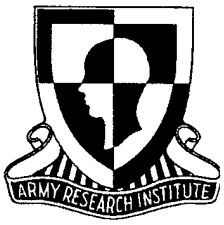

Research Product 96-09

Brigade Commander's Battle Staff Handbook

Charles R. Andre'
BDM Federal, Inc.

Patrick J. Valentine
U.S. Army Research Institute

August 1996

Infantry Forces Research Unit

U.S. Army Research Institute for the Behavioral and Social Sciences

U.S. ARMY RESEARCH INSTITUTE
FOR THE BEHAVIORAL AND SOCIAL SCIENCES

A Field Operating Agency Under the Jurisdiction
of the Deputy Chief of Staff for Personnel

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Research conducted by the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) Infantry Forces Research Unit show that functional area training is typically not available to prepare the maneuver branch officers for their assigned staff duties. The Brigade Commander's Battle Staff Handbook, presented here, offers a partial solution to this problem. This handbook provides commanders with a convenient source of battle staff specific content for immediate use by their staff. This product served as the front-end analysis and task list for the Battle Staff Training System (BSTS), a CD-ROM program designed to meet the needs of the Reserve Component units.

This product, as part of a larger project on staff training, was sponsored by the Defense Advanced Research Projects Agency (DARPA) as a part of the Simulation in Training for Advanced Readiness (SIMITAR) advanced technology demonstration. The work was largely performed by BDM Federal, Inc. under contract to ARI.

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Training Systems and Education

FOREWORD

Research conducted by the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) Infantry Forces Research Unit shows that staff functional area training is typically not available to prepare maneuver branch officers for their assigned staff duties. The *Brigade Commander's Battle Staff Handbook*, presented here, offers a partial solution to this problem. The handbook contains an overview of brigade staff functional areas with a reference list for each position. The handbook provides the new staff officer sufficient information to learn the rudiments of the various staff functional areas. The handbook also describes how the staff positions relate to one another and how to synchronize supporting staff plans for tactical operations.

This product, as part of a larger project on staff training, was sponsored by the Defense Advanced Research Projects Agency (DARPA) as a part of the Simulation in Training for Advanced Readiness (SIMITAR) advanced technology demonstration. The work was largely performed by BDM Federal, Inc., under contact to ARI.

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BRIGADE COMMANDER'S BATTLE STAFF HANDBOOK

CONTENTS

Brigade Commander's Battle Staff Handbook

The battle staff 's primary function is to assist the commander in the synchronization and integration of the unit's operations. All members of the commander's battle staff must be trained in the responsibilities of their functional area and have a working knowledge of the other functional areas. Functional area training is essential, since it provides the foundation upon which a battle staff builds integrated and synchronized actions supporting the commander's intent.

> *Synchronization within the Army tenets of operations is the arranging [of] activities in time and space to mass at the decisive point. For example, integrating the activities of intelligence, logistics, and fire support with maneuver leads to synchronized operations. It means that the desired effect is achieved by arranging activities in time and space to gain that effect* (Department of the Army, 1993).

Thompson, Thompson, Pleban, and Valentine (1991) reported there was a lack of systematic staff functional area training available to prepare maneuver branch officers to perform their duties on battalion or brigade battle staffs Recent evidence shows the absence of staff functional area training continues to have a negative impact on mission performance. The lack of strong battle staff skills is often noted by the Center for Army Lessons Learned (CALL) which regularly publishes observations of the observer/controllers (O/Cs) from the combat training centers (CTCs). These reports provide feedback to commanders and their battle staffs as a means to enhance unit performance. Combat Training Center Bulletin NO. 95-1, Feb. 95 states "Frequently, commanders and staffs do not effectively develop, update, and use synchronization tools to assist in fighting the battle. Prepared tools are not routinely updated or used at the C2 nodes to track the battle. This is closely linked to the unit's inability to effectively integrate their staffs (CALL, 1995a)."

Similar findings have been published by the Battle Command Training Program at Fort Leavenworth in its CTC Trends *Perceptions II, FY 95* which focuses on brigade command and battle staff training. In *Perceptions II* they say, "Mismanagement of information results in poor situational awareness and commanders not having the facts they need to make critical decisions". They also note, "Commanders and staffs do not demonstrate the ability to apply the process to develop a doctrinally correct order" (CALL, 1995d).

In the Joint Readiness Training Center (JRTC) *CTC Trends* publications, staff coordination and synchronization continue to be a major issue requiring O/C attention and command emphasis:

> *Other than with the S2 and S3 sections, the chemical staff rarely coordinates with other staff sections, i.e. S1, S4, S5, CA/PSYOP, engineer, air defense, etc., on NBC functions and operations....Battalion XOs and S3s do not fully synchronize the staff in planning, preparation and execution of missions* (CALL, 1995b).
>
> *Staffs do not always track Commander's Critical Information Requirements (CCIR), or critical events that impact on the brigade commander's "read" of the battlefield....Battalion S1s and S4s continue to have difficulties developing the combat trains into an alternate command post* (CALL,1995c).

These O/C comments are typical of recent CALL observations continuing to document the need for functional area training of battle staffs within the maneuver battalions and brigades.

ARI is conducting a multi-year research program to better understand and improve basic staff performance. One of the first products from this program was the *Battalion Commander's Battle Staff Handbook*. This handbook is a pocket-size job aid designed to assist integration and synchronization within and among staff sections (Pleban, Thompson, & Valentine, 1993). The *Brigade Commander's Battle Staff Handbook* is a follow-on to the battalion version. The content of the *Brigade Commander's Battle Staff Handbook* was also used as the basis for the Battle Staff Training System (BSTS), a CD-ROM based program designed to meet the reserve components' staff training needs.

The organization of the *Brigade Commander's Battle Staff Handbook* parallels the functional area structure of the battle staff and is divided into 15 sections. The first 13 sections address specific staff functional areas. The last two sections provide an overview of a common core of subjects and an acronym list. The common subjects can be used by the commander as a point of reference from which to develop training for the battle staff. The 15 sections are shown below along with representative content from one of the sub-sections. The first thirteen sections have an internal sub-section structure including the introduction, assets, duties, staff coordination, actions during planning, actions during preparation, actions during execution, conclusion, and reference list.

Position	Representative Content
XO	Enforces SOPs--the 1/3-2/3 rule, monitors the battle, supervises planning--main CP--unit readiness, ensures logistical support
CSM	Directly responsible to Cdr, keeps staff informed on soldier status, exact role dependent on Cdr's intent
S1	Responsible for noncombatant matters--personnel readiness--personnel services support--organizational climate--personnel estimate
S2	Updates PIR--intelligence products, conducts R&S rehearsals, attends fire support and combined arms rehearsals
S3	Ensures main CP tracks battle--Division is informed, OPORD is executed IAW Cdr's intent, monitors adjacent units' progress, submits reports per SOP, anticipates changes required and prepares the FRAGO
S4	Primary sustainment responsibility, works closely with Cdr/staff, needs to know -- mission statement--CCIR--Cdr's intent--rehearsal schedule--control measures
S5	Recommends CA operations--PSYOP missions, assesses OPSEC countermeasures--potential civilian interference--civilian assets, prepares CA portion of log annex
FSO	Coordinates ammunition requests/resupplies--Bn FSO's fires with Bde, synchronizes all fire missions (e.g., USAF, ADA, engineer, and FA)
Eng	Coordinates enemy and combined obstacle overlays--event template--R&S plan, prepares engineer estimate, recommends target planning for FASCAM--ADAMS/RAAMS--obscuration
ADO	Advises Cdr when ADA status changes impact on mission, passes attack warning--weapons control status to subordinates, monitors and coordinates ADA resupply, keeps S2 apprised of enemy air destroyed
SIGO	Advises on all C-E matters--TACSAT and AM use, coordinates deception operations--frequency allocations--use of secure equipment
CHEMO	Focuses on operational effectiveness of friendly NBC employment--dangers associated with anticipated enemy use of NBC, with the S4 to ensure chemical defense equipment is prepositioned forward
CHAPLAIN	Provides the Cdr with religious support plan--special accommodations humanitarian issues arising from indigenous groups, coordinates religious assets
COMMON SUBJECT	Operations--fundamentals of defense--of offense, maneuver BOS, fire support BOS, ADA BOS, CSS BOS (battle staff integration)
ACRONYM LIST	Self explanatory

The content for each functional area was based on a review of Army doctrine and technical manuals applicable to each functional area. The review resulted in the draft product which was submitted for comment to National Training Center O/Cs. Their comments were then incorporated into this final product. This handbook can be used in conjunction with the Battle Staff Training System providing the individual battle staff member and collective battle staff a sound foundation of the functions and techniques required to synchronize operations.

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Appendix A

Research Product

Brigade Commander's Battle Staff Handbook

August 1996

U.S. Army Research Institute
Infantry Forces Research Unit

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Table of Contents

PREFACE

This Research Product, prepared for the Chief, Infantry Forces Research Unit, Army Research Institute, Fort Benning, Georgia presents information for the maneuver brigade commander and staff to consider. It provides information to determine staff functional capability, assess staff actions, and provide fundamental references for inexperienced staff officers. It describes the core duties of brigade staff officers and liaison officers from key attached/OPCON/DS units serving on the brigade battle staff.

Feedback from field commanders, combat training center (CTC) observations, observations gathered and related by experienced commanders and battle staff officers, and research conducted by the U.S. Army Research Institute for the Behavioral and Social Sciences supports the need for staff training at the brigade level. The results of this effort have been published in ARI Research Report 1607 (December 1991) Battle Staff Training and Synchronization in Light Infantry Battalions and Task Forces. Current officer training programs do not systematically provide necessary functional area skills. The Brigade **Commander's Battle Staff Handbook, modeled after the (Battalion) Commander's** Battle Staff Handbook serves as an interim tool to meet this critical requirement.

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Unless otherwise stated, whenever the masculine gender is used, both men and women are included. Most staff duty positions in maneuver brigades and liaison positions from attached/OPCON/DS units are generally restricted to men. However, as DOD policy on combat exclusion of women is under review this may not always be the case.

INTRODUCTION

To The Commander

The material in the **Brigade Commander's Battle Staff Handbook** was prepared through reviews of relevant staff materials provided by TRADOC branch schools, interviews with subject matter experts, and from the assessment of unit operations from the combat training centers. You have learned to synchronize your combat power during your experience at Fort Leavenworth, at the Tactical Commander's Development Course, and you have come to realize that you will have staff officers with a wide variety of experience, but not necessarily any that prepares them to fill their staff specific assignments. The purpose of the **Brigade Commander's Battle Staff Handbook** is to give you a tool to help you lead, train, and use your staff more effectively. This handbook is, at best, an introduction to staff functional skills. It can never replace formal functional area training, but it will get you and your staff officers started. The information contained in the handbook will provide you and your battle staff with what they should know to begin functioning as a team. Encourage the staff officers to read and study their professional library, listed in the reference section for each staff position.

To The Commander and Staff

The one issue continually raised during interviews with subject matter experts is the need to include the entire battle staff, to include liaison officers from attached/OPCON/DS units, in the planning process. The Fire Support Officer, Engineer, and ADA liaison officers are key members in the planning process. The checklists provided in this handbook depict the staff' officer's responsibilities in the planning process and can be used to encourage active participation in planning and preparing for combat operations by the entire battle staff.

The **Commander's Battle Staff Handbook** provides a brief description of the battle staff to include liaison officers from units normally assigned in support of the brigade in a typical task organization. Duty descriptions consider interaction across staff sections to portray how staff activities are coordinated to support planning and preparation for the execution of combat operations. Recommendations for the commander and battle staff officers are included in the form of checklists, to serve as memory joggers.

Clearly, the staff's purpose is to serve the commander by meeting his requirements to plan, prepare, and execute combat operations. Given the staff is to serve the commander, and the commander's span of control would be excessive if he dealt with each staff officer independently, the XO in his "chief of staff" role coordinates and synchronizes the activities of the battle staff. Except as required by the commander, all staff officers/LOs work through the XO to the commander. In the event a staff officer provides information/recommendations/receives decisions from the commander, he will backbrief the XO.

Purpose

The **Commander's Battle Staff Handbook** is a reference document, not a complete training program. It can serve as the Brigade commander's guide to critical staff functional duties in the planning, preparation for and execution of combat operations. It can also be used to give the brigade's new staff officers a starting point to learn their own responsibilities since functional area references are provided. This handbook is not intended to replace functional area skills training and the valuable experience acquired during battle staff training and field exercises. It can, however, be the supportive first step for the enthusiastic staff officer who lacks initial knowledge and comprehension about his duties. It is not intended to be a tactical guide for operations, and it certainly is not intended to be a guide for commanding a maneuver brigade. For the commander, it is intended as an intervention to offer basic staff functional area information to inexperienced staff members. For the staff officer it is a quick reference for the first few days on the job and when there are critical time pressures. It breaks the initial "fog" around what you must do and what the rest of the staff does. The commander and staff will gain the maximum benefit from reading the entire handbook. The commander and staff should gain an appreciation of how each member of the battle staff fits into the planning, preparation and execution phases. The handbook also shows interaction between staff sections during the different phases in preparation for combat; for example, the role of each staff section in the IPB process is explained in the handbook. For new staff officers, the handbook also provides references needed to perform their duties as members of the brigade battle staff.

Success on the battlefield will depend on your ability to fight according to the basic tenets of Army Operational doctrine: Initiative,

Agility, Depth, Synchronization, and Versatility. As such, a section on Common Subjects and staff specific warfighting tasks have been included. Research has shown that battle staff officers require a foundation in these doctrinal concepts to effectively perform as a member of the battle staff. Your staff officers must also have functional area knowledge and comprehend the related responsibilities of other staff sections in order to integrate staff actions. Applying acquired knowledge during exercises will build experience and staff functional integration.

Organization

The handbook is organized by traditional staff positions, not by Battlefield Operating Systems (BOS). However, the Common Core subjects have a section organized by BOS that can be the foundation for all battle staff officers.

Brigade Battle Staff. The battle staff consists of: XO, CSM, S1, S2, S3, S4, Signal, Chemical and Chaplain. Also includes liaison officers from units normally task organized with the brigade for combat operations: S5/CMO, Fire Support Officer, Engineer, and Air Defense Liaison Officer.

Higher Headquarters. There are few separate brigades remaining in the Army force structure and most brigades will conduct combat operations under the command and control of a division. Therefore, division is used throughout this handbook as the higher headquarters for the brigade. Separate brigades and regimental cavalry can expect to operate under the command of a corps, a sister service headquarters, a coalition headquarters or as a subordinate of a Joint Task Force (JTF) in future conflicts.

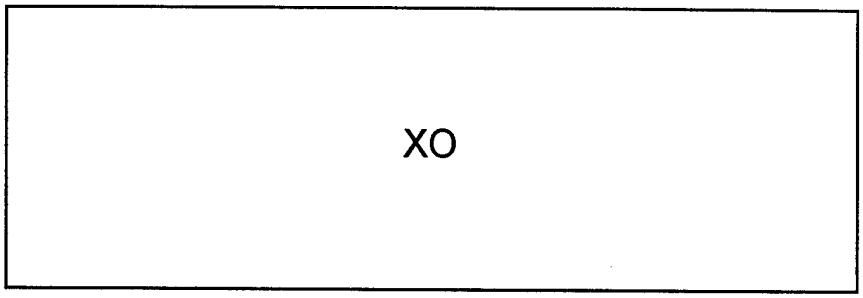
Checklists. Checklists appear in boxes for quick reference by the user. When a checklist is continued on the next page a dotted line is used to indicate continuation.

Definition of Battle Phases

Planning Phase. Starts with receipt of the FRAGO, Warning Order or receipt of a division OPLAN or OPORD. It includes all actions the staff takes in preparing a brigade FRAGO, OPLAN or OPORD and ends with the publication of the brigade FRAGO, OPLAN, or OPORD and the backbrief that follows.

Preparation Phase. Starts with the completion of the initial briefbacks by subordinate units. It includes: briefing of the order to subordinate units; rehearsals; continued refinement of the order based on changes from division, those made during the rehearsals or changes based on enemy actions; and, coordination with division and subordinate units to synchronize the operation. This phase ends with mission time or contact with the enemy (when the brigade commences to execute the order).

Execution Phase. Starts when the brigade commences to execute the order, includes consolidation and reorganizations, and ends when the brigade completes the mission assigned or receives a change of mission from division.


XO

INTRODUCTION

The XO is second in command of the brigade. He is the 2IC and "Chief of Staff" of the brigade, and as such, he is the brigade's information manager and must be prepared to assume the duties of the commander at all times. It is important that the commander clearly communicate the roles and responsibilities of the XO during the planning, preparation and execution phases in preparation for combat operations. The XO performs a variety of functions for the commander that include the above two roles as well as senior logistician, staff trainer, and the leader of the staff planning process. He is responsible for assigning tasks to the staff for the efficient, coordinated, prompt response of the staff in support of the commander. The XO supervises the main CP and is responsible for the operations of the Main CP. The XO directs and coordinates the staff, CS in consonance with the commander's intent, and ensures continuous CSS. He remains current in the tactical situation. The XO is involved in rear operations because of his duties of coordinating the staffs of the main and rear CPs.

ASSETS

Although the battle staff is directly responsible to the commander, the battle staff responds to direction and tasking from the XO during the planning, preparation, and execution phases of operations. This includes the coordinating, special staff officers, and liaison officers from attached/OPCON/DS units.

PRIMARY XO DUTIES

During continuous combat operations, the commander must position himself on the battlefield where he can best see, influence, and command the combat operations of the brigade. The commander cannot always be present at the Main CP during the planning and preparation phases; therefore, the XO oversees the battle staff. The XO must be totally aware of the roles and responsibilities of each member of the brigade battle staff in the staff planning process.

The XO has primary responsibility for the following areas:

- Establishing and enforcing staff procedures
- Ensuring the commander and the staff are informed on matters affecting the command and individual staff responsibilities
- Assembling and supervising the staff during the decision-making process ensuring a coordinated and synchronized plan
- Ensuring information flow between the staff and commander on staff recommendations, commander's intent, CCIR, and the commander's decisions
- Establishing and enforcing planning timelines (1/3-2/3)
- Establishing the required liaison
- Supervising the main CP and its operations
- Monitoring the overall battle, supervising planning of follow-on operations and directing compliance with the commander's intent
- Serving as the material readiness officer and supervising unit readiness
- Representing the commander (when required) and supervising the main CP and its operations
- Displacing the main CP
- Enforcing standing operating procedures
- Supervising deployment of the brigade
- Ensuring adequacy of the brigade's logistical support
- Duties as assigned by the commander

STAFF COORDINATION

The XO is directly responsible to the brigade commander to ensure all staff actions are coordinated, synchronized, and supervised.

PLANNING

The XO oversees and is actively involved in the staff planning process. During continuous operations, the XO must continue to monitor the ongoing operation while overseeing the planning for the future operation.

Critical planning activities performed by the XO include the following:

- Ensures staff responsibilities and tasks are clearly assigned and IAW capabilities
- Enforces standing operating procedures (SOPs) and policies
- Serves as the task master
- Prepares and enforces the time schedule for production of plans and orders
- Ensures tactical plans meet the commander's intent and contain sufficient detail
- Ensures staff synchronization is affected through wargaming, briefbacks, rehearsals, and frequent commo
- Ensures tactical plans are logistically supportable
- Prepares to assume command (if required)

During the mission planning phase, the XO performs the following key tasks:

- Reviews and understands the division operations order (especially commander's intent)
- Leads the battle staff in the mission analysis process
- Analyzes planning and preparation time
- Ensures a written, detailed timeline is prepared for the staff to follow
  - Computes amount of time available from time of receipt of mission to time of execution
  - Estimates the total time required for the commander and the staff to gather information, process it, make a decision, and produce/issue the order
  - Computes the amount of time available to move the brigade to the point of execution and to conduct rehearsals
- Develops (with the S3 or the Assistant S3) the restated mission for the commander's approval
  - Ensures only the tasks essential to the mission are contained
  - Ensures the purpose agrees with the division commander's purpose
- Reviews the area of operations and the area of interest with the S2 to ensure a thorough understanding of the division's mission and the brigade's tasks
- Analyzes acceptable levels of stated and implied risks
- Oversees and ensures the entire staff participates in the IPB process
- Clarifies with division any points of uncertainty in the division order
- After receiving approval of the restated mission and the commander's intent, directs the staff in COA development and wargaming
  - Ensures the entire staff is involved and that coordinated, supportable COAs are developed (driven by enemy COAs)
- Ensures brigade warning orders are issued, as required
- After approval of a COA by the commander, oversees the battle staff's preparation of the operations order
- Ensures the brigade order is delivered to subordinate units in a timely manner IAW established timelines
- Recommends to the commander a time and place for the orders brief and rehearsal

PREPARATION

The XO ensures the battle staff coordinates the plan, as written, with the staffs of subordinate and supporting units. Since plans and orders may be revised during the preparation phase due to changes in METT-T or due to direction from division, the XO ensures that all changes are well coordinated and provided to subordinate units. The XO ensures the staff prepares the briefbacks and rehearsals so that time is not wasted. Depending on time available, the XO should conduct a rehearsal of the battle staff for the upcoming operation.

Specific XO duties during the preparation phase may vary based on METT-T, strengths and weaknesses of the battle staff, and whether or not the brigade is in continuous operations.

The following are critical tasks the XO must perform during the preparation phase:

- Ensures the staff assists and coordinates with external, subordinate, and supporting units in their planning and preparation
- Ensures the battle staff maintains continuous coordination with the division staff for possible changes and updates
- Ensures the staff publishes and distributes changes to the plan based on changes from division, the results of the brigade combined arms rehearsal, and changes to METT-T
- Keeps the commander informed of CCIR, logistics, personnel or any other constraints that will affect the brigade's capability to accomplish the mission
- Ensures the staff quickly and efficiently plans for and accepts attached/ OPCON/DS units
- Rehearses the CPs for the mission
- Ensures liaison is sent to and received from required units
- Attends combined arms rehearsal; others, as required

EXECUTION

During execution, the normal role of the XO is to be positioned in the Main CP to oversee the operations of the battle staff. His location during execution may vary depending on the location of the brigade commander and duties assigned by the commander. The XO monitors the battle, prepares for future operations, anticipates brigade requirements in terms of additional assets/supplies/fire support, keeps the division staff informed of the brigades's tactical situation, and is ready to assume command if required. He assists the commander in synchronizing the battle and directs the actions of the brigade targeting team at the main CP.

Critical tasks the XO performs during the execution phase include the following:

- Oversees the operation of the main CP
- Monitors the battle
  - Enforces reporting requirements
  - Relieves the brigade commander of routine tasks by keeping the division staff informed of the tactical situation
  - Assists in synchronizing the battle by directing the efforts of the brigade targeting team
  - Based on changes in the situation, makes recommendations to the commander and directs the staff in accomplishing the commander's decisions
- Anticipates requirements for current and future operations
  - -Requests additional assets or fire support from division
  - -Redirects logistical support based on the tactical situation
- Ensures the battle staff provides required reports to division
- Ensures the intelligence estimate is continually refined and subordinate units are provided timely, updated intelligence information
- Keeps the commander informed of any constraints (e.g. combat power and time available)
- Maintains liaison with adjacent units and keeps the commander informed of results
- Controls the actions of the targeting team
- Synchronizes the battle

CONCLUSION

The XO, as the 2IC and "Chief of Staff" of the brigade, is key to the overall success of the brigade. He is, in effect, the brigade commander's right hand man. To ensure the XO can accomplish his tasks, he must have an understanding of his roles and tasks. The following information check list is provided to clarify his responsibilities and relationship to the commander and staff.

What the XO needs to know from the brigade commander:

- The brigade commander's expectations of his roles
- Responsibilities in Main CP operations
- Relationship with the S3
- Decision making authority delegated to the XO
- Commander's intent and guidance
- Commander's leadership and warfighting philosophy

What the brigade commander needs to know from the XO:

- Operating policies and procedures
- Coordinated staff recommendations
- Current status of CCIR and CBT, CS, and CSS assets within the force
- Status of available resources
- Unit Status Report
- Material readiness
- Constraints that will effect combat operations

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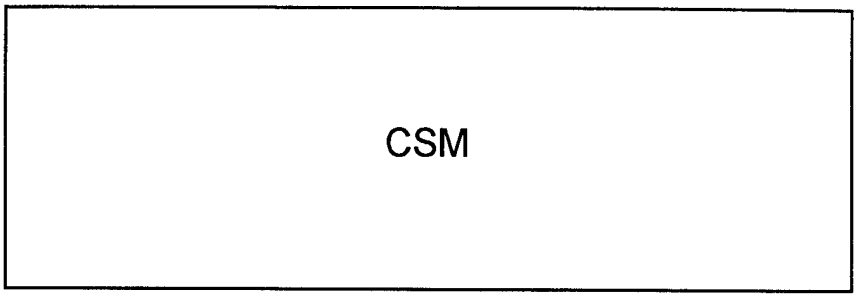
CSM

INTRODUCTION

The CSM is the senior NCO in the unit. He keeps the commander advised of potential situations, procedures, and practices affecting the individual training, welfare, morale, job satisfaction, and use of the brigade's enlisted soldiers. He is not an administrator, but he understands the administrative, logistics, and operational requirements of the brigade. He is the most experienced enlisted soldier in the brigade and keeps his fingers on the pulse of the command. The CSM receives taskings from the brigade commander and acts as a trouble shooter for the commander. He can focus attention on functions critical to the success of the operation. Although the CSM does not establish policy, he advises the commander on the establishment of policies. The commander/CSM team, to be effective, must establish a relationship based on respect and mutual trust.

ASSETS

The brigade staff supports the CSM in accordance with the guidance and direction provided by the commander. The CSM's influence is based on his experience and an established working relationship with subordinate unit CSMs. He must establish an open channel of communication and a close relationship with his fellow divisional, brigade, and battalion CSMs and actively incorporate, where appropriate, their experiences into his day-to-day activities. This will ensure the brigade's enlisted soldiers receive the benefits of this experience, which should translate into more effective unit performance.

The CSM is a valuable asset to the remainder of the brigade staff members because of his understanding of the enlisted soldier . Since the CSM monitors the pulse on the unit, he can provide valuable advice to battle staff members as they prepare orders and directives that will effect the soldiers of the command. The entire battle staff should be encouraged to seek the CSM's advice on all matters pertaining to training, morale, and maintenance of individual and crew served equipment including vehicles.

PRIMARY CSM DUTIES

Educational Responsibilities

The CSM is the leader, counselor, advisor, and teacher of NCOs through the Noncommissioned Officer Development Program. As the senior enlisted member of the unit, the CSM must stay abreast of changes to the NCO education program and keep the commander, staff, and enlisted corps of the command informed. He ensures the NCOs attend NCOES courses for professional development The CSM has a key role in providing the commander with valuable feedback during the training management cycle. He coaches, mentors, and assists subordinate NCOs on the training management process and is the key to effective performance oriented training. The CSM assesses the state of and keeps the commander informed of the individual task training proficiency of the command

Unit Policy

The CSM makes recommendations to the commander regarding assignments, discipline, training, awards and decorations, and uniform regulation pertaining to enlisted soldiers of the command. He supports the morale policies and welfare program established by the commander and assists the commander in formulating policies and programs to ensure activities are conducted in proper perspective and without prejudice. He ensures that an effective brigade sponsorship program is established which requires that a sponsor be assigned to each new arrival to assist with the inprocessing of the soldier and his family. He is responsible for accurate and timely accomplishment of suspenses and status reports of his section. He looks out for all attachments to the section and makes them feel a part of the team.

Tactical Functions

The CSM monitors the security and defense of command posts. He advises the commander on the ability of subordinate units to accomplish tactical missions. He is also familiar with all phases of war, understands brigade through squad collective tasks, and is a master of the basic soldier skills required in combat. The CSM oversees the proper routine during the tactical feeding period paying particular attention to ensuring all members get their fair share. He monitors EPW operations,

the timely, effective and dignified evacuation of casualties, and the supply system to ascertain that soldiers receive the supplies needed to accomplish the mission watching out for their welfare

Senior Leader Responsibilities

The CSM receives taskings from the brigade commander and acts as a trouble shooter. His vast experience and knowledge of enlisted soldiers make him an ideal problem solver for the commander. He provides guidance and wise counsel to 1SGs and NCOs of the command and monitors the level of stress in soldiers and recommends actions to maintain the fighting spirit of the command. He assists the commander in maintaining high standards of discipline and conduct and keeps the commander advised on the state of discipline and conduct of soldiers in the brigade. He is knowledgeable of all welfare functions and participates in unit activities.

STAFF COORDINATION

The CSM is directly responsible to the brigade commander. He is the senior noncommissioned officer in the brigade. The CSM can be a valuable asset to staff members during all phases of every mission. He can provide advice to the staff during the planning phase based on his knowledge of the brigade and the soldiers of the brigade. The exact role he performs during planning, preparation, and execution is dependent on the commander's desires. The commander will define the role and taskings of the CSM to ensure a unity of effort between the commander, the CSM, and the staff. It is also important that the authority given to the CSM by the commander be announced to the brigade so that the entire command understands the role and authority the CSM exercises within the command.

PLANNING

The CSM is an active member during the planning phase. The staff, especially the S3, S1, and S4, should seek his advice as they develop COAs. The CSM should monitor the planning process.

Key actions of the CSM during the planning phase are as follows:

- Assists in enforcing standing operating procedures and policies
- Provides feedback to the commander
- Monitors the status of the command
- Advises the staff on:
  - Training status of the command
  - Discipline of the command
  - Morale of the command
  - Supply shortages that affect soldiers
  - Overall maintenance status of individual and crew equipment
  - Key shortages that are affecting units ability to perform missions
  - Ability of subordinate units to accomplish proposed tasks

PREPARATION

During the preparation phase, the CSM is especially valuable as a problem solver for the commander. In this role, the CSM can obtain and provide information needed by the staff to complete their preparations. The role of the CSM during the preparation phase depends on the tasks assigned by the brigade commander. However, the CSM should continue to offer advice and expertise to the staff while the plan is being written. Once a warning order is issued, the CSM can provide the staff advice on the status of units. The CSM conducts visits to units to ensure proper troop leading procedures are being employed, resupply actions are underway, replacements are being integrated, and attached/OPCON/DS units are being properly integrated and accepted into the brigade. These visits can provide valuable information to the staff as they prepare the plan.

EXECUTION

The CSM is another set of eyes and ears for the commander during the execution phase and provides valuable feedback to the commander and staff. During the execution phase, the CSM performs duties as tasked by the brigade commander. His duties are dependent on many variables, to include: METT-T, type of operation being conducted,

status of logistics preparations, and need for visibility at critical points on the battlefield.. The CSM may, for example, perform critical liaison functions with adjacent units, supervise activities at a breach or ford site, meet and escort units being attached to the brigade during a segment of the operation, locate with the command group of a subordinate unit assigned a difficult mission, and supervise decontamination operations to ensure units are expeditiously returned to the battlefield. The CSM can also be used as a trouble shooter during the execution phase. In this manner he can represent the commander in identifying problems and take immediate action to solve them as required.

CONCLUSION

The CSM has no conflicts of interest. He is dedicated to assisting the commander in directing the unit towards the successful accomplishment of the mission. To ensure that the CSM is effectively utilized, the following information checklists are provided.

What the CSM needs to know from the brigade commander:

- Commander's intent
- How the commander plans to use him
- Command philosophy
- The commander's expectations of the CSMs role
- Commander's likes and dislikes
- Command focus

What the brigade commander needs to know from the CSM:

- Training status of unit
- Changes in NCO educational training programs and opportunities
- Welfare and morale of enlisted members within brigade
- Administrative recommendations regarding assignments, discipline, training, awards and decorations, and uniform regulation relevant to enlisted soldiers of the command
- Input on equal opportunity policies established within the unit
- Potential combat technical and tactical deficiencies in the unit and suggestions for improvement

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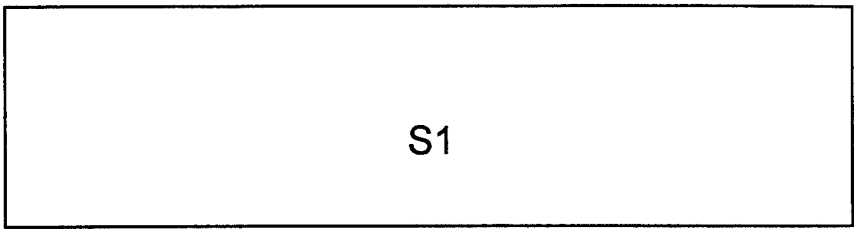
S1

INTRODUCTION

The S1 is the brigade's personnel manager. His role has two parts. The functional role of the S1 consists of supervising and coordinating the unit's personnel and administration systems. In addition, he is also entrusted with the traditional role of the adjutant, serving the commander across a wide range of activities.

The S1 coordinates between battalions and separate companies of the brigade and the division G1 and division AG. He manages personnel actions which flow from the battalions to the AG. Additionally, the S1 performs the personnel functions of division special staff officers which do not have counterparts on the brigade staff (e.g., PAO).

The S1 has primary staff responsibility in the following areas:

- Unit strength management
- Personnel services support
- Discipline, law and order
- Safety and accident prevention
- Morale support activities
- Headquarters management

The S1 is also the medical services planner for the brigade. He coordinates the activities of various special staff sections including PAO (if assigned), chaplain, SJA, and surgeon. He is the brigade's POC for the division AG, IG, Finance; Civil Affairs as pertains to caring for civilian internees/detainees. The S1 operates in the brigade rear CP and is collocated with the S4 section. The S1 and S4 sections cross-train to enable them to conduct continuous operations in the brigade rear CP.

ASSETS

The PSNCO, administrative specialists, and legal clerk assist the S1 in the execution of his duties. It is advisable to collocate the surgeon, chaplain, and SJA with the S1 section to enable efficient coordination of all personnel matters. The S1 section at the BSA performs strength accounting, casualty reporting, replacement operations, personnel actions functions, rear CP functions, administrative, postal, legal, and finance services.

PRIMARY S1 DUTIES

The Adjutant

As the adjutant, the S1 helps to develop and maintain the brigade commander's daily schedule by:

- Knowing where the commander is at all times
- Scheduling visitors from outside the brigade
- Scheduling appointments, briefings, and meetings to avoid conflicts including:
  - Award and promotion ceremonies
  - Courts-martial
  - Inspections
  - Schedules command and staff calls
- Providing times and dates important to the commander such as awards and promotion ceremonies, courts-martial, briefings, meetings, and inspections
- Providing scheduled leaves/TDY for all key personnel

Additional S1 responsibilities to the commander

In addition to time management, the S1 assists the commander in other ways as well.
These additional responsibilities include:

- Reviewing all correspondence for content and accuracy
- Serving as both a conduit and expediter of information
- Maintaining a policy book that contains the policies from higher headquarters
- Providing assistance and clarification in such areas as personnel status, assignments, and administrative matters, pointing out deficiencies, shortcomings and problems
- Ensuring the commander is informed on key personnel matters
- Ensuring administrative readiness (POM) of troops for deployability
- Supervising the brigade's morale, welfare, and recreation programs
- Managing the brigade stress management program

Unit Responsibilities

The S1 typically manages a number of unit programs to include:

- The cup and flower fund
- Social activities and ceremonies
- The unit hometown news release program
- The stress management programs in the unit
- Health programs
- The brigade's weight control program
- Represents the commander at the installation morale support fund meetings
- The commander's safety program
- The brigade's alcohol and drug abuse prevention and control program
- Works closely with the S3 and CSM in the establishment and maintenance of effective civilian educational programs for all soldiers

Family members

The S1 takes an active role in the care and support of family members in the unit.

- He monitors the status of sole parents and married service couples (family care plans)
- Ensures that the PSNCO knows his responsibilities for noncombatant evacuation operations when required
- Ensures that soldiers and their spouses know what services the legal assistance and claims offices provide
- Ensures the unit's soldiers and families know of all the quality of life services available to them
- Monitors the family support groups for the commander
- He is familiar with US government and local policies governing marriage overseas, passports, and citizenship
- Supervises the brigade's sponsorship program
- Makes sure soldiers and families know what services are available from the Red Cross
- Provides a liaison between the unit and Army Community Services
- Distributes information to soldiers and families about child development services on the installation

The S1 is also responsible for ensuring the following functions are accomplished accurately, smoothly, and efficiently. The accomplishment of these functions is critical for the effective management of combat essential personnel information.

Replacement operations. Replacement operations include the coordinated support of housing, feeding, security, and delivery of replacements and RTD soldiers. Replacement operations include orders issuance, personnel accounting, logistical support, processing and transportation. Replacement operations depends on the strength management function for information on where to deliver replacements and RTD soldiers.

Strength management. Strength management assesses an organization's combat power, plans for future operations, and assigns replacements on the battlefield. Strength management predicts the need for replacements and provides a mixture of individuals and small units.

Strength management depends entirely on the personnel accounting and strength reporting function to provide critical strength information to support the information requirements of the current battle. Strength management depends on personnel data base management to support the information requirements of the future battle.

Personnel accounting and strength reporting. Personnel accounting and strength reporting accounts for soldiers, reports their duty status, and serves as the foundation for critical battlefield decisions. Personnel accounting and strength reporting depends on personnel data base management for the necessary tools to manage the reconciliation process.

Casualty management. Casualty management encompasses two functions: casualty operations and casualty management. Casualty operations records, reports, and accounts for casualties promptly and efficiently. Casualty operations uses postal operations as the means for redirecting the personal mail of soldiers who become casualties. It depends on TF personnel accounting and strength reporting to locate soldiers who have been evacuated. Casualty management coordinates the personnel and logistical processes involved in casualty management at all levels.

Personnel information management. Personnel information management provides a record of critical personnel information about soldiers to support battlefield decisions and to meet the nation's obligation to retain historical information for its veterans. Personnel information management also provides a manual source of information on skills, grades, numbers, and physical limitations as a backup to the electronic personnel data base.

Personnel data base management. Personnel data base management consolidates current and projected personnel information on soldiers and units in a number of command data bases (SIDPERS). This information serves as the basis for command decisions and projected battlefield requirements. Personnel data base management depends on personnel information management and personnel accounting and strength reporting for information from which to update the data base.

Postal operations. Postal operations manages and operates a postal network to move, deliver, and collect mail in the deployable force. It delivers official mail, including critical spare parts and medical supplies, and provides an alternative delivery system for personnel information. Postal operations depend on the personnel accounting and strength reporting functions to know where soldiers are on the battlefield, and the casualty function to determine the status of casualties and redirect their mail.

Awards and decorations. The S1 receives recommendations for awards and decorations with witness statements, processes the recommendations, obtains the commander's approval, and forwards them to higher headquarters for approval/final action.

Key staff responsibilities include:

- Serves as assistant OIC of the Rear CP in the BSA
- Conducts personnel accounting and strength reporting
- Maintains the SIDPERS database
- Conducts deployment strength accounting
- Maintains status of nondeployable personnel
- Maintains duty rosters
- Manages office systems
- Supervises civilian personnel
- Manages EPWs
- Plans and conducts rear detachment operations
- Plans and supervises preparation for overseas movement (POM)
- Supervises religious activities
- Conducts medical planning
- Conducts casualty management
- Conducts replacement operations
- Conducts postal services
- Supervises administration of UCMJ
- Plans and executes morale, welfare, and recreation activities
- Prepares and processes awards and decorations

STAFF COORDINATION

As a staff member, the S1 must work closely with other staff members to:

- Facilitate and monitor the accomplishment of command decisions
- Provide timely and accurate analysis and information to the commander and subordinate units
- Anticipate requirements and maintain current estimates (personnel and loss rate)
- Develop portions of the CSS annex
- Recommend replacement priorities
- Determine and recommend courses of action to achieve mission accomplishment
- Prepare plans and orders

The S1 coordinates with the S2 for interrogating prisoners and with the S4 for processing captured equipment and planning transportation requirements. The S1 also coordinates with the brigade surgeon and the FSB medical operations officer to ensure that patient treatment and evacuation, to include additional transportation requirements are planned and coordinated throughout the brigade area. The S1 also coordinates for religious support with the brigade UMT section. He also performs the duties as the brigade public affairs officer since a PAO is not normally assigned to a brigade.

PLANNING

The planning focus of the S1 centers around the personnel and administrative factors impacting soldiers and unit effectiveness. These factors are discussed, briefly, below.

Unit strength maintenance. In assessing unit preparedness, the S1 must focus on the effects of deployability, losses, critical MOS and skill shortages in the brigade (by battalion or company) and in attached units. He also projects gains and losses, and any local situations affecting the number of personnel in the unit. He assists battalion commanders in ensuring deployment standards are current.

Replacements. The S1 establishes replacement requirements and recommends replacement priorities to the S3, processes replacements in the BSA, and arranges transportation of replacements to their assigned unit through the S4.

Noncombat matters. The S1 must take into consideration the impact of people, other than soldiers, on the mission of the unit. Examples include care and support of dependents, third country nationals, EPWs, civilian internees and detainees, DA civilians, and personnel available for labor requirements.

Soldier personal readiness. The S1 is responsible for reporting the status of morale and esprit de corps, and any significant influences on the morale of units. The S1 is also responsible for ensuring the personnel deployment readiness of the soldiers assigned to the brigade by conducting POM qualification for units on a recurring basis.

Personnel Services support. The S1 must assess and evaluate the adequacy of personnel and logistical support services as they impact on troop preparedness and recommend new policies or programs where appropriate.

Organizational climate/commitment/cohesion. In planning the brigade personnel service support needs, the S1 considers soldier satisfaction with the unit, identification/involvement with the unit, morale, discipline, and unit cohesion. The brigade CSM and Chaplain are excellent sources of information on these matters.

Personnel estimate. In preparing the personnel estimate, the S1 needs to pay particular attention to troop preparedness issues, including unit strength, casualty estimates, replacements, noncombat matters, soldier personal readiness, and services support. For each COA, the S1 assesses the impact of identified problem areas, trends, and deficiencies for a specified personnel factor on troop preparedness.

The personnel estimate is one of the estimates the commander considers during the decision process. Field Manual 101-5 provides a detailed discussion and examples of the personnel estimate. Detailed personnel estimates are useful in situations where the unit has weeks to prepare for combat operations, but in continuous operations and fast moving operations, the S1 may not have time to complete a detailed or

even hasty personnel loss estimate. To assist the S1 in developing personnel estimates under these conditions, the following formulas can be used in conjunction with the factor tables provided to prepare a hasty personnel loss estimate.

Hasty personnel estimate: Offense.

Main Effort Elements

Other Factors

_____ x _____ = _____

Combat Strength | Mission Factor | x_____ (visibility)
x_____ (enemy fatigue)
x_____ (velocity)
x_____ (surprise)

Combine the four other factor values =_____ x .60=_____(1)
Main Effort Casualties

Other Axis Elements

Other Factors

_____ x _____ = _____

Combat Strength | Mission Factor | x_____ (visibility)
x_____ (enemy fatigue)
x_____ (velocity)
x_____ (surprise)

Combine the four other factor values =_____ x .40=_____(2)
Other Axis Casualties

Support by Fire Elements

Other Factors

_____ x .32 = _____

Combat Strength

x_____ (visibility)

x_____ (enemy fatigue)

x_____ (velocity)

x_____ (surprise)

Combine the four other factor values = _____(3)

Support by fire Casualties

ADD (1), (2), and (3) =_____x .72 = _____

Total Number of Casualties

Combat Strength = number of soldiers participating

Mission Factor = select value from table of weighing factors

Other Factors = select value(s) from table of weighing factors

Hasty personnel estimate for the offense: Table of weighing factors

- Mission factor
  - -Meeting engagement (.24)
  - -Hasty attack (.30)
  - -Deliberate attack (.38)
  - -Attack of strongpoint (.64)
  - -Support by fire (.32)
- Other factors
  - -Visibility
    - day (1.0)
    - night illum (0.9)
    - night (0.7)
  - -Enemy fatigue
    - rested (1.0)
    - 24 hrs no rest (0.8)
    - 48 hrs no rest (0.6)
  - -Velocity
    - no velocity gained during the attack (1.0)
    - moderate velocity maintained (0.9)
    - high velocity maintained (0.7)
  - -Surprise
    - minimum (1.0)
    - substantial (0.9)
    - complete (0.7)
- Additional considerations
  - -Medical assets available
  - -Impact of EPW
  - -Replacements expected (12 hrs/-24 hrs/-48 hrs)

Hasty personnel estimate: Defense.

Against Enemy Main Effort Elements Other Factors _____ x _____ = _____ Combat Strength — Mission Factor — x_____ (visibility) x_____ (enemy fatigue) x_____ (posture) Combine the four other factor values = _____ x .54 = _____(1) Against enemy main effort
Against Enemy Secondary Efforts Other Factors _____ x _____ = _____ Combat Strength — Mission Factor — x_____ (visibility) x_____ (enemy fatigue) x_____ (posture) Combine the four other factor values = _____ x .45 = _____(2) Against enemy secondary efforts
ADD (1) and (2), = _____ x .72 = _____ Total Number of Casualties to be Evacuated

Hasty personnel estimate for the defense: Weighing Factors

- Mission factor
  - -Hasty Defense (.32)
  - -Deliberate Defense (.19)
  - -Strongpoint (.11)
- Other factors
  - -Visibility
    - day (1.0)
    - night illumination (0.9)
    - night (0.7)
  - -Enemy fatigue
    - rested (1.0)
    - 24 hrs no rest (0.8)
    - 48 hrs no rest (0.6)
  - -Posture
    - Hasty (1.0)
    - Improved (0.9)
    - Prepared (0.7)
- Additional considerations
  - -Medical assets available
  - -Impact of EPW
  - -Replacements expected (12 hrs/-24 hrs/-48 hrs)

Based on the computed or TF provided estimated casualty rates, and locations, the number of medical evacuation vehicles in the brigade force, the S1 determines if current assets are sufficient and if not coordinates additional assets are required. He also determines if the medical assets available need to be tasked organized differently to meet the current need. Personnel loss estimates provide a basis for coordinating personnel replacement requirements and MEDEVAC with the division G1 and AG.

Critical tasks performed by the S1 include the following:

- Coordinates with the S2 for enemy situation and courses of action
- Coordinates with the S3 concerning the friendly situation, friendly COAs, and task organization
- Develops the personnel estimate
- Coordinates the S1 portion of the brigade OPLAN/OPORD with TF elements and the battle staff which includes
  - Spiritual coverage for units before operations
  - Spiritual coverage for wounded during operations
  - Medical evacuation
  - Postal operations
  - Replacement operations and transportation
  - Finance Services
  - Morale activities
  - EPW containment, interrogation, and evacuation
  - Civilian internee/detainee control, provisioning, evacuation and use as a labor source
- Prepares the personnel annex of the OPORD and/or provides the S4 required input for paragraph 4

PREPARATION

The S1 continues to monitor unit strength through reporting procedures established in the unit TACSOP.

Critical tasks the S1 performs during this phase include:

- Monitors the personnel status of the brigade
- Synchronizes TF personnel plans with brigade plans
- Monitors the enemy situation for changes that may impact personnel operations
- Attends the brigade combined arms rehearsal
- Participates in the logistics rehearsal
- Refines the personnel plan based on changes caused by the above tasks and distributes changes to subordinate units and division
- Maintains close coordination with division

EXECUTION

During the execution phase of the operation, the S1 coordinates with the Surgeon, S4, and CSM to ensure that a fully crewed, equipped, armed, and fueled weapon system is provided back to the maneuver battalion.

Critical tasks the S1 accomplishes in this phase include:

- Assists the S4 in the operation of the rear CP
- Monitors the current battle for changes that will require reprioritization of personnel assets
- Oversees personnel replacement operations
- Monitors the casualty evacuation system and coordinates changes in effort or requests additional assets from division
- Submits required reports to the Main CP and division
- Ensures casualty reporting is conducted properly within the brigade to include reporting to division
- Coordinates with subordinate S1s for award nominees
- Monitors EPW flow

CONCLUSION

The S1 is a vital link in the commander's staff as he supervises the health, morale, and general welfare of the brigade. To ensure that the S1 is appropriately utilized, the following information checklists are provided.

What the S1 needs to know from, or as approved by, the brigade commander:

- Mission
- Commander's concept of operation
- Commander's intent
- Task organization
- Time available
- Chain of command
- How the commander can be located
- Rehearsal time and location
- CCIR
- Personnel priorities

What the brigade commander needs to know from the S1:

- Personnel readiness status of the brigade
- S1 estimate, to include:
  - Estimated number of casualties by maneuver unit
  - Replacement and returned to duty (RTD) estimates
  - Personnel status of subordinate units
  - Critical personnel shortages by unit
  - Ability to execute future operations based on present combat strength
- Key leader casualty reports
- Medical evacuation plan for the operation
- Reconstitution plan
- Deployment status

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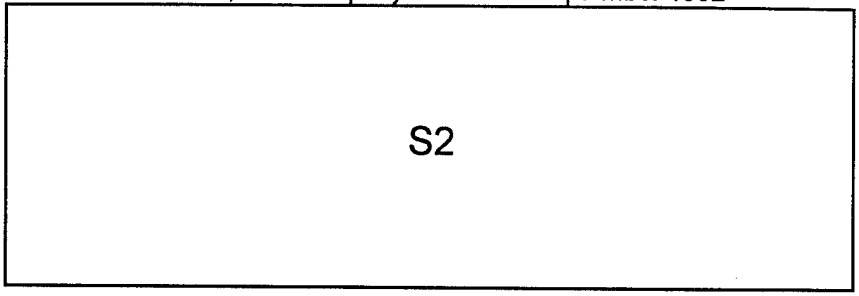

INTRODUCTION

The brigade commander has specific information needs relating to the unit's area of operation and specific tactical interests. The two critical categories of information required by both the brigade and brigade commander are intelligence and combat information.

Intelligence. Intelligence is derived from processing all available information known about the enemy forces, their composition, disposition, intentions, their locations, direction, speed, and combat readiness. Expeditious processing and analysis, timely production, and rapid dissemination of intelligence is necessary to plan, direct, and support the brigade's close combat operations.

Combat information. Combat information is data possessed by the brigade which meets the commander's immediate battlefield needs. Due to the perishable nature of the information and/or its criticality to the situation, the S2 must rapidly process combat information in time to satisfy the commander's requirements. His "tools" for rapid processing include his knowledge of the enemy (doctrinal templates - currently called threat models) and his situational and event templates (currently called enemy courses of action and event template and model).

The S2 is responsible for collecting, analyzing, storing and disseminating information about the enemy and the area of interest. The S2 also prepares the R&S plan designed to support the decision support template. The S2 tracks the enemy's activities and capabilities.

Intelligence is a key battlefield operating system in planning and preparation for combat operations. The more a unit knows about the enemy, the better the chances for success during execution. This has been proven through study at the CTCs. Units with little, late, or poorly developed intelligence normally are unable to defeat OPFOR at the CTCs. Those with well developed intelligence preparation of the battlefield (IPB) process and products normally fare well against the same OPFOR.

Intelligence is not the sole responsibility of the S2. Every staff officer/staff section should study and understand the enemy and the staff's role in the intelligence effort of the brigade. As the brigade's intelligence officer, the S2 is responsible for putting together the intelligence effort and

intelligence products of the entire staff. The S2 is, in effect, the intelligence coordinator of the entire staff. The brigade commander should view IPB as a commander's tool, and although he will not normally directly oversee the IPB process, he should place a strong emphasis on a coordinated, total staff effort. Intelligence is for the commander.

ASSETS

The brigade relies primarily upon the combat information provided by its organic, attached, and supporting resources to execute all missions assigned. Maneuver battalions, engineers, patrols, OPs, field artillery units, military intelligence (to include ground surveillance, HUMINT, and SIGINT teams, Army aviation, CAS, air defense artillery, and various CSS units all provide the brigade the means to satisfy its intelligence requirements.

The MI Company supporting the brigade is capable of providing a vast amount of information about close in enemy forces. ADA C3I systems, MI GSRs, LRSU, and REMBASS can provide early warning and indications of enemy ground activity out to and beyond the limits of the brigade's AO. FA FISTs acquire, track, and report close in enemy forces for immediate destruction. The division artillery radars supporting the brigade can locate enemy mortars and artillery batteries affecting the brigade's operations. Radars also provide early warning of enemy artillery and mortar fires into the brigade AO. Patrols, night observation devices, and OPs employed by subordinate battalions also acquire, confirm, report, track, and monitor enemy forces in the close combat operations area. The S2 has a BICC element to assist in the collection, analysis, storage, and dissemination of intelligence.

PRIMARY S2 DUTIES

The S2 is primarily concerned with directing and coordinating the collection, reporting, and dissemination of combat information and targeting data. He plans and supervises (with the S3) reconnaissance and surveillance (R & S), amplifies IPB products received from division based on the brigade commander's PIR, and forwards to the division G2 intelligence requirements that cannot be collected by the brigade's assets.

The S2's critical tasks include:

- Receiving and analyzing missions and intelligence from division
- Developing the intelligence estimate
- Briefing the staff on the intelligence estimate to assist in their initial planning
- Analyzing terrain and weather
- Integrating threat analysis with battlefield area analysis
- Obtaining staff input in developing IPB
- Soliciting input from other staff officers and attachments concerning enemy capabilities
- Developing R&S plan/overlay to satisfy PIR/IR, find high payoff targets (HPT) and to support the Decision Support Template (DST)
- Requesting additional support/information from division
- Disseminating reports and enemy COA to units and staff
- Developing PIR with the brigade commander
- Writing the intelligence annex to the OPORD
- Planning EPW processing with the S1 and S4
- Distributing maps, imagery, and sketches
- Tracking enemy locations, situation, capabilities, and enemy BDA
- Providing combat information to the commander, battalions, and division
- Supervises the BICC
- Portrays the enemy commander during wargaming

BICC Functions

The S2 directly supervises the tactical intelligence officer, who is part of the BICC assigned to the brigade. The BICC provides intelligence information and processing and acts as the intelligence resource management element for the brigade. The focus of the BICC is on situation and target development.

The BICC assists the S2 in the following tasks:

- Developing and maintaining current intelligence data base
- Planning and managing the brigade's intelligence collection effort and R&S plan
- Integrating combat information and intelligence from all sources
- Processing and disseminating intelligence to subordinate units
- Preparing intelligence summaries and reports
- Assisting the S3 in evaluating the brigade's OPSEC posture
- Assisting the S3 in identifying friendly vulnerabilities to enemy intelligence collection systems
- Assisting the S3 in monitoring the effectiveness of OPSEC required to support the brigade
- Identifies high value targets

STAFF COORDINATION

Once the warning order or OPORD has been received, the S2 performs the following coordinating activities:

- With the commander's approval develops the collection and R&S plan by translating PIRs and IRs into specific intelligence requirements, reconnaissance, and surveillance missions for subordinate, attached, and supporting units and passes requests for information to division
- Participates in the targeting cell and helps develop the commander's high payoff target (HPT) list
- Coordinates with the CHEMO to determine indicators of possible enemy chemical operations
- Coordinates with the FSO for inclusion of field artillery target acquisition systems in the R&S plan
- Coordinates terrain analysis with the engineer
- Coordinates enemy air avenues of approach with the ADA officer
- Coordinates the staff in developing IPB
- Develops the enemy COA (previously called situation template)
- Coordinates intelligence plans (R&S and collection) with the S1, S3, S4, SIGO, FSO, ENG, ADA, and subordinate and adjacent units (NOTE: The S3 tasks units to accomplish R&S tasks)
- Participates in wargaming COAs with the battle staff

PLANNING

Intelligence Preparation of the Battlefield (IPB)

IPB is performed to determine and evaluate enemy capabilities, vulnerabilities, and probable COAs throughout all battle phases. The thrust of IPB is to support the brigade staff and commander in the decision making process. The S2 produces and briefs the majority of the IPB products, but input and coordination must come from the entire staff. Each staff officer with an enemy BOS functional area must assist the S2. It must be a team effort to prevent COAs from being developed in a vacuum. During the staff planning process the XO must ensure this occurs. The following depicts events, actions and products of the staff and the S2 as related to the Intelligence BOS.

Critical tasks performed by the S2 during the planning phase include:

- Prepares the intelligence estimate
- Prepares IPB products (with staff input)
  - -Battlefield area analysis
  - -Threat Models (previously called Doctrinal templates)
  - -Threat COAs (previously called Situation Templates)
  - -Event Template and matrix
  - -Decision Support template (with staff)
- Portrays the enemy commander in wargaming enemy COAs
- Recommends PIR
- Develops the intelligence synchronization matrix (previously called collection plan)
- Develops the R&S plan

STAFF IPB CHART

EVENT	ACTION	PRODUCT
• Receive Div WO	Begin analysis	BAE
• Receive Div OPORD	Continue analysis	Threat Model (Doc Template) Intell Est HVT
• Cdr approves restated mission	Develop PIR W/Cdr	PIR/IR
	Develop enemy COAs	Enemy COAs
• COA Development	Develop IPB/ wargaming	Enemy COA (Sit Temp) Event Temp & Matrix HPT
• CDR approves COA	Coord with staff	DST, R&S Plan, Int sync matrix (Coll Plan), Intell Annex,
• OPORD issued	Refine/update	Intell updates

The importance of complete, accurate IPB as the foundation of the staff planning process cannot be overemphasized.

The five components in the IPB process are:

- Battlefield area evaluation
  - -Determine areas of operation and interest
  - -Consider METT-T, commander's concept of operation, time, width, height (airspace), electro-optical factors
- Terrain analysis
  - @-Develop terrain data base and terrain factor overlays
  - -ID/analyze avenues of approach using OCOKA factors
    Consider:
    - -Line of sight
    - -Movement rates
    - -Mobility corridor
    - -Cross over corridor
  - @-Develop modified combined obstacle overlays (MCOO)
- Weather analysis (performed in conjunction with terrain analysis)
  - -Develop weather factor analysis and critical values
  - @-Develop weather data base and weather factor overlays
  - -Determine impact of weather on troops, terrain, equipment, friendly/enemy operations, maneuverability and observation
- Threat evaluation
  - -Update threat data base
  - -Evaluate threat capabilities, vulnerabilities, and strengths
  - @-Develop doctrinal template file
- Threat integration
  - @-Develop situation templates (at least down to company level)
  - @-Develop event template and collection matrix
  - @-Assist in development of the decision support template.

NOTE @ = IPB products

Reconnaissance and Surveillance (R & S) Planning Steps

Planning must be precise and timely to concentrate the brigade's limited reconnaissance assets on PIRs , to acquire HPTs, to confirm or deny enemy course of action, and provide sufficient time to gather information. To conduct successful R & S brigades must use all assets necessary and not rely solely on the TF scout platoons. Engineers (obstacle intelligence), maneuver forces (company teams), GSRs, FISTs, COLTs, artillery radars, AND FOs can all be used to augment normal R & S forces. Additional R&S assets (e.g. UAV, LRSU) should be requested from division to augment brigade R&S assets.

Although the S2 plans for R & S and recommends what assets to use, the S3 is responsible for tasking subordinate units/attachments and implementing the R & S effort. The S2 can refocus the effort as intelligence is collected. The S2 lays out the enemy reconnaissance situational template as formulated for that plan.

The S3 is responsible for planning, resourcing, and implementing the security plan and considers the following in its implementation:

- METT-T
  - -Mission (commander's intent, unit locations, scheme of maneuver, CCIR)
  - -Enemy (use IPB to develop PIR/IR/NAIs/TAIs/DPs/collection requirements-consider higher and lower Headquarters' PIR
  - -Terrain (LOS/obstacles/routes to and from R & S sites/site selection/weather effects
  - -Troops Available (organic and higher R & S asset availability and capability)
  - -Time (planning/emplacing/reporting)
- S3 issues warning order for R & S missions
- Develop R & S plan and overlay using principles of reconnaissance
- Coordinate plans with S1/3/4, BSO, FSE, IEWSO, Bde engineer, ADA, unit commander of area in which teams will operate, adjacent and higher S2/G2
- Write R & S annex to OPORD
- Write R & S tasks into OPORD (S3 tasks subordinate units)
- Receive R & S mission backbriefs with overlays
- Consolidate Task Forces' R&S graphics
- Ensure all R & S elements are aware of and understand the commander's high payoff targets (HPTs)
- Advise higher G2 of R & S plan
- Request additional support from division G2 to cover areas internal assets cannot cover (aerial photography, air scouts, national level assets)
- Evaluate reports/review requirements/determine intelligence gaps
- Update R & S plan (task R & S assets/request support from higher)
- Plan for future operations
- Disseminate intelligence and update IPB

R&S assets should be rehearsed separately since they are normally employed early on in the operation before execution of the OPORD by the force.

PREPARATION

During the preparation phase, the S2 performs many critical tasks which are key to the success of the operation during the execution phase. He attends the brigade combined arms rehearsal and if possible, should attend the fire support rehearsal to ensure HPT are updated and that FSEM are modified and understood based on the latest intelligence updates and changes that may have been made during the rehearsal. It is important that the S2 keep the brigade commander informed in a timely manner of changes and updates to the enemy situation and intelligence, especially as intelligence information is gathered that confirms, denies, or causes an alteration to the situation template. The situation template is key to the scheme of maneuver for the pending operation. Information which would result in a major alteration to the situational template may cause the commander to alter his plan.

Critical tasks the S2 performs during the preparation phase include:

- Ensures subordinate S2's are operating from the brigade templates and overlays as a start point for their R & S activities
- Keeps the commander informed as intelligence is developed
- Coordinates with the targeting team to modify target lists
- Coordinates with G2 and adjacent/subordinate S2s for additional intelligence
- Attends the brigade combined arms rehearsal
- Attends the fire support rehearsal, if possible
- Continually updates intelligence products and disseminates to subordinate S2s and battle staff
- Conducts R&S Rehearsals
- Updates/modifies PIRs as answered

EXECUTION

During the execution phase of the mission the S2 relies heavily on combat information received from subordinate units and intelligence gathering assets. He must keep the commander, staff, and G2 informed on key combat information in a timely manner. He should coordinate with adjacent S2s for intelligence in their area of operations. He must also weight combat information with intelligence received from division and adjacent units to ensure he presents a total intelligence picture to the brigade commander.

Key tasks performed by the S2 include:

- With the S3, monitors R & S activities and reports
- Coordinates with G2 and adjacent unit S2s
- Keeps the commander, staff, and subordinate units updated
- Tracks BDA of enemy units and keeps the commander and staff updated on the assessment of enemy capabilities and probable actions
- Participates in targeting cell meetings
- Tracks and keeps the commander informed on status of HPTs
- Tracks and keeps the commander informed on information concerning PIRs/CCIR
- Ensures employment of assets is in accordance with the R&S and the tactical situation
- Recommends redirection of assets as required
- Collects information and processes into intelligence

There are certain key pieces of intelligence information that are critical to the operation. The S2 must pay particular attention to these pieces of information and ensure the commander and staff are informed as soon as information is gathered.

Intelligence related CCIR may include (exact list will depend on the assigned mission and METT-T) the following:

- Answers to the commander's PIR
- Identification and location of HPTs
- Location, direction, and speed of company and battalion sized units within the enemy's first echelon regiments
- Location, direction, and speed of enemy second echelon regiments
- Disposition and strength of enemy defensive positions and fortifications
- Location of antitank positions, crew served weapons, ADA weapons, individual vehicle positions, dismounted infantry positions, and reserves
- Locations of barriers, obstacles, minefields, and bypasses
- Locations of artillery and mortar positions
- Activities of the local population
- Status of collection assets

CONCLUSION

The S2 is a vital member of the staff. The success of the brigade depends heavily on the products the S2 produces during the planning phase and intelligence updates provided during the preparation and execution phases. To do this requires training and emphasis by the commander and XO. The S2 should not be viewed as the sole source of intelligence. The entire battle staff has a role to play in the development of intelligence products. The entire staff must be trained in their role during peacetime training exercises to ensure a well coordinated intelligence effort in combat.

To ensure that the S2 is appropriately utilized, the following information checklists are provided.

What the S2 needs to know from the brigade commander:

- Mission
- Commander's concept of operation
- Commander's intent
- High payoff targets
- Commander's PIR/CCIR
- Time available
- How the commander can be located
- Rehearsal time and location

What the brigade commander needs to know from the S2:

- Timely intelligence estimates and updates
- NBC threat
- Weather, enemy, and terrain analysis
- Location of antitank positions, crew served weapons, individual vehicle positions, reserves, artillery, and dismounted infantry
- Location of barriers, obstacles, minefields, and bypass routes
- Combat information
- Recommended priority intelligence requirements
- Status of reconnaissance/surveillance acquisition assets
- Recommended R & S plan
- Recommended counterintelligence measures
- Results of IPB

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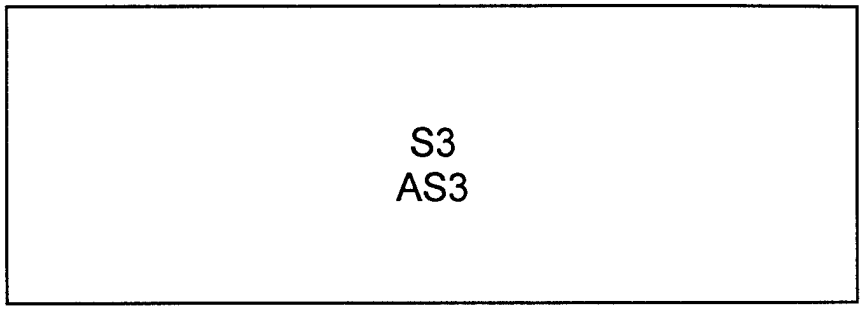
S3
AS3

INTRODUCTION

The S3 is the brigade commander's principal staff officer for matters concerning operations, plans, organization, and training. He is the commander's main assistant in planning and coordinating the battle. The S3 normally accompanies the commander on the battlefield. The commander and S3 fight from either the TAC CP, a point on the battlefield where they can see and influence the battle, or separate and select a point where each can see and influence a part of the operation. The S3, through communications with the Main CP, maintains contact with the remainder of the battle staff which assists in synchronization and changing priorities. The nature of the operations officer's responsibilities requires a high degree of coordination with other staff members.

ASSETS

The S3 is aided by AS3s and an S3 section. For each shift an AS3 is located at the main CP and functions as the XO's deputy, often referred to as the Battle Captain. The AS3/Battle Captain coordinates the employment of CAS with the FSO, the air defense LO, and the TACP. He integrates CAS into the commander's scheme of maneuver. The AS3 assumes the S3's duties when the S3 leaves the CP. Since the S3 is not always in the Main CP, the AS3 is often the senior S3 officer in the Main CP and directs the efforts of the S3 section. Tactically, he steps in for the XO at the Main CP. The S3 Air supervises the brigade's informal A2C2 element, which consists of representatives of the fire support and air defense elements and of the tactical air control party.

The S3 section, trained by the S3, is employed to assist in the control of the brigade during combat operations. The responsibilities and organization of personnel assigned to the section are very different in garrison than combat. The organization and configuration of the section must be clearly defined, normally in SOPs, for both garrison and combat. The S3 section normally operates at both the TAC and the Main CP . The section SOP must clearly define which members serve at each CP, the vehicles and equipment for each CP and the roles of each member at the CPs.

PRIMARY S3 DUTIES

The S3 has primary coordinating staff responsibility for the following areas:

Operations. The S3's operational responsibilities involve:

- Tasking for R & S surveillance activities
- Maintaining a current operation estimate of the situation in coordination with other staff officers
- Preparing, authenticating, and publishing the overall tactical SOP with contributions from other staff sections
- Preparing, coordinating, authenticating and publishing operation plans and orders; and reviewing plans and orders of subordinate units
- Recommending priorities for allocating critical resources of the command, including time, personnel, supplies, and equipment, such as: ammunition basic loads, RSR of ammunition, unit replacement requirements, and electronic frequencies
- Recommending task organization and assigning tasks to subordinate elements of the command
- Allocating all resources to accomplish both maneuver and support, including resources used for deception purposes
- Synchronizing all aspects of maneuver with support
- Recommending integrated schemes of tactical maneuver and/or dispositions and fires, including chemical fires
- Recommending boundaries and other control measures
- Recommending the general locations of command posts
- Assigning terrain
- Preparing operational records and reports
- Exercising staff supervision over EW, PSYOP, OPSEC, CMO, deception tasks, and rear area protection
- Exercising staff supervision over airspace management
- Integrating all combat, CS, and CSS assets
- Designing C^2 structure to control operations
- Maintaining the "official" staff journal

Task Organization. The S3's role in the area of task organization includes:

- Determining best unit composition to accomplish mission
- Organizing and equipping units; recommending types of forces to be employed
- Assigning, attaching, and detaching units, detachments, or teams
- Receiving units, detachments, or teams and orienting, training, and reorganizing them as necessary

STAFF COORDINATION

The S3 is overall responsible for developing the tactical plan (OPLAN/OPORD) for combat operations. He is responsible for developing, with other staff officers, the electronic warfare plan, jamming/ECM operations, OPSEC, deception plans, counterreconnaissance plans, R&S plans, tactical troop movement plans, and CA and PSYOP plans in the absence of an S5. He supervises the operations of the chemical officer and brigade signal officer (BSO). He coordinates the activities of the S2, FSO, ALO, engineer LO, ADA LO, and Army aviation LO to ensure their plans support the commander's intent, the ground tactical plan, and are fully synchronized. He coordinates with the XO, S1, and S4 to ensure logistics and personnel plans support the tactical plans.

PLANNING

The S3 is actively involved in all phases of the planning process performing the following Critical tasks:

- Attends the division OPORD brief (if conducted) with commander
- Conducts mission analysis from the division order and prepares the restated brigade mission
- Prepares, receives approval for and issues the warning orders
- Assesses the area of operations as it impacts on friendly and enemy capabilities using terrain products prepared by the S2
- Analyzes enemy's most recent activities and intentions based on intelligence products provided by the S2.
- Evaluates possible enemy COAs identified by the S2
- Develops friendly COAs
- Participates in staff wargaming of COAs, leads in XOs absence

Based on the commander's decision, guidance and intent:

- Prepares the tactical plan
- Develops task organization and identifies command and support relationships
- Assesses mission requirements and recommends/requests assets from division
- Assigns missions and terrain to combat, CS, and CSS units
- Develops deception plan
- Tasks R&S assets to execute the plan
- Develops counterreconnaissance plan with the S2 and FSO
- Develops OPSEC plans with the S2 and BSO
- Develops high payoff target (HPT) list with the targeting cell
- Prepares troop tactical movement plans
- Prepares the execution matrix
- Coordinates plans with adjacent units and identifies LO requirements
- Publishes and distributes OPORD, OPLAN, and FRAGOs

NOTE: If the S3 is fighting the current battle, AS3 accomplishes the above tasks.

Mission Analysis

The S3 must conduct a thorough review of the division OPORD during the mission planning process.

He conducts the review through the following activities:

- Analyzing the purpose of the brigade mission and the purpose of the commander two levels up
- Reviewing the higher commander's overall deception plan and ensuring that friendly forces are not positioned contrary to the higher commander's deception plan
- Identifying tasks to be performed:
  - -specified
  - -implied
  - -essential
- Identifying limitations placed on the brigade by the division
- Addressing the following issues:
  - -Specified tasks
  - -Implied tasks
  - -Results to be attained in terms of the enemy, terrain or friendly forces
  - -The purpose of each specified and implied task
  - -Task relationship to the main effort
  - -The division commander's intent
  - -The brigade's mission contribution to successful completion of the division's mission
  - -Limitations which have been placed on the brigade and their affects

S3 Air Planning Actions for Air Assault Operations

If air assault operations are planned, the S3 Air may be responsible for executing some, or all, of the following actions depending on the specific operation:

- Receives warning order
- Receives personnel status from S1
- Receives equipment status from S4
- Receives enemy situation briefing from S2
- Receives initial information from air mission commander (AMC)
- Analyzes AMC's initial information for available assets
- Begins preparation of air movement table
- Issues warning order
- Processes air requests from S3
- Obtains PZs from S3; provides PZs to fire support coordinator and staff as needed
- Establishes liaison with TACP; coordinates pre-planned TACAIR
- Provides available flight route information to S3
- Receives task force commander's concept
- Obtains any additional tactical air requirements from FSCOORD
- Initiates requests for TACAIR cap (cover) and offensive air support
- Obtains logistic PZs from S4
- Completes air movement table; submits to S3 for approval
- Distributes air movement table
- Obtains subunit airloading tables
- Consolidates airloading tables; provides to task force commander, S3, XO, and S1
- Receives OPORD
- Coordinates air mission briefings

The ALO or the aviation brigade/brigade commander's representative receives available flight routes from the S2; computes flight route time and distance; and obtains LZs, flight routes, and aircraft allocations from the supporting aviation unit S3 for the supported unit S3 for dissemination to his staff and subordinate units.

PREPARATION

The S3 monitors the preparations of the brigade staff and subordinate units for the pending operation. He refines the tactical plan and prepares the S3 section to support the battle. The S3 sergeant major assists the S3 in preparing the section by checking equipment, vehicles, communications equipment, and personnel to ensure all are prepared and knowledgeable of their roles and thoroughly understand the OPORD.

During this phase the S3 performs the following critical tasks:

- Maintains awareness of the enemy situation for changes that effect the tactical plan
- Monitors unit readiness
- Continues coordination with division and adjacent units
- Normally attends division rehearsal with the commander
- Ensures understanding of the OPORD by subordinate units and their preparations
- Sets up and participates in the combined arms rehearsal
- Refines the OPORD with the battle staff and issues changes in a manner
- Monitors timelines for compliance

EXECUTION

The S3, along with the FSCOORD, assists the commander in fighting the battle. The S3 is either with the commander during the battle, or may be positioned to assist the commander in controlling the battle.

Critical tasks performed by the S3 during the execution include:

- Ensures the Main CP tracks the battle and keeps division informed of the status
- Monitors the progress of adjacent units and keeps the commander informed
- Ensures the OPORD is executed IAW the commander's intent
- Anticipates changes required, prepares, and issues FRAGOs for the commander
- Submits required reports to division and adjacent units
- Coordinates the current battle with subordinate S3s

CONCLUSION

The S3, as the brigade's operations officer, is the commander's main assistant in planning, coordinating, and executing the battle. The S3 assists the commander in the command and control of the battle. To be effective the commander must ensure the S3 understands his role as the commander's assistant in the execution of the battle. In this manner, the S3 can relieve the commander of routine tasks and provide the commander the time needed to coordinate with subordinate unit commanders and anticipate future events.

To ensure that the S3 is appropriately utilized, the following information checklists are provided.

What the S3 needs to know from the brigade commander:

- How the commander plans to use him
- S3's relationship with the command structure and the XO
- Commander's intent, CCIR, and planning guidance
- Everything the commander knows

What the brigade commander needs to know from the S3:

- Current operations estimate
- Command resource allocation priorities including time, personnel, supplies, and equipment
- Proposed task organization and mission responsibilities of subordinate units
- Proposed tactical maneuver, dispositions, and fire schemes
- General locations of command posts
- Overview of EW, PSYOP, OPSEC, deception activities, CMO, and rear area protection measures
- Overview of airspace considerations
- Unit training requirements
- Proposed unit training programs/budget/resource allocations
- Unit readiness status

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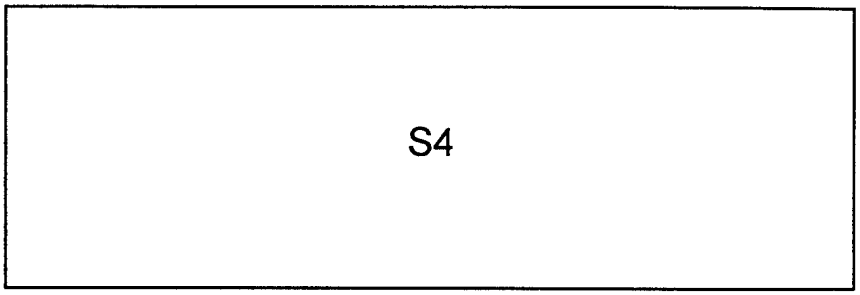
S4

INTRODUCTION

The S4 is the brigade's logistics planner. Unlike the battalion S4 which is both a planner and executor, the brigade S4 is a planner. The logistics executor for the brigade is the Forward Support Battalion (FSB) commander. The brigade S4 is assisted by the remainder of the S4 section and the FSB staff in the coordination of and management of the brigades logistical support. The brigade commander must be aware of the logistical possibilities and limitations when he selects a COA for the tactical plan. The brigade S4 establishes the brigade rear CP along with the brigade S1. The rear CP will collocate with the FSB CP to ensure constant and close coordination of all activities during all phases of an operation. The S4 is responsible for planning and coordinating for all aspects of logistics support to include fuel, ammunition, food, supply, and services. The objective of logistical support is to maintain maximum combat power and momentum by sustaining combat forces. The S4 plans CSS operations concurrently with the tactical plan. He ensures that the brigade scheme of maneuver and forward support plan are logistically supportable. If the S4 identifies constraints, he must ensure the commander is aware of these constraints so that the commander can evaluate the risk involved.

ASSETS

Logistical support is provided to the brigade by the FSB. The FSB is task organized to support the brigade by the DISCOM commander. The FSB commander is the brigade commander's main CSS operator. He advises the brigade commander on supply, maintenance, field and health services, and implementation of the CSS functions throughout the brigade. The FSB commander has operational control over all units and elements within the BSA for movement, security, terrain management, and synchronization of sustainment activities. He coordinates and implements plans for rear operations within the BSA.

The BSA is the personnel and logistics hub of the maneuver brigade. It includes the brigade rear CP, the FSB, selected COSCOM elements in support of the brigade, field trains from the brigade's subordinate DS, and OPCON battalions, CP of the DS MPs, and communications elements from the divisional signal battalion that supports the brigade. If the brigade/division has fielded MSE, the MSE provided to

the BSA is the main communications link the FSB commander has with the DISCOM commander. It also provides the S4 the ability to conduct communications with the division G4. Other units can be assigned to the BSA by the S3. The brigade S3 selects the location for the BSA in coordination with the S4 and the FSB commander. The FSB commander positions units in the BSA and plans for the defense of the BSA.

The FSB provides dedicated DS level logistics support to the maneuver brigade and provides area logistical support to all divisional units in the brigade AO. The FSB task organizes its subordinate units to fulfill the logistical needs of the brigade and its subordinate units. Additionally, the FSB may provide support to other divisional units on a area basis. For example, maintenance support in a heavy brigade will be weighted to provide maintenance teams to support the BFV, tank, and self-propelled artillery units task organized under the brigade. The FSB will form appropriate maintenance support teams (MSTs) and provide them DS to the respective battalions where they will remain and provide maintenance support. Medical and supply capabilities are also task organized to the FSB by the DISCOM commander based on the task organization of the brigade and METT-T. The FSB commander will use the guiding principle of pushing the support as far forward as possible to facilitate tactical operations.

In coordination with the brigade S4 in the rear CP, the FSB monitors the size, location, and CSS requirements of all units in the brigade area. No units should enter the brigade area without a representative reporting to the brigade rear CP and the FSB Main CP to coordinate routes, terrain, communications, and CSS support. The rear CP is responsible for coordinating with the main CP to confirm the operational aspects of these units and to obtain positioning guidance for the units from the S3.

PRIMARY S4 DUTIES

The S4 is responsible for the sustainment of the brigade, to execute his duties, he must plan and coordinate for the following functional areas:

- Supply:
  - Determine and allocate supply requirements based on commander's intent
  - Monitor the requisition, acquisition, and distribution of supplies and equipment
  - Recommend priorities for the distribution of weapons, munitions, and equipment
  - Recommend PLL for combat essential supplies/repair parts
  - Plan the resupply of units before, during, and after combat
- Maintenance:
  - Monitor and analyzing equipment readiness status
  - Plan the maintenance effort to support brigade operations
  - Recommend maintenance priorities
  - Coordinate for the availability of ORF equipment with G4
- Transportation:
  - Plan and coordinate transportation of personnel, equipment, and supplies by all modes of transportation
  - Prepare movement orders for administrative troop movements
  - Recommend transportation control procedures
- Services:
  - Plan and coordinate food service operations
  - Plan and coordinate personal services, bath and laundry services, and clothing exchange
  - Plan and coordinate graves registration services
- Other:
  - Identify requirements for use of local civilians, EPWs, and civilian internees/detainees in logistics support operations
  - Recommend/establish main supply routes (MSRs)
  - Prepare logistics estimates, reports, and annexes to orders
  - Coordinate all plans and estimates with the FSB security plans and operations (SPO) officer

STAFF COORDINATION

The S4 must coordinate with the entire battle staff to be effective. For example, he works closely with the XO , the S3, and the FSB SPO to ensure that the operational plan can be fully supported. He works closely with the S1 to coordinate transportation and equipping of personnel replacements. The S4 and S1 work together in the rear CP, set up and operate the Rear CP, monitor the brigade command net and act as the net control station (NCS) for the brigade A&L net. The S4's coordination with the S2 provides him with the required intelligence to forecast losses and to plan resupply efforts. The intelligence information also enables the S4 to estimate and plan for enemy threat to the brigade's logistics organization. The S4 coordinates ammunition pre-positioning for artillery units for preparatory fires. He coordinates pre-stocking and transportation of obstacle and barrier material with the engineer. He coordinates laundry and bath services, equipment exchange and clothing exchange with the chemical officer for deliberate decontamination operations. He coordinates with subordinate battalion S4's to ensure the logistics plan meets all of the maneuver units needs and to ensure timely provision of supplies and equipment. He coordinates with the S1 (S5 if assigned) for transportation and care for civilian internees/detainees. He conducts a logistics rehearsal and participates in the brigade combined arms rehearsal. As the primary planner and coordinator of supplies, equipment, and services, the S4 must be fully integrated into the battle staff of the brigade.

PLANNING

Critical tasks for the S4 during the planning phase include:

- He must thoroughly understand the mission, intent, CCIR, and concept of the operation
- He must anticipate requirements
- He must plan in detail
- He must continuously assess risks
- He must include key logistical actions in the synchronization matrix/execution matrix

The goal of the S4 planning process is to provide the most responsive logistical support to the tactical force.

A good sustainment plan:

- Provides for mission accomplishment
- Is based on facts and valid assumptions
- Establishes relationships and fixes responsibilities at the unit/slice level
- Decentralizes authority
- Contains on hand supply status of all units, particularly water, Classes III, IV (obstacle defense), V, and IX
- Is simple, flexible, and coordinated
- Is rehearsed with all TF CSS executers to include the FSB
- Provides for continuous and adequate support
- Allows CSS functions to be performed as far forward as possible
- Supports by "push" packages rather than requisitions
- Provides for the positioning of units to support the operations, to afford priority to the main effort, and to survive
- Addresses the control of roads, airlift, and other means of transportation
- Provides for the protection of CSS units, both personnel and material
- Has tailored, practical logistics reports that transmit key information with minimal confusion in the shortest time
- Estimates battle costs in terms of:
  - -Consumption
  - -Damage
  - -Destruction
- Plans for reconstitution and reorganization

Supply planning. The most important areas of supply planning are those of "fueling" and "arming" the weapon systems of the supported force. Fueling is a less critical issue in the light infantry brigade, although water resupply takes on greater significance due to limited transportation assets. Providing fuel to using units is critical for conducting successful combat operations. The brigade commander must set clear priorities for fueling. The S4 must plan consumption accurately, and economize whenever possible to assure adequate support. Slice assets should be

integrated, such as engineer fueler and wrecker HEMTTs, water buffalos, and engineer/ADA cargo trucks. An efficient fuel system can only be established with good pre-battle planning. This requires accurate fuel consumption estimates by the S4 with the FSB SPO and subordinate unit S4s. Fuel consumption estimates should be based on the types of vehicles in the brigade, the type of operation being conducted, and the type of terrain in which the units will be operating.

The following chart can be used to estimate fuel consumption should the brigade S4 not have accurate data from subordinate battalions, attached, and DS/OPCON units. This data is based on testing conducted in rolling terrain and must be adjusted for the terrain in the area of operations. For example, the M1A1 will only get 170-200 kilometers per 504 gallons of diesel in sandy soils.

Raw Class III Data

	Fuel Capacity	Range
HMMWV (998)	25 Gallons	542 KM
HMMWV (996)	25 Gallons	483 KM
HMMWV (966)	25 Gallons	515 KM
BRADLEY	175 Gallons	483 KM
M113	95 Gallons	365 MILES
M1A1	504 Gallons	440-480 KM
SP VULCAN	95 Gallons	443 KM

Computing Bulk Fuel Requirements

For Tracks:

Item Density x [(Idling Rate x Hours/Day) + (Cross Country Rate x Hours/Day) + (Secondary Road Rate x Hours/Day)].

	Idle	XCountry	Secondary Roads
Bradley	1.5	18.6	9.3
M113	1.0	8.6	8.9
M901	1.0	8.6	8.9
M1A1	10.8	56.6	44.64
SP Vulcan	1.0	5.2	13.0

For Wheels:

End Item Density x Consumption Rate x Hours/Day.
All HMMWVs have a consumption rate 0.497, or 1/2 gallon per hour

Arming is the largest, most time sensitive task of the logistic sustainment system. Pre-battle planning involving close coordination between the S4, S3, and S2 (who provides specific facts on expected size of the enemy and where contact will be made) is important. Critical to the planning process is the calculation of the ammunition requirements for the operation which is normally computed by the S3. The S4, however, will probably have more time to devote to this task during the staff planning process. While the brigade S4 will base ammunition requirements on the

input of subordinate units, the following are planning considerations to forecast ammunition consumption lacking subordinate input.

Supply planning. Weapons planning steps/considerations:

- Determine number of vehicles on objective
- Determine average number of rounds to destroy a vehicle
- Estimate the number of targets
- Multiply the number of targets times rounds required per kill to get an estimate of how many rounds will be needed
- The type of target will impact what type of ammunition needs to be resupplied

Supply planning. Automatic weapon planning steps/considerations:

- Estimate how long a position will need to be suppressed
- Determine the number of aiming points
- Estimate rates of fire for weapon systems and how long they will be firing at that rate
- Multiply rounds per minute by number of minutes a weapon will be firing at each rate of fire
- Take into account any barrel change times and expected enemy reinforcements/counterattacks

The S4 should be forecasting the brigade's ammunition requirements long before the tacticians finish their maneuver plan. The S4 cannot wait for the OPORD to be published to request Class V for the brigade. His estimates should be based on the IPB and the tentative plan. Once the sub-unit missions are completed, the S4 can tailor support based on the mission. Emergency Class V supplies should be tailored for expected shortages from specific units.

Maintenance planning. Pre-battle planning of the forward positioning of maintenance assets, stocks of repair parts, and replacement equipment, and setting priorities for recovery and repair are critical for the tactical success of the mission. Key input from the S4 in this area is his estimate of the loss of Class VII weapons and vehicle systems. The FSB is responsible for configuring Class IX supply packages. The S4 must be able to determine time guidelines for specified maintenance actions and

recommend repair/recovery priorities based on the operational requirements of the mission.

Transportation and movement planning. Planning, controlling, and executing both unit movement and transportation operations requires detailed preparation. Effective pre-battle planning of transportation sustainment must occur to maximize the use of resources and overcome the complicating effects of terrain, weather, and enemy interdiction. These requirements are determined by identifying the type and amount of cargo, distance to be moved, and special movement requirements (e.g., time limitations, dimensions, etc.).

Planning for sustainment protection. The brigade commander may frequently have to take active steps to defend the unit's sustainment system when the threat exceeds the CSS capability or critically threatens disruption of sustainment support functions. Sustainment protection planning is the responsibility of all CSS unit commanders and staffs. Typically the FSB commander is the brigade commander's/S3's agent responsible for the overall security of the BSA. The brigade commander and his staff must plan a base defense system that accomplishes the rear operations tasks of securing the unit base, detecting any enemy infiltration attempts, delaying the attackers' progress, and finally destroying the enemy force. Normally, passive security is emphasized, but the unit must supplement this with active security measures. Guards should have anti-vehicle weapons systems (AT4, Dragon) available to them.

Planning for light/heavy operations. The light brigade S4 must be able to integrate the heavy unit's CSS slice into the brigade trains (the heavy unit should be OPCON to the light). He must ensure that the heavy unit knows the situation and that all the logistical actions conducted in the brigade's area of operations are coordinated. The light brigade S4 is responsible for ensuring that the CSS slice is adequate for the situation when the heavy unit is attached to the light brigade. He must also assume control of the CSS slice and coordinate the integrated CSS plan.

Planning for heavy/light operations. The heavy brigade S4 must integrate the light unit's CSS slice into the brigade trains (the light unit will normally be attached). He may have to provide transportation assets to support the light force's logistical and movement requirements. The light unit will have different needs based on its PLL, most notably 60mm mortars, MK19s, and a higher volume of small arms parts. The light unit

will also have a higher demand for water turnaround since available water reserves are limited to what the soldiers can carry in their canteens and five gallon cans.

Logistics estimate. In preparing the logistics estimate the S4 needs to consider the following:

- Status of supply Classes I, III, V, IX (heavy units especially) and water
- Operational status of key weapons systems at present and the expected status for line of departure/defend by time, and of MEDEVAC and other CSS vehicles
- Quantities of specified classes required to support the operation, especially those resources required to support habitually attached slice elements such as FIST, Eng, and ADA
- Assets available for transporting Class IV materials (particularly for light units)
- External support requirements
- Use of Aerial resupply operations versus other techniques
- Anticipated equipment losses
- The advantages and shortcomings of specific COAs

Note: Coordination with the S2, S3, and S1 is critical.

Critical tasks the S4 accomplishes during the planning phase include:

- Participates in mission analysis with the XO and S3
- Coordinates with the S2 for intelligence upon which to base the logistics estimate
- Participates in COA development
- Coordinates logistics estimate with FSB SPO
- Recommends to commander the COA best supportable from a logistics standpoint
- Coordinates with battle staff and includes their requirements in logistics estimate
- Identifies logistic constraints to the S3 and the commander
- Prepares paragraph 4 of OPORD/logistics annex and overlay
- Coordinates with G4 for assets to overcome identified shortfalls
- Synchronizes CSS through the synchronization matrix/execution matrix

PREPARATION

During this phase the S4 must ensure that logistics preparations are being executed and that action is taken to overcome unexpected logistics issues identified. He continues to work with the battle staff, subordinate units, the FSB and division G4 to refine the plan. He leads the CSS rehearsal and participates in the combined arms rehearsal.

Preparation considerations. Critical tasks performed by the S4 during this phase include:

- Coordinates the logistics plan with subordinates unit S4s and the FSB SPO
- Briefs the BSA personnel, to include the SPO, the S1 and S4 personnel
- Conducts a logistics rehearsal (participates when FSB commander conducts the rehearsal)
- Participates in the brigade combined arms rehearsal (with FSB commander)
- Coordinates with the S2 for intelligence updates and adjust the logistics plan and rear area defense
- Disseminates changes in the plan to subordinate units, the FSB and G4
- Keeps the commander informed of constraints that may effect the tactical plan
- Post a copy of the fire support overlay, maneuver and obstacle and PB products in the BSA CP
- Have available a copy of the brigade and division OPORDs, plus brigade, division, and adjacent unit SOIs
- Maintain a equipment status report by unit and nomenclature plus special additions to the major end item (TOWs, Stinger racks, etc.)
- Ensure that the BSA CP has charts showing current task force maintenance, personnel, Classes III and V status down to company level [These charts should mirror some of the charts kept at the Main CP, specifically combat power charts]
- Ensures compliance with reporting procedures

EXECUTION

The S4 must anticipate unforcasted logistics requirements during the operation. He must ensure the logistics plan is being executed and adjusts the plan based on the flow of the battle.

Critical tasks the S4 performs during this phase include:

- Operating the brigade's rear CP OIC
- Monitoring the current operation
- Keeping the commander and XO informed of the brigade logistics status
- Coordinating with G4 for logistics support and submits required reports
- Coordinating with the FSB for adjustments to the execution of the plan based on the flow of the battle

CONCLUSION

The sustainment of the brigade is the primary responsibility of the S4. He must work closely with the command and staff structure. To ensure that the S4 section is appropriately utilized, the following information checklists are provided.

What the S4 needs to know from the brigade commander:

- Mission statement
- Concept of the operation and CCIR
- Brigade and division commander's intent
- The enemy and friendly situation
- Priority of fires and effort
- Priority of maintenance support
- Priority of Classes III and V supply and priority for the tailoring of emergency resupply
- Any special ammunition requirements
- Mission essential tasks for each brigade unit
- Maneuver control measures
- Time line for operation (phases, consolidation, reorganization)
- Future operations/next mission
- Obstacle plan in the defense
- Chain of command, how the brigade commander can be located
- Rehearsal schedule
- Axis of advance and the enemy avenue(s) of approach
- Resupply time line/pause for recovery

What the brigade commander needs to know from the S4:

- Key CSS constraints
- CSRs imposed by division
- Input during mission analysis and on all courses of action (COA), to include supportability of COAs from a logistics perspective (medical, maintenance, supply, services ,and emergency resupply)
- Logistics readiness of the brigade
- Is logistics synchronized with the mission and concept
- Positioning of assets and units to support operations
- Organization of support
- Does plan allow CSS functions to be performed as far forward as possible, is the main effort weighted?
- Unit's fuel/ammunition/maintenance/Class IV barrier material requirements vs on hand and available
- Current status and expected line of departure/defend by time status
- Class VII weapon system loss estimate
- Transportation requirements/routes/capabilities
- Adequacy of command and control facilities for directing CSS activities
  - Is retransmission needed to talk with TF trains?
- Night operation measures/considerations
- How are DS/attached/OPCON elements and other elements supported
- Impact, on the brigade's mission, of the FSB commander's area support mission, if assigned by the DISCOM commander

REFERENCES

Secondary references include the following:

Army Regulations

AR 700-9. Policies of the Army Logistics System. 3 June 1985.

Field Manuals

FM 8-55. Planning for Health Service Support. 15 February 1985.
FM 10-14-2. Guide for the Brigade S4. 30 December 1984.
FM 17-98. Scout Platoon. 7 October 1987.
FM 43-5. Unit Maintenance Operations. 28 September 1988.
FM 71-1. Tank and Mechanized Infantry Company Team. 22 November 1988.
FM 71-2. The Tank and Mechanized Infantry Battalion Task Force. 27 September 1988.
FM 71-3. Armored and Mechanized Infantry Brigade. 11 May 1988.
FM 71-123, TTP for Combined Arms Heavy Forces: Armored Brigade, Battalion Task Force, and Company Team. 20 September 1992.
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FM 101-5. Staff Organization and Operations. 25 May 1984.
FM 101-5-1. Operational Terms and Symbols. 21 October 1985.
FM 101-10-1/2. Staff Officers Field Manual: Organizational, Technical and Logistical Data, Planning Factors (Volume 2). October 1987.

Other

Issue No. 11. Maintenance Management Update. March 1988.
Issue No. 11. Unit Supply Update. January 1988.
NTC lessons Learned.

S5/CMO

INTRODUCTION

Normally, a S5/CMO is not assigned to the brigade staff. There is not an S5/CMO authorized on the MTOE of divisional brigades. The commander may elect to establish an S5/CMO on the staff. However, he must do so out of authorized resources in the headquarters. In combat an S5/CMO may be assigned to the brigade staff. In the absence of an S5/CMO, the S3 will perform the functions associated with the S5/CMO.

The S5 is the commander's principal staff officer in all matters concerning civilian impacts on military operations, to include: political, economic, and social effects of military operations on the civilian population. His responsibilities encompasses activities that include the relationships among military forces, civil authorities, and the general population in the area of operations. Additionally, although psychological operations (PSYOP) are the responsibility of the S3, most commanders elect to place PSYOP under the staff responsibility of the S5.

ASSETS

The S5 will normally have an NCO and, based on task organization and METT-T, operational control of some Military Police assets. Additionally, based on the mission, the S5 may have attached, or under operational control, Civil Affairs or Psychological Operations detachments.

PRIMARY S5 DUTIES

The S5 critical tasks include the following:

- Civil Affairs, to include:
  - Making recommendations about civil-military cooperation, to include the impact of PSYOP on the population
  - Preparing plans and policies for command support operations and/or governmental support operations
  - Preparing estimates, surveys, and studies for CA activities
  - Preparing the CA annex of the OPORD and CA portion of the logistics plan or annex
  - Determining requirements for CA units and personnel to accomplish CA activities
  - Exercising staff supervision over CA units assigned, attached, or OPCON
  - Planning, coordinating, and supervising CA activities in the areas of government, economics, public facilities, displaced persons, refugees, evacuees, art, monuments, archives, cultural affairs, civil information
  - Coordinating OPSEC countermeasures an MI aspects of CA with the S2
- Psychological Operations, to include:
  - Assessing the psychological impact of military operations on the enemy and civilians in the AO
  - Planning and supervising all PSYOP activities in support of tactical operations
  - Determining requirements to support PSYOP activities
  - Evaluating, in coordination with the S2 and S3, enemy PSYOP efforts and effectiveness of friendly PSYOP activities
  - Assisting in developing combat information for the S2 from civilians in the AO

STAFF COORDINATION

The S5 is directly responsible to coordinate with the battle staff to execute his responsibilities. As CA and PSYOP are normally S3 functions, coordination with the operations officer must be close and continuous. The S5 coordinates with the S3 for OPSEC and MI activities. The S5 also coordinates with the S4 and Engineer officer for logistical support and construction support in accomplishing his tasks. Finally, the S5 coordinates with the S1, for Military Police support of CA activities, and the Aviation LO for support of both CA and PSYOP activities.

PLANNING

To be effective, the S5 must coordinate closely with the entire staff during all three phases of operations. The S5 will coordinate OPSEC, combat information and intelligence activities for CA and PSYOP units with the S2/S3. He will coordinate and plan missions for CA and PSYOP units with the S3 to ensure the units' missions enhance the combat capabilities of the brigade and assist in successful accomplishment of the mission. He coordinates with the S4 for transportation requirements for subordinate units and for logistical support. He also coordinates transportation for and logistical support for civilians. He will coordinate with the Engineer for construction support for civilian camps and repairs to the civilian infrastructure. Coordination with the signal officer is effected for communication support of subordinate CA and PSYOP units. He will coordinate with the military police officer for civilian evacuation routes and support of military police in controlling the activities of civilians. He will coordinate with the aviation LO for aviation support for PSYOP speaker teams or for moving teams in the AO. Specific coordination is dependent on the mission, units assigned, and civilian populations in the AO.

The S5 is actively involved in the planning process.

Critical activities performed by the S5 include the following:

- Assists the S2 in assessing the enemy susceptibility to PSYOP and the civilian populations reactions to and acceptance of friendly operations
- Recommends CA operations in support of the mission
- Recommends PSYOP missions to support the mission
- Prepares estimates, surveys ,and studies for CA
- Assesses and coordinates OPSEC countermeasures aspects of CA activities
- Ensures preparation and coordination of the PSYOP annex to plans and orders
- Prepares CA support portion of the logistics annex
- Makes recommendations about CMO cooperation in the AO
- Determines requirements for and makes recommendations to the S3 for CA and PSYOP units
- Ensures civil support for tactical operations to prevent civilian interference
- Determines availability of local personnel, material, services, and acquisition of same to support military operations
- Coordinates CA and PSYOP plans with the division G5

PREPARATION

The S5 supervises and continues to coordinate to ensure all actions associated with CA and PSYOP are ready for execution during conduct of tactical operations. He must continually refine his plans based on changes from division, changes to IPB, and changes that result from the combined arms rehearsal. The S5 supervises to ensure that the CA and PSYOP annexes to the plan, as written, are executable and coordinated with all primary staff, task force elements, and civil activities. He ensures the plan meets the commander's intent. Briefbacks and rehearsals are absolutely critical during this phase.

EXECUTION

During execution, the role of the S5 is to continuously monitor the battle and take required actions to ensure civilian personnel and activities do not interfere with tactical operations. His presence, with civilian personnel and authorities, can ensure smooth and harmonious relations. Effects of CA and PSYOP are continuously assessed and provided to the S3, XO, and commander, based on SOP.

Critical tasks the S5 accomplishes during the execution phase include:

- Monitors the current battle to anticipate changing missions for CA and PSYOP units
- Assesses the effects of CA and PSYOP operations
- Keeps the commander informed of the affects of CA and PSYOP on the operations and future impacts
- Anticipates CA and PSYOP opportunities on the battlefield

CONCLUSION

CA and PSYOP activities are becoming increasingly important in current operations of the US Army. Recent operations conducted in Grenada, Panama, Iraq, Kuwait, Somalia, and Haiti have pointed out the absolute importance of CA and PSYOP actions in support of both national objectives and tactical missions. If an S5 is assigned to the brigade, the commander must avail himself to use this vital asset in developing operations plans.

To ensure the S5 is appropriately utilized, the following information checklists are provided.

What the S5 needs to know from the brigade commander:

- How the brigade commander plans to use him
- What his relationship is with the S3
- Commander's intent and guidance
- Command philosophy

What the brigade commander needs to know from the S5:

- CA estimates
- Recommended PSYOP themes
- Recommended missions for CA and PSYOP units to support the commander's tactical plan
- Impact of civilian personnel on current operations
- Enemy PSYOP activities and impact of friendly PSYOP on targets
- Key cultural norms and mores of the local population
- An understanding of CA/PSYOP capabilities
- An understanding of CA/PSYOP TTP
- An understanding of CA/PSYOP operations
- An understanding of division's CA/PSYOP concept

REFERENCES

ARTEPs

ARTEP 71-3-MTP. Mission Training Plan for the Heavy Brigade Command Group and Staff. July 1988.
ARTEP 33-500-MTP, Psychological Operations, 14 January 1977.

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FM 33-1-1 Psychological Operations Techniques and Procedures. 5 May 1994.
FM 41-10 Civil Affairs Operations. 11 Jan 1993.
FM 71-3. Armored and Mechanized Infantry Brigade. 11 May 1988.
FM 71-123, TTP for Combined Arms Heavy Forces: Armored Brigade, Battalion Task Force, and Company Team.
FM 71-2. The Tank and Mechanized Infantry Battalion Task Force. 27 September 1988.
FM 101-5. Staff Organization and Operations. 25 May 1984.

FIRE SUPPORT OFFICER

INTRODUCTION

The maneuver brigade will have a Fire Support Officer (FSO) and a Fire Support Element (FSE) attached to the battle staff from the DS FA battalion. The commander of the brigade's DS FA battalion is the brigade Fire Support Coordinator (FSCOORD). The FSCOORD is the brigade commander's primary advisor on all fire support matters. Since he is both a battalion commander and advisor, he cannot be at the brigade headquarters continuously. However, he is normally in the brigade Main CP during planning and should be a part of the brigade orders group, when possible. During execution, the FSCOORD will be collocated with the brigade commander.

The FSO is the FA DS battalion commander's direct representative in the brigade Main CP. His primary duty is to coordinate the brigade's fire support assets in support of the brigade commander's scheme of maneuver and intent for fire support. In the absence of the FSCOORD, the FSO accompanies the commander during orders briefings at division. The FSO must work closely with the brigade staff, especially the S2, S3, S3 Air, Engineer, Chemical Officer, IEW officer, ALO, Avn LO, ADA LO, and S4 during the planning, preparation, and execution phases. The FSO is a key member of the brigade targeting team in the brigade Main CP.

ASSETS

Generally, the brigade's FA support comes from the 105-mm or 155-mm howitzer battalion in DS of the brigade. Additional Field Artillery support may be allocated to the brigade through MLRS or FA units assigned a mission of reinforcing or GSR to the DS FA battalion, or through like units which are in general support to the division.

Each maneuver commander is provided or allocated an indirect fire system to influence his portion of the battlefield. When the maneuver brigade is committed to battle, the brigade commander generally will be allocated a direct support artillery battalion. Other assets that may be provided to the maneuver force include Army attack helicopters, TACAIR support, naval gunfire, and IEW. Air defense and engineer assets may also become important components of the fire support system.

The FSO has direct access to the TACFIRE main fire control computer through a VFMED or he can use a DMD or FED. The TACFIRE system provides greater accuracy and reduced reaction time making better use of target information. However, it is critical that the FSO maintain voice override since TACFIRE is primarily a planning tool. TACFIRE is influenced by the commander's guidance. The commander should, with the FSO, determine the attack criteria for certain targets. He can tell the artillery when, what, how much, and priority.

TACFIRE capabilities include:

- Selects the best available fire support means
- Calculates the required ammunition expenditures to accomplish the desired effect
- Accepts and passes critical target intelligence from brigade, the DS artillery battalion, adjacent brigades, division artillery, and division FSE

Field artillery intelligence sources include:

- COLTs, FISTs, and FOs
- Weapons-locating radars (AN/TPQ-36, and -37)
- Unmanned aerial vehicles
- Other artillery units
- Higher headquarters sources (area security information center, national sources, and satellites)

PRIMARY FSO DUTIES

Based on the maneuver commander's intent for fires, the FSO integrates and synchronizes the firepower of field artillery (FA), mortars, close air support (CAS), and naval gunfire (when available), with the maneuver of combat units.

His principle duties, as the FSCOORD's representative in the brigade Main CP, include:

- Prepares an estimate and participates in staff wargaming
- Advises the commander on assets available, capabilities, limitations, their employment
- Works with the S3 to synchronize fires with the scheme of maneuver
- Conducts target analysis, produces the fire support plan/annex that meets the commander's for fire support
- Coordinates battalion FSO's fires in the brigade fire support plan
- Works as a member of the targeting team (FSO, Commander, XO, S3, S2, ALO, and S3A)
- Produces the observation plan (part of the R & S plan) and the fire support execution matrix
- Synchronizes fire support mission requirements with means available, (e.g., USAF, ADA, engineer, and field artillery)
- Recommends priorities of fires and allocation of fire support
- Assesses the enemy situation and recommends when to attack what targets with what munitions for how long to achieve the commander's desired effect
- Determines what fire support coordinating measures facilitate the commander's scheme of maneuver
- Directs target acquisition, the attack of targets, and coordinates fire support in the brigade's AO based upon the commander's high payoff target list and attack guidance
- Keeps his higher and subordinate FSEs informed of the brigade's situation reporting information to the commander and his staff, especially enemy and friendly fire support matters
- Establishes, operates, displaces, and supervises the target acquisition effort of the FSEs with guidance from the commander, the S3, and the FA commander
- Coordinates and monitors ammunition requests and resupply actions with the XO and S4
- Provides BDA to the S2

STAFF COORDINATION

The FSO is in charge of the FSE which is collocated with the tactical operations center (Main CP) so that the FSO can easily coordinate with the staff. The FSO will coordinate with several technical advisors, collocated in the FSE and Main CP, in the planning and coordination of the brigade's fire support.

Representatives may include the following:

- S3 Air:
  - Receives, coordinates, and processes all preplanned close air support requests
  - Advises the Air Force TACP of the tactical situation
- Air liaison officer:
  - Provides expertise on and monitors requests for CAS and battlefield air interdiction (BAI)
  - Advises the FSO of the current status of available air support
  - Coordinates JAAT missions
  - Submits immediate CAS requests to the Air Support Operations Center (ASOC) on the Air Force Air Request Net (AFARN)
- Air Defense Artillery LO:
  - Provides status of ADA and coordinates airspace control with the FSO
- Supporting Arms Liaison Team Officer (SALTO)
  - Advises, monitors, and approves naval gunfire and Naval/Marine CAS
- Engineer officer:
  - Coordinates the emplacement of mines, obstacles, and FASCAM
  - Ensures indirect fires are planned to cover obstacles
- S4:
  - Provides information on availability of Class V special missions, (e.g., WP, Illumination, HE)

PLANNING

The FSO is a key staff member in the planning phase of the operation. To be effective, he must be included in all planning actions from receipt of the order through preparation and issuance of the order. During planning, the FSO must ensure that the fire support plan is adequate and synchronized IAW the commander's intent.

During the planning phase the FSO performs the following critical tasks:

- Participates in mission analysis
- Presents his analysis to the brigade and FA commanders
- Prepares FA staff estimate
- Reviews and provides input to the IPB products, target value analysis (TVA) processes (e.g., refined NAIs, TAIs, decision points, and high payoff targets (HPTs)
- Develops fire support measures for COAs and participates in wargaming
- With the S2 identifies HPTs in COAs, to include when, where, and how each HPT will present itself over time (as depicted on SIT and Event templates) to focus fires
- With the S2 integrates and refines the observation/observer plan
- Develops the fire support tasks, responsibilities, and requirements
- Writes the fires paragraph and fire support annex and/or fire support execution matrix
- Based on the commander's decision, develops an integrated, coordinated, synchronized fire support plan, to include:
  - HPTs, target list, attack guidance/matrix
  - Fire Support Execution Matrix (FSEM)
- Cross walks synchronization matrix, R&S plan, and FSEM
- Plans with the Engineer for FA delivered FASCAM minefields
- Provides information to the DS artillery TOC

The key to effective fire support integration is thorough and continuous inclusion of the FSO in the planning process and a vigorous execution of the plan. There are two major considerations that must be included in the commander's thought process when planning and coordinating fire support. First, integration of fire support will not be

optimum unless the commander becomes personally involved. His active support is required to ensure the right staff members coordinate with the FSO and the FSO coordinates with them. Second, fire support units also require planning time. Responsive fires require that fire support systems be in the right place at the right time. Field artillery takes time to reposition. Preplanned CAS requires at least 30 hours to effect coordination and to prepare the proper ammunition and aircraft combination. Also, staff coordination, particularly with the S2, involves detailed planning to generate the targeting information required to support the commander's plan.

Mission Planning Considerations

When planning for the mission the commander must consider the type of mission and how it impacts on the positioning of his fire support assets. The FSO and S3 should plan and coordinate FA positions. The fire support elements need maneuver room to keep up with the brigade. These elements also require more time to react to the changing situations.

Offensive operations. In offensive operations, field artillery and mortars are positioned well forward focused on keeping the FLOT no more than 2/3 away from their planning range. At times maneuver units may be relocated so that fire support units can adequately support the scheme of maneuver with fires. FA battalions are also located to avoid interference with other units.

Defensive operations. In the defense, field artillery is positioned in depth and to the flanks of the enemy anticipated axis of advance to ensure continuous fire support throughout the battle area. Some assets are positioned well forward to provide long range interdiction fires.

Displacement considerations. Dependent on the tactical situation and terrain, field artillery units move much like the maneuver units. In any case, movement must be coordinated to provide continuous fire support.

Fire Support Coordination Measures

The FSO is responsible for recommending fire support coordination measures to facilitate rapid coordination of fires and safeguards for friendly troops. There are two categories of fire support measures, permissive and restrictive.

Permissive coordination measures. A coordinated fire line (CFL) is a line beyond which mortars, field artillery, and naval gunfire may deliver surface-to-surface fires in the establishing headquarter's sector without coordination. Normally, the CFL is established at brigade or higher headquarters. A fire support coordination line (FSCL) is a line beyond which all fire support means may attack targets without coordination. The FSCL is usually established by corps or an independent division. A free-fire area (FFA) is a designated area into which any fire support agency may deliver fires without coordination. Normally, a free fire area may be established at battalion or higher.

Restrictive coordination measures. A restrictive fire line (RFL) is a line established between converging friendly forces that prohibits fires or effects from fires across the line without coordination with the affected force. The RFL is established by the common commander of the converging forces. A restrictive fire area (RFA) is a designated area where specific restraints have been imposed and fires can not exceed those restraints without approval from the establishing force headquarters. A RFA is established by battalion or an independent company or higher headquarters. A no-fire area (NFA) is an area which no fires or effects of fires are allowed. There are to exceptions to a NFA restriction (1) when the establishing headquarters approves fires temporarily within the NFA on a mission basis and (2) when the enemy force within the NFA engages a friendly force at which time the commander may engage the enemy to defend his force.

Airspace coordination measures. Airspace coordination measures include the informal airspace coordination area (ACA) which is used for immediate air strikes. It can be time-distance separation or a terrain feature separation of the attacking air and surface fires. Normally, the informal ACA is established at task force or higher level. A formal airspace coordination area is a three-dimensional block of airspace in which friendly aircraft can fly without fear of being hit by friendly fire. It is established by brigade or higher headquarters.

Unit boundaries. Unit boundaries are both permissive and restrictive fire support coordination measures. Boundaries allow a commander to engage targets within his assigned operational area without coordination with outside units. Units which desire to engage targets inside the boundary of another unit must coordinate fires with the commander who owns the operational area (normally through the FSO or

S3). Proper use of boundaries can normally preclude the FSO from having to establish unique fire support coordination measures.

PREPARATION

Fire support planning, coordination, and synchronization continues during the preparation phase. The FSO monitors and provides updates on fire support assets, coordinates and refines fire support plans and documents, and supervises fire support preparation. The FSO participates in the combined arms rehearsal. As the enemy situation is refined and the IPB verified or changed, the FSO remains in constant coordination with the S2 to ensure fire support plans are continuously updated.

Critical tasks performed by the FSO during the preparation phase include:

- Monitors status of fire support assets and keeps the commander informed of changes to fire support analysis and capabilities
- Refines target list, based on METT-T and ensures that the target list meets the commander's intent
- Provides changes to the target list to FSEs, FDCs, COLTs, and division
- Organizes and conducts the fire support rehearsal
- Prepares and briefs the FSEs for and participates in the Combined Arms Rehearsal
- Issues orders to FSEs, COLTs, and other observers in support of the brigade

EXECUTION

The FSO continues close coordination with the staff to ensure the fire support, as planned, is being executed and is meeting the commander's intent. He monitors the status of fire support assets and provides updates to the brigade and FA battalion commander. Based on the brigade commander's guidance, the FSO supervises and manages fire support based on the FSEM.

Critical tasks the FSO performs during the execution phase include:

- Works closely with the S2 on position of enemy forces, especially HPTs
- Serves on the targeting team
- Anticipates events and actions IAW SIT TEMP, EVENT TEMP, and FSEM taking appropriate action to adjust fire support to obtain target effect
- Keeps the commander and FSCOORD informed on status changes of fire support assets and their effects on the ability to support the plan
- Ensures execution of fires according to the FSEM
- Ensures fires are focused on the commander's HPTs

CONCLUSION

The commander, quite literally, calls the shots. He must ensure that his intent is known to the FSO during the planning phase of the operation. The commander must use all of the people and equipment at his control to insure that he gets the most from his fire support system. Advanced and continuous planning is critical. He should be frugal in planning and not allow the creation of an unmanageable number of targets. Fifty to sixty targets for a brigade operation is about the norm, Any more and the system becomes overloaded.

Communication is the key to success between the fire planner and the maneuver commander. The process must be continual and the intent of both parties understood. To assist in this process, the following information checklists are provided. Some of the questions will require input from the commander, others will require special staff input, while many will require a coordinated staff solution.

What the FSO needs to know from the brigade commander:

- Mission
- Commander's intent and intent for fires
- HPT guidance
- Priority of fires
- Guidance on special fires (prep, FPF, illumination)
- Guidance on special munitions (FASCAM, smoke)
- How the commander can be located
- Rehearsal time and location
- Any directed COAs
- Attack guidance (effect/defeat criteria)
- Fire coordination signals
- Commander's maneuver control measures
- Obstacle plan

What the brigade commander needs to know from the FSO:

- Targeting capabilities
- Available fire support assets
- Recommended effect/defeat criteria if not provided by commander
- Ability of fire support assets to meet defeat criteria as stated in the commander's attack guidance
- Recommendations for high payoff targets
- The fire control measures are synchronized with maneuver control measures
- Availability of ammunition prestocks
- That fire support is coordinated with the obstacle plan
- Recommended FSEM
- That continuous support capability exits for the maneuver force
- Time to first round, shift targets, and displace
- That fire support is integrated with direct fire, CAS, EW, and ADA
- That coordination with the S2, S3, and Signal officer, to reduce FSE electronic signature, has taken place

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ENGINEER

INTRODUCTION

The primary mission of the combat engineer unit is to multiply the combat effectiveness of the maneuver brigade. This is accomplished by increasing the mobility of friendly forces, by impeding mobility (countermobility) of enemy forces, and by providing the friendly force increased survivability. The secondary mission of the engineer is to fight as infantry when so required by higher level.

ASSETS

The light brigade may be allocated an engineer company or battalion by the division. Other engineer assets, such as FASCAM, may be provided as needed. The engineer unit is used mainly to emplace and breach obstacles and, in the context of these operations, to help with the brigade reconnaissance effort.

Engineer platoons in the light division have organic mine detectors, demolition kits, carpenter kits, and pioneer tool kits. Other engineer equipment (e.g., armored combat earthmovers (ACEs) and small emplacement excavators (SEEs)) can be requested from the division G3/division engineer.

The heavy brigade is normally allocated an engineer battalion under the Engineer Restructuring Initiative (ERI) in which an engineer brigade will be organic to the heavy division and an engineer battalion in direct support of each maneuver brigade. The engineer battalion has 5 companies including a HHC, three line companies, and a heavy equipment company. The line engineer company has 2 sapper platoons, of 3 squads, each mounted in M113 armored personnel carriers and 1 ACE per platoon. The assault and barrier platoons of the equipment company have 5 ACEs, 2 combat engineer vehicles, 4 AVLBs, 4 mine-clearing line charges (MICLICs), and 2 ground-emplaced mine scattering systems (GEMSSs) or Volcanoes. The ERI bulldozer-equipped engineer companies have 4 bulldozers in lieu of the 7 ACEs.

ENGINEER CAPABILITIES

Heavy Engineer Characteristics. Heavy engineer companies are equipment heavy and manpower light, highly mobile, and protected when mounted. They are most effective operating as platoons and are capable of self-tactical sustainment with only minimal support from the parent or supported unit. They possess organic bridging assets (AVLBs) and can provide scatterable minefield capability (GEMSS, Volcano/Flipper, (ADAM/RAAMS - from FA 155mm howitzer)). The effective employment of FASCAM assets requires careful coordination among the engineer, FSO, S3, and S2. The heavy engineer focus is on in-depth tactical obstacles supporting a heavy force. They possess mobile recon capability and can recon numerous NAIs. They have rapid and survivable breaching capability, possessing both mechanical and explosive breaching assets. Heavy engineer minefield breaching is provided by the MICLIC which is only effective against single impulse mines.

Heavy engineer companies provide rapid linear tactical obstacle emplacement (row and scatterable minefields, wire and tank ditches), some obstacle material haul, mobility support, and survivability support. They provide responsive flexibility to support rapid shifts in engineer missions and the equipment necessary to maintain the mobility of the heavy force.

Light Engineer Characteristics. Light engineer battalions and companies are both equipment and manpower light (LT Division: 2 platoons/64 men; ABN/AASLT Division: 3 platoons/96 men). They lack haul assets, have no organic bridging assets, possess limited communications capability, and are foot or wheel mobile. The light engineer companies have organic scatterable minefield capability (Volcano, ADAMS, and RAAMS). They are capable of decentralized offensive operations up to 48 hours. Reconnaissance missions are dismounted, resulting in fewer NAIs covered in detail. The light engineers are capable of assault breaching or limited in-stride breaching, but not both simultaneously. Light force survivability requirements are provided by the light equipment slice or heavy engineer equipment slice for the light brigade. Light engineer companies provide countermobility/survivability through point obstacle emplacement, preparing disrupting obstacles well forward, and strongpoint preparation.

The engineer brigade can provide a battalion in DS of each maneuver brigade. The normal method of support within the maneuver brigade is accomplished, on an area basis, placing companies in support of each battalion. The effectiveness of engineer support is greatly reduced if engineer companies are piecemealed out to units.

PRIMARY ENGINEER SUPPORT DUTIES

The Engineer staff officer provides expertise/input in the following areas:

Mobility

- Offensive Focus
  - MSR and other route clearance and maintenance
  - Combined arms breaching
  - Lane handover
  - Assistance in the forward passage of follow-on forces
  - Clearing and gap crossings
- Defensive Focus
  - Terrain considerations
  - MSR and lane closure
  - Force repositioning and counterattacks
  - Command posts and trains

Countermobility

- Offensive Focus
  - Emplacement of tactical obstacles
  - Blocking enemy avenues of approach into the brigade's flanks and rear
  - Development of plans to rapidly transition from offensive to defensive operations
- Defensive Focus
  - Obstacle belt locations and functions
  - Tactical obstacle repair teams
  - Direct and indirect fire integration to obstacles, priorities, and obstacle resourcing
  - Priorities and use of engineer equipment

Survivability

- Offensive Focus
  - Maintenance of survivability positions
  - Development of fighting/protective positions to support the transitioning to a hasty defense
- Defensive Focus
  - Fortifications (number and type)
  - Protective obstacles, anti-tank ditches, wire, anti-personnel mines, camouflage, strongpoints, and deception
  - Priorities and use of engineer equipment
  - Survivability positions

Additional Engineer Battlefield Support Duties

Although not directly related to combat activity, engineers further contribute to the brigade's success on the battlefield by performing various sustainment engineering tasks. Sustainment engineering includes those tasks which increase the mobility, survivability, and sustainability of tactical and logistical units to the rear of the FLOT, e.g., construction and repairing lines of communication, logistics facilities support, area damage control, and construction material production. Doctrinally, this is done by corps units assigned to support a division.

Offensive operations. Engineer support duties and responsibilities during offensive operations can be divided into three phases. During the planning phase, the engineer does an engineer estimate followed by an engineer plan. Engineer planning involves the analysis of terrain, friendly and enemy characteristics and capabilities. During the conduct of reconnaissance, the engineer augments scouts and patrols to collect critical information about obstacles, the breaching of specific obstacles, or enemy engineers. During the offensive operation the engineers will be involved with the task force in one or more of the following: in-stride breaching, deliberate breaching, battlefield isolation, and flank protection.

Defensive operations. Engineer support duties and responsibilities during defensive operations can also be divided into three phases: planning, battlefield preparation (i.e., designing tactical obstacles and preparing survivability positions, while allowing for any mobility requirements), and contingency battlefield operations such as obstacle activation, emplacing obstacle reserves, providing support for counterattack forces, preparing supplemental positions, and repairing, restoring or improving existing designs.

STAFF COORDINATION

The task force engineer works closely with the S2 during the IPB process and development of the situational template. He contributes to the R & S plan to help confirm or deny the enemy situation by providing an analysis of the terrain and friendly/threat capabilities, enemy engineer options, and anticipated priority of efforts. He also works with the S3, S4, and FSO to develop the engineer plan, to provide resources to support the plan, and to coordinate fires with obstacles. The engineer works closely with the brigade commander to address the following: purpose of the obstacles, priorities of mobility, countermobility, and survivability during offensive, defensive, and other tactical operations, work priorities, emplacement guidance for scatterable mines, and restrictions on obstacle use.

PLANNING

As a member of the brigade battle staff, the engineer officer participates in the following activities during operation planning:

- IPB and Intelligence Product Preparation with the S2/battle staff
  - Enemy obstacle overlay
  - Combined obstacle overlay
  - Situational template
  - Event template
  - Decision support template
  - R & S plan
  - High value target recommendations
  - Recommendation on PIR and IR.
  - Intelligence collection and analysis
  - Continuous METT-T update
- Scheme of Maneuver development with the S3/FSO
  - Direct fire planning
  - Sector or battle position planning
  - Friendly obstacle planning
  - Breaching operations planning
  - Coordinate class IV
  - Maintenance of obstacle records
- Target Planning with the Fire Support Officer
  - High payoff target planning
  - FASCAM employment and targeting
  - ADAMS/RAAMS input
  - Forwards ADAMS/RAAMS target worksheets through engineer channels to division
  - Fire support target recommendations
  - Obscuration targets
- Prepares the engineer estimate
- Writes the engineer annex to the OPORD

Planning for light/heavy unit operations. The engineer must consider the maneuver commander's intent and the type of offensive operation being conducted in developing his plan. A highly mobile engineer force, well forward and integrated into maneuver formations is critical to maintaining the momentum of the attack. Specific arrangements are necessary to hand over obstacles from forward breaching units to

engineers for lane improvement and obstacle clearance. Sustainment engineering requirements will increase during offensive operations since LOCs will lengthen. An on-call rapid mining and rapid obstacle emplacement capability is essential for flank security. The amount and type of engineer equipment needed in the offense must be considered. At brigade and task force levels, engineers must be configured to emplace obstacles rapidly to protect attacking forces from enemy counterattacks once the objective is seized. Long term planning (division level and higher) for transitioning to the defense allows time for class IV and V to be sent forward.

Planning for heavy/light unit operations. Heavy forces defend from prepared firing positions. If engineer assets are unavailable, the concept and the terrain allocation must allow for protection through maneuver or for the use of hide positions. A common obstacle plan must fully integrate the requirements for both forces. The S2's terrain analysis must address the requirements of both forces to allow the S3/engineer representative to develop an effective plan. Finally, range disparities between weapons should be considered when preparing obstacle plans.

Control of engineer assets, especially digging assets, is critical as a unit prepares for defensive operations. Units cannot afford to waste valuable assets. The engineer officer or the brigade XO should identify an LO who is responsible for coordinating and controlling the use of digging assets to ensure that timelines established by the engineer for these assets is strictly adhered to and that units do not use these assets longer than required.

Engineer estimate. The engineer estimate is an extension of the command estimate. It is performed concurrently with other staff estimates and refined in accordance with situational updates. The engineer estimate has three distinct purposes.

Engineer estimate purpose includes:

- To ensure early integration of mobility/countermobility/survivability operations
- To focus engineer coordination with the commander and staff
- To ensure timely development of plans, orders, and annexes

The successful development of the engineer plan is dependent on:

- Thorough understanding of the commander's intent
- Early identification of key engineer tasks
- Thorough understanding of assigned engineer assets and how to use them (i.e., well thought out execution matrix that considers survivability, mobility and countermobility)
- Thorough understanding of the terrain through either ground or aerial reconnaissance
- A sound organizational strategy allowing for rapid transition from defensive to offensive missions and vice versa.

PREPARATION

The actions of the engineer during the preparation phase of the operation are critical to the brigade's success. During this time, preparation activities focus on improving the brigade's mobility, developing countermobility measures, and improving the unit's survivability. The engineer element also supports the operation by providing intelligence to the commander through the S2 by updating METT-T.

Critical tasks performed during preparation include:

- Coordinate movement of engineer assets, under control, to the required unit locations
- Coordinate for logistic support to include Class III, IV, V, and IX for assets
- Participate in the combined arms rehearsal
- Adjust engineer plan based on changes in enemy and friendly situation and disposition
- Ensures site surveys are conducted

EXECUTION

During the execution, the engineer supports the operation by monitoring the status of all defensive obstacles and the elimination/breaching of enemy obstacles. His elements will continue to update METT-T, and provide intelligence, and are prepared to fight as infantry as required.

Critical tasks performed by the Engineer include:

- Monitors the battle and adjusts engineer plan based on battle flow
- Anticipates future requirements
- Keeps the commander informed on execution of the engineer plan
- Assists the FSO in the targeting team
- Reports minefields, to include FASCAM, executed
- Ensures the Main CP plots and tracks emplaced and breached obstacles

CONCLUSION

Engineers provide the commander the technical skills and equipment needed to execute the mobility, countermobility, and survivability requirements of the brigade. To ensure engineer units are appropriately utilized, the following information checklists are provided.

What the engineer needs to know from the brigade commander:

- Mission
- Concept of operation
- Commander's intent and CCIR
- Any special fires (prep, FPF, illum)
- Any special munitions (FASCAM, smoke)
- Maneuver control measures
- Time available
- How the commander can be located
- Rehearsal time and location (e.g. breach rehearsal)
- Axis of advance
- Enemy avenue(s) of approach
- Ammunition resupply procedures
- Location where the commander wants to kill the enemy (TAIs, EA)
- Targeted elements and intent for obstacles
- Priorities for employing mobility, countermobility, and survivability measures
- Obstacle intent, i.e., to turn, fix, block, or disrupt
- Commander's plan for controlling blade teams

What the brigade commander needs to know from the engineer:

- Engineer estimate
- Barrier material requirements and resupply constraints
- Mine laying capabilities
- Blade hours available
- Target turnover criteria
- What problems he anticipates in implementing the brigade commander's guidance
- Assurance that obstacles are covered by fire
- Equipment available to accomplish assigned missions
- Plan for use of assets (equipment, Class IV, platoons)
- Plan for tracking engineer work (obstacle emplacement, survivability positions)
- Input to and assessment of COAs
- Enemy employment of engineer assets
- Engineer participation in rehearsals (particularly breaching)

In the Main CP, the engineer should have the following information posted or on templates:

- Dozer blades available
- Mines - Class V
- Barrier material - Class IV
- Tactical obstacle information
- Demolitions
- Mine detectors, etc.
- Supply points, etc.
- IPB NAI/MSR/route clearance operations
- Planned, expected, % complete obstacles
- Areas of responsibilities/task organization

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AIR DEFENSE ARTILLERY

INTRODUCTION

A brigade has no organic or dedicated air defense artillery unit. Brigades are normally supported by an ADA battery consisting of Stingers, Avengers or BSFV weapons systems, or a combination of the three, from the divisional ADA battalion.

The division ADA battalion is capable of limited protection of maneuver, critical CS, and CSS forces. The ADA battalion provides the division commander the flexibility he requires to maneuver on the battlefield. The air defense system of the division identifies and engages enemy aircraft before friendly forces can be attacked. The air defense system also has the capability to engage targets simultaneously to support the division close, deep (only with Patriot), and rear operations.

Brigades will have a LO from the ADA unit at the Main CP. The LO provides an informal A2C2 element in the Main CP that interfaces with the ADA battalion and enables rapid transmission of data, coordination of air defense fires and protection of friendly airspace.

ASSETS

Brigades are most often supported by air defense weapon systems such as the Stinger, BSFV or Avenger. A stinger section includes a headquarters element which is composed of a section chief, and three to five Stinger crews (two men per crew). In heavy divisions Bradley Stinger Fighting Vehicles (BSFV) and Avengers are being fielded. The BSFV is replacing the Vulcan. The Stinger is designed to counter high-performance, low altitude, ground attack, helicopters, observation, and transport aircraft. Each two-man Stinger crew has an M998 with six stinger weapons in its basic load. Stinger Fighting Vehicles also carry a basic load of six missiles. The Stinger's planning range is 5,000 meters. The BSFV system is employed in forward area air defense to counter low altitude aircraft. Since its aerial range is only 1,200 meters, the BSFV and Stingers are normally employed in a mixed mode.

The ADA battery commander or executive officer, in support of the brigade, is normally located at the Main CP to plan and control ADA integration and early warning (if the brigade has ADA attached). He immediately analyzes the changing air defense posture, and recommends

how to deal with the threat. If a platoon is supporting the brigade, the ADA platoon leader coordinates use and employment of all supporting air defense assets. He generally stays with his platoon.

PRIMARY ADA OFFICER DUTIES

Critical tasks of the ADA officer include:

- Advises the commander and the staff on all matters related to the employment of ADA units
- Determines requirements for ADA units and recommends their allocation to protect subordinate units and recommends the command relationships between the subordinate units and supporting ADA units
- Advises the commander and the staff on active and passive air defense measures
- Passes ADA weapons control status to units
- Passes enemy air attack early warning to supported unit
- Prepares the ADA portion of plans and orders to provide continuous coverage
- Writes the ADA annex to the OPORD
- Prepares the enemy air threat portion of the IPB with the S2
- Coordinates, with the S2, the integration of ADA operations into the overall intelligence system
- Ensures coordination of Army ADA operations within the brigade and with higher commands
- Coordinates for security and logistical support of ADA units
- Plans and coordinates the use of airspace in conjunction with the S3 Air
- Coordinates with the S3, FSO, Army Aviation LO and ALO for JAAT operations
- Monitors the readiness status of ADA units and advises the commander and appropriate staff elements

Critical tasks of the ADA officer include: Continued

- Advises on the impact of EW on ADA operations in coordination with other staff elements and assists in the preparation of the EW annex to operation plans and orders
- Participates in the development or review of joint ADA rules and procedures pertinent to the brigade
  - Small arms for air defense methods of self defense
  - Rules of engagement for enemy air
  - Hostile criteria required to engage threat aircraft
- Monitors ADA OPSEC measures to ensure compliance with directed procedures
- Coordinates fire support to protect air defense teams
- Checks with air assets to ensure IFF codes are coordinated

Note. Usually the ADA element is integrated into the brigade. In DS, logistical support comes from the supported unit (except for ADA specific).

STAFF COORDINATION

The ADA battery commander/XO (LO in the Main CP) must work closely with the S3 to determine ADA asset allocation, positioning, and missions in accordance with the guidance established by the commander. Air defense must be continually synchronized with aviation operations to preclude fratricide of friendly aviation assets. Complete integration of all ADA units into the combined arms plan is critical.

PLANNING

ADA Planning Considerations for Offensive Operations

- Size of the ADA element
- ADA gun and missile system composition
- Night combat limitations/advantages
- Location of the main battle
- Rapidly changing nature of battlefield situations
- Continuous coverage
- Fire support
- Supported commander's guidance

ADA Planning Considerations for Defensive Operations

- Enemy's main avenue of approach (ground and air)
- Static defense (amount of terrain to be retained, number of fixed positions requiring protection)
- Dynamic defense (size of enemy, maneuver, and fire assets available)
- Fire support
- Supported commander's guidance

ADA Planning Considerations for Retrograde Operations

- Location of reserve elements, command posts, FARPs, and maneuver choke points
- Deception and security measures
- Visibility conditions
- Nature of the tactical situation
- Availability of air defense assets
- Fire support
- Supported commander's guidance

Establishing Air Defense Guidance

The ADA LO must analyze the air threat in detail. After completing the IPB and a detailed mission analysis the ADA LO must provide the supported commander with recommendations on air defense measures

and employment. The recommendations should then come back approved in the form of commander's guidance for air defense. The supported unit commander's guidance for ADA should address what he wants ADA to do, and where he is willing to accept risk. Both must be based on a detailed mission analysis and the IPB. Guidance cannot be SOP. Guidance needs to change as the METT-T conditions change. SOPs tend to replace analysis and thought with routine action that may not be appropriate. The supported commander must identify what critical elements of his force or phases of his plan are threatened by air. Once identified they become tasks for ADA. For example, the force may move from concealing terrain across a large open area that provides the enemy with excellent long range shots. The IPB identified this as the most likely area for helicopters to attack the force. ADA's task would be to neutralize the helicopters in this area.

Once the supported commander has said what he wants ADA to do he must identify areas where he is willing to accept risk. In order to mass sufficient ADA fires in critical areas ADA fires must be taken from those areas identified as risk acceptable. These areas should be identified by the IPB. The concept of CVRT (Criticality, Vulnerability, Recuperability, and Threat) is a useful tool for identifying where risk can be accepted. Of the four, threat is the most important. If there is no threat, no matter how critical or vulnerable, there is no need to assign ADA assets.

Criticality. Criticality is the degree to which the asset is essential to mission accomplishment.

Vulnerability. Vulnerability is the degree to which an asset is susceptible to attack or to damage if attacked. Consideration should be given to the asset's hardness, its specific mission in the overall operation, the degree to which the asset can disperse or displace to another position, the degree to which it can provide its own air defense, and the amount of protection afforded by passive air defense measures.

Recuperability. Recuperability is the degree to which the asset can recover from inflicted damage in terms of time, equipment, and available manpower to again perform its mission.

Threat. The probability of an asset being targeted for attack by enemy air must be assessed if economical allocation of ADA resources is to be achieved. Targeting information provided by intelligence estimates,

past enemy attack methods, and enemy doctrine are all useful in determining which assets require active air defense protection.

Additional Considerations for Establishing ADA Guidance

The criticality, vulnerability, recuperability, and threat of each asset must be weighed against its total contribution to the battle. The commander must carefully consider the tradeoffs for protecting various assets across the expanded scope of battlefield operations including close and rear operations.

ADA Employment Principles

The balanced application of ADA employment principles (i.e., mass, mix, mobility, and integration), to fit the needs of the tactical situation, can greatly enhance the effectiveness of the brigade's air defense and increase the survivability of ADA.

- ADA combat power must be massed to successfully defend the asset against attack
- ADA systems (gun and missile) must be properly mixed so that any limitations in one system are offset by the capabilities of another system
- ADA units tasked with providing air defense to maneuver units should possess mobility equal to that of the supported element
- ADA weapons must be fully integrated into the commander's scheme of maneuver

ADA Employment Guidelines

In conjunction with the principles mentioned above, the commander should try to incorporate as many of the following guidelines (i.e., balanced fires, weighted coverage, mutual support, overlapping fires, early engagement, and defense in depth) in his air defense plan as the tactical situation will allow.

- ADA weapons should be positioned to deliver balanced fires in all directions
- ADA weapon fires should be weighted toward known enemy locations, unprotected unit boundaries, or enemy attack corridors or routes
- Individual fire units should be mutually supported
- ADA weapons should be positioned to provide overlapping fires
- ADA weapons should be positioned so that hostile aircraft are engaged early, prior to expected ordnance release
- ADA weapons should be positioned to provide defense in depth so that threat aircraft encounter an ever increasing volume of fire as they approach a specific defended asset

PREPARATION

The ADA LO in the Main CP monitors the readiness status of ADA units and confirms that ADA OPSEC measures are being enforced IAW directed procedures. He ensures ADA operations within the brigade are coordinated with higher commands.

Critical tasks the ADA officer accomplishes during this phase include:

- Passes enemy air attack warning to subordinate units
- Passes ADA weapons control status to units as changes occur
- Monitors status of ADA weapons systems
- Advises the commander if ADA status changes effect his ability to accomplish assigned tasks or protect a priority target
- Coordinates with the S2 for changes to the estimate of the enemy situation
- Attends the brigade combined arms rehearsal
- Ensures ADA units understand their role in the operations and that subordinates participate in rehearsals of units they support

EXECUTION

Critical tasks the ADA officer accomplishes during this phase include:

- Passes enemy air attack warning to subordinate units
- Passes ADA weapons control status to units as changes occur
- Monitors status of ADA weapons systems
- Advises the commander if ADA status changes effect his ability to accomplish assigned tasks or protect a priority target
- Recommends changes of missions to ADA units based on the tactical situation or battle losses
- Monitors and coordinates the resupply of ADA units, especially Class V
- Coordinates with the S2 concerning changes in the enemy air threat
- Participates as a member of the targeting team when Army aviation units are being used to attack targets
- Provides the S2 updates on enemy aircraft destroyed

The ADA LO carefully monitors the status of aviation operations. Based on intelligence updates provided by the S2 and requirements from the S3, he makes appropriate adjustments in the allocation and positioning of ADA assets.

COMMAND/SUPPORT RELATIONSHIP

Doctrinally, the relationships between air defense units and other units may be either command or support and are directed by the division G3 in coordination with the division air defense artillery battalion commander. The ADA elements supporting the brigade can be kept under brigade control or attached to battalions/task forces. Centralized control is preferred since it allows for better coordination of ADA support. Although the BSFV platoon is employed under platoon control, Stingers can be employed by team. The ADA battery commander will recommend appropriate control measures based on the tactical situation and METT-T.

In offensive operations, the brigade normally assigns air defense priority to the lead task forces. For defensive operations, the ADA priority shifts to protection of brigade logistical, fire support, and command and control assets.

CONCLUSION

The brigade's main air defense asset is a passive measure, i.e., remaining undetected. If support is provided from the divisional ADA battalion, the following information checklists will ensure all key ADA related issues are addressed.

What the ADA officer needs to know from the brigade commander:

- Commander's intent and scheme of maneuver/CCIR
- Nature and scope of assigned tactical missions
- Air defense guidance
- That ADA elements in GS mission can provide incidental coverage over the brigade area
- Positions of friendly forces in proximity of air defense teams
- Aviation assets

What the brigade commander needs to know from the ADA officer:

- Recommended air defense guidance
- Number, type, and positioning of ADA weapons defending each asset
- ADA task organization of brigade ADA assets
- Division ADA task organization and priorities
- Terrain and weather factors impacting on air defense plan
- Threat characteristics and tactics impacting on air defense plan
- Number of types of ADA weapons available to each defense
- Weapon system requirements, limitations, characteristics, impacting on air defense plan
- Specified and implied tasks
- Input to and assessment of COAs
- An effective early warning plan
- Weapons control status and air defense warning status
- OPSEC plan for ADA assets

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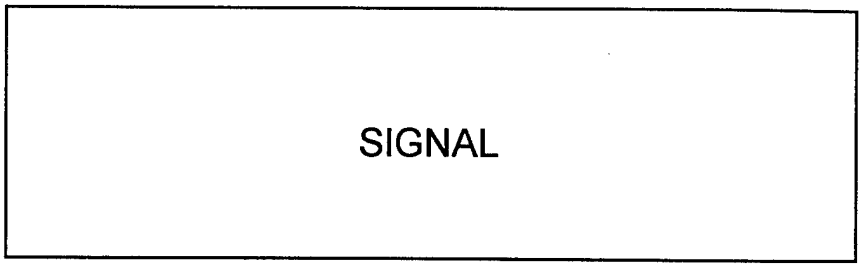
SIGNAL

INTRODUCTION

As a special staff officer under the supervision of the S3, the BSO advises both the commander and S3 on all signal, communications, and electronics matters. The BSO is responsible for ensuring that the brigade maintains communications with division, adjacent, and subordinate units. His recommendation, reference the CP location, to the S3, HHC commander ,and XO is critical to the proper functioning of the command post. He exercises operational control over the brigade's signal section and coordinates the positioning and support of the small extension node (SEN) assets. He is responsible for the automated development and distribution of SOI's and crypto for the brigade and subordinate units. He and his section provide trouble shooting of communications equipment in the Main CP and monitors the maintenance status of the overall brigade's communications equipment. The BSO normally works in the main CP coordinating and exercising technical supervision over the employment of communications systems and equipment, and training activities of brigade communications personnel.

ASSETS

The brigade communications staff section, under the direction of the BSO, directs the activities of the HHC signal section. The section provides operations and maintenance for internal CP telephones, limited FM radio maintenance, AM radios, FM radio retransmission, and evacuation of COMSEC equipment for repair.

The brigade receives MSE support from the signal battalion's SEN team operating in direct support to the brigade main CP. The SEN provides a local switchboard which supports the main command post DNVT phones. Mobile MSRT phones at the brigade main CP, ALOC, and other C2 locations are supported by the signal battalion's radio access units (RAUs). Division will establish RAU sites throughout the division area of operations to ensure that all units can gain access to the MSE system from anywhere on the battlefield. The BSO will coordinate support provided by the SEN team and incorporate their signal communications capabilities into his planning actions. Maintenance and repair of COMSEC equipment of the brigade is accomplished by the communications-electronics maintenance section of the Forward Support Battalion (FSB). Although the BSO does not oversee their operations, he does recommend

maintenance priorities which directs their maintenance efforts. Additionally, the BSO generates, distributes, and accounts for electronic cryptographic keys, frequency hopsets for SINCGARS, and the MSRT frequency plan for MSRT operations.

The BSO must thoroughly understand the maneuver plan, the enemy situation (IPB), available communications assets throughout the brigade and its direct support units, and the terrain. Good terrain analysis is critical to developing a workable communications support plan. The BSO can use the S2's terrabase program to quickly conduct terrain and line of sight analysis.

PRIMARY SIGNAL OFFICER DUTIES

The BSO accomplishes the following tasks in support of brigade operations:

- Keeps commander and his staff informed on all signal matters
  - Advises on all C-E matters including CP locations
  - Coordinates the use of signal assets for deception operations
  - Coordinates frequency allocation, assignment and use
  - Receives and processes MIJI incident reports
  - Use of secure equipment
  - Control of SOIs
  - Control of key lists, frequency plans, and hopsets
  - Advise on TACSAT and AM use
  - Employment of retransmission assets
  - Allocation of systems (identifies communication resources/means and prioritizes usage)
  - Employment of FM
  - Provides equipment maintenance
  - Training on all communications and electronic systems
  - Integrate automation and advise on employment of digital combat/intelligence systems

The BSO accomplishes the following tasks in support of brigade operations: Continued

- Integrates the communication support plan into the order process
- Exercises technical supervision over signal activities to ensure safe operation
- Ensures that communication resources and support are adequate to meet mission requirements. This may require combining/ reconfiguring equipment, committing spares, using field expedients, and/or requesting assistance from higher headquarters

STAFF COORDINATION

The BSO coordinates with the S2 on the capabilities and effects of enemy jamming, the XO, S3, HHC commander and S4 for positioning of CPs, and the LOs from attached, OPCON, and DS units for SOI matters. He coordinates maintenance of COMSEC and retrans with the S3 for priority and with the S4 and FSB for status. The results of his coordination in the planning phase lead to the production of a signal plan that supports the brigades tactical plans. The BSO must establish a close working relationship with the entire staff, slice elements, and subordinate battalion signal officers. Additionally, he must establish a good working relationship with the division C-E officer and the S3 of the division signal battalion.

PLANNING

Critical tasks performed by the BSO during the planning phase include:

- Coordinates with the S2 to determine enemy capability to jam and the effects of jamming on friendly units
- Participates in COA development
- Coordinates with the XO, S3, and HHC commander for CP locations with the best communications potential and least potential for enemy EW interference
- Plans the integration of the unit communications system into the systems of division, subordinate units, and adjacent headquarters
- Prepares and writes the signal annex of unit orders and plans
- Advises the commander on the ECCM aspects of EW and develops anti-jamming procedures for MIJI reports
- Identifies any signal constraints that may effect the tactical plan
- Plans and coordinates for continuous/extended retransmission communications among and within the brigade and brigade CPs
- Identifies requirements for external assets (TACSAT, additional retrans)
- Plans location of command and control nodes in coordination with the HHC commander and division signal officer
- Ensures MSE support is possible from planned locations
- Plans alternate and contingency locations to ensure continuous communications

Establishing an Effective Communications System. There are measures a unit can take to ensure communications and accountability of COMSEC equipment and documents. These measures are normally a part of the unit SOPs and are not normally placed into signal annexes to OPORDs. Commanders should ensure that these measures are incorporated into their SOPs and practice them during training exercises.

These measures include:

- Proper use of authentication procedures in all operations
- SOI security using a tie-down cord
- Using radios on lowest power
- Transmitting for no more than 8-12 seconds
- Use of directional antennas
- Use of abbreviated radio procedures and abbreviated reports
- Use the secure mode when possible
- Send timely, accurate reports, following the SALUTE format
- Keep radio volume low and use hand mikes while listening
- Use brevity codes and OPSKEDs where possible
- Rehearse all communications procedures/systems
- Develop contingency plans for communications

PREPARATION

During this phase inspect and test all communications equipment correcting any failures detected. Ensure that all security measures are reviewed and rehearsed to include remoting antennas, radios, and retrans sites. Rehearse reconnaissance and surveillance assets to include planning back up communications means (manual relay, etc.) for R&S assets.

Critical tasks the BSO performs during the preparation phase include:

- Monitors signal preparations for combat to include equipment status and supporting plans of subordinate and slice units
- Keeps the commander informed of signal constraints
- Attends the combined arms rehearsal
- Conducts a rehearsal of the signal assets
- Continues to monitor the enemy situation for changes to their EW capabilities
- Refines and distributes changes to the signal plan as needed
- Ensures signal units, especially retransmission teams, are properly positioned to support the operation

EXECUTION

Command and control of combat units is dependent upon effective communications support. The commander must be able to effectively communicate with subordinate, division and adjacent units in order to effectively maneuver units to the decisive point on the battlefield. The BSO must ensure that communications planned for the operation support the command during execution.

Critical tasks performed by the BSO during the execution include:

- Monitors the battle to ensure signal assets execute the plan
- Receives MIJI reports from subordinate units and ensues they are forwarded to division
- Works with the S2 to locate enemy jamming assets for targeting
- Anticipates changes to communications support and recommends changes based on the tactical situation
- Coordinates with the division C-E officer for changes to C2 locations, RAU support and additional communications support, as required
- Recommends frequency changes or alternate communications means based on the effectiveness of enemy jamming
- Monitors enemy spotreps that threaten signal assets

CONCLUSION

The importance of communications for effective command and control can not be overemphasized. All C-E assets available throughout the command must be considered including equipment in the signal unit as well as the C-E equipment and personnel assigned to the brigade.

To ensure the capabilities of the signal officer are fully utilized, the following information checklists are provided.

What the signal officer needs to know from the brigade commander:

- Terrain
- Mission
- Concept of operation
- Commander's intent
- Time available
- Chain of command
- How the commander can be located
- Rehearsal time and location
- Communication/equipment requirements
- Enemy situation including templated enemy locations

What the brigade commander needs to know from the signal officer:

- Communication equipment status
- Communication resources available
- Communication support available (mobile subscriber equipment coverage)
- Special/additional training requirements
- Modifications in SOIs
- Frequency changes/alternate means of communications
- Anti-jamming plan
- Retrans plan who is on which and when
- Forecasted problems and interruptions

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CHEMICAL

INTRODUCTION

The chemical officer ensures the brigade is able to conduct operational decontamination and is responsible for ensuring the brigade and subordinate unit operational decontamination teams are trained. The brigade NBC staff consisting of the chemical officer and the chemical NCO, is primarily responsible for integrating NBC defense, contamination avoidance, and smoke operations to support brigade level operations. In an NBC environment, the brigade must be ready to implement contamination avoidance and protective measures to enhance its survivability and provide timely information to higher headquarters about possible contamination threats to other units. Training is critical since time and resource constraints require that the brigade conduct its own limited and operational decontamination operations. The unit may be forced to fight dirty with occasional MOPP exchange. Deliberate decontamination operations will occur, most likely, when units are being reconstituted or when units have operated in a contaminated area for an extended period of time.

The commander must ensure that decontamination operations are planned to support contaminated maneuver forces. In the defense, this support is planned from the FLOT to the brigade rear boundary. In the offense, decontamination support is planned from the brigade rear boundary through the objective.

Monitoring for NBC hazards is the responsibility of the entire unit. The commander must ensure that personnel are trained to, operate chemical detection equipment, conduct both operational and deliberate decontamination operations, identify NBC agents, operate radiac equipment, and conduct NBC surveys as decontamination is discovered or as directed.

ASSETS

There are no chemical units assigned to the brigade or subordinate task forces. A decontamination specialist is assigned to the armor and infantry brigade HHC, battalion HHC, and each line company has an assigned NBC NCO. Each battalion within the brigade is authorized organic decontamination equipment either one M12A1 PDDA or two M17 Sanators.

NBC defense teams (i.e., battalion level detection and radiological survey and monitoring teams and a brigade decontamination team) are not required by any current doctrine. These requirements are normally found in the unit SOP.

PRIMARY CHEMICAL OFFICER DUTIES

The chemical officer exercises staff supervision over NBC training and equipment maintenance within the brigade and exercises technical supervision over all NBC activities. The brigade NBC officer focuses planning to support the mission by addressing, in detail, friendly and enemy use of obscurants, enemy use of chemical weapons, friendly operational and decontamination operations, and friendly NBC reconnaissance operations.

The chemical officer, together with the S2, includes NBC in the IPB process. The chemical officer develops templates to estimate enemy use of chemical agents and smoke operations for each enemy COA developed by the S2.

In developing his estimate, the chemical officer must also consider the enemy's tendency to employ these assets to:

- Disrupt the friendly attack
- Block positions
- Deny terrain
- Block cross mobility corridors
- Canalize forces
- Reinforce obstacles
- Disrupt command and control
- Slow reinforcements
- Block the flow of supplies
- Contaminate reserves
- Cause casualties
- Break the friendly defense

When evaluating the probability of future chemical strikes by the enemy, the chemical officer must consider the following indicators:

- Chemical munitions sighted in enemy's corps or division area
- Chemical bombs or spray tanks uploaded on enemy aircraft
- MOPP status of enemy troops
- Reports of chemical strikes in the AO
- Repositioning of known enemy chemical units, especially decontamination units
- Communications intercepts unique to special weapons' firing batteries

The chemical officer provides recommendations on the use of friendly smoke operations. Smoke plans must be disseminated to adjacent, higher, and lower echelons. Plans should be prepared IAW Annex A, FM 3-50 to include graphics. Uses of smoke are listed in Chapter 6, FM 71-2 and are a guide on how to use generated and other types of smoke for offensive and defensive operations. For smoke to be used properly, it must be planned. Not planning a smoke mission results in either no smoke mission, or one which is bound to fail.

Planning considerations include:

- The electro-optical capabilities of friendly or enemy equipment and how they are employed
- Smoke delivery assets and capabilities for both the enemy and friendly forces
- Directed energy weapons capabilities of enemy and friendly forces
- Current and projected weather conditions
- Past use of obscurants by enemy forces

The chemical officer also provides expertise in the tactical employment of flame weapons. The application of flame weapons at decisive times and places on the battlefield reinforces fighting positions, achieves surprise, and produces casualties and psychological shock.

Flame weapons provide the tactical commander a resource to:

- Repel enemy penetrations
- Destroy enemy forces
- Gain time
- Provide obstacles
- Isolate or canalize an enemy
- Slow enemy movement
- Surprise enemy forces
- Degrade enemy morale

STAFF COORDINATION

The chemical officer works closely with the S2, S3, S4, and the division and subordinate unit chemical officers. Coordination efforts focus primarily on issues related to the operational effectiveness of friendly NBC employment and the dangers associated with anticipated enemy use of NBC. The chemical officer must work within the intelligence network. He is required to provide input to the S2 regarding his analysis of enemy intelligence gathered on NBC activities and in developing IPB. He coordinates with the S4 ensuring chemical defense equipment is prepositioned forward as indicators for the use of chemical weapons begin to materialize. Coordination with CSS staff is required for both decontamination (water, decontaminants, augmentees, transportation, replacement equipment, engineer support, medical support, routes, etc.) and smoke operations.

It is critical that the chemical officer fully understand the commander's intent and the complete scheme of maneuver/concept of operations. He receives specific guidance from the S3.

PLANNING

The major responsibilities of the chemical officer during the planning process include:

- Integrating NBC threat analysis into the IPB process and NBC recon into the R & S plan
- Performing vulnerability assessments given the commander's acceptable loss criteria
- Completing MOPP analysis and recommending MOPP status
- Determining automatic masking criteria
- Predicting fallout and downwind vapor hazards and their effects on operations
- Preparing the smoke and NBC annex to plans and orders, NBC estimates, and SOPs
- Maintaining supply status and allocations of NBC defense stocks

The chemical officer also advises the commander in the following areas:

- The use of smoke to support the tactical scheme of maneuver
- Impact of the enemy's use of NBC weapons on the civilian population
- Impact of NBC contamination on tactical, logistical, and civil-military operations
- Use of riot control agents and herbicides in support of tactical operations and the need to get release authority
- Use of flame weapons and flame field expedients
- The resupply of fog oil, diesel, mogas, two-cycle fuels, and water to supporting chemical units
- The use, positioning, and resupply of chemical defense equipment inanticipation of enemy use of chemical weapons

PREPARATION

During this phase, the chemical officer continues to monitor the enemy situation and the unit's preparation. He and his staff inspect the unit to ensure the equipment is ready and that the assigned operators are

prepared to perform their respective additional duties as the tactical situation requires.

Key responsibilities during the preparation phase include:

- Checking NBC preparedness/readiness
- Ensuring the organic decontamination equipment is operational
- Managing CDE stocks and packaging of CDE stocks to expedite rapid movement of the stocks to preplanned decon sites.
- Ensuring the effective link-up of attached NBC assets if not already completed
- Coordinating with subordinate chemical personnel to ensure a thorough understanding of chemical planning and chemical IPB

EXECUTION

The primary responsibilities of the chemical officer during the execution of the operation include:

- Maintaining the NBC situation map
- Providing recommendations concerning MOPP levels consistent with the enemy threat and the tactical situation
- Recommending operational exposure guidance (OEG) [The OEG is normally mandated by higher headquarters]
- Collating, evaluating, and distributing NBC contamination data
- Providing recommendations concerning the employment of supporting NBC reconnaissance and smoke units
- Disseminating the NBC 3 chemical message
- Supervising the activities of chemical detection and radiological survey and monitoring teams
- Coordinating and supervising decontamination missions conducted with or without supporting divisional assets

In addition, the chemical officer advises the commander in the following areas:

- Clearing of obstacles and hazards created by enemy nuclear and chemical weapons (coordinated with the engineer)
- Acquisition, storage, issue, and movement of chemical equipment and supplies, to include MOPP material resupply rates and distribution schedules

CONCLUSION

The chemical officer provides valuable expertise in the employment of nuclear, biological, and chemical weapons on the integrated battlefield. To ensure that the chemical officer and his assets are fully utilized, the following information checklists are provided.

What the chemical officer needs to know from the brigade commander:

- Mission
- Concept of operation
- Commander's intent
  - Intent for fighting contaminated
  - Commander's acceptable loss criteria
  - Decontamination priorities/concerns
  - Employment considerations for NBC reconnaissance
- Priority of fires
- Any special fires (e.g., prep, FPF, illum)
- Fire coordination signals
- Any special munitions (e.g., FASCAM, smoke)
- Time available
- Obstacle plan
- Chain of command
- How the commander can be located
- Rehearsal time and location
- Axis of advance
- Enemy avenue(s) of approach

What the brigade commander needs to know from the chemical officer:

- NBC nuclear weapons status
- Impact of friendly use of NBC
- Assessment of the enemy's use of chemical weapons
- Assessment of the enemy's use of nuclear weapons
- Criteria for these assessments
- Evaluation of the brigade monitoring teams' readiness
- Assessment of potential downwind vapor hazards
- Recommendations on employment/missions of attached NBC assets
- Decontamination (to include priorities) and smoke operation plans
- Templated chemical strikes
- Identification of NBC reconnaissance mission(s)
- Assessment of the use/impact of enemy smoke operations

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CHAPLAIN

INTRODUCTION

The chaplain is the brigade commander's special staff officer for matters concerning religion, morals, ethics, and morale as affected by religion and ethical decision making. The brigade chaplain has direct responsibility for the headquarters element of the command and coordinates the activities of battalion UMTs. He also coordinates with other members of the command on matters important to the spiritual well being of soldiers and the unit.

ASSETS

The brigade chaplain is directly responsible for the technical supervision and MOS/branch specific training of all battalion UMTs. The brigade chaplain is the manager of the commander's religious support plan and uses the following assets to accomplish his mission.

Unit ministry team (UMT). Normally there is a UMT assigned to each battalion of the brigade. The UMT consists of the chaplain and the chaplain assistant. At brigade level, the chaplain assistant will be a senior chaplain assistant NCOIC. They provide religious support to the commander, his subordinate commanders, his staff, NCOs, and soldiers of the brigade. Brigade level UMTs further have the responsibility to mentor, supervise, and train subordinate level UMTs. The brigade chaplain is responsible to manage the commander's total religious support program.

Command sergeant major. As the senior NCO and the adviser to the commander on enlisted affairs, the CSM is privy to vital information concerning the soldiers. Working with the CSM, the chaplain has a direct contact with all soldiers and can help solve many problems long before they get into "official" channels.

First sergeants. First sergeants can provide valuable assistance to the chaplain in the early identification and diagnosis of soldier problems. On the battlefield, 1SGs also play an important role in controlling combat stress while working with the chaplain during his visits with soldiers in tactical assembly areas (TAAs) and on the line.

Medical Company. During an engagement, the chaplain will work very closely with the FSB medical company to ensure religious support for casualties and the medical personnel that are treating them.

PRIMARY CHAPLAIN DUTIES

- Prepares the religious support estimate and plan in appendix format for inclusion in the personnel annex to the brigade OPORD
- Conducts/coordinates religious support (RS) operations
  - Establishes communication and coordination of religious support with higher UMTs and with UMTs on their flanks
  - Conducts appropriate religious services, rites, ordinances, sacraments, and ministrations
  - Gives pastoral care to soldiers, particularly those who have become casualties
  - Ensures that soldiers from other units operating in the brigade AO receive religious support
  - Ensures soldiers with special religious needs are accommodated
  - Performs appropriate memorial/funeral services and patriotic Ceremonies
- Advises the commander of matters concerning religion, morals, ethics, and morale as affected by religion
- Advises the commander and staff on the influence of indigenous religious groups and customs on the commander's courses of action
- Works with the S1 and the brigade surgeon in the brigade mental health program to include training unit leaders in the preventive aspects of stress on soldiers
- Supervises the total religious program for the commander, to include subordinate UMTs and units covered
- Serves as the primary mentor, trainer of technical skills and technical supervisor for all subordinate UMT members

Unit Responsibilities

Family care. The chaplain takes an active role in the support of family members. Prior to deployment, the chaplain encourages and advises family support groups. He familiarizes himself with US Government and local policies governing marriages overseas, assists the S1 in working family care issues, and assists soldier families in making contact with local support agencies such as the Red Cross, Army Community Services, and Army Emergency Relief. He Serves as the primary counselor for all family and individual soldier issues.

STAFF COORDINATION

The chaplain coordinates with various staff members/individuals in the areas listed below:

With the XO

- Religious support plan
- Staff meetings
- Daily activities

With subordinate unit COs/CSMs

- Worship services
- Times and locations for visiting soldiers
- Special spiritual needs of their soldiers
- Other special needs
- Integration of replacements
- Counseling opportunities
- Suicide awareness
- Stress prevention briefings
- Ethical decision making instruction and programs

With the division chaplain for

- Religious support plan
- Additional religious support
- Resupply of ecclesiastical supplies
- Replacements

With the S1 for

- Personnel estimate
- Update on casualty data
- Letters of condolence
- Update on replacement data
- Movement plan with updates
- Requests for additional RS
- Religious support annex for OPLAN/OPORD
- Health service support plans (with graphics-AXPs, aid stations, CCPs)

With the S2 for

- Update on enemy situation
  - Locations
  - Probable courses of action
  - Activity which impacts on Religious Service support activities
- Update on weather
- Terrain/trafficability data
- Additional maps of AO
- Indigenous religious groups and sites
- Religious services for EPWs

With the S3 for

- Course of action (from S3 plans)
- Update on unit locations (current/planned)
- Combat power with changes
- Update on operation
- Task organization

With the S4 for

- CSS plans (with graphics)
  - Main/alternate/"dirty" chemical supply routes
- Health Service Support plans (with graphics)
  - Ambulance exchange points (active/planned)
  - Mass casualty plans/criteria
  - Aid station location/forward treatment team

PLANNING

The planning focus of the chaplain centers around religious support to soldiers forward before engagements in TAAs during preparation time and at clearing stations/aid stations during engagements. After the engagement, the chaplain provides religious support to soldiers forward in addition to providing memorial services and ceremonies. These planning activities are discussed briefly below.

Tactical assembly areas. While soldiers are preparing for combat, they will be anxious about what the future holds. Religious services, rites, and sacraments, consistent with the chaplain's particular faith group affiliation may not be sufficient. Therefore, the chaplain plans for additional denominational support, contacts the division chaplain to coordinate that support, and coordinates with the units for time and place for all religious support. Additionally, the chaplain will plan to visit with soldiers, providing pastoral care, counsel and assurance where necessary.

Medical company. Based on casualty projections, the chaplain plans religious coverage by UMTs at locations where casualties are

collected, normally in the TF combat trains, main aid stations, forward aid stations, and any elements pushed forward to treat casualties. The brigade Chaplain will locate himself where he can best manage religious support assets of the battlefield and be ready to provide coverage to units needing additional religious support assets due to mass casualties or loss of the battalion unit ministry team. If the brigade unit ministry team must go to a casualty collection point, the chaplain will provide direct religious support. The NCOIC would need to assist the chaplain but also continue to monitor the battle and manage the other religious support assets on the battlefield. In a low intensity conflict it may be necessary for the Chaplain to coordinate the activities of UMTs to travel between several dispersed units/locations providing religious support to soldiers and casualties at all locations.

Memorial services. Critical to the morale of the surviving soldiers is the appropriate honoring of their comrades who have fallen in battle. The chaplain plans ahead for this eventuality.

After the battle ministry. The brigade chaplain must ensure that religious support assets are allocated and factored into the plan to provide ministry after the battle is over. Past wars have taught us that post traumatic stress is a real issue. Soldiers will need help dealing with the high intensity stress issues involved in combat. The brigade chaplain will include in the religious support plan opportunity for worship services, personal "one on one" counseling and other stress reducing activities.

PREPARATION

The chaplain prepares the religious support plan and coordinates it as quickly as possible to begin providing immediate religious support. During the planning phase, the senior chaplain assistant NCOIC makes sure the team and its equipment is ready to go. The brigade unit ministry team must have internal transportation and communication assets to allow them to conduct the religious support mission on the battlefield. The brigade chaplain should coordinate the religious support plan with the battalion UMTs religious support plan. The best way to do this coordination is face to face. If this is not possible, the brigade chaplain's coordination with the battalion UMTs should mirror the coordination the brigade commander is making with the battalion commanders.

EXECUTION

As noted earlier, the Chaplain ensures religious support is being provided to all units during the planning and preparation phases. This continues through the execution phase. He ensures that priority of religious services is given to those units that will enter combat first. The Chaplain will provide coverage to those units not covered by UMTs and will locate himself where he can best support the soldiers of the command and ensure total coverage to all UMTs within the command.

CONCLUSION

The chaplain provides the commander, the staff, and the soldiers with religious support and pastoral care. To ensure the chaplain is appropriately employed, the following information checklists are provided.

What the chaplain needs to know from the brigade commander:

- Situation
- Mission
- Commander's concept of the operation
- Commander's intent
- Actions on the objective
- Time available
- Chain of command
- Task organization
- How the commander can be located
- Rehearsal time and location
- Transportation and communication support

What the brigade commander needs to know from the chaplain:

- Religious support plan
- Issues dealing with ethics, morals, and morale as affected by religion
- Impact of local religious groups and sites on planned military operations
- Any special religious accommodation requests from soldiers
- Any humanitarian issues arising from indigenous groups
- How additional religious support assets can be obtained if needed
- Emotional and spiritual health of the command
- Morale of the soldier as it relates to combat stress and personal stress levels of the soldiers

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COMMON SUBJECTS

INTRODUCTION

All members of the Brigade battle staff must have a solid foundation in how the US Army wages war. It is this foundation that provides the common ground upon which all battle staff officers execute their duties and the common language with which the professional battle staff communicates.

The battle staff should be trained in the following areas:

- Introduction to AirLand Operations Doctrine
- Operations
- Fundamentals of the Defense
- Fundamentals of the Offense
- Organization and Planning
- Terms and Graphics
- Military Briefings
- Battle Staff Integration

By training the entire staff together, each can gain a better understanding of his role within each subject as it applies to total battle staff process. Additionally, each will understand the interrelationships of the other staff members in processes, especially in the planning process. It is suggested that the staff officer responsible for the topic actually conduct all or a portion of the training for the staff. In cases where there are more than one staff officer responsible, each staff officer with responsibilities should conduct their portion of the training. The commander, however, is ultimately responsible for training the staff, and must be prepared to conduct the training when staff officers do not have the expertise. Recommended topics for training the brigade battle staff are as follows.

- Introduction to AirLand Operations Doctrine
  - Principles of War
  - Airland Battle Operations Doctrine
  - Tactics
  - Combat Power
  - Key Components of Airland Operations Doctrine
  - Tenets of Airland Operations
  - Airland Operations Imperatives
- Operations
  - Key Components of the Command and Control Philosophy of the U.S. Army
  - Key Components of the Army Command and Control System
  - Describe the Eight Steps of the Troop Leading Procedures
  - Factors of METT-T
  - Components of the Commander's Estimate of the Situation
  - The Intelligence Cycle
  - Format and Contents of the Warning Order (WARNORD), Operations Order (OPORD), and Fragmentary Order (FRAGO)
- Fundamentals of the Defense
  - Fundamentals of defensive operations
  - Purpose of defensive operations
  - Characteristics of defensive operations
  - The framework of the defense
  - Planning factors for defensive operations
  - Aspects of defensive synchronization
  - Seven steps in the sequence of the defense
  - Components of the battle handover
  - Three basic types of defenses

- Fundamentals of the Offense
  - Five Characteristics of Offensive Operations
  - Five types of offensive operations and the conditions under which they are used
  - Five forms of maneuver and their application
  - Purpose and characteristics of a movement to contact
  - Four phases of offensive operations
  - Typical tasks assigned to Main and Supporting Attacks
  - Composition and purposes of reserves
  - Six steps in the Sequence of the Attack
  - Framework of the Offense
  - Operational Security (OPSEC) in the conduct of offense
- Organization and Planning
  - Intelligence Battlefield Operating System (BOS)
  - Intelligence gathering assets
  - Intelligence Preparation of the Battlefield (IPB)
  - Key players in the IPB process
  - Five functions of the IPB process
  - Five military aspects of OCOKA
  - Description and purpose of the three templates prepared as part of the IPB process
  - Reconnaissance and surveillance planning
  - Counterreconnaissance measures
- Maneuver Battlefield Operating System (BOS)
  - Depth of the brigade close in battle
  - Three types of maneuver task forces
  - Capabilities of a tank battalion
  - Capabilities of a mechanized infantry battalion
  - Size of enemy forces a brigade is expected to defeat in both the offense and the defense

- Fire Support Battlefield Operating System (BOS).
  - Mission of the fire support system
  - Four component parts of fire support system
  - Role of the commander's intent in fire support planning
  - Coordination areas between the commander and the FSO
  - Component parts of fire support organization
  - Field artillery capabilities and limitations
  - Key personnel in managing naval gunfire support
  - Capabilities and limitations of naval gunfire support
  - Three types of offensive air support
  - Two types of close air support missions
  - Coordination responsibilities for close air support
- Air Defense Artillery Battlefield Operating System (BOS)
  - Passive and active air defense measures
  - Duties of the Air Defense Artillery Officer (ADAO)
  - Four principles of ADA employment
  - Commander's air defense priorities
  - Air defense planning factors
  - ADA employment guidelines
  - Weapons control status and degree of control exercised
  - Early warning alert postures and their application
  - Key components of the early warning system
- Mobility, Countermobility, Survivability Battlefield Operating System (BOS)
  - Five critical aspects of mobility, countermobility and survivability
  - Two types of obstacles
  - Engineer support available to the brigade
  - Components of the divisional engineer company
  - Four types of command and support relationships
  - Duties of the brigade engineer
  - Engineer employment considerations
  - Capabilities of engineer equipment

- Combat Service Support (CSS) System of the Battlefield Operating System (BOS)
  - Five functional areas of CSS
  - Organization of the logistics system
  - Forward Support Battalion (FSB) organization
- Command and Control System of the Battlefield Operating System (BOS)
  - Command and Control responsibilities
  - Role of the Executive officer
  - Command and Control Facilities
  - Echelonment of Command and Control facilities
  - Systems available for command and control communication
- Use Operational Terms and Graphics for Effective Control of Combat Operations
  - Colors used to depict military graphics
  - Friendly and enemy graphics
  - Current and proposed/suspected friendly and enemy graphics
  - elected basic and interservice symbols
  - Unit size indicators
  - Unit role indicators
  - Installation role indicators
  - Equipment symbols
  - Vehicle symbols
  - Aviation symbols
  - Use of symbol fields
  - Defensive control measures
  - Offensive control measures
- Military Briefings
  - Four steps in preparing a military briefing
  - Format and use of each of the four types of military briefings
- Battle Staff Integration
  - Components on the Olmstead Model for Organizational Competence
  - Prerequisite organizational capabilities
  - Role of command climate and organizational conditions
  - Seven organizational processes or functions
  - Models for organizational and process assessment

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FM 6-20-20 Tactics, Techniques, and Procedures for Fire Support at Battalion Task Force and Below
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ACRONYM LIST

2IC Second in Command
A2C2 Army Airspace Command and Control
AMC Air Mission Commander
AO Area of Operations
AVLB Armored Vehicle Launch Bridge
BAE Battlefield Area Evaluation
BAI Battlefield Area Interdiction
BDA Battle Damage Assessment
BFV Bradley Fighting Vehicle
BICC Battlefield Information Control Center
BSO Brigade Signal Officer
C3I Command, Control, Communications and Intelligence
CAS Close Air Support
CCIR Commanders Critical Information Requirements
CDE Chemical Defense Equipment
CEOI Communications-Electronics Operating Instructions
CFL Coordinated Fire Line
COMSEC Communications Security
COSCOM Corps Support Command
CP Command Post
CS Combat Support
CSR Controlled Supply Rate
CSS Combat Service Support
CTC Combat Training Center
DISCOM Division Support Command
DOD Department of Defense
DP Decision Point
EA Engagement Area
ECCM Electronic Counter-Counter Measure
ECM Electronic Counter Measure
EPW Enemy Prisoner of War
EW Electronic Warfare
FARP Forward Area Rearm and Refuel Point
FASCAM Family of Scatterable Mines
FDC Fire Direction Center
FFA Free Fire Area
FLOT Forward Line of Troops

FO Forward Observer
FPF Final Protective Fire
FRAGO Fragmentary Order
FSB Forward Support Battalion
FSCL Fire Support Coordination Line
FSCOORD Fire Support Coordinator
FSE Fire Support Element
FSEM Fire Support Execution Matrix
GS General Support
GSR General Support-Reinforcing
HPT High Priority Target
HUMINT Human Intelligence
HVT High Value Target
IAW In Accordance With
IEW Intelligence and Electronic Warfare
IEWSO Intelligence and Electronic Warfare Staff Officer
IFF Identification - Friend or Foe
IPB Intelligence Preparation of the Battlefield
IR Intelligence Requirement
JAAT Joint Army-Air Force Team
JTF Joint Task Force
LNO Liaison Officer
LO Liaison Officer
LOC Lines of Communication
LRSU Long Range Surveillance Unit
LZ Landing Zone
MCOO Modified Combined Obstacle Overlay
MEDEVAC Medical Evacuation
METT-T Mission, Enemy, Terrain, Troops, Time
MLRS Multiple Launch Rocket System
MOPP Mission Oriented Protective Posture
MOS Military Occupation Specialty
MSE Mobile Subscriber Equipment
MSR Main Supply Route
MSRT Mobile Subscriber Radio-Telephone
MST Maintenance Support Team
MTP Mission Training Plan
NAI Named Area of Interest
NCS Net Control Station
OCOKA Observation, Cover and concealment, Obstacles, Key terrain, Avenues of approach

OEG Operational Exposure Guidance
OIC Officer in Charge
OP Observation Post
OPLAN Operations Plan
OPORD Operations Order
ORF Operational Readiness Float
PAO Public Affairs Officer
PIR Priority Intelligence Requirement
PLL Prescribed Load List
POC Point of Contact
POM Preparation for Overseas Movement
POR Preparation of Records
PSNCO Personnel Staff NCO
PZ Pickup Zone
RATT Radio and Teletype
RAU Radio Access Unit
RFA Restricted Fire Area
RFL Restricted Fire Line
RSR Restricted Supply Requirement
RTD Returned to Duty
SIGINT Signal Intelligence
SJA Staff Judge Advocate
SOI Signal Operating Instructions
SPO Support Operations Officer
TAA Tactical Assembly Area
TACAIR Tactical Air Support
TACSAT Tactical Satellite
TACSOP Tactical Standing Operating Instructions
TAI Targeted Area of Interest
TC Training Circular
TDY Temporary Duty
TF Task Force
TRADOC Training and Doctrine Command
UAV Unattended Aerial Vehicle
UCMJ Uniform Code of Military Justice
UMT Unit Ministry Team