CCF 3	Process Information	Fire support planners are integrated into information processing system to refine and modify the field artillery fire plan.
CCF 4	Disseminate Intelligence	Updated enemy situation analyzed to modify and refine artillery fire plan and provide responsive fires as needed.
CCF 5	Conduct Tactical Movement	Artillery fires are integrated and utilized to support TF movement; fire support assets are positioned to call for, process, and control artillery fires.
CCF 6	Engage Enemy with Direct Fire and Maneuver	Artillery assets under TF control (FSE, FIST-Vs, COLTs, FOs) are positioned and integrated to provide, process, and control artillery fires.
CCF 9	Employ Close Air Support	Artillery fires and assets are employed for SEAD operations in support of air-ground attack.
CCF 15	Coordinate, Synchronize, and Integrate Fire Support	Field artillery fires integrated to compensate for or enhance indirect fires.
CCF 16	Take Active Air Defense Measures	Artillery fired and FA assets positioned to process and control fires on known or suspected enemy attack helicopter position.
CCF 18	Plan for Combat Operations	Integrate fire support assets and artillery fires to support the commanders intent and scheme of maneuver.
CCF 19	Direct and Lead Units During Preparation for the Battle	Field artillery assets in support of the TF are positioned and rehearsed; TF artillery plan is modified and refined based on rehearsals, intelligence, and changes to the maneuver plan; artillery and support assets provided to support security operations.
CCF 20	Direct and Lead Units in Execution of Battle	Field artillery assets and support integrated into the fight through positive command and control.
CCF 21	Overcome Obstacles	Artillery assets under TF control are positioned to provide, process, and control fires; artillery fires are used to obscure TF breaching activities and against enemy positions or forces securing obstacles.

CCF #	TITLE	LOGIC
CCF 23	Provide Countermobility	FASCAM considerations and coordination are integrated into fire support planning and preparation; supporting FA assets are positioned to process and control FASCAM fires.
CCF 24	Enhance Physical Security	Artillery assets under TF control are included in the planning and construction of defensive positions.
CCF 25	Provide Operations Security	Artillery and support assets provided to support security operations; positioning of artillery and FA assets denies the enemy intelligence on friendly plans and intentions.
CCF 29	Conduct Supply Operations	Continuous responsive resupply of TF controlled fire support assets.
CCF 30	Provide Personnel Services	Fill shortages of trained key fire support personnel losses (FSO, FIST).
CCF 31	Maintain Weapons Systems and Equipment	Repair/replace fire support and specific mission essential equipment (FIST-Vs, digital communications equipment, lasers, etc.).
CCF 33	Treat and Evacuate Battlefield Casualties	Support of fire support personnel not habitually provided with attached medical assets.

CCF 8 KEY PARTICIPANTS BY TASK

<u>TASK</u>	<u>KEY PARTICIPANTS</u>
1. Direct and lead task force During planning for the battle	TF Cdr, S3, FSO, FS NCO, Co/Tm Cdrs/FSOs, FOs, Scout Plt Ldr
2. Receive ORDER from higher headquarters	TF XO, S3 Rep, S2 Rep, FSO
3. Conduct mission analysis	TF Cdr, S3, FSO, FS NCO
4. Issue the Warning Order	TF Cdr, XO, S3
5. Commander issues guidance	TF Cdr, S3, FSO
6. Prepare staff estimates	TF FSO, FS NCO, S2, TF Eng, Co/Tm FSOs, supporting FA battalion S3, Bde FSO
7. Staff develops course of action	TF S3, FSO, S2, FS NCO, TF Eng
8. Staff/Commander analyze course of action	TF S3, FSO, S2, FS NCO, TF Eng
9. Staff compares courses of action	TF S3, FSO, S2, FS NCO, TF Eng
10. Commander announces decision	TF Cdr, S3, FSO
11. Staff prepares OPORD/FRAGO	TF FSO, FS NCO, S3
12. Issue the OPORD/FRAGO	TF Cdr, S3, FSO
13. Refine the plan	TF S3, FSO, S2, TF Eng, Co/Tm Cdrs/FSOs, FOs
14. Establish and operate the Fire Support Section	TF FSO, FS NCO, Co/Tm FSOs/FOs
15. FSO initiates coordination	TF FSO, FS NCO, S3, S3/Air, S2, TF Eng, Co/Tm Cdrs/FSOs/FOs, Scout Plt Ldr, Bde FSO, supporting FA battalion S3, adjacent unit FSOs
16. Command Group conducts and receives briefing	TF S3, S2, FSO, FS NCO Co/Tm Cdrs/FSOs/FOs
17. Command Group and Command Post monitor, supervise, and direct execution of force protection operations and activities	TF Cdr, S3, S2, FSO, FS NCO, TF Eng, Co/Tm Cdrs/FSOs, FOs, Scout Plt Ldr
18. Command Group and Command Post monitor, supervise, and direct TF mission preparation	TF Cdr, S3, S2, FSO, FS NCO, TF Eng, Co/Tm Cdrs FSOs, FOs, FOs, Scout Plt Ldr

<u>TASK</u>	<u>KEY PARTICIPANTS</u>
19. Commander, Commander's Representatives, and Staff conduct inspections and visits	TF Cdr, XO, CSM, S3, S2, TF Eng, FSO, FS NCO
20. Task Force conducts rehearsals	TF Cdr, XO, S3, S2, TF Eng, FSO, Co/Tm Cdrs/FSOs, FOs, Scout Plt Ldr
21. Task Force Plan modified and refined	TF Cdr, S3, S2, TF Eng, FSO, FS NCO, Co/Tm Cdrs/FSOs, FOs
22. Command Post (TAC, TOC, CTCP) Operations	TF S3, FSO, FS NCO, Co/Tm Cdr/FSO
23. Liaison and coordination with higher, adjacent, supported and supporting elements	TF S3, FSO, FSNCO, Co/Tm Cdrs/FSOs
24. Command Group and Command Posts position to control the battle	TF XO, S3, FSO, S1/S4, Co/Tm Cdrs/FSOs
25. FSE monitors preparations	TF S3, FSO, FS NCO
26. FSO manages and directs attached field artillery assets	TF S3, FSO, FS NCO, Co/Tm FSOs
27. TF Command Posts located where they can control the battle	TF Cdr, S3, FSO, Co/Tm Cdrs/FSOs
28. TF Commander sees the battlefield	TF Cdr, S3, FSO
29. TF Commander directs and leads the execution phase	TF Cdr, XO, S3, FSO
30. Command Posts track and support the battle	TF S3, FSO, FS NCO, Co/Tm FSO
31. TF conducts battlefield update (METT-T based)	TF Cdr, S3, S2, FSO, FS NCO, Co/Tm Cdrs/FSOs, FOs, TF Eng, Scout Plt Ldr
32. TF conducts the decision making process (accelerated)	TF Cdr, XO, S3, S2, FSO
33. TF consolidates and reorganizes	TF Cdr, XO, S3, S2, FSO, FS NCO, Co/Tm Cdrs/FSOs
34. FSO/FSE coordinates, executes, and controls artillery fire support	TF S3, FSO, FS NCO, Co/Tm Cdrs/FSOs, FOs, Scout Plt Ldr
35. FSO provides assistance and recommendations on artillery fires	TF FSO, FS NCO, Co/Tm FSOs, FOs

KEY INPUTS AND OUTPUTS TO CCF 8 (W/ CRITICAL INFORMATION)

KEY INPUTS

B-I BRIGADE OPORD

- a) Brigade Commanders Intent and Guidance for Fire Support
- b) Fire Support Plan from Paragraph 3 (Execution) of OPORD
- c) Scheme of maneuver from Paragraph 3 (Execution) of OPORD
- d) Brigade maneuver graphics/operations overlay
- e) Brigade Fire Support Annex
 - 1) Priority of Fires
 - 2) Target List
 - 3) Artillery task organization
 - 4) Fire Support Execution Matrix
 - 5) High Payoff Target List
 - 6) Attack Guidance
 - 7) Target Solution Criteria
 - 8) Fire support coordination measures/restrictions
 - 9) Quick Fire plan
 - 10) COLT employment plan

FA-1 Fire Support Plan

- a) Produced by the FA Battalion in DS to the Brigade
- b) Organization for combat
- c) FA Battalion positioning plan
- d) Ammunition restrictions
- e) Target acquisition plan
- f) Schedule of fires

TF-1 Tactical Standing Operating Procedures (TSOP)

- a) TF Movement formations and techniques
- b) Pre-combat checklist
- c) TF Obstacle operations (including FASCAM)
- d) FO and FSO duties, responsibilities, and operations

TF-2 Task Force OPORD

- a) TF Commanders Intent and Guidance for Fire Support
- b) Fire Support Plan from Paragraph 3 (Execution) of OPORD
- c) Scheme of maneuver from Paragraph 3 (Execution) of OPORD
- d) TF maneuver graphics/operations overlay
- e) Fire Support Annex
 - 1) Priority of Fires
 - 2) Target List
 - 3) Artillery task organization
 - 4) Fire Support Execution Matrix

- 5) High Payoff Target List
- 6) Attack Guidance
- 7) Target Solution Criteria
- 8) Schedule of fires
- 9) Fire support coordination measures/restrictions
- 10) Quick Fire plan
- 11) Clearance of fires plan
- 12) Positioning plan for COLT, FIST-V, and FOs
- f) Decision Support Template (DST)
- g) Synchronization Matrix
- h) Engineer Annex
 - 1) Prioritization of obstacles
 - 2) Brigade directed obstacles
 - 3) FASCAM targets
 - 4) Responsibility for emplaced obstacles
- i) Intelligence Annex
 - 1) Reconnaissance and Surveillance Plan
 - 2) NAIs and TAIs
- j) Air Defense Artillery Annex
 - 1) SEAD Requirements
 - 2) CAS integration to deconflict artillery fires

FSO-1 Subordinate Unit FSO and FO Artillery Fires Refinement

- a) Subordinate Unit Target Lists refinements
- b) Subordinate Unit Direct Fire plans
- c) Completed obstacle locations
- d) Smoke and illumination requirements

KEY OUTPUTS

TF-2 Modified/Refined Artillery Fires Support Plan

- a) Updated TF Fire Support Plan
 - 1) Priority of Fires
 - 2) Target List
 - 3) Artillery task organization
 - 4) Fire Support Execution Matrix
 - 5) High Payoff Target List
 - 6) Attack Guidance
 - 7) Target Solution Criteria
 - 8) Schedule of fires
 - 9) Fire support coordination measures/restrictions
 - 10) Quick Fire plan
 - 11) Clearance of fires plan
- b) Updated DST
- c) Updated FASCAM plan
- d) FO/FIST/COLT positioning plan updated

TASK LIST SUMMARY FOR CCF 8

See task analysis of interacting CCFs for detailed analysis of related planning, preparation and execution tasks. See CCF 18, 19 and 20 tasks for have been integrated into this task analysis to reflect the command and control aspects of Employ Field Artillery. CCF 18 (Plan for Combat Operations) tasks are listed as tasks 1-13 in this task analysis; CCF 19 (Direct and Lead Units in Preparation of the Battle) tasks are listed as tasks 16-22 in this task analysis; CCF 20 (Direct and Lead Units in Execution of Battle) tasks are listed as tasks 25-31 in this task analysis.

PLANNING

1. **Direct and lead task force during planning for the battle** (ARTEP 71-2-MTP, Task 7-1-3028/3, 3904/6, 3905/2, 3905/4)
2. **Receive ORDER from higher headquarters** (ARTEP 71-2-MTP, Task 7-1-3901; FM 71-123; FM 101-5)
3. **Conduct mission analysis** (ARTEP 71-2-MTP, Task 7-1-3901/2; FM 101-5, Chap. 4; FM 6-20-20; FM 71-123)
4. **Issue the Warning Order** (ARTEP 71-2-MTP, Task 7-1-3901/1; FM 101-5, Chap. 4; FM 6-20-20)
5. **Commander issues guidance** (FM 101-5, Chap. 4)
6. **Prepare staff estimates** (ARTEP 71-2-MTP, Task 7-1-3901/3, 3908, 3907/2; ARTEP 6-115-20-MTP, Task 06-3-02-1390, 1300; FM 101-5)
7. **Staff Develops Course of Action** (ARTEP 71-2-MTP, Task 7-1-3901/4; ARTEP 6-115-20-MTP, Task 06-3-02-1380/3; FM 101-5, Chap. 4; FM 71-123)
8. **Staff/Commander Analyze Course of Action** (ARTEP 71-2-MTP, Task 7-1-3901/4; ARTEP 6-115-20-MTP, Task 06-3-02-1380; FM 101-5, Chap. 4)
9. **Staff compares courses of action** (FM 101-5, Chap. 4)
10. **Commander announces decision** (FM 101-5, Chap. 4)
11. **Staff Prepares OPORD/FRAGO** (ARTEP 71-2-MTP, Task 7-1-3901/5; ARTEP 6-115-20-MTP, Task 06-3-02-1380; FM 101-5, Chap. 4; FM 6-20-20)
12. **Issue the OPORD/FRAGO** (ARTEP 71-2-MTP, Task 7-1-3901/7; ARTEP 6-115-20-MTP, Task 06-3-02-1380/4; FM 71-1; FM 101-5, Chap. 4)
13. **Refine the Plan** (ARTEP 71-2-MTP, Task 7-1-3901/8; FM 101-5, Chap. 4)
14. **Establish and operate the Fire Support Section (FSS)** (ARTEP 71-2-MTP, Task 7-1-3908; ARTEP 6-115-20-MTP, Tasks 06-3-02-1300, 1500)

15. **FSO Initiates coordination** (ARTEP 71-2-MTP, Task 7-1-3908; ARTEP 6-115-20-MTP, Tasks 06-3-02-1300, 1390; FM 6-20-20, Chap. 3)

PREPARATION

16. **Command Group Conducts and Receives Briefings** (ARTEP 71-2-MTP, Task 7-1-3903/2; FM 71-2, Chap 2; FM 71-123; FM 6-20-20; FM 101-5, Chap 4)
17. **Command Group and Command Posts Monitor, Supervise, and Direct Execution of Force Protection Operations and Activities** (ARTEP 71-2-MTP, Task 7-1-3028/3, 3904/6, 3905/2, 3905/4; FM 71-123; FM 71-2)
18. **Command Group and Command Posts monitor, supervise, and direct TF mission preparation** (ARTEP 71-2-MTP, Task 7-1-3001/5, 3901/9, 3901/10, 3904/12; FM 71-123, Chap 3)
19. **Commander, Commander's Representatives, and Staff conduct inspections and visits** (ARTEP 71-2-MTP, Task 7-1-3903/2; FM 71-2, Chap 2)
20. **Task Force rehearsals** (FM 71-2, Chap 2; FM 71-123, Chap 2; FM 101-5, App. M; FM 6-20-20)
21. **Task Force Plan Modified and Refined** (ARTEP 6-115-20-MTP, Task 06-3-02-1500; ARTEP 71-2-MTP, Task 7-1-3907, 3901/8, 3904/12; FM 6-20-20)
22. **Command Post (TAC, TOC, CTCP) Operations** (ARTEP 71-2-MTP, Task 7-1-3903; 3035, 3036, 3902/9, 3913; ARTEP 6-115-20-MTP, Task 06-3-02-1390; FM 6-20-20, Chap 3)
23. **Liaison and coordination with higher, adjacent, supported and supporting elements** (ARTEP 71-2-MTP, Task 7-1-3003/2, 3010/2, 3016/1, 3902/10; ARTEP 6-115-20-MTP, Task 06-3-02-1300, 1540; FM 6-20-20)
24. **Command group and command posts position to control the battle** (ARTEP 71-2-MTP, Task 7-1-3901/11, 3902/11, 3903/1)
25. **FSE monitors preparations** (ARTEP 6-115-20-MTP, Tasks 06-3-02-1300, 1540; ARTEP 71-2-MTP, Task 7-1-3907; FM 6-20-20)
26. **FSO manages and directs attached field artillery assets** (ARTEP 6-115-20-MTP, Task 06-3-02-1580; FM 6-20-20)

EXECUTION

27. **TF Command Posts located where they can control the battle** (ARTEP 71-2-MTP, Task 7-1-3902)
28. **TF Commander sees the battlefield** (ARTEP 71-2-MTP, Task 7-1-3901/11; FM 71-100, Chap 1)

29. **TF Commander directs and leads the execution phase** (ARTEP 71-2-MTP, Task 7-1-3901/11, 3901/12, 3901/15; FM 71-100, Chap 1)
30. **TF Command Posts track and support the battle** (ARTEP 71-2-MTP, Task 7-1-3903/3, 3904/14; FM 6-20-20, Chap 3, 4; FM 71-123, Chap 1)
31. **TF conducts battlefield update (METT-T based)** (ARTEP 71-2-MTP, Task 7-1-3902/3, 3908/7, 3913/5; FM 6-20-20, Chap 3)
32. **TF conducts the decision making process (accelerated)** (FM 71-123, Chap. 1)
33. **TF consolidates and reorganizes** (ARTEP 71-2-MTP, Tasks 7-1-3022, 3023, 3908)
34. **FSO/FSE coordinates, executes, and controls artillery fire support.** (ARTEP 6-115-20-MTP, Task 06-3-02-1390, 1550, 1560, 1500/3, 1580; ARTEP 71-2-MTP, Task 7-1-3907, 3908; FM 6-20-20, Chaps 2, 3)
35. **FSO provides assistance and recommendations on artillery fires** (ARTEP 71-2-MTP, Task 7-1-3908/7; FM 6-20-20, Chaps 2, 3)

PLANNING TASK LIST — EMPLOY FIELD ARTILLERY

CCF 18 (Plan for Combat Operations) tasks have been integrated into this task analysis because it reflects command and control aspects of the planning process. The 13 CCF 18 planning tasks are numbered as tasks 1-13 in this analysis planning task list. Subtasks included under each of the 13 tasks reflect those actions or events which are critical to EMPLOY FIELD ARTILLERY. Tasks 14 and 15 are specific FSO and FSS tasks which are considered by the analyst as critical to CCF 8.

1. **Direct and lead task force during planning for the battle** (ARTEP 71-2-MTP, Task 7-1-3028/3, 3904/6, 3905/2, 3905/4)
 - a. FSO and FSE prepared to process and control artillery fires in support of TF security operations (i.e. reconnaissance, counter-reconnaissance, etc.).
 - b. FSE conducts accelerated planning and provides the TF security force with a quick fire plan, target list (refined by the security force when it is deployed), and fire support execution matrix.
 - c. FSO and FSE establishes priority of fires in support of the security force, coordinates to have DS artillery fires under control of the security force, and, if required, task organizes COLTS, FIST-Vs, and/or FOs to the security force.
 - d. See CCF 18, task 1.
2. **Receive ORDER from higher headquarters** (ARTEP 71-2-MTP, Task 7-1-3901; FM 71-123; FM 101-5)
 - a. If order is given verbally at higher HQs, FSO accompanies TF commander to coordinate with the Bde FSO and DS artillery S3 to identify and determine artillery support.
 - b. See CCF 18, Task 2.
3. **Conduct mission analysis** (ARTEP 71-2-MTP, Task 7-1-3901/2; FM 101-5, Chap. 4; FM 6-20-20; FM 71-123)
 - a. FSO initiates fire planning and coordination upon receipt of TF mission.
 - b. Identify limitations in available artillery support.
 - c. Identify artillery requirements to support implied and essential TF tasks.
 - d. See CCF 18, Task 3.
4. **Issue the Warning Order** (ARTEP 71-2-MTP, Task 7-1-3901/1; FM 101-5, Chap. 4; FM 6-20-20)
 - a. FSO includes changes to field artillery support and task organization changes of TF controlled artillery assets (FIST-Vs, COLTs, etc.).
 - b. See CCF 18, Task 4.

5. **Commander Issues guidance** (FM 101-5, Chap. 4)
 - a. FSO determines artillery requirements to support the scheme of maneuver.
 - b. FSO identifies artillery requirements addressed in TF commanders concept of fires.
 - c. See CCF 18, Task 5; CCF 15.

6. **Prepare staff estimates** (ARTEP 71-2-MTP, Task 7-1-3901/3, 3908, 3907/2; ARTEP 6-115-20-MTP, Task 06-3-02-1390, 1300; FM 101-5)
 - a. Determine FACTS as outlined in Brigade Order.
 - 1) Determine artillery which is DS, GS, or GSR to the TF.
 - 2) Identify priority of fire as established in the higher HQ's order.
 - 3) Determine status and capabilities of artillery units providing support to the TF (i.e. ranges, munitions type and availability).
 - 4) Determine the systems available under TF control for target acquisition (COLTs, FIST-V's, OH-58Ds).
 - 5) Identify SEAD requirements in support of CAS or attack helicopter operations which will degrade artillery support available for ground forces.
 - b. Make assumptions based on available artillery support information to fill shortfalls in facts.
 - c. See CCF 18, Task 6; CCF 15.

7. **Staff Develops Course of Action** (ARTEP 71-2-MTP, Task 7-1-3901/4; ARTEP 6-115-20-MTP, Task 06-3-02-1380/3; FM 101-5, Chap. 4; FM 71-123)
 - a. FSO ensures artillery support plan synchronized with the scheme of maneuver, R&S plan, obstacle plan, and tasks to subordinate units.
 - b. FSO coordinates with TF S-2.
 - 1) To plan artillery fires on known, suspected and likely enemy positions; mounted avenues of approaches at choke points; dismounted approaches where acquisition is likely; potential enemy overwatch/support-by-fire positions (enemy ground systems and attack helicopters); and easily recognizable terrain features to allow rapid adjustment.
 - 2) To provide expertise in developing background on enemy indirect fire support capabilities and limitations.
 - c. FSO/FSE develop plan for use of target-intelligence-producing assets (REMs, combat outposts, Scout and patrol reconnaissance, EPWs, GSR, weapons locating radars, FIST-V/COLT, OH-58D).
 - d. FSO works with staff to develop a fire support plan:

- 1) Plan includes Reinforcing and GSR artillery.
- 2) Defines methods of target location, to include positioning of FIST-Vs, COLTs, and FOs.
- 3) Plan for positive clearance of artillery fires.
- 4) Plan for deep, rear, flank artillery fires throughout depth of the battlefield.
- 5) Planned artillery fires in support of EAs, and natural/man-made obstacles and barriers.
- 6) Plan for special artillery fires.
 - a) Smoke — Planned to obscure enemy observation, screen friendly movement, support breaching operations, and assist disengagement.
 - b) Illumination — To support night attacks, engagement areas, and counter-surveillance operations.
 - c) FASCAM — To canalize the enemy into preferred avenues of approach or engagement areas; to isolate, block, or slow enemy elements and their reinforcements.
 - d) Copperhead.
 - e) Counter-fires.
 - f) FPFs.
- 7) Develop restrictive fire support coordinating measures for artillery fires (RFL, no-fire areas, ACAs, boundaries) to preclude engagement of friendly forces and to facilitate engagement of enemy forces.
- 8) Plan for artillery fires outside the units maneuver area.
- 9) Establish and allocate priority artillery targets, units to receive priority of artillery fires, when artillery priority is shifted to next target/unit, FPFs, and artillery assets (COLTs, FIST-Vs) which will provide fires.
- 10) Develop artillery QUICKFIRE plan.
- 11) Develop artillery support plan for JAAT or SEAD operations controlled by the TF.
- 12) Considers artillery targets and mortar targets, to determine type of system required for each target.
- e. As Liaison officer, FSO coordinates with TF S-3 on the DS FA Battalion and DIVARTY Firing and Support Units needs.
 - 1) Coordinates for terrain needs in the TF sector for the DS FA battalion and DIVARTY assets.
 - 2) Anticipates needs for FA units throughout the course of the battle which will impact on the TF.
- f. See CCF 18, Task 7; CCF 15.

8. **Staff/Commander Analyze Course of Action** (ARTEP 71-2-MTP, Task 7-1-3901/4; ARTEP 6-115-20-MTP, Task 06-3-02-1380; FM 101-5, Chap. 4)
 - a. FSO utilizes FSO Estimate to brief artillery plan to support the scheme of maneuver identified in each course of action.
 - b. FSO participates in the war-gaming session and provides artillery expertise in integration of indirect fire support for each course of action.
 - c. FSO ensures that artillery fires satisfy the commanders intent and guidance for fire support are applied to each course of action war-gamed.
 - d. FSO determines task organization and command relationship of artillery assets under TF control required to support each war-gamed course of action.
 - e. FSO addresses TAIs, FASCAM, priorities of fire, priority targets, repositioning of supporting artillery, special artillery munitions support, SEAD and JAAT requirements, and FPFs during war-gaming each course of action.
 - f. FSO maintains notes on artillery requirements to support each course of action, branches, and sequels for development of fire support synchronization matrix and DST.
 - g. FSO determines the desired effects of artillery fire (destruction, neutralization, suppression) for each artillery target discussed in the war-gaming process.
 - h. See CCF 18, Task 8.
9. **Staff Compares Courses of Action** (FM 101-5, Chap. 4)
 - a. FSO provides assistance in construction of the decision matrix, providing artillery expertise when determining criteria and weighted measurements.
 - b. See CCF 18, Task 9; CCF 15.
10. **Commander Announces Decision** (FM 101-5, Chap. 4)
 - a. FSO is prepared to brief artillery support for the course of action recommended, as well as other courses of action, branches and sequels analyzed.
 - b. FSO maintains notes on commanders decision as it affects the employment of artillery and command/support relationships.
 - c. See CCF 18, Task 10.
11. **Staff Prepares OPORD/FRAGO** (ARTEP 71-2-MTP, Task 7-1-3901/5; ARTEP 6-115-20-MTP, Task 06-3-02-1380; FM 101-5, Chap. 4; FM 6-20-20)
 - a. Artillery plan is finalized which indicates targets that TF leaders, down to platoon leader level, are responsible for calling artillery fires on, and the criteria for initiating those fires.
 - b. Prepare the artillery fire support plan for inclusion into the TF OPORD. FSO writes paragraph 3a(2) (Fires) portion of the TF Order.

- c. Prepare Fire Support Annex and Matrix which includes supporting field artillery.
 - d. Incorporates artillery fires plan to support the mission and all contingencies/branches into the Decision Support Template (DST).
 - e. FSO outlines in fires paragraph, annex and matrix the following:
 - 1) Priority of fires (by unit/event).
 - 2) Target list.
 - 3) Artillery task organization.
 - 4) Attack guidance.
 - 5) Target solution criteria.
 - 6) Schedules of fire.
 - 7) Fire support coordination measures/restrictions.
 - 8) Quick fire plan.
 - 9) Clearance of fires plan.
 - f. Prepares a fire support overlay which portrays artillery plan supporting the maneuver graphics/overlay.
 - g. See CCF 18, Task 11.
12. **Issue the OPORD/FRAGO** (ARTEP 71-2-MTP, Task 7-1-3901/7; ARTEP 6-115-20-MTP, Task 06-3-02-1380/4; FM 71-1; FM 101-5, Chap. 4)
- a. FSO includes artillery fires as a component of the fire support briefing to TF leaders during the orders issue.
 - b. Co/Tm FSOs accompany the commander to the TF Order and are provided with target attack guidance, current friendly and enemy situations, coordination measures, TF fire support execution matrix, fire support overlay, and concept of the operation.
 - c. Artillery fire support plan is disseminated to supporting FA units and the Brigade FSO/FSE.
 - d. FSO briefs artillery and fire support specific rehearsals, to include times, locations and persons required.
 - e. The TF Order includes a TF commander's concept that clearly addresses a scheme and tasks/priorities for supporting artillery fires included in the fire support guidance.
 - f. See CCF 18, Task 12.
13. **Refine the Plan** (ARTEP 71-2-MTP, Task 7-1-3901/8; FM 101-5, Chap. 4)
- a. Artillery plan is refined and improved based on subsequent information and activities inside and outside of the TF.
 - b. All updates to the artillery plan are disseminated to internal artillery assets, leaders, and external artillery-associated agencies (Bde FSE, supporting artillery battalion).
 - c. See Task 21, page 33.
 - d. See CCF 18, Task 13.

14. **Establish and operate the Fire Support Section (FSS)** (ARTEP 71-2-MTP, Task 7-1-3908; ARTEP 6-115-20-MTP, Tasks 06-3-02-1300, 1500)
- a. **Task Force Fire Support Element (FSE).**
 - 1) Establish and maintain communications with subordinate FSOs, adjacent and higher HQ FSEs, artillery assets supporting the TF (COLTs, FIST-Vs, OH-58Ds, FOs) and FA units in support.
 - 2) Monitor status of available artillery assets in support and their assigned mission.
 - 3) Ensure battlefield information is passed and exchanged among other FSSs, the FA battalion, and the supported force.
 - 4) Maintain munitions status of supporting artillery units, to include amounts of illumination, FASCAM, smoke, and other special munitions and their capabilities (length of time, area of each).
 - 5) Consolidate artillery targets from Company Team commanders and FSOs into the TF Target List, eliminate all duplications, and re-issue updated artillery target list.
 - 6) Process requests for artillery support from TF assets; monitor requests from external sources and determine impact on available artillery fires in support of the TF.
 - b. **Co/Tm FIST HQ**
 - 1) Establish voice and/or digital communications with supporting FA battalion or battery FDC, TF FSO/FSE, Co/Tm Commander, subordinate or supporting COLTs/FOs, and TF mortar FDC.
 - 2) FSO briefs Co/Tm Commander on friendly and enemy fire support capabilities, limitations, missions, and employment doctrine.
 - 3) Plan and position FIST-V and FOs for initial coverage of assigned sector or area of operation.
 - 4) Report to the supporting FA battalion or battery FDC and TF FSO/FSE disposition and location of the Co/Tm and patrol activity.
 - 5) Co/Tm FSO immediately initiates planning based on information provided by the TF FSO/FSE and information provided from observers (FOs and maneuver leaders).
 - 6) Co/Tm FSO receives briefing of mission from Co/Tm Commander or accompanies the Co/Tm Commander during TF OPORD issue.
 - 7) From the TF order, determines fire support responsibilities of the Co/Tm (responsible for shooting a specific target, group, or series of targets).
 - 8) Develops an alternate observer plan to backup targets in the event that the FIST-V and FOs are out of position or otherwise cannot shoot the target.
 - c. **TF Mortar Platoon FDC.**
 - 1) Prepared to assume the duties of the TF FSE in the event that the FSE is rendered combat ineffective.
 - 2) Maintains communications with FA units in support of the TF.

15. **FSO Initiates coordination** (ARTEP 71-2-MTP, Task 7-1-3908; ARTEP 6-115-20-MTP, Tasks 06-3-02-1300, 1390; FM 6-20-20, Chap. 3)
- a. FSO coordinates requests for additional artillery fire support from the Brigade FSO when assets available are inadequate.
 - b. Serves as FA Liaison Officer between TF and DS FA battalion.
 - c. Coordinates artillery integration with JAAT and naval gunfire.
 - d. Collects artillery information from various liaison officers, correlates the information, and passes it to the maneuver commanders. As a minimum, coordinates to verify availability of artillery support assets (and their assigned tactical mission), suitability, response time, and assigned priorities.
 - e. Conducts continuous coordination with the Brigade FSE, FSEs of other maneuver battalions, DS FA battalion Main CP and FDC, TF S-2 and S-3, Mortar Platoon Leader, TF Engineer, and Company Team FISTs to determine artillery needs and requirements.

PREPARATION TASK LIST — EMPLOY FIELD ARTILLERY

CCF 19 (Direct and Lead Units During Preparation for Battle) tasks have been integrated into this task analysis because it reflects command and control aspects of the preparation process. The nine CCF 19 preparation tasks are numbered as tasks 16-24 in this analysis preparation task list. Subtasks included under each of the seven tasks reflect those actions or events which are critical to EMPLOY FIELD ARTILLERY. Tasks 25 and 26 are specific FSO and FSS tasks which are considered by the analyst as critical to CCF 8.

16. **Command Group Conducts and Receives Briefings** (ARTEP 71-1-MTP, Task 7-1-3903/2; FM 71-2, Chap 2; FM 71-123; FM 6-20-20; FM 101-5, Chap 4)
 - a. Company team commanders define artillery fires as a portion of the fire support plans during Backbriefs and Briefbacks with the TF commander.
 - b. FSO and TF FSE representatives provide updates and modifications of artillery support as a portion of the fire support plan to the TF Commander and Command Group.
 - c. Company team FSOs are prepared to brief the TF commander and Command Group on artillery fires in support of the company teams scheme of maneuver.
 - d. See CCF 19, Task 1.

17. **Command Group and Command Posts Monitor, Supervise, and Direct Execution of Force Protection Operations and Activities** (ARTEP 71-2-MTP, Task 7-1-3028/3, 3904/6, 3905/2, 3905/4; FM 71-123; FM 71-2)
 - a. Artillery fires are processed and controlled in support of TF security operations (i.e. reconnaissance and surveillance operations, counter-reconnaissance operations).
 - b. FSE conducts accelerated planning and provides the TF security force with a quick fire plan, target list (refined by the security force when it is deployed), and fire support execution matrix.
 - c. FSO and FSE establishes priority of fires in support of the security force, coordinates to have DS artillery fires under control of the security force, and, if required, task organizes COLTS, FIST-Vs, and/or FOs to the security force.
 - d. See CCF 19, Task 2.

18. **Command Group and Command Posts monitor, supervise, and direct TF mission preparation** (ARTEP 71-2-MTP, Task 7-1-3001/5, 3901/9, 3901/10, 3904/12; FM 71-123, Chap 3)
 - a. FSE, as a component of the Command Post, monitors status of:
 - 1) Preparation by DS FA unit to support the TF plan.
 - 2) Preparations by Co/Tm FSOs, COLTs, and other FA assets under TF control.
 - 3) Engineer activities and refinement of artillery plan to coincide with physical locations of obstacles.
 - 4) Force protection operations (R&S and counter-reconnaissance).

- b. FSE/FSO supervises and directs preparation activities to ensure TF plan is being fully prepared.
 - c. FSE provides updates to command group and subordinate elements.
 - d. See CCF 19, Task 3.
- 19. **Commander, Commander's Representatives, and Staff conduct inspections and visits** (ARTEP 71-2-MTP, Task 7-1-3903/2; FM 71-2, Chap 2)
 - a. FSO conducts inspections and visits of artillery assets under TF control (FIST-Vs, COLTs, FOs) to monitor mission preparation.
 - b. FSO visits FSO/FSEs of adjacent units and higher headquarters to exchange artillery support information.
 - c. FSO visits supporting FA Bn CPs and FDCs to verify and coordinate artillery support of the TF.
 - d. FSO receives updates from Co/Tm FSOs on the Co/Tms plans to execute artillery fires as outlined in the TF order.
 - e. See CCF 19, Task 4.
- 20. **Task Force rehearsals** (FM 71-2, Chap 2; FM 71-123, Chap 2; FM 101-5, App. M; FM 6-20-20)
 - a. TF Rehearsal.
 - 1) Artillery plan is integrated into the fire support plan rehearsed during TF commanders combined arms rehearsal.
 - 2) At a minimum the TF FSO, FSE, and Co/Tm FSO/FIST participate in the TF commanders rehearsal.
 - 3) Artillery fires are rehearsed to ensure they are synchronized with the TF maneuver plan and the direct fire plan.
 - 4) TF leaders verify the artillery targets they are to execute and the criteria for the engagement.
 - 5) Artillery trigger lines are determined, and type of artillery munitions is reviewed to ensure desired effect is achievable.
 - 6) Control measures, restrictions, and signals for execution of artillery fires is verified.
 - 7) Whenever possible, DS FA battalion and Bde representatives participate in the TF rehearsal to verify the artillery plan, acknowledge modifications to the plan based on the TF rehearsal, and brief how the DS FA battalion and Bde FSE will maneuver and support the plan.
 - b. Artillery and fire support technical rehearsals conducted by the DS FA battalion, Bde FSE, and TF FSE.

- 1) All artillery assets under TF control (FIST-Vs, FOs, COLTs) participate in the FA battalions, Brigade FSEs, and TF FSE technical rehearsal.
 - 2) Primary and alternate communications frequencies (voice and digital) utilized for processing artillery fires requests are verified and tested.
 - 3) The TF scheme of maneuver is utilized as the instrument for conducting the artillery technical rehearsal.
- c. Co/Tm rehearsals.
- 1) Co/Tm rehearsals are conducted prior to the TF rehearsal in order to allow the Co/Tm to practice its mission and validate its scheme of maneuver.
 - 2) The Co/Tm's tactical scheme of maneuver integrates the artillery fire support plan. Both maneuver and artillery fire support are rehearsed concurrently.
 - 3) The Co/Tm FSO verifies and validates the positioning plan for the FIST-V and FOs to ensure all planned targets can be observed and fired.
 - 4) Alternate observers rehearse executing artillery fires in the event that the FSO, FIST-V, and FOs are out of position or out of commission.
 - 5) The field artillery plan is modified and refined based on the results of the rehearsal.
 - 6) Control measures, restrictions, and signals are rehearsed and verified.
- d. See CCF 19, Task 5.
21. **Task Force Plan Modified and Refined** (ARTEP 6-115-20-MTP, Task 06-3-02-1500; ARTEP 71-2-MTP, Task 7-1-3907, 3901/8, 3904/12; FM 6-20-20)
- Note: The artillery fire support plans for the TF and its subordinate elements is continually refined and modified. Modifications and refinements are processed by the FSE/FIST as they develop; modifications and refinements are not held up from being processed once the commander has been briefed on and approved the changes.
- a. Artillery fire support plan is refined and updated based on rehearsals, completion of obstacles, intelligence updated on enemy dispositions and activities, and continued modification of the scheme of maneuver and direct fire plans.
 - b. Company team FSO manages and updates artillery fire support coordination reports and information.
 - 1) Ensures understanding of and distribution to FOs of artillery target attack guidance, coordination measures, restrictions, and FS execution matrix.
 - 2) Provides constant location and disposition updates to TF FSO/FSE and FA battalion FDCs.
 - 3) Co/Tm FSO refines his plan based on feedback from FOs and other leaders with specific artillery target requirements. FSO eliminates duplications of targets, and briefs modified plan to the Co/Tm commander. Following approval by the commander, the Co/Tm FSO forwards the modified plans to the TF FSE.

- 4) Disseminates changes to company team maneuver plan to the Forward Observers and TF FSO/FSE.
 - 5) Reports Forward Observer's or FIST-V's information on enemy activities to TF FSO/FSE.
 - c. TF FSE processes subordinate elements modified artillery plans, resolves duplications, briefs the TF Command Group on the modified artillery plan, and forwards the plan to the DS FA battalion and Brigade FSE.
 - d. The TF DST and synchronization matrix is updated and refined based on changes to the artillery fires and support plan.
 - e. See CCF 19, Task 6; CCF 4; CCF 15; CCF 23; CCF 24.
22. **Command Post (TAC, TOC, CTCP) Operations** (ARTEP 71-2-MTP, Task 7-1-3903; 3035, 3036, 3902/9, 3913; ARTEP 6-115-20-MTP, Task 06-3-02-1390; FM 6-20-20, Chap 3)
- a. FSE operates as a component of the TF TOC.
 - b. TF FSO is prepared to position forward with the TF Commander in the TAC CP.
 - c. See CCF 15 and CCF 19, Task 7.
23. **Liaison and coordination with higher, adjacent, supported and supporting elements** (ARTEP 71-2-MTP, Task 7-1-3003/2, 3010/2, 3016/1, 3902/10; ARTEP 6-115-20-MTP, Task 06-3-02-1300, 1540; FM 6-20-20)
- a. FSE ensures battlefield information and coordination is passed, exchanged, and conducted among other FSSs, the FA battalion, and the TF.
 - 1) Coordinates artillery support plan with all supporting elements. Ensures planned artillery fires will not interfere with other fire support means and will not disrupt adjacent unit operations.
 - 2) Ensures artillery support coordinating measures are disseminated to TF subordinate elements and adhered to. Ensures planned artillery fires will not jeopardize troop safety.
 - 3) Conducts continuous coordination with company team FSOs to refine and improve the artillery fire support plan.
 - 4) Coordinates with the TF S-2 to ensure sensors/GSRs attached to TF subordinate maneuver units are properly positioned to enhance target acquisition.
 - 5) Assists and supports TF subordinate elements with registration of artillery fires to determine precise time of flight and to ensure artillery fires are synchronized with direct fire trigger lines.
 - b. FSE coordinates for artillery fires outside the TF sector or area of operations.
 - 1) Process artillery fire requests from TF subordinate elements and coordinates with Brigade, FA battalion, and adjacent units.

- 2) Artillery fires are not initiated until positive target observation is achieved and approval is gained.
 - c. The TF FSO, as DS FA battalion Liaison Officer, coordinates with the TF Commander and staff on the needs and requirements of the FA battalion while operating in or maneuvering through the TF sector. Liaison activities will primarily focus on terrain deconfliction between the TF and the FA battalion, but may also include security requirements, decontamination requirements, and other forms of support.
 - d. The TF FSE/FSO maintains constant coordination with the Bde FSO and DS FA battalion to refine and modify the artillery support plan (see Task 21).
 - e. The TF FSE/FSO maintains coordination with adjacent units to modify and refine TF artillery plans as well as to maintain awareness of adjacent unit artillery plans which may impact on the TF scheme of maneuver.
24. **Command group and command posts position to control the battle** (ARTEP 71-2-MTP, Task 7-1-3901/11, 3902/11, 3903/1)
- a. FSE, as a component of the TF TOC, positions prior to LD time/NLT mission time and establishes communications to ensure it can process TF artillery requirements during mission execution.
 - b. The TF FSO may operate with the FSE in the TOC or may position forward with the TF Command Group, depending on his responsibilities as directed by the TF Commander:
 - 1) Positioned in the TOC to process and coordinate artillery fires.
 - 2) Positioned forward with the TF Command Group when he is responsible for a specific target, target group, or target series (acting as the TF Commanders FO).
25. **FSE monitors preparations** (ARTEP 6-115-20-MTP, Tasks 06-3-02-1300, 1540; ARTEP 71-2-MTP, Task 7-1-3907; FM 6-20-20)
- a. FSO/FSE:
 - 1) Maintains communications with subordinate FSO/ FISTs, higher HQ, and supporting FA units.
 - 2) Prepares and disseminates updated artillery support documents. Ensures TF leaders have updated overlays and artillery target lists and FA/mortar fire nets and frequencies.
 - 3) Ensures that preparation activities conducted by TF controlled artillery assets (COLTs, FIST-Vs, OH-58Ds) do not violate TF OPSEC guidance. See CCF 25.
 - 4) Reviews and, as required, integrates artillery plans from adjacent units to ensure that factors (i.e. terrain, enemy positions, etc.) which may influence the TFs area of operations are covered.

- b. Monitors status of available artillery assets.
 - 1) Monitors and processes artillery fire support requests and substitutes other means when warranted.
 - 2) Monitors positioning of artillery assets under TF control (FIST-Vs, COLTs, FOs).
 - 3) Monitors ammunition status of supporting artillery units, to include amounts of illumination, FASCAM, smoke, and other special munitions and their capabilities.
- c. Processes and coordinates company team FIST artillery support plans and requirements.
 - 1) Consolidates artillery targets received from company team FISTs and FOs.
 - 2) Eliminates duplicate artillery targets and any target conflict from company team FISTs and FOs.
 - 3) Disseminates copies of modified and approved artillery fire plans to company team FISTs.

26. **FSO manages and directs attached field artillery assets** (ARTEP 6-115-20-MTP, Task 06-3-02-1580; FM 6-20-20)

- a. TF FSO.
 - 1) As the FA liaison with TF, conducts coordination for terrain positioning or movement needs of FA units in the TF sector, zone, or area of operations.
 - 2) Ensures COLT positioning complies with the TF, Brigade, and DS FA battalion commanders guidance.
 - 3) Ensures OH-58D's and other supporting aerial support teams are prepared to process and control artillery fires.
 - 4) Coordinates with company team FSOs to ensure he understands the company team plan for the utilization of artillery fires.
- b. Company team FSO.
 - 1) FSO/FIST manages preparation for and conduct of lazng operations in assigned areas.
 - 2) FSO ensures FOs and FIST-V are positioned to maintain observation on all assigned targets.
 - 3) Ensures alternate observers are positioned and prepared to initiate artillery fires if the designated observer is unable to.

EXECUTION TASK LIST — EMPLOY FIELD ARTILLERY

CCF 20 (Direct and Lead Units in Execution of Battle) tasks have been integrated into this task analysis because it reflects command and control aspects of the execution process. The seven CCF 20 execution tasks are numbered as tasks 27–33 in this analysis execution task list. Subtasks included under each of the seven tasks reflect those actions or events which are critical to EMPLOY FIELD ARTILLERY. Tasks 34 and 35 are specific FSO and FSS tasks which are considered by the analyst as critical to CCF 8.

27. **TF Command Posts located where they can control the battle** (ARTEP 71-2-MTP, Task 7-1-3902)
 - a. TF FSE displaces with the TF TOC to maintain communications in order to process and control artillery fires.
 - b. See CCF 20, Task 2.
28. **TF Commander sees the battlefield** (ARTEP 71-2-MTP, Task 7-1-3901/11; FM 71-100, Chap 1)
 - a. TF FSE/FSO process information on subordinate unit dispositions and activities from the Co/Tm FSO's to track the flow of the battle.
 - b. TF FSE/FSO monitors SPOTREPs and artillery fire requests to track enemy movements and activities.
 - c. TF FSE/FSO update the TF Cdr and Command Group on positions and activities of FA assets under TF control (COLTs, FIST-Vs, OH-58Ds) and of displacement and maneuver of DS FA battalion and batteries.
 - d. See CCF 20, Task 1.
29. **TF Commander directs and leads the execution phase** (ARTEP 71-2-MTP, Task 7-1-3901/11, 3901/12, 3901/15; FM 71-100, Chap 1)
 - a. The TF FSO/FSE responds to changes in guidance and intent of the TF commander; coordinates as required with the Bde FSE, the DS FA Battalion S3/TOC, adjacent unit FSEs, and subordinate FA assets to comply with TF commanders instructions.
 - b. See CCF 20, Task 6,
30. **TF Command Posts track and support the battle** (ARTEP 71-2-MTP, Task 7-1-3903/3, 3904/14; FM 6-20-20, Chap 3, 4; FM 71-123, Chap 1)
 - a. FSO operates forward with TF TAC while FSE coordinates fires.
 - 1) FSO maneuvers forward in the battle with the TF Commander and/or S3 to provide indirect fire expertise and advice (acts as the TF Commander's FO).

- 2) FSO linked to the FSE to coordinate fire support.
 - 3) FSO calls for, adjusts, and/or directs artillery fires in support of the battle.
 - b. TF FSE monitors the progress and status of the TF and the battle, processing and coordinating artillery fires in support of the TF.
 - c. See Task 34 (page 39) and CCF 20, Task 3.
31. **TF conducts battlefield update (METT-T based)** (ARTEP 71-2-MTP, Task 7-1-3902/3, 3908/7, 3913/5; FM 6-20-20, Chap 3)
- a. FSO monitors the status of FA systems available, to include the type and quantity of ammunition available, and updates the TF commander.
 - b. FSO updates TF commander on changes to artillery targets, priorities of fire, and status of FA assets under TF control.
 - c. TF FSO/FSE coordinates with TF S2/S2 section to determine current and anticipated enemy activities; modifies the artillery plan as required to anticipate and respond to enemy activities.
 - d. See CCF 20, Task 4; CCF 4.
32. **TF conducts the decision making process (accelerated)** (FM 71-123, Chap. 1)
- a. TF FSO provides guidance, recommendations, and expertise to the TF Commander during the decision making process.
 - b. During the process, the FSO/FSE:
 - 1) Analyze the artillery plan to determine if it is still valid or requires modification/refinement based on enemy activities.
 - 2) Prepares to execute artillery fire support based on the DST and on branches or contingencies developed during the wargaming phase (Tasks 7-9).
 - c. See CCF 20, Task 5.
33. **TF consolidates and reorganizes** (ARTEP 71-2-MTP, Tasks 7-1-3022, 3023, 3908)
- a. FA assets (i.e. personnel, vehicles, and equipment) under TF control are reorganized and redistributed in order to maintain ability to employ artillery fires.
 - b. FSO and FSE process and control artillery fires in support of the TF reorganization and consolidation.
 - c. TF Mortar Platoon is prepared to backup/replace the FSE.
 - d. See CCF 20, Task 7.

34. **FSO/FSE coordinates, executes, and controls artillery fire support.** (ARTEP 6-115-20-MTP, Task 06-3-02-1390, 1550, 1560, 1500/3, 1580; ARTEP 71-2-MTP, Task 7-1-3907, 3908; FM 6-20-20, Chaps 2, 3)

a. TF FSO/FSE operations.

- 1) Processes calls for artillery utilizing TACFIRE or non-automated tactical fire control system.
- 2) FSO executes the Fire Support Execution Matrix, fires in support of the DST, and modifies the artillery fire support plan to conform to new METT-T factors or guidance from the TF Commander.
- 3) Continually locates and coordinates target attacks within the TF sector to ensure artillery volume of fire achieves desired results (i.e. suppression, neutralization, or destruction) and intent.
- 4) Coordinates with the Brigade FSE, FA battalion in support, and adjacent units for artillery attack of targets outside the TF sector.
- 5) Integrates special artillery fires (FASCAM, smoke, illumination, FPFs) in support of the TF battle.
- 6) Keeps the Brigade and FA battalion updated on TF locations, dispositions, target attack success, and tactical situation.
- 7) Keeps subordinate company team FSOs and key leaders informed of changes in artillery support status.
- 8) Relays artillery calls for fire from subordinate/ FIST elements that cannot maintain communication with supporting FA FDCs.
- 9) Coordinates requests for additional artillery support with the Brigade FSO and supporting FA battalion.
- 10) Ensures artillery fires adhere to fire support coordination measures/restrictions.
- 11) Manages operations and activities of COLTs, FIST-V's, and OH-58D's in executing and controlling artillery fires. Ensures observer positioning is being executed in order to maintain observation on planned targets.
- 12) Reviews, approves/disapproves, and prioritizes all requests for artillery support in accordance with the commanders guidance, established fire support coordination measures, and the tactical situation.
- 13) Is prepared to respond to enemy activities which require the implementation of artillery fires in support of contingencies identified during the planning phase.
- 14) Is prepared to process and coordinate unplanned fires to counter unprojected enemy operations and to allow the TF to maintain battlefield initiative.

b. Co/Tm FSO and FIST operations.

- 1) Maintains communications with the TF FSO/FSE and supporting FA battalion FDCs.
- 2) Processes artillery calls for fire from observers to FA FDCs and TF FSO/FSE.

- 3) Receives, monitors, and forwards requests for planned artillery fires from platoon FOs and other company observers for on-call targets, immediate suppression/targets of opportunity, SEAD, and FPF.
 - 4) Continually updates planned artillery fires based on tactical situation and fire support coordinating measures.
 - 5) Determines priority of artillery mission for each artillery fire request and requests alternate means of fire support to attack targets if artillery is unavailable.
 - 6) Performs target analysis based on effects target has on mission, the need for immediate attack, the capability of available artillery fires to attack, and the time available to process the artillery fires request.
 - 7) Locates artillery targets and conducts Copperhead missions.
 - 8) Forwards SALUTE Reports on enemy targets from observer.
 - a) Maintain observation to provide for targeting and adjustment of artillery fires.
 - b) Forwards reports to TF FSO/FSE and S-2.
 - c) Observe artillery munitions effects and reports battle damage assessments to TF FSO/FSE and S-3.
 - c. Process artillery fires requested by non-artillery combatants.
 - 1) Requests for artillery fires on targets of opportunity made by other TF personnel will be processed in accordance with the TF Commander's intent and guidance for artillery fires.
 - 2) TF maneuver leaders charged with responsibilities for specific artillery targets may process the request through non-artillery communications nets (i.e. the TF command net).
 - 3) The processing of artillery fire requests must be flexible to allow fires to be executed on targets not developed during the planning or preparation phases.
 - d. See CCF 15.
35. **FSO provides assistance and recommendations on artillery fires** (ARTEP 71-2-MTP, Task 7-1-3908/7; FM 6-20-20, Chaps 2, 3)
- a. FSE assists TF FSO and Commander in processing and executing artillery fire support.
 - b. Coordinates positive clearance of artillery fires to safeguard friendly forces and prevent fratricide.
 - c. Anticipates changes dictated by the developing battle and provides recommendations to the TF commander, S-3, and Command Group on changes in priority of artillery fire for units and/or targets.
 - d. Provides recommendations on targets and employment of artillery assets (COLTs, FIST-Vs, OH-58Ds) under TF control to support the battle.

CALL LESSONS LEARNED RELEVANT TO CCF 8 (EXTRACTS FROM LESSONS LEARNED BULLETINS)

1. **NTC Commanders Memorandum - Nov 85**

The timing of maneuver and fires must be developed and then fully explained. "Priority of artillery fires to Team B. See target list." simply does not cut it.

The fire plan should originate at task force level and then be modified and expanded based upon company input.

Given that there is never sufficient artillery to do all things, a centralized approach guards against the risk of firing a few rounds at a large number of low priority targets. The preferred solution is a lot of rounds on a few particularly critical targets.

... it is important to guard against the tendency to fire preplanned targets when the enemy is somewhere else. Adjustments from preplanned targets or grid missions must be used if that is what it takes to get the fire on the enemy.

A face-to-face meeting between brigade and task force FSOs and the DS Battalion S3 and FDO, where the concepts of operations and intents of the various maneuver commanders are discussed, pays rich dividends.

Responsibility for each target to include identification on the ground, observation, execution, and adjustment as necessary is given to a specific unit, e.g., company team, scout platoon. Sufficient redundancy is required to guard against obscuration and casualties.

Communications between companies, FSOs, and FDCs need to be thoroughly checked before the battle to include necessary corrective action.

Commanders, subordinate infantry and tank leaders, FOs, and others responsible for specific targets must be able to point them out on the ground. Trigger lines based upon projected enemy routes and movement rates must be clearly identified.

While FSOs and FOs play a big role, the effective integration of fire is a command responsibility and there clearly needs to be a lot of non-artillerymen calling for fire. All leaders must know the frequencies and how to make the system work.

Artillery illumination should be planned for all night operations, even when the primary concept calls for no illumination. Plans need to delineate specific conditions which will trigger the use of illumination and who will make the decision.

2. **NTC Lessons Learned Bulletin - Jan 86**

Even though fire planning is a continuous process, there must be a "drop dead" time for making changes to an existing fire plan. A good cut-off time is one hour prior to execution. Naturally, critical changes occur after the "drop dead" time, but adherence to this time allows everyone to make their final preparation.

Communications between the TF commander and his FSO is critical. The FSO must communicate his thoughts in a language the commander will understand. For example, the FSO should tell him how many minutes of smoke (HC) are available, not how many rounds; or firing

a preplanned 400m x 400m (medium) FASCAM minefield takes 7-12 minutes to fire and with displacement to an alternate position may result in the TF being unable to use its artillery for 45 minutes to one hour on other missions.

During the planning sequence, the TF FSO must develop a maneuver battalion voice fire support net and in conjunction with the FA BN S3, a voice fire direction net to be utilized during emergencies. Once the dedicated voice nets are established, a unit must rehearse these techniques and procedures to ensure execution during the battle. The TF FSO must ensure that all leaders know what frequencies and call signs to use.

3. **NTC Lessons Learned - Sep 86**

Rehearsing a fire plan is no different than wargaming a maneuver commander's concept of the operation. This thought process must ensure synchronization of fire support to enhance the maneuver commander's intent of fighting the battle.

When rehearsing a fire plan, the following areas must be addressed:

- a. Who is responsible to initiate the mission and over what net?
- b. What is the redundancy in execution?
- c. Who clears fires?
- d. How is the maneuver commander made aware of the voids in fire support due to artillery units moving, mission processing times, etc.?
- e. What are the capabilities and limitations of field artillery?
- f. How many missions can be fired before artillery starts moving?
- g. How many targets of opportunity can be fired without interfering with the execution of the fire plan?

Assign targets (high value targets, groups, series, etc.) to a commander for execution, not to the FSO. In most cases, the FSO is going to be co-located with the commander and will actually do the requesting and adjusting. The smarter maneuver commander ensures his subordinates know how the fire plan is synchronized with the battle plan. A maneuver company commander, given the mission to fire group A1B at PL RED, will certainly be at the right place, at the right time to do just that. He will also probably ensure his FSO has good communications with the FDC and the mission goes as planned.

4. **NTC Commander's Comments - The CS Team - 1987**

Fire planning must be a continuous process to be successful. A fire plan formulated and disseminated from higher to lower, will allow the fire plan to be communicated to support the commander's concept but feedback from the lower echelons is vital to refine the plan according to conditions that lower units meet.

5. **CALL 88-3, Vol 1: Heavy Forces - Fall 88**

Target lists that consist of quality targets and not quantity are more likely to succeed. These target lists must support the commander's concept.

The tactical requirement is for the FSO to be responsive to or, in some cases, under the control of the maneuver commander he supports. The key consideration is whether his location enables him to accomplish his mission. If his primary function during a battle is to be the commander's FO, he should be as close to the maneuver commander as possible, while maintaining observation of the battalion area. If his mission is to fire a series or group of planned targets as part of the overall fire plan, the FSO must observe those targets at all times and remain responsive to the maneuver commander throughout the entire battle.

Commanders and FSOs should work together to determine the best location for the observers. They share responsibility for positioning them where they can see the battlefield and contribute to the operation's success. The FO must select observation posts and movement routes to support the maneuver commander's scheme of maneuver. The FSO must apply the factors of METT-T to determine optimal positions for his observers.

6. **CALL 89-1, Non-Mechanized Forces - Spring 89**

Give copies of the fire support execution matrix to the Bn/Co commander's, platoon leaders and platoon FOs.

Brief the matrix to those individuals so they understand and visualize the fire support plan and can execute it if required.

Use the fire support execution matrix to conduct a fire support rehearsal. The purpose of the rehearsal is to ensure all personnel fully understand their mission and responsibilities in the fire support plan. Ideally, conduct this rehearsal with a maneuver rehearsal. If the commander does not understand the fire support plan, he will not use it. The fire support execution matrix and the rehearsal overcome this problem.

Fire support fails when the FSO or the Fire Support Sergeant become casualties and their subordinates are unable to step in and accomplish the mission. Train your subordinates and then use them in providing effective fire support during periods of continuous operations.

7. **CALL 90-1, Fire Support for the Maneuver Commander - Feb 90**

Effective fire support starts with, and is the responsibility of, the commander of the maneuver force. Before the battle staff or the fire support staff begins planning the commander must first articulate his intent and guidance for the operation.

The preparation phase gives the commander and staff the opportunity to check and verify the plans against the commander's guidance, and to correct all deficiencies before the execution phase.

The execution phase of the fire support plan is the prosecution of the maneuver commander's intent. The fire support is the prosecution of the maneuver commander's battle plan.

Fire support planning is conducted concurrently as the maneuver force conducts its battle planning, and determines how, when, and with what means targets will be attacked in support of the maneuver force.

The fire support plan includes how fire support elements will move and position themselves, their tactical deception and survivability plans, the survey and target acquisition plans, and how the fires will be allocated to the maneuver force.

The FSCOORD and his FSO assist and advise the commander in planning, preparing and executing the fire support plan. The maneuver commander must understand his responsibility for the fire support plan from the very beginning to the end of the process.

The FSCOORD recommends options to the maneuver commander and courses of action on how to best apply the fire support system in concert with other operating systems. The maneuver commander provides the required target effects and the priorities for engaging targets and allocating targets.

Wargaming allows the maneuver commander to decide how fire support resources will be used, designates which subordinate echelons will be weighted with fire support, states what targets and target types to attack, and designates what fire support means to use. The recommended fire support plan will also identify firing support logistical requirements and their impact on the battle.

The process of wargaming integrates the fire support target acquisition systems into the maneuver force battlefield intelligence collection plan.

Development of a successful fire support plan is dependent on the maneuver commander's guidance.

The maneuver commander must state the role that fire support is to play in the overall operation.

Using the attack criteria established by the maneuver commander, the FSCOORD and the FSO must prioritize targets in relation to their impact on the battle. The highest priority targets are those that if not defeated can inhibit the execution of the maneuver commanders battle plan. The next priority of targets are those that may seriously interfere with the battle plan. The lowest priority targets are those that might seriously interfere with the battle plan later in the battle, or disrupt future plans, and those targets that have limited impact on the plan or are very low payoff to the maneuver commander.

The maneuver commander reviews the recommendation of the FSCOORD along with the available ammunition and delivery means and determines the desired effect by category or suppression, neutralization, or destruction.

The most effective method of insuring that the commander's guidance is understood is for the FSCOORD to briefback his understanding of the commanders fire support guidance to the maneuver commander.

Only after the commander's guidance and intent is clearly defined and understood can the FSCOORD and the FSO conduct their planning, wargaming, and rehearsing of the operation with the commander and his battle staff.

The maneuver commander and subordinate commanders, as well as the FSCOORD must rehearse the fire support plan at the same time as the maneuver plan.

Throughout the planning and preparation phases of the operation the maneuver commander and the FSCOORD continually work to focus and refine the plans that the organization is preparing to defeat the enemy. The final step in the development of the fire support plan is the combined arms rehearsal.

The keys to an effective rehearsal are that:

- The positioning and movement plans of the artillery units are exercised.
- The target acquisition plan is verified.
- The fire support plan is validated with the scheme of maneuver, the commander's intent, and attack guidance.
- The obstacle/barrier plan of the maneuver force is part of the fire support plan.
- The fire and maneuver control measures for protecting and controlling aerial and ground forces do not disrupt the fire support plan, and are not violated by the plan.
- Target grids and trigger points are verified.
- Redundant observers to initiate fires if the primary observer fails to execute.

The rehearsal provides the FSCOORD and the FSO with an opportunity to identify gaps in the fire plan, potential engagement areas that were not found during the initial planning and wargaming process, and obstacles or barriers that are not covered with fires. The FSO should also use the rehearsal to identify targets that cannot be observed without the use of remote sensors.

The FSCOORD uses the rehearsal to verify the reposition times for the artillery units developed during the estimate process, as well as to determine windows for massing fires or periods of reduced fire support to the maneuver force. Rehearsals provide the maneuver commander and the FSCOORD the opportunity to synchronize the fire support with the scheme of maneuver.

The FSO develops and distributes the fire support execution matrix to the key players on the battlefield. This includes maneuver commanders, staff officers, scouts, fire support personnel, mortar and artillery fire direction centers, and anyone in a position to call for indirect fire during the battle.

The lack of available planning time requires the FSCOORD and FSO to conduct the planning for their subordinate units, and to disseminate the plan down to the units for refinements, adjustments, and execution.

The key to effective employment of "top-down" fire planning is the redundant check of the plan before execution. This is not to imply that company FSOs should not be developing their own fire plan prior to receipt of the task force fire plan and target list. The company/team FSO should use their fire plan to provide the "bottom-up" refinements of the TF fire support plan and target list.

The most critical aspect of the refinement is the verification of target locations by the observer to ensure the accuracy of the fires. Using resection, intersection, or registration, the observers must verify the location of planned targets and coordination measures to ensure the fire supports the intent of the maneuver force commander.

The FSO should use the S2s situation template to develop and refine the target list to include only targets that support the operation.

A target list with fewer targets is easier for the observer, commanders and other key personnel in the fire support system to employ. With fewer targets observers are better able to shift fires from planned targets to new targets on the battlefield. The FSCOORD and FSO must insist that every target has a purpose and be tied to the scheme of maneuver and the commander's intent.

8. CALL 90-5, Fire Support Lessons Learned - May 90

FOs and FSOs at lower levels must verify and refine the plan, their assigned targets, and positioning to ensure they can execute fires needed to support to commander's intent.

The matrix explains the portion of the fire support plan each FSO, FO, and maneuver commander are responsible for executing. Not only does it describe what and who, it also describes when (by phase/event) where and how.

When approved by the maneuver commander, the matrix becomes the primary execution tool for the FSO, FO, and maneuver commanders. It is particularly useful in fixing responsibility for execution. It can use maneuver control measures such as target reference points or checkpoints to help integrate maneuver and fire.

FSCOODs who insist every target have a purpose and tied to the scheme of maneuver and the commander's intent end up with quality target lists, not "measle sheets".

The fire support execution matrix must be event driven, not based on time. This amplifies the importance of close cooperation between the FSO and the maneuver and artillery S2s. IPB reveals possible and likely enemy locations, avenues of approach, and provides the initial framework for developing the fire plan.

The FSCOOD and FSO must explain FA combat power, limitations and capabilities of the fire support system, and how artillery and mortars can best support the operation. FSO must be able to state whether they can support the mission, and if not, why not. The FSCOOD and FSO must be able to express the capabilities and limitations of the fire support system in terms that the maneuver commander, his staff, and subordinate commanders, understand.

- Minutes of smoke, not just number of smoke rounds available.
- Number of available RAAM/ADAM minefields by type, size and density. Safety zone around each; the time to emplace each, not the number of rounds.
- Battalion volleys by type of ammunition, and what effects the maneuver commander can expect from each volley given specific targets description, not just the number of DPICM or HE rounds available.
- Range and artillery area coverage based on the preponderance of the shell/fuze/charge combinations available, not just the maximum range of the system.
- The need for timely and accurate target locations.

FSOs should use situational templates from IPB to develop targets for target lists.

A briefback is used by the FSCOOD or FSO to tell the maneuver commander how fire support will accomplish the commander's stated and implied missions. The briefback must communicate essentials without overloading the commander with details he does not need:

- State essential tasks; identify the principal means the fire plan uses to achieve the objective. Summarize the high points of the plan such as: number of targets; schedules; special missions such as FASCAM, smoke or illumination.
- State constraints on the plan; identify factors impacting on the execution of fires such as availability of ammunition; special missions such as FASCAM or smoke; communications requirement; and fire units repositioning times.

- Summarize execution; review the fire support matrix. State: who is responsible for firing each target; what coordination is required; what support from the maneuver force is necessary to accomplish the execution of the fire support plan.

A reasonable cutoff time is five hours prior to crossing the LD or anticipated beginning of defensive operations. Emergency and critically important changes identified prior to the start of an operation should be made if they will have an adverse effect on the operation. Changes that do not effect the outcome of the operation should not be made.

The effect of limiting the time for submitting changes is the same as controlling the number of planned targets: It gives more time to check data; better preparation for the mission; more time for dissemination of the fire plan; and more time to wargame and rehearse.

If at all possible, the fire support/artillery rehearsal should be conducted with the maneuver commanders rehearsal. A combined rehearsal will improve responsiveness of fires and synchronization of all the maneuver commanders battle resources.

At any level, fire support participants in the maneuver commander's rehearsal should include all members of the fire support cell, and all subordinate fire support element.

The benefit to the field artillery battalion of conducting a rehearsal is the same as it is to the maneuver force. The rehearsal provides and verifies information on movement, schedules of fire, munitions requirements, and a more complete understanding of operational time involved with the scheme of maneuver.

If planning is well-organized, many plans and subplans can be rehearsed concurrently. When time is limited, pick out the plans that need attention and can be checked and fixed in the time available.

If the maneuver commander does not conduct a combined rehearsal, and rehearsal time is available, the FSCoord, with his FSO should conduct a fire support rehearsal using the maneuver force operations order (OPORD), fire support plan, fire support execution matrix, and the field artillery support plan. A rehearsal conducted with fire support personnel only is still better than no rehearsal at all.

As a minimum rehearse the following:

- Communications-Electronics Plan: Verifies SOI instructions, TACFIRE subscriber list, jamming procedures and requirements.
- Fire Support Plan: Verify target locations, trigger positions/lines, primary and backup observers/target executors, primary and backup communications channels, target engagement criteria, target priority, purpose, method of engagement, attack guidance, and fire support coordination measures.
- Target Acquisition Plan: Verify target priorities, queuing agents, queuing criteria, timeliness and accuracy requirements, who targets, what information is reported to whom, target selection standards, sectors or responsibility/ zones of search, positioning/movement plans.
- Reconnaissance and Surveillance Plan: Same as those for Target Acquisition Plan.

The battalion or company FSO facilitates fire support by accompanying the maneuver commander for all phases of planning. Every coordination meeting, orders briefing, or briefback the commander attends also requires the FSOs active participation.

The key consideration is not whether the TF FSO is located directly with or adjacent to his commander, but whether he can accomplish his mission within the commander's intent from wherever he locates. The FSOs primary roles are as a planner and executor. He must be where he can communicate with his fire supporters and effect changes in priorities, allocation of assets, and assists in the battle as directed by the maneuver commander.

If the maneuver commander assigns the FSO secondary missions as his primary or redundant shooter for a particular engagement, he should be as close to the commander as possible. If his mission is to fire a series or group of targets as part of the larger plan, he must position himself where he can observe his targets and still remain within communications distance of this commander.

FOs and FSOs must verify obstacle locations and plan fires on or around them. The countermobility effort is an integrated task in which the FSO supports the engineer. Neither planning or execution of fires or obstacles can be done in a vacuum. Battlefield synchronization mandates both the engineer and the FSO work together and advise each other on the respective capabilities and limitations. The FSO and engineer must integrate obstacles with the fire plan so the unit can attack enemy forces breaching or attempting to bypass friendly obstacles.

The forward observer regardless of assigned tasks or where he is positioned, must be able to see the battlefield to get effective fires.

The FSO assigns targets planned on and around obstacles to an observer who can call for fire when the enemy reaches the obstacle. FSOs often plan targets around obstacles but fires are often ineffective due to observers not being able to see the obstacle, or the obstacle location was not verified after it was emplaced.

The TF FSOs should ensure subordinate FSOs establish redundant means to engage targets. An effective technique for verifying obstacle locations is with a surveyed G/VLLD. Another technique is for the FSO to use FA hasty survey techniques to verify the position of an obstacle.

The maneuver commander and FSO must determine the best locations for their platoon forward observers. The most frequently overlooked element of the indirect fire system is location of the forward observer in relation to the targets. The TF and CO/TM FSOs share responsibility for positioning platoon FOs and available COLTs where they can see those targets they are responsible for shooting.

The maneuver commander's (Co, TF, or BDE) METT-T analysis must drive where observers will be positioned and what functions/ responsibilities each has. Platoon FOs and COLTs can be assigned responsibility for target engagement or surveillance of a particular portion of the battlefield. It is incumbent upon the Co FSO to ensure his platoon forward observation parties are positioned to execute their responsibilities regardless of who assigns the tasks.

Observers and Fire Support Officers must maintain effective communications to deliver timely and accurate fires on the enemy. Digital equipment must have electronic line of sight in order to pass traffic. Positioning of observers and FSOs must consider both their need to see the battlefield and to communicate.

Position observers where they can see their targets and maintain communications with their indirect fire assets.

FSOs, particularly at company level, must be aggressive!! This means they must plan in the absence of detailed guidance, supervise their subordinates, and above all, react to the changing situation on the battlefield. They cannot sit by passively, unable to observe or communicate, while they wait for their commander to tell them to move. They must take the initiative to bring fire on the enemy. Although the maneuver commander should state his intent for fire support, a

good FSO will be able to devise an adequate plan on the basis of a general understanding of the operation.

Whether the heavy maneuver TFs are modernized or non-modernized, they benefit from illumination.

FSOs and platoon FOs must be familiar with maneuver boundaries to prevent firing across boundaries into another unit's area. FSOs must be aware of the limitations boundaries impose on their planning. Failure to pay attention to boundaries is the second most common cause of fratricides.

The greatest unnecessary risk that confronts the soldier on the battlefield is fratricide. To minimize the risk it is essential that the location of friendly elements be kept current and that each target be checked to ensure that fires not be brought down upon friendly elements.

Copperhead

Copperhead (CPHD) is a highly specialized munition that requires a great deal of planning for successful employment. When employed correctly it can have a devastating effect on enemy formations. Units have their greatest success with Copperhead when they use it in preplanned areas against clearly defined high payoff targets.

FASCAM

Artillery delivered remote anti-armor (RAAM) and area denial artillery munitions (ADAM) are the most responsive to the need of the maneuver commander. The artillery delivered systems are also very effective in shaping the battlefield.

As with any obstacle system, the engineer is the staff proponent for planning the employment of FASCAM. The FSO and FSCoord must coordinate with the engineer in planning and coordinating FASCAM. The FSO can work out the inconsistencies between the planning and logistics estimates.

9. CALL 90-7, Winning in the Desert - AUG 90

Illumination or smoke rounds can be used to reorient maneuver forces.

10. CALL 90-8, Winning in the Desert II - Sept 90

TOPIC: Use time and variable time-fuzed munitions to kill and point-detonating fuzed munitions to screen.

DISCUSSION: The Allies in North Africa and the Israelis found that point-detonating fuzed munitions very often buried themselves in the sand prior to bursting, drastically reducing the casualty producing effect, but the bursts raised large clouds of dust/sand which effectively screened units' movements. The air bursting munitions were more effective casualty producers.

LESSON LEARNED: Artillery units must prepare to use point-detonating high-explosive ammunition to screen unit movements when smoke/white phosphorus ammunition is depleted.

11. **CALL 93-4: Combat Training Centers (CTCs) Bulletin - JUL 93**

Fire support may be rehearsed with the subordinate battalion and company FSOs rehearsing their planned fire missions at the appropriate time and place. Enemy events and a general chronology of critical friendly events trigger actions at the rehearsal. The sequence should usually be enemy actions, acquisition of these actions, and friendly fire support actions.

TFs must plan for fire support from the line of departure to actions on the objective. Successful units plan for smoke and suppressive fires to deny enemy observation during the movement to the objective. Units generally do not completely suppress and obscure obstacles during breaching operations. During the assault on the objective, the execution of fire tends to become disconnected from the scheme of maneuver.

S2s and Fire Support Officers (FSOs) must be trained to develop the reconnaissance and surveillance plans and fire plan together. The S2 must template and develop named areas of interest (NAIs) for all OPs and combat observation posts (COPs); obstacles; MRPs; potential reserve platoons and antitank ambushes. At the same time, the FSO must put the named areas of interest (NAI) into the fire plan as targets. Together, the S2 and FSO must track the results of reconnaissance to confirm, update, or deny their NAIs. The fire support element (FSE) must update targets based on reconnaissance.

During movement, the TFs must plan to suppress direct fire and use smoke to screen themselves from known and suspected OPs that can affect their courses of action. All obstacles that affect the TFs movement and assault of the objective must be breached, and breached quickly; they require a corresponding fire support plan. For obstacle breaches, units must learn to call for indirect suppressive fires on enemy overwatch positions and smoke to screen friendly positions. These fires must be called and in place before the unit leaves its last covered and concealed positions. For smoke, this may mean initiating the call as much as 10 minutes ahead of the unit to ensure that the smoke screen is in place.

For both the breaching of obstacles and the assault of the objectives, TFs must develop graphic control measures that integrate the movement of forces and the delivery of fires. These graphics must be tied to specific locations on the ground where maneuver forces control the delivery and shifting of fires. Key control measures include limits of advance to designated locations (to shift across the objective).

12. **CALL 92-4: Fratricide: Reducing Self-Inflicted Losses - Apr 92**

... also investigated indirect fire and found fratricidal missions in 51 of 116 battles reviewed. On average, task forces fired 26.7 missions per battle (excluding smoke and illumination) with 33 percent achieving at least some suppression of forces on the ground. About one tenth of these "effective" missions or 3.6 percent of total missions was fratricidal.

The Fire Support Element (FSE) at the maneuver headquarters initiating the request for fires is responsible for obtaining internal clearance (clearance from subordinate units) and, as necessary, clearance from adjacent units in whose areas the target lie. Although doctrinally acceptable within unit boundaries, passive control (silence is consent) greatly increases the potential for fratricide, due to the assumption of optimal communications and battle tracking.

Fratricide from friendly minefields is a major problem due to lack of coordination, failure to disseminate obstacle plan, and failure to accurately report obstacle locations back up the chain. Solutions include: including minefield locations in you liaison officer (LO) checklist; and development of a "flash" traffic format or quick report format similar to NBC reports. Note that

any use of FASCAM (and possibly some use of dud-producing submunitions) requires appropriate reporting.

During Operation DESERT STORM, the combined dud rate of multiple engagements with improved conventional munitions (APICM, DPICM, CBUs) caused obstacles and safety concerns for the maneuver commander. Commanders can create Restricted Fire Areas (RFAs) where they anticipate subsequent maneuver to control this problem. Dud-producing missions would then require coordination with the maneuver headquarters.

LESSONS LEARNED INTEGRATED INTO CCF 8 TASK LIST

Planning Tasks

1. **Direct and Lead Task Force During Planning for the Battle**
2. **Receive ORDER from Higher Headquarters**
3. **Conduct Mission Analysis**
4. **Issue the Warning Order**
5. **Commander Issues Guidance**

Effective fire support starts with, and is the responsibility of, the commander of the maneuver force. Before the battle staff or the fire support staff begins planning the commander must first articulate his intent and guidance for the operation.

The FSCoord and his FSO assist and advise the commander in planning, preparing and executing the fire support plan. The maneuver commander must understand his responsibility for the fire support plan from the very beginning to the end of the process.

Development of a successful fire support plan is dependent on the maneuver commander's guidance.

The maneuver commander must state the role that fire support is to play in the overall operation.

Only after the commander's guidance and intent is clearly defined and understood can the FSCoord and the FSO conduct their planning, wargaming, and rehearsing of the operation with the commander and his battle staff.

6. **Prepare Staff Estimates**
7. **Staff Develops Course of Action**

Given that there is never sufficient artillery to do all things, a centralized approach guards against the risk of firing a few rounds at a large number of low priority targets. The preferred solution is a lot of rounds on a few particularly critical targets.

Communications between the TF commander and his FSO is critical. The FSO must communicate his thoughts in a language the commander will understand. For example, the FSO should tell him how many minutes of smoke (HC) are available, not how many rounds; or firing a preplanned 400m x 400m (medium) FASCAM minefield takes 7-12 minutes to fire and with

displacement to an alternate position may result in the TF being unable to use its artillery for 45 minutes to one hour on other missions.

Commanders and FSOs should work together to determine the best location for the observers. They share responsibility for positioning them where they can see the battlefield and contribute to the operation's success. The FO must select observation posts and movement routes to support the maneuver commander's scheme of maneuver. The FSO must apply the factors of METT-T to determine optimal positions for his observers.

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- Battalion volleys by type of ammunition, and what effects the maneuver commander can expect from each volley given specific targets description, not just the number of DPICM or HE rounds available.
- Range and artillery area coverage based on the preponderance of the shell/fuze/charge combinations available, not just the maximum range of the system.
- The need for timely and accurate target locations.

The countermobility effort is an integrated task in which the FSO supports the engineer. Neither planning or execution of fires or obstacles can be done in a vacuum.

Battlefield synchronization mandates both the engineer and the FSO work together and advise each other on the respective capabilities and limitations. The FSO and engineer must integrate obstacles with the fire plan so the unit can attack enemy forces breaching or attempting to bypass friendly obstacles.

Whether the heavy maneuver TFs are modernized or non-modernized, they benefit from illumination.

Copperhead

Copperhead (CPHD) is a highly specialized munition that requires a great deal of planning for successful employment. When employed correctly it can have a devastating effect on enemy formations. Units have their greatest success with Copperhead when they use it in preplanned areas against clearly defined high payoff targets.

FASCAM

Artillery delivered remote anti-armor (RAAM) and area denial artillery munitions (ADAM) are the most responsive to the need of the maneuver commander. The artillery delivered systems are also very effective in shaping the battlefield.

As with any obstacle system, the engineer is the staff proponent for planning the employment of FASCAM. The FSO and FSCoord must coordinate with the engineer in planning and coordinating FASCAM. The FSO can work out the inconsistencies between the planning and logistics estimates.

TFs must plan for fire support from the line of departure to actions on the objective. Successful units plan for smoke and suppressive fires to deny enemy observation during the movement to the objective. Units generally do not completely suppress and obscure obstacles during breaching operations. During the assault on the objective, the execution of fire tends to become disconnected from the scheme of maneuver.

S2s and Fire Support Officers (FSOs) must be trained to develop the reconnaissance and surveillance plans and fire plan together. The S2 must template and develop named areas of interest (NAIs) for all OPs and combat observation posts (COPs); obstacles; MRPs; potential reserve platoons and antitank ambush. At the same time, the FSO must put the named areas of interest (NAI) into the fire plan as targets.

Together, the S2 and FSO must track the results of reconnaissance to confirm, update, or deny their NAIs. The fire support element (FSE) must update targets based on reconnaissance.

During movement, the TFs must plan to suppress direct fire and use smoke to screen themselves from known and suspected OPs that can affect their courses of action. All obstacles that affect the TFs movement and assault of the objective must be breached, and breached quickly; they require a corresponding fire support plan. For obstacle breaches, units must learn to call for indirect suppressive fires on enemy overwatch positions and smoke to screen friendly positions. These fires must be called and in place before the unit leaves its last covered and concealed positions. For smoke, this may mean initiating the call as much as 10 minutes ahead of the unit departing for the breach to ensure that the smoke screen is in place.

Illumination or smoke rounds can be used to reorient maneuver forces.

For both the breaching of obstacles and the assault of the objectives, TFs must develop graphic control measures that integrate the movement of forces and the delivery of fires. These graphics must be tied to specific locations on the ground where maneuver forces control the delivery and shifting of fires. Key control measures include limits of advance to designated locations (to shift across the objective).

TOPIC: Use time and variable time-fuzed munitions to kill and point-detonating fuzed munitions to screen.

DISCUSSION: The Allies in North Africa and the Israelis found that point-detonating fuzed munitions very often buried themselves in the sand prior to bursting, drastically reducing the casualty producing effect, but the bursts raised large clouds of dust/sand which effectively screened units' movements. The air bursting munitions were more effective casualty producers.

LESSON LEARNED: Artillery units must prepare to use point-detonating high-explosive ammunition to screen unit movements when smoke/white phosphorus ammunition is depleted.

8. Staff/Commander Analyze Course of Action

The process of wargaming integrates the fire support target acquisition systems into the maneuver force battlefield intelligence collection plan.

Wargaming allows the maneuver commander to decide how fire support resources will be used, designates which subordinate echelons will be weighted with fire support, states what targets and target types to attack, and designates what fire support means to use. The recommended fire support plan will also identify firing support logistical requirements and their impact on the battle.

9. Staff Compares Courses of Action

10. Commander Announces Decision

The maneuver commander reviews the recommendation of the FSCoord along with the available ammunition and delivery means and determines the desired effect by category or suppression, neutralization, or destruction.

11. Staff Prepares OPORD/FRAGO

The timing of maneuver and fires must be developed and then fully explained. "Priority of artillery fires to Team B. See target list." simply does not cut it.

Responsibility for each target to include identification on the ground, observation, execution, and adjustment as necessary is given to a specific unit, e.g., company team, scout platoon. Sufficient redundancy is required to guard against obscuration and casualties.

Assign targets (high value targets, groups, series, etc.) to a commander for execution, not to the FSO. In most cases, the FSO is going to be co-located with the commander and will actually do the requesting and adjusting. The smarter maneuver commander ensures his subordinates know how the fire plan is synchronized with the battle plan. A maneuver company commander, given

the mission to fire group A1B at PL RED, will certainly be at the right place, at the right time to do just that. He will also probably ensure his FSO has good communications with the FDC and the mission goes as planned.

The FSO assigns targets planned on and around obstacles to an observer who can call for fire when the enemy reaches the obstacle.

Target lists that consist of quality targets and not quantity are more likely to succeed. These target lists must support the commander's concept.

The matrix explains the portion of the fire support plan each FSO, FO, and maneuver commander are responsible for executing. Not only does it describe what and who, it also describes when (by phase/event) where and how.

Using the attack criteria established by the maneuver commander, the FSCoord and the FSO must prioritize targets in relation to their impact on the battle. The highest priority targets are those that if not defeated can inhibit the execution of the maneuver commander's battle plan. The next priority of targets are those that may seriously interfere with the battle plan. The lowest priority targets are those that might seriously interfere with the battle plan later in the battle, or disrupt future plans, and those targets that have limited impact on the plan or are very low payoff to the maneuver commander.

FSCoords who insist every target have a purpose and tied to the scheme of maneuver and the commander's intent end up with quality target lists, not "measle sheets".

A target list with fewer targets is easier for the observer, commanders and other key personnel in the fire support system to employ. With fewer targets observers are better able to shift fires from planned targets to new targets on the battlefield. The FSCoord and FSO must insist that every target has a purpose and be tied to the scheme of maneuver and the commander's intent.

When approved by the maneuver commander, the matrix becomes the primary execution tool for the FSO, FO, and maneuver commanders. It is particularly useful in fixing responsibility for execution. It can use maneuver control measures such as target reference points or checkpoints to help integrate maneuver and fire.

12. **Issue the OPORD/FRAGO**

Give copies of the fire support execution matrix to the Bn/Co commander's, platoon leaders and platoon FOs.

Brief the matrix to those individuals so they understand and visualize the fire support plan and can execute it if required.

The FSO develops and distributes the fire support execution matrix to the key players on the battlefield. This includes maneuver commanders, staff officers, scouts, fire support personnel, mortar and artillery fire direction centers, and anyone in a position to call for indirect fire during the battle.

13. **Refine the Plan**

See Task 21 (Task Force Plan Modified and Refined), page 60.

14. Establish and operate the Fire Support Section

Communications between companies, FSOs, and FDCs need to be thoroughly checked before the battle to include necessary corrective action.

During the planning sequence, the TF FSO must develop a maneuver battalion voice fire support net and in conjunction with the FA BN S3, a voice fire direction net to be utilized during emergencies. Once the dedicated voice nets are established, a unit must rehearse these techniques and procedures to ensure execution during the battle. The TF FSO must ensure that all leaders know what frequencies and call signs to use.

The forward observer regardless of assigned tasks or where he is positioned, must be able to see the battlefield to get effective fires.

The maneuver commander and FSO must determine the best locations for their platoon forward observers. The most frequently overlooked element of the indirect fire system is location of the forward observer in relation to the targets. The TF and CO/TM FSOs share responsibility for positioning platoon FOs and available COLTs where they can see those targets they are responsible for shooting.

The maneuver commander's (Co, TF, or BDE) METT-T analysis must drive where observers will be positioned and what functions/responsibilities each has. Platoon FOs and COLTs can be assigned responsibility for target engagement or surveillance of a particular portion of the battlefield. It is incumbent upon the Co FSO to ensure his platoon forward observation parties are positioned to execute their responsibilities regardless of who assigns the tasks.

Observers and Fire Support Officers must maintain effective communications to deliver timely and accurate fires on the enemy. Digital equipment must have electronic line of sight in order to pass traffic. Positioning of observers and FSOs must consider both their need to see the battlefield and to communicate.

Position observers where they can see their targets and maintain communications with their indirect fire assets.

FSOs, particularly at company level, must be aggressive!! This means they must plan in the absence of detailed guidance, supervise their subordinates, and above all, react to the changing situation on the battlefield. They cannot sit by passively, unable to observe or communicate, while they wait for their commander to tell them to move. They must take the initiative to bring fire on the enemy. Although the maneuver commander should state his intent for fire support, a good FSO will be able to devise an adequate plan on the basis of a general understanding of the operation.

15. FSO Initiates coordination

A face-to-face meeting between brigade and task force FSOs and the DS Battalion S3 and FDO, where the concepts of operations and intents of the various maneuver commanders are discussed, pays rich dividends.

Preparation Tasks

16. Command Group Conducts and Receives Briefing

The most effective method of insuring that the commander's guidance is understood is for the FSCOORD to briefback his understanding of the commanders fire support guidance to the maneuver commander.

A briefback is used by the FSCOORD or FSO to tell the maneuver commander how fire support will accomplish the commander's stated and implied missions. The briefback must communicate essentials without overloading the commander with details he does not need:

- State essential tasks; identify the principal means the fire plan uses to achieve the objective. Summarize the high points of the plan such as: number of targets; schedules; special missions such as FASCAM, smoke or illumination.
- State constraints on the plan; identify factors impacting on the execution of fires such as availability of ammunition; special missions such as FASCAM or smoke; communications requirement; and fire units repositioning times.
- Summarize execution; review the fire support matrix. State: who is responsible for firing each target; what coordination is required; what support from the maneuver force is necessary to accomplish the execution of the fire support plan.

The battalion or company FSO facilitates fire support by accompanying the maneuver commander for all phases of planning. Every coordination meeting, orders briefing, or briefback the commander attends also requires the FSOs active participation.

17. Command Group and Command Posts Monitor, Supervise, and Direct Execution of Force Protection Operations and Activities

18. Command Group and Command Posts Monitor, Supervise, and Direct TF Mission Preparation

19. Commander, Commander's Representatives, and Staff Conduct Inspections and Visits

The key to effective employment of "top-down" fire planning is the redundant check of the plan before execution. This is not to imply that company FSOs should not be developing their own fire plan prior to receipt of the task force fire plan and target list. The company/team FSO should use their fire plan to provide the "bottom-up" refinements of the TF fire support plan and target list.

20. Task Force Rehearsals

Commanders, subordinate infantry and tank leaders, FOs, and others responsible for specific targets must be able to point them out on the ground. Trigger lines based upon projected enemy routes and movement rates must be clearly identified.

Rehearsing a fire plan is no different than wargaming a maneuver commander's concept of the operation. This thought process must ensure synchronization of fire support to enhance the maneuver commander's intent of fighting the battle.

When rehearsing a fire plan, the following areas must be addressed:

- a. Who is responsible to initiate the mission and over what net?
- b. What is the redundancy in execution?
- c. Who clears fires?
- d. How is the maneuver commander made aware of the voids in fire support due to artillery units moving, mission processing times, etc.?
- e. What are the capabilities and limitations of field artillery?
- f. How many missions can be fired before artillery starts moving?
- g. How many targets of opportunity can be fired without interfering with the execution of the fire plan?

The rehearsal provides the FSCoord and the FSO with an opportunity to identify gaps in the fire plan, potential engagement areas that were not found during the initial planning and wargaming process, and obstacles or barriers that are not covered with fires. The FSO should also use the rehearsal to identify targets that cannot be observed without the use of remote sensors.

Use the fire support execution matrix to conduct a fire support rehearsal. The purpose of the rehearsal is to ensure all personnel fully understand their mission and responsibilities in the fire support plan. Ideally, conduct this rehearsal with a maneuver rehearsal. If the commander does not understand the fire support plan, he will not use it. The fire support execution matrix and the rehearsal overcome this problem.

The maneuver commander and subordinate commanders, as well as the FSCoord must rehearse the fire support plan at the same time as the maneuver plan.

The keys to an effective rehearsal are that:

- The positioning and movement plans of the artillery units are exercised.
- The target acquisition plan is verified.
- The fire support plan is validated with the scheme of maneuver, the commander's intent, and attack guidance.
- The obstacle/barrier plan of the maneuver force is part of the fire support plan.
- The fire and maneuver control measures for protecting and controlling aerial and ground forces do not disrupt the fire support plan, and are not violated by the plan.
- Target grids and trigger points are verified.
- Redundant observers to initiate fires if the primary observer fails to execute.

The FSCOORD uses the rehearsal to verify the reposition times for the artillery units developed during the estimate process, as well as to determine windows for massing fires or periods of reduced fire support to the maneuver force. Rehearsals provide the maneuver commander and the FSCOORD the opportunity to synchronize the fire support with the scheme of maneuver.

If at all possible, the fire support/artillery rehearsal should be conducted with the maneuver commanders rehearsal. A combined rehearsal will improve responsiveness of fires and synchronization of all the maneuver commanders battle resources.

At any level, fire support participants in the maneuver commander's rehearsal should include all members of the fire support cell, and all subordinate fire support element.

The benefit to the field artillery battalion of conducting a rehearsal is the same as it is to the maneuver force. The rehearsal provides and verifies information on movement, schedules of fire, munitions requirements, and a more complete understanding of operational time involved with the scheme of maneuver.

If planning is well-organized, many plans and subplans can be rehearsed concurrently. When time is limited, pick out the plans that need attention and can be checked and fixed in the time available.

If the maneuver commander does not conduct a combined rehearsal, and rehearsal time is available, the FSCOORD, with his FSO should conduct a fire support rehearsal using the maneuver force operations order (OPORD), fire support plan, fire support execution matrix, and the field artillery support plan. A rehearsal conducted with fire support personnel only is still better than no rehearsal at all.

As a minimum rehearse the following:

- Communications-Electronics Plan: Verifies SOI instructions, TACFIRE subscriber list, jamming procedures and requirements.
- Fire Support Plan: Verify target locations, trigger positions/lines, primary and backup observers/target executors, primary and backup communications channels, target engagement criteria, target priority, purpose, method of engagement, attack guidance, and fire support coordination measures.
- Target Acquisition Plan: Verify target priorities, queuing agents, queuing criteria, timeliness and accuracy requirements, who targets, what information is reported to whom, target selection standards, sectors or responsibility/ zones of search, positioning/movement plans.
- Reconnaissance and Surveillance Plan: Same as those for Target Acquisition Plan.

Fire support may be rehearsed with the subordinate battalion and company FSOs rehearsing their planned fire missions at the appropriate time and place. Enemy events and a general chronology of critical friendly events trigger actions at the rehearsal. The sequence should usually be enemy actions, acquisition of these actions, and friendly fire support actions.

21. Task Force Plan Modified and Refined

The fire plan should originate at task force level and then be modified and expanded based upon company input.

Even though fire planning is a continuous process, there must be a "drop dead" time for making changes to an existing fire plan. A good cut-off time is one hour prior to execution. Naturally, critical changes occur after the "drop dead" time, but adherence to this time allows everyone to make their final preparation.

The preparation phase gives the commander and staff the opportunity to check and verify the plans against the commander's guidance, and to correct all deficiencies before the execution phase.

Fire planning must be a continuous process to be successful. A fire plan formulated and disseminated from higher to lower, will allow the fire plan to be communicated to support the commander's concept but feedback from the lower echelons is vital to refine the plan according to conditions that lower units meet.

Throughout the planning and preparation phases of the operation the maneuver commander and the FSCoord continually work to focus and refine the plans that the organization is preparing to defeat the enemy. The final step in the fire support plan is the combined arms rehearsal.

FOs and FSOs at lower levels must verify and refine the plan, their assigned targets, and positioning to ensure they can execute fires needed to support to commander's intent.

A reasonable cutoff time is five hours prior to crossing the LD or anticipated beginning of defensive operations. Emergency and critically important changes identified prior to the start of an operation should be made if they will have an adverse effect on the operation. Changes that do not effect the outcome of the operation should not be made..

The effect of limiting the time for submitting changes is the same as controlling the number of planned targets: It gives more time to check data; better preparation for the mission; more time for dissemination of the fire plan; and more time to wargame and rehearse.

FOs and FSOs must verify obstacle locations and plan fires on or around them.

FSOs often plan targets around obstacles but fires are often ineffective due to observers not being able to see the obstacle, or the obstacle location was not verified after it was emplaced.

22. **Command Post (TAC, TOC, CTCP) Operations**
23. **Llaison and coordination with higher, adjacent, supported and supporting elements**
24. **Command Group and Command Posts positioned to control the battle**
25. **FSE monitors preparations**

The most critical aspect of the refinement is the verification of target locations by the observer to ensure the accuracy of the fires. Using resection, intersection, or registration, the observers must verify the location of planned targets and coordination measures to ensure the fire supports the intent of the maneuver force commander.

26. FSO manages and directs attached field artillery assets

The TF FSOs should ensure subordinate FSOs establish redundant means to engage targets. An effective technique for verifying obstacle locations is with a surveyed G/VLLD. Another technique is for the FSO to use FA hasty survey techniques to verify the position of an obstacle.

Execution Tasks

27. TF command posts located where they can control the battle

28. TF commander sees the battlefield

29. TF commander directs and leads the execution phase

30. TF command posts track and support the battle

31. TF conducts battlefield update (METT-T based)

32. TF conducts the decision making process (accelerated)

33. TF consolidates and reorganizes

34. FSO/FSE coordinates, executes, and controls artillery fire support

... it is important to guard against the tendency to fire preplanned targets when the enemy is somewhere else. Adjustments from preplanned targets or grid missions must be used if that is what it takes to get the fire on the enemy.

While FSOs and FOs play a big role, the effective integration of fire is a command responsibility and there clearly needs to be a lot of non-artillerymen calling for fire. All leaders must know the frequencies and how to make the system work.

Fire support fails when the FSO or the Fire Support Sergeant become casualties and their subordinates are unable to step in and accomplish the mission. Train your subordinates and then use them in providing effective fire support during periods of continuous operations.

The key consideration is not whether the TF FSO is located directly with or adjacent to his commander, but whether he can accomplish his mission within the commander's intent from wherever he locates. The FSOs primary roles are as a planner and executor. He must be where he can communicate with his fire supporters and effect changes in priorities, allocation of assets, and assists in the battle as directed by the maneuver commander.

If the maneuver commander assigns the FSO secondary missions as his primary or redundant shooter for a particular engagement, he should be as close to the commander as possible. If his mission is to fire a series or group of targets as part of the larger plan, he must position himself

where he can observe his targets and still remain within communications distance of this commander.

FSOs and platoon FOs must be familiar with maneuver boundaries to prevent firing across boundaries into another unit's area. FSOs must be aware of the limitations boundaries impose on their planning. Failure to pay attention to boundaries is the second most common cause of fratricides.

The greatest unnecessary risk that confronts the soldier on the battlefield is fratricide. To minimize the risk it is essential that the location of friendly elements be kept current and that each target be checked to ensure that fires not be brought down upon friendly elements.

The Fire Support Element (FSE) at the maneuver headquarters initiating the request for fires is responsible for obtaining internal clearance (clearance from subordinate units) and, as necessary, clearance from adjacent units in whose areas the target lie. Although doctrinally acceptable within unit boundaries, passive control (silence is consent) greatly increases the potential for fratricide, due to the assumption of optimal communications and battle tracking.

Fratricide from friendly minefields is a major problem due to lack of coordination, failure to disseminate obstacle plan, and failure to accurately report obstacle locations back up the chain. Solutions include: including minefield locations in you liaison officer (LO) checklist; and development of a "flash" traffic format or quick report format similar to NBC reports. Note that any use of FASCAM (and possibly some use of dud-producing submunitions) requires appropriate reporting.

During Operation DESERT STORM, the combined dud rate of multiple engagements with improved conventional munitions (APICM, DPICM, CBU's) caused obstacles and safety concerns for the maneuver commander. Commanders can create Restricted Fire Areas (RFAs) where they anticipate subsequent maneuver to control this problem. Dud-producing missions would then require coordination with the maneuver headquarters.

35. FSO provides assistance and recommendations on artillery fires

Communications between the TF commander and his FSO is critical. The FSO must communicate his thoughts in a language the commander will understand. For example, the FSO should tell him how many minutes of smoke (HC) are available, not how many rounds; or firing a preplanned 400m x 400m (medium) FASCAM minefield takes 7-12 minutes to fire and with displacement to an alternate position may result in the TF being unable to use its artillery for 45 minutes to one hour on other missions.

The tactical requirement is for the FSO to be responsive to or, in some cases, under the control of the maneuver commander he supports. The key consideration is whether his location enables him to accomplish his mission. If his primary function during a battle is to be the commander's FO, he should be as close to the maneuver commander as possible, while maintaining observation of the battalion area. If his mission is to fire a series or group of planned targets as part of the overall fire plan, the FSO must observe those targets at all times and remain responsive to the maneuver commander throughout the entire battle.

The execution phase of the fire support plan is the prosecution of the maneuver commander's intent. The fire support is the prosecution of the maneuver commander's battle plan.

The FSCoord and FSO must explain FA combat power, limitations and capabilities of the fire support system, and how artillery and mortars can best support the operation. FSO must be able to state whether they can support the mission, and if not, why not. The FSCoord and

FSO must be able to express the capabilities and limitations of the fire support system in terms that the maneuver commander, his staff, and subordinate commanders, understand.

- Minutes of smoke, not just number of smoke rounds available.
- Number of available RAAM/ADAM minefields by type, size and density. Safety zone around each; the time to emplace each, not the number of rounds.
- Range and artillery area coverage based on the preponderance of the shell/fuze/charge combinations available, not just the maximum range of the system.
- Battalion volleys by type of ammunition, and what effects the maneuver commander can expect from each volley given specific targets description, not just the number of DPICM or HE rounds available.

CCF 8 CRITICAL TASKS AND OTHER LINKAGES

<u>TASK</u>	<u>OTHER LINKAGES</u>
1. Direct and Lead TF During Planning for Battle	See NOTE 1
3. Conduct Mission Analysis	TF FSO (STP 6-13II-MQS) – Advise Maneuver Cdr on Employment of Available FS Assets (01-2999.94-0106)
6. Prepare Staff Estimates	TF FSO (STP 6-13II-MQS) – Plan FA FS of Maneuver Units (01-2999.94-0100) – Interpret Threat Organization and Equipment (01-2660.00-2004) – Recommend FS Coord Measures (01-2999.94-0101) – Develop a FS Plan to Support an Offensive Opn (01-2660.00-2008) – Explain Employment Considerations of FA Special Munitions (01-2660.00-2005) – Advise the Cdr on the Capabilities of Available Tgt Acq Assets (01-3020.00-7002) – Advise the Maneuver Cer on Employment of COLTS (01-2840.00-2039) – Recommend FS Coord Measures, and Coordinate Fires (01-2840.00-2042) FS NCO/FSE (STP 6-13F14-SM-TG) – Advise Supported Units of Friendly Fire Support Capabilities and Limitations (061-284-3004) – Retrieve Artillery Target Intelligence by Using the VFMED (061-277-4035) – Select and Occupy an OP (061-283-2051) – Pass Fire Support Information of Lower, Adjacent, and Higher Field Artillery Elements (061-284-3046) – Analyze the Formations of Threat Forces (061-284-4000)

<u>TASK</u>	<u>OTHER LINKAGES</u>
	– Recommend and Disseminate FS Coordination Measures (061-284-4040) – Plan and Coordinate FS to Suppress Enemy AD (061-284-4209) – Advise Maneuver Cdr on Employment of Tgt Acq Assets (061-284-4211) – Plan FS for Bn or Bde Off Opns (061-284-4229) – Plan FS for Bn or Bde Def Opns (061-284-4231) – Plan for Employment of Smart Wpns and Special Munitions (061-384-4243)
11. Staff Prepares OPORD/FRAGO	TF FSO (STP 6-13II-MQS) – Develop a FA Support Plan (01-2999.94-0104) – Apply the FS Coord Measures (01-2840.00-2025) – Direct the Establishment of and Verify Cdrs Criteria (01-2770.01-0115) – Direct the Establishment of a Fire Plan in the TACFIRE Computer (01-2770.01-0115) – Produce an Atk Guidance Matrix (01-2840.00-2038) – Produce a High-Payoff Target Matrix (01-2840.00-2044) FS NCO/FSE (STP 6-13F14-SM-TG) – Enter, Modify, and Delete Cdrs Criteria by Using the VFMED (061-277-4020) – Establish and Maintain a FASCAM Fire Plan by Using the VFMED (061-277-4026) – Post Information on a Sit Map/Overlay (061-284-1011) – Recommend/Disseminate FS Coord Measure (061-284-4040) – Write the Fires Paragraph of Maneuver OPORD (061-284-4244) – Produce a High Payoff Target List (061-284-4245) – Write the Fire Support Plan (061-284-4247) – Produce an Attack Guidance Matrix (061-284-4246)
12. Issue the OPORD/FRAGO	TF FSO (no MTP/STP reference) – Brief the FA Fire Support Plan

TASK**OTHER LINKAGES**

13. Refine the Plan

FS NCO/FSE (STP 6-13F14-SM-TG)

- Pass FS Info to Lower, Adjacent, and Higher FA Elements (061-284-3046)
- Recommend/Disseminate FS Coord Measures (061-284-4040)

Co/Tm (ARTEP 71-1-MTP)

- Prep for Cbt (17-2-0101)

TF FSO (STP 6-13II-MQS)

- Develop a FS Plan to Support an Offensive Opn (01-2660.00-2008)
- Develop a FS Plan to Support a Defensive Opn (01-2660.00-2009)

FS NCO/FSE (STP 6-13F14-SM-TG)

- Enter, Modify, and Delete Cdrs Criteria Using VFMED (061-277-4020)
- Retrieve Artillery Tgt Intel Using VFMED (061-277-4020)
- Pass FS Info to Lower, Adjacent, and Higher FA Elements (061-284-3046)
- Analyze Formations of Threat Forces (061-284-4000)
- Recommend/Disseminate FS Coordination Measures (061-284-4040)
- Advise Maneuver Cdr on Employment of Tgt Acq Assets (061-284-4211)
- Plan for Employment of Smart Wpns and Special Munitions (061-284-4243)

Co/Tm Cdr (ARTEP 71-1-MTP)

- Employ Indirect Fire in the Offense (17-2-0401)
- Employ Indirect Fire in the Defense (17-2-0402)

Co/Tm FSO (STP 6-13II-MQS)

- Direct the Establishment of a Fire Plan in the TACFIRE Computer (01-2770.01-0115)
- Develop a FS Plan to Support an Offensive Opn (01-2660.00-2008)
- Develop a FS Plan to Support a Defensive Opn (01-2660.00-2009)

<u>TASK</u>	<u>OTHER LINKAGES</u>
	FIST/FO (STP 6-13F14-SM-TG)
	– Produce a Co Fire Support Plan (061-284-3226) – Prepare/Submit a FO Tgt Section List (061-284-1001) – Process FO Target List (061-284-3227)
	Inf Plt (ARTEP 7-247-11-MTP)
	– Plan and Control Cbt Opns (7-3/4-4056)
	Tank Plt (ARTEP 17-237-10-MTP)
	– Produce a Plt Fire Plan (17-3-0104) – Employ Cmd and Cntrl Measures (17-3-0105)
14. Establish and operate the Fire Support Section	TF FSO (6-13II-MQS)
	– Supervise Bn FSE in a TACFIRE Equipped Unit (01-2770.01-0139) – Organize and Conduct the Operation of the FS Team (01-2660.00-2007)
	FS NCO/FSE (STP 6-13F14-SM-TG)
	– Pass FS Info to Lower, Adjacent, and Higher FA Elements (061-284-3046) – Recommend/Disseminate FS Coord Measures (061-284-4240) – Establish FSE Commo (061-284-4021)
	Co/Tm FSO (STP 6-13II-MQS)
	– Organize and Conduct the Operation of the FS Team (01-2660.00-2007)
	FIST/FO (STP 6-13F14-SM-TG)
	– Select and Occupy an OP (061-283-2051) – Establish the FIST HQ Commo (061-284-3220)
15. FSO initiates coordination	TF FSO (STP 6-13II-MQS)
	– Recommend FS Coord Measures, and Coordinate Fires (01-2840.00-2042)
	FS NCO/FSE (STP 6-13F14-SM-TG)
	– Pass FS Info to Lower, Adjacent, and Higher FA Elements (061-284-3046)

<u>TASK</u>	<u>OTHER LINKAGES</u>
	– Recommend/Disseminate FS Coord Measures (061-284-4040) – Coordinate Fires (061-284-4022) – Plan and Coordinate FS to Suppress Enemy AD (061-284-4109)
	Co/Tm FSO (STP 6-13II-MQS)
	– Coordinate Fire Support for a Maneuver Unit (01-2999.93-0001)
16. Command Group Conducts and Receives Briefing	TF FSO (STP 6-13II-MQS) – Advise the Maneuver Cdr on capabilities of Available Tgt Acquisition Assets (01-3020.00-7002) – Advise the Maneuver Cdr on Employment of COLTS (01-2840.00-2039) – Supervise Bn FSE in a TACFIRE Operations (01-2770.01-0139) – Advise the Maneuver Cdr on TACFIRE Operations (01-2770.01-0118) FA NCOs (SPT 6-13F14-FM-TG) – Advise Supported Unit of Friendly FS Capabilities and Limitations (061-284-3004) – Pass FS Info to Lower, Adjacent, and Higher FA Elements (061-284-3004) Co/Tm Cdr (ARTEP 71-1-MTP) – Prepare for Cbt (17-2-0101) Co/Tm FSO/FS NCO (STP 6-13F14-FM-TG) – Produce a Co FS Plan (061-284-3226) Inf Plt (ARTEP 7-247-11-MTP) – Plan/Control Cbt Opns (7-3/4-4056) Tank Plt (ARTEP 17-237-10-MTP) – Produce a Plt Fire Plan (17-3-0104) – Employ Cmd and Cntrl Measures (17-3-0105)
17. Command Group and Command Post Monitor, Supervise, and Direct Execution of Force Protection Operations and Activities	See NOTE 1

<u>TASK</u>	<u>OTHER LINKAGES</u>
18. Command Group and Command Post Monitor, Supervise, and Direct TF Mission Preparation	TF FSO (STP 6-13II-MQS) – Organize and Conduct the Operation of the FS Team (01-2660.00-2007) – Supervise Bn FSE in TACFIRE Equipped Units (01-2770.01-0139) FS NCO/FSE (STP 6-13F14-SM-TG) – Advise Supported Unit of Friendly FS Capabilities and Limitations (061-284-3004) – Advise Maneuver Cdr on Employment of Tgt Acq Assets (061-284-4211) Co/Tm Cdr (ARTEP 71-1-MTP) – Prepare for Cbt Opns (17-2-0101) – Employ Indirect Fire in the Offense (17-2-0401) – Employ Indirect Fire in the Defense (17-2-0402) Co/Tm FSO (STP 6-13II-MQS) – Organize and Conduct the Operation of the FS Team (01-2660.00-2007) Co/Tm FIST (STP 6-13F14-SM-TG) – Process FO Tgt List (061-284-3227) Inf Plt (ARTEP 7-247-11-MTP) – Plan/Control Cbt Opns (7-3/4-4056) Tank Plt (ARTEP 17-237-10-MTP) – Produce a Platoon Fire Plan (17-3-0104) – Employ Cmd and Cntrl Measures (17-3-0105)
19. Commander, Commander's Representative, and Staff Conduct Inspections and Visits	TF FSO (STP 6-13II-MQS) – Supervise Bn FSE in TACFIRE Equipped Units (01-2770.01-0140) FS NCO/FSE (STP 6-13F14-SM-TG) – Advise Supported Unit of Friendly FS Capabilities and Limitations (061-284-3004) – Pass FS Info to Lower, Adjacent, and Higher FA Elements (061-284-3046) Co/Tm Cdr (ARTEP 71-1-MTP) – Prepare for Cbt (17-2-0101)

<u>TASK</u>	<u>OTHER LINKAGES</u>
20. Task Force Conducts Rehearsals	See NOTE 1
21. Task Force Plan Modified and Refined	TF FSO (STP 6-13II-MQS) – Develop a FS Plan to Support an Offensive Opn (01-2660.00-2008) – Develop a FS Plan to Support a Defensive Opn (01-2660.00-2009) FS NCO/FSE (STP 6-13F14-SM-TG) – Enter, Modify, and Delete Cdr Criteria Using VFMED (061-277-4020) – Retrieve Artillery Tgt Intel Using VFMED (061-277-4025) – Establish and Maintain a FASCAM Fire Plan Using VFMED (061-277-4026) – Pass FS Info to Lower, Adjacent, and Higher FA Elements (061-284-3046) – Recommend/Disseminate FS Coord Measures (061-284-4040) – Plan and Coordinate FS to Suppress Enemy Ad (061-284-4209) – Plan FS for Bn or Bde Off Opns (061-284-4229) – Plan FS for Bn or Bde Def Opns (061-284-4231) – Plan for Employment of Smart Wpns and Special Munitions (061-284-4243) Co/Tm Cdr (ARTEP 71-1-MTP) – Prepare for Cbt (17-2-0101) Co/Tm FSO (STP 6-13II-MQS) – Direct the Establishment of a Fire Plan in the TACFIRE Computer (01-2770.01-0115) – Develop a FS Plan to Support an Offensive Opn (01-2660.00-2008) – Develop an FS Plan to Support a Defensive Opn (01-2660.00-2009) FIST/FO (STP 6-13F14-SM-TG) – Select and Occupy an OP (061-283-2051) – Prepare/Submit a FO Tgt Selection List (061-284-1001)

<u>TASK</u>	<u>OTHER LINKAGES</u>
	– Produce a Co FS Plan (061-284-3226) – Process FO Tgt List (061-284-3227)
	Inf Plt (ARTEP 7-247-11-MTP)
	– Plan/Control Cbt Opns (7-3/4-4056)
	Tank Plt (ARTEP 17-237-10-MTP)
	– Produce a Platoon Fire Plan (17-3-0104) – Employ Cmd and Cntrl Measures (17-3-0105)
22. Command Post (TAC, TOC, CTCP) Operations	TF FSO (STP 6-13II-MQS) – Supervise Bn FSE in TACFIRE Equipped Units (01-2770.01-0140) – Organize and Conduct the Opns of the Fire spt Team (01-2660.00-2007) FS NCO/FSE (STP 6-13F14-SM-TG) – Establish FSE Commo (061-284-4221) Co/Tm FSO (STP 6-13II-MQS) – Organize and Conduct the Opns of the Fire Spt Team (01-2660.00-2007) FIST NCO (STP 6-13F14-SM-TG) – Establish the FIST HQ Commo (061-284-3220)
25. FSE monitors preparations	TF FSO (STP 6-13II-MQS) – Organize and Conduct the Opns of the Fire Spt Team (01-2660.00-2007) – Supervise Bn FSE in TACFIRE Equipped Units (01-2770.01-0139) FS NCO/FSE (STP 6-13F14-SM-TG) – Post Info on a Sit Map/Overlay (061-284-1001) – Advise Supported Unit of Friendly FS Capabilities and Limitations (061-284-3004) – Pass FS Info to Lower Adjacent, and Higher FA Elements (061-284-3046) – Coordinate Fires (061-284-4022) – Recommend/Disseminate FS Coord Measures (061-284-4040)

<u>TASK</u>	<u>OTHER LINKAGES</u>
	– Plan and Coordinate FS to Suppress Enemy AD (061-284-4309)
	Co/Tm Cdr (ARTEP 71-1-MTP)
	– Prepare for Combat (17-2-0101)
	Co/Tm FSO (STP 6-13II-MQS)
	– Organize and Conduct the Opns of the Fire Spt Team (01-2660.00-2007)
	Co/Tm FIST (STP 6-13F14-SM-TG)
	– Prepare and Submit FO Tgt List (061-284-1001)
26. FSO manages and directs attached field artillery	See NOTE 1
27. TF Command Posts located where they can control the battle	TF FSO (No MTP/STP reference) – FSO ensures FSE repositions and maintains commo with supporting/supported units – Ensures FSE can process artillery requests during mvmt and when in position FS NCO/FSE (STP 6-13F14-SM-TG) – Establish FSE Commo (061-284-4221) Co/Tm FIST (STP 6-13F14-SM-TG) – Establish the FIST HQ Commo (061-284-3220)
28. TF Commander sees the battlefield	TF FSO (STP 6-13II-MQS) – Advise the Maneuver Cdr on TACFIRE Operations (01-2770.01-0118) FS NCO/FSE (STP 6-13F14-SM-TG) – Post Info on a Sit Map/Overlay (061-284-1011) – Advise Supported Unit of Friendly FS Capabilities and Limitations (061-284-3004)
30. TF Command Posts track and support the battle	TF FSO (STP 6-13II-MQS) – Coordinate and Request FS from Observers (01-284.00-2026) FS NCO/FSE (STP 6-13F14-SM-TG) – Post Info on a Sit Map/Overlay (061-284-1011)

<u>TASK</u>	<u>OTHER LINKAGES</u>
	– Pass FS Info to Lower, Adjacent, and Higher FA Elements (061-284-3046) – Analyze the Formations of Threat Forces (061-284-4000) – Plan and Coordinate FS to Suppress Enemy AD (061-284-4209)
	Co/Tm Cdr (ARTEP 71-1-MTP)
	– Coordinate and Request FA from Observers (01-2840.00-2026) – Employ Indirect Fire in the Offense (17-2-0401) – Employ Indirect Fire in the Defense (17-2-0402)
	Co/Tm FSO (STP 6-13II-MQS)
	– Coordinate and Request FS from Observers (01-2840.00-2026)
31. TF conducts battlefield update (METT-T based)	TF FSO (STP 6-13II-MQS) – Direct the Evaluation and Dissemination of Intel Reports Using TACFIRE (01-2770.01-0114) – Advise Maneuver Cdr on TACFIRE Operations (01-2770.01-0118) FS NCO/FSE (STP 6-13F14-SM-TG) – Retrieve Artillery Tgt Intel Using VFMED (061-277-4035) – Advise Supported Unit of Friendly FS Capabilities and Limitations (061-284-3004) – Analyze the Formations of Threat Forces (061-284-4000) – Recommend/Disseminate FS Coord Measures (061-284-4040) – Advise Maneuver Cdr on Employment of Tgt Acq Assets (061-284-4211) Co/Tm Cdr (ARTEP 71-1-MTP) – Employ Indirect Fire in the Offense (17-2-0401) – Employ Indirect Fire in the Defense (17-2-0402)

<u>TASK</u>	<u>OTHER LINKAGES</u>
32. TF conducts the decision-making process (accelerated)	TF FSO (STP 6-13II-MQS) – Advise the Cdr on the Capabilities and Limitations of Available Tgt Acq Assets (01-3020.00-7002) – Advise the Maneuver Cdr on Employment of COLTS (01-2840.00-2039) – Advise Maneuver Cdr on TACFIRE Operations (01-2770.01-0118) FS NCO/FSE (STP 6-13F14-SM-TG) – Advise Supported Unit of Friendly FS Capabilities and Limitations (061-284-3004) – Recommend/Disseminate FS Coord Measures (061-284-4040)
34. FSO/FSE coordinates, executes, and controls artillery fire support	See NOTE 1
35. FSO provides assistance and recommendations on artillery fire support	TF FSO (STP 6-13II-MQS) – Interpret Threat Organization and Eqpt (01-2660.00-2004) – Direct the Processing of Special Missions (01-2770.01-0112) – Direct Processing of the Fire Support Request (01-2770.01-0133) – Recommend FS Coord Measures, and Coordinate Fires (01-2840.00-2042) FS NCO/FSE (STP 6-13F14-SM-TG) – Advise Supported Unit of Friendly FS Capabilities and Limitations (061-284-3004) – Analyze the Formations of Threat Forces (061-284-4000) – Recommend/Disseminate FS Coord Measures (061-284-4040) – Advise Maneuver Cdr on Employment of Tgt Acq Assets (061-284-4211)

NOTE 1: The execution of field artillery fires requires technical expertise on the part of both the individual or unit requesting artillery and the agency (FIST or FSE) responsible for processing artillery fires. Although the conduct of these activities will be transparent to the battalion TF commander, the FSO must demonstrate proficiency in order to accomplish the execution of artillery fires. Those tasks require proficiency at the individual level and must be executed to achieve the commanders intent for employment of field artillery are:

TF FSO and Co/Tm FSO (STP 6-13II-MQS)

- Develop a FS Plan to Support an Offensive Opn (01-2660.00-2008)
- Develop a FS Plan to Support a Defensive Opn (01-2660.00-2009)
- Explain Employment Considerations of FA Special Munitions (01-2660.00-2005)
- Advise the Commander on the Capabilities of Available Target Acquisition Assets (01-3020.00-7002)
- Advise the Maneuver Commander on Employment of COLTS (01-2840.00-2039)
- Recommend FS Coordination Measures, and Coordinate Fires (01-2840.00-2042)
- Explain the FA Artillery Planning Process (01-2840.00-2031)
- Apply the FS Coordination Measures (01-2840.00-2025)
- Direct the Establishment of a Fire Plan in the TACFIRE Computer (01-2770.01-0115)
- Organize and Conduct the Operations of the Fire Support Team (01-2660.00-2007)
- Supervise Bn FSE in a TACFIRE Equipped Unit (01-2770.01-0139)
- Coordinate and Request FS from Observers (01-2840.00-2026)
- Direct and Evaluation and Dissemination of Intelligence Reports Using TACFIRE (01-2770.01-0114)
- Advise Maneuver Cdr on TACFIRE Opns (01-2770.01-0118)
- Direct the Processing of Special Mission (01-2770.01-0112)
- Interpret Threat Organization and Eqpt (01-2660.00-2004)
- Direct Processing of Fire Spt Requests (01-2770.01-0133)

TF FS NCO, Co/Tm FS NCO, all FS personnel (STP 6-13F14-SM-TG)

- Prepare and Initialize the DMD (061-273-1001)
- Compose/Transmit a Message Using the DMD (061-273-1004)
- Perform Operator Maintenance on the DMD (061-273-1006)
- Conduct a Fire-for-Effect Mission with the G/VLLD (061-274-2000)
- Conduct a Copperhead Target of Opportunity Mission Using the G/VLLD (061-274-2001)
- Construct a Laser Range Safety Fan for the G/VLLD (061-274-3987)
- Initiate a Fire Request Using the VFMED (061-277-4019)
- Establish/Maintain a FASCAM Fire Plan Using the VFMED (061-277-4026)
- Locate a Target by Polar Plot (061-283-1003)
- Locate a Target by Shift from a Known Point (061-283-1004)
- Request and Adjust Area Fire (061-283-1011)
- Conduct a Suppression Mission (061-283-1013)
- Conduct an Immediate Suppression Mission (061-283-1014)
- Conduct a Fire-for-Effect Mission (061-283-1015)
- Request and Adjust Coordination Illumination (061-283-1021)
- Conduct an Immediate Smoke Mission (061-283-2021)
- Select and Occupy an Observation Post (061-283-2051)
- Request Fire on Irregularly Shaped Target (061-283-2206)
- Prepare and Submit FO Target List (061-283-1011)
- Advise Supported Unit of Friendly Fire Support Capabilities and Limitations (061-284-3004)
- Pass Fire Support Information to Lower, Adjacent, and Higher Field Artillery Elements (061-284-3004)
- Establish the Fire Support (FIST) Headquarters Communications (061-284-3220)
- Execute a Quick Fire Support Plan (061-284-3225)
- Produce a Company Fire Support Plan (061-284-3226)
- Process Forward Observers Target List (061-284-3227)
- Analyze the Formations of Threat Forces (061-284-4000)
- Coordinate Fires (061-284-4022)
- Recommend/Disseminate FS Coord Measures (061-284-4040)
- Plan/Coordinate FS to Suppress En Ad (061-284-4209)
- Advise Maneuver Commander on Employment of Target Acquisition Assets (061-284-4211)
- Establish Fire Support Element Commo (061-284-4221)

All TF leaders and NCOs (STP 21-1-SMCT)

- Call for and Adjust Indirect Fire (061-283-6003)
- Estimate Range (071-326-0512)
- Determine Location on Ground by Terrain Association (071-329-1005)
- Report Enemy Information (071-331-0803)
- Perform Surveillance w/o Aid of Electronic Devices (071-331-0804)
- Send a Radio Message (113-571-1016)
- Recognize Friendly and Enemy Armored Vehicles and Aircraft (878-920-1002)

Co/Team Commanders (ARTEP 71-1-MTP)

- Prepare for Combat (17-2-0101)
- Employ Indirect Fire in the Offense (17-2-0401)
- Employ Indirect Fire in the Defense (17-2-0402)

Bradley Mech Inf Platoon Leaders (ARTEP 7-247-110-MTP)

- Plan and Control Combat Operations (7-3/4-4056)

Tank Platoon Leader (ARTEP 17-237-10-MTP)

- Tank Platoon: Produce a Platoon Fire Plan (17-3-0104)
- Employ Command and Control Measures (17-3-0105)
- Execute a Platoon Defensive Mission (17-3-0225)

PROVIDE COUNTERMOBILITY REFERENCES

FMs

6-20-1	Tactic, Techniques, and Procedures for the Field Artillery Battalion, Nov 90
6-20-20	Tactics, Techniques, and Procedures for Fire Support at Battalion Task Force and Below, Dec 91
6-20-40	Tactics, Techniques, and Procedures for Fire Support for Brigade Operations (Heavy), Jan 90
71-1	Tank and Mechanized Infantry Company Team, Nov 88
71-2	The Tank and Mechanized Infantry Battalion Task Force, Sept 88
71-3	Armored and Mechanized Infantry Brigade, May 88
71-123	Tactics, Techniques, and Procedures for Combined Arms Heavy Forces: Armored Brigade, Battalion/Task Force, and Company/Team, Sept 92
100-5	Operations, Jun 93
101-5	Command and Control for Commanders and Staff (Draft), Jul 92

ARTEPs

6-115-MTP	Mission Training Plan for Field Artillery Cannon Battalion Headquarters and Headquarters Battery; Headquarters, Headquarters and Service Battery; or Service Battery, Nov 90
6-115-20-MTP	Mission Training Plan for the Field Artillery Cannon Battalion Fire Support, Jan 90
7-247-11-MTP	MTP for the Mechanized Infantry Platoon and Squad (M-2 Equipped), Apr 87
7-237-10-MTP	MTP for the Tank Platoon, Oct 88
71-1-MTP	Mission Training Plan for the Tank and Mechanized Infantry Company and Company Team, Oct 88
71-2-MTP	Mission Training Plan for the Tank and Mechanized Infantry Battalion Task Force, Oct 88
71-3-MTP	MTP for the Heavy Brigade Command Group and Staff, Oct 88

STPs

6-13II-MQs	MQS II, Field Artillery Branch (13) Company Grade Officers Manual, Mar 91
6-13F14-SM-TG	Fire Support Specialist (MOS 13F) Soldier's Manual and Trainer's Guide for Skill Level's 1/2/3/4, Sept 93
21-1-SMCT	Soldier's Manual of Common Tasks (Skill Level 1), Oct 90

Center for Army Lessons Learned (CALL) Bulletins

NTC Commanders Memorandum, Nov 85
NTC Lessons Learned Bulletin, Jan 85
NTC Lessons Learned, Sept 86
NTC Commander's Comments - The CS Team, May 87
CALL 88-3: Heavy Forces, Fall 88
CALL 89-1: Non-Mechanized Forces, Spring 89
CALL 90-1: Fire Support for the Maneuver Commander, Feb 90
CALL 90-5: Fire Support Lessons Learned, May 90
CALL 90-7: Winning in the Desert, Aug 90
CALL 90-8: Winning in the Desert II, Sept 90
CALL 93-4: Combat Training Centers (CTCs) Bulletin, Jul 93
CALL 92-4: Fratricide; Reducing Self-Inflicted Losses, Apr 92