

Battle Staff Guide

**A Reference Tool
for
Commanders and Battle Staffs**



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Army National Guard
Battle Command Training Center - Leavenworth
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THE BATTLE STAFF GUIDE

Purpose. The purpose of this document is to provide Army National Guard (ARNG) commanders and staffs a ready reference to support execution of unit battle staff operations.

Preparation and Exception Authority. The authorship and construct of this document reside with the ARNG Battle Command Training Center-Leavenworth (BCTC-Lvn). Change authorization resides with the commander, BCTC-Lvn.

Commander's Note.

One of the most important and most difficult tasks for unit commanders and staffs is participating in and supporting staff planning. In order to set the conditions for success on any battlefield the battle staff must be able to successfully plan. Planning is not just "officer's business." It is the business of all leaders and managers that contribute to, control, and execute the process. Successful planning is only as good as the sum of its parts, so whether you are at the forefront or behind the scenes during operational planning, you are a key participant.

This guide does not endeavor to solve operational planning, nor be a panacea for successful mission accomplishment. It does, however, provide unit commanders and staffs an efficient means to support and execute planning, keep pace with available time, enhance decision making, and appreciate the enormity of required staff collaboration. The "Tips," Techniques, and Procedures (TTP) presented in this publication were collected over the past seven years by Battle Staff Training Team (BSTT) trainers during more than three hundred, on-site MUTA-5 / -6 periods while conducting Military Decision Making Process (MDMP)-focused staff exercises (STAFFEX) / workshops, and JANUS simulation-supported, full-spectrum scenario training.

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INTRODUCTION

The *Battle Staff Guide* (hereinafter called the *Guide*) is a single volume that attempts to address the functions and responsibilities of staff officers and non-commissioned officers at the ARNG battalion (BN) / task force (TF) level.

The *Guide* is intended to provide a ready reference for BN / TF commanders, staff officers, and noncommissioned officers. Not since the publication of the *Staff Officers' Handbook* in 1983 and the BCTC-Lvn publication series of Staff Officer and Noncommissioned Officer guides has the tactical-level staff officer and noncommissioned officer had a single, comprehensive reference to assist in the performance of his or her job. The *Guide* is an attempt to improve upon previous guides by updating and including staff officer and noncommissioned officer functions into a single comprehensive edition. The *Guide* is not an all-encompassing reference or a replacement for current Army doctrinal manuals, nor is it designed to replace or augment current instruction materials. It is, however, intended to provide a reference for BN / TF staff officers and noncommissioned officers that addresses their basic duties and responsibilities, augmented with specific, helpful tips, techniques, and hints, to facilitate their assignment to a BN / TF staff. The examples and samples used throughout are neither all-encompassing nor the only or best solution.

Numerous changes in Army doctrine, especially Field Manual (FM) 5-0, *The Operations Process*, and the projected publication of a new **FM 3-0**, *Operations*, capstone document in fiscal year (FY) 2011, provides much of the impetus for crafting this publication. Numerous references, doctrinal and otherwise, have been mined in order to provide this comprehensive and user-friendly tool for BN / TF commanders, staff officers, and noncommissioned officers. It is expected that *Guide* users will refer to doctrine, where more detail is required.

The *Guide* has been designed as a convenient, pocket- size reference. Numerous drawings, matrixes, tables, and bullet lists enhance its readability. Additionally, the *Guide* also contains a CD-ROM with current doctrinal manuals, as well as TTPs and specific tools for the MDMP. The *Guide* emphasizes the exchange of products and information (e.g., who talks to whom about what?). All references to staff officers and noncommissioned officers in the *Guide* are non-gender specific.

ORGANIZATION

The *Guide* is organized along functional area and responsibility lines. While BN / TF staff officers and noncommissioned officers have complex and myriad duties, the vast majority of these duties tend to fit into either one or more major functional area(s) and / or a like number of major battle staff responsibilities. The major staff officer and noncommissioned officer functions and responsibilities are:

- Major Functions:
 - Support the commander.
 - Assist subordinate commanders and staffs.
 - Manage information.

- Major Responsibilities:
 - Plan.
 - Coordinate.
 - Advise commanders and staffs.

ACCESSIBILITY

This document may be accessed electronically at the BCTC link on both the Army Knowledge OnLine (AKO) and Guard Knowledge OnLine (GKO) websites using the following paths:

AKO Website Path	<i>The Azimuth</i>	Website Path	GKO Website Path
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PART 1 - PLANNING

Section 1 - Staff Planning

Planning requires creative application of doctrine, tactics, techniques, procedures, units, and resources. It also requires a thorough knowledge and application of the fundamentals of full-spectrum operations. Planning constitutes the development of plans within the commander's intent and planning guidance and includes identifying the decisive operation and envisioning how shaping and sustaining operations support it.

Staff Officer and Noncommissioned Officer Characteristics and Skills

The characteristics and skills of a successful staff officer and noncommissioned officer probably differ only slightly from those of any other successful person in another endeavor. They can be simply categorized under preparation, application, and attitude.

Preparation

- Demonstrates knowledge of one's field (competence).
- Demonstrate the ability to read and conduct research.
- Demonstrates computer skills, especially word processing, graphics, and electronic mail.
- Communicates well orally and briefs well.
- Writes well and in accordance with Army writing standards (this is key).
- Seeks added responsibilities and the hard tasks.
- Coordinates with those considered "hard to deal with."

Application

- Demonstrates commitment and a willingness to give the time and effort required to succeed.
- Demonstrates willingness to cooperate and become a "team player."
- Shows courtesy and recognizes the dignity of the individual.
- Demonstrates creativity and the moral courage to stand behind imaginative thinking.
- Demonstrates initiative.
- Demonstrates flexibility.
- Manages time and resources effectively; good steward.

Attitude

- Demonstrates a “can do” attitude; a problem solver.
- Maintains a positive mental attitude.
- Exudes self confidence and mental discipline.
- Demonstrates loyalty to the commander and Soldiers.

Selected Command and Staff Duties and Responsibilities

Following are command and staff duties and responsibilities of selected officers and noncommissioned officers presented in the unique context of, “what he needs to know from the commander,” and “what the commander needs to know from him.” The following lists provide core duties and responsibilities. Each unit may have many more to add. Field Manual 5-0 (Mar 2010), *The Operations Process*, has provided refined G-/S-staff designations for certain officers / staff sections. The FM has designated the Plans Officer as the S-5, the Information Engagement (IE) Officer as the S-7, and the Civil Affairs Operations (CAO) Officer as the S-9. We have not provided duties and responsibilities in this volume for these three positions.

Commander Duties and Responsibilities

- The commander must decide what has to be done and the best method to get it done, then lead his unit through mission accomplishment. Regarding planning, the commander:
 - Trains his staff on combining the “art” of command with the “science” of control.
 - Sets the standards for training the staff.
 - Drives the deliberate planning process, e.g., the Military Decision Making Process (MDMP).
 - Determines if there is a need for design prior to conducting the MDMP.
 - Performs key tasks in each step of the MDMP.
 - Directs courses of action (COA).
 - Is the link between the analytical MDMP and the reality of battlefield execution.

Executive Officer (XO) Duties and Responsibilities

The executive officer (XO), as the second in command, is normally the BN / TF commander's assistant in coordinating and synchronizing the staff. He helps the commander prepare subordinate units for future employment. He monitors combat readiness and ensures the information element of combat power is integrated into operations.

What the XO generally needs to know from the BN / TF commander:

- How the BN / TF commander plans to use him.
- Responsibilities in tactical operations including Tactical Operations Center (TOC) operations.
- What is the division of labor between the XO and the S-3.
- Decision making authority for the commander / command structure.
- Standing commander's critical intelligence requirements (CCIR), intent, and guidance for planning.
- Command philosophy.
- What portions of the MDMP in which the commander will participate.

What the BN / TF commander generally needs to know from the XO:

- Operating policies and procedures.
- Staff coordinated recommendations.
- Current status of combat and sustainment assets within the TF.
- Status of available resources, especially the operating budget, unit status report, personnel, and material readiness issues.
- MDMP time line and when the XO expects input from the commander.

Command Sergeant Major (CSM) Duties and Responsibilities

The CSM serves as the commander's eyes and ears. A CSM has no conflicts of interest. He is dedicated to assisting the commander in directing the unit towards the successful accomplishment of the mission. With regards to staff planning, the CSM must ensure the best noncommissioned officers and Soldiers are chosen to augment the BN staff officers.

What the CSM generally needs to know from the BN / TF commander:

- Commander's intent.
- Command philosophy.
- Commander's expectations of a CSM.
- How the commander defines the CSM's job in the unit.
- Command focus.

What the BN / TF commander generally needs to know from the CSM:

- Training status of unit Soldiers and leaders.
- Welfare, morale, and satisfaction of enlisted members within BN / TF.
- Administration 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.

S-1 Duties and Responsibilities

The S-1 is a vital link in the commander's staff as he assists in supervising the health, morale, and general welfare of the BN / TF. The S-1 serves as the primary planner for all casualty evacuation operations.

What the S-1 generally needs to know from the BN / TF commander:

- Mission.
- Commander's concept of operation.
- Commander's intent.
- Task organization.
- The enemy situation.
- Time available.
- Chain of command.
- How / where the Commander can be located.
- Rehearsal times and locations.
- Priorities for planning.

What the BN / TF commander generally needs to know from the S-1:

- S-1 running estimate (personnel).
- Number of casualties by maneuver unit at expected enemy contact locations.
- Status on the delivery of replacements and return-to-duty Soldiers.
- Unit combat power.
- Ability to execute future operations based on present combat strength.
- Duty status of Soldiers.
- Casualty reports.
- Location of the Personnel and Administration Center (PAC).
- Emergency medical and preventive medicine measures.
- Casualty Evacuation Plan.
- Location and capabilities of unit and higher medical services.
- Reconstitution plan.
- Deployment status.

A basic (not all-inclusive) list of *doctrinal resources* available to the S-1:

- **FM 1-02**, Operational Terms and Graphics
- **FM 3-50.1**, Army Personnel Recovery
- **FM 3-90.5**, The Combined Arms Battalion
- **FM 3-90.6**, The Brigade Combat Team

- **FM 4-01.45**, Multi-Service Tactics, Techniques, and Procedures for Tactical Convoy Operations
- **FM 5-0**, The Operations Process
- **FM 6-0**, Mission Command: Command and Control of Army Forces
- **FM 6.22.5**, Combat and Operational Stress Control Manual for Leaders and Soldiers
- **FM 7-0**, Training for Full Spectrum Operations
- **FM 1-0** Human Resource Support
- **FM 27-1**, Legal Guide for Commanders
- **FM 2-01.3**, Intelligence Preparation of the Battlefield
- **FM 3-05.40**, Civil Affairs Operations
- **FM 46-1**, Public Affairs Operations
- **FM 5-19**, Composite Risk Management
- **FM 4-92**, Contracting Support Brigade.

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S-2 Duties and Responsibilities

The S-2 provides the intelligence and counter-intelligence functions for the BN / TF. His success depends, in large measure, on the relationship cultivated among the commander, the S-3, and himself. If the S-3 and commander do not have confidence in the S-2, then tactical plans will not be focused on the enemy and may subsequently fail. This point is critical, because in garrison, the S-2 and S-3 seldom interact, yet in the tactical environment, they must work together and have confidence in one another. The commander and S-3 must ensure that a relationship is developed that quickly instills this mutual confidence. Historically, in the National Guard, we find that the S-2 is the least trained member of the staff. While he may have been to school and learned the doctrine behind his position, he may not have the necessary time with the unit to learn the intricacies of it. The opposite is sometimes also true. When an S-2 becomes good enough to support his BN command, he is good enough to be promoted away from his job, leaving another gap. The BN / TF commander, XO, and S-3 must ensure the S-2 is properly trained, properly staffed and given the necessary time to develop the products the commander and staff need to plan.

What the S-2 generally needs to know from the BN / TF commander:

- Mission.
- Commander's concept of operation.
- Commander's intent.
- High-payoff targets (HPT).
- Commander's priority intelligence requirements (PIR), including standing / initial PIR.
- Time available.
- Based on time available, the priority of intelligence production.
- Assets available for intelligence, surveillance, and reconnaissance (ISR).
- How / where the commander can be located.
- Chain of command.
- Rehearsal times and locations.

What the BN / TF commander generally needs to know from the S-2:

- S-2 running estimate (intelligence).
- Weather, enemy, terrain, and their effects on operations (Note: While this is listed as an S-2 task, it is truly a staff task accomplished by each section as it applies to them).

- Location of anti-tank positions, crew-served weapons, individual vehicle positions, and dismounted infantry. (This will be based on the refinement of the Threat COAs from the higher headquarters (HHQ) operation order (OPORD)). The S-2 should check with the S-3 as to the tactical validity of his placement of enemy forces relative to the terrain.
- Location of known and templated barriers, obstacles, and minefields.
- Intelligence (analysis applied to SPOT Reports and other pieces of information discovered).
- Enemy avenue(s) of approach (AA).
- Combat information.
- Recommended PIR.
- Command's ISR target acquisition assets.
- ISR Plan (in conjunction with the S-3).
- Counter-intelligence measures.

A basic (not all-inclusive) list of *doctrinal resources* available to the S-2:

- **FM 1-02**, Operational Terms and Graphics
- **FM 2-0**, Intelligence
- **FM 3-19.30**, Physical Security
- **FM 5-0**, The Operations Process
- **FM 5-33**, Terrain Analysis
- **FM 3-13**, Information Operations: Doctrine, Tactics, Techniques, and Procedures
- **FM 3-90.5**, The Combined Arms Battalion
- **FM 3-90.6**, The Brigade Combat Team
- **FM 4-01.45**, Multi-Service Tactics, Techniques, and Procedures for Tactical Convoy Operations
- **FM 6-0**, Mission Command: Command and Control of Army Forces
- **FM 7-0**, Training for Full Spectrum Operations
- **FMI 2-01**, ISR Synchronization
- **FM 2-01**, Intelligence Preparation of the Battlefield
- **FMI 2-01.3**, TTPs for Intelligence Preparation of the Battlefield
- **FM 5-19**, Composite Risk Management
- **FM 2-19.4**, BCT Intelligence Operations
- **FM 2-91.4**, Intelligence Support to Urban Operations
- **FM 2-91.6**, Soldiers Surveillance and Reconnaissance, Fundamentals of Tactical Information Collection
- 2009 Worldwide Equipment Guide (Volumes 1 and 2)
- **FM 7-100**, OPFOR Doctrinal Framework.

S-3 Duties and Responsibilities

The S-3, as the BN / TF operations officer, is the commander's main assistant in coordinating and planning the battle. Note that the commander must clearly define roles for the XO and S-3 dependent on the tactical situation and operational requirements.

What the S-3 generally needs to know from the BN / TF commander:

- How the commander plans to use him.
- S-3's relationship with the command structure and the XO.
- Commander's intent / planning guidance / priorities.
- Time available.

What the BN / TF commander generally needs to know from the S-3:

- Current operations running estimate.
- Command resource allocation priorities including time, personnel, supplies, and equipment.
- Proposed task organization (TO) and mission responsibilities of subordinate units.
- Proposed tactical maneuver, dispositions, and fire schemes.
- General locations of command posts (CP).
- Overview of electronic warfare (EW), military information support operations (MISO), operational security (OPSEC), deception activities, civil affairs operations, rear area protection measures, and information engagement considerations regarding rules of engagement (ROE).
- Overview of airspace considerations.
- Unit training requirements.
- Proposed unit training programs / budget / resource allocations.
- Unit readiness status.
- Rehearsal schedules.
- ISR Plan (in conjunction with the S-2).

A basic (not all-inclusive) list of *doctrinal resources* available to the S-3:

- **FM 1-02**, Operational Terms and Graphics
- **FM 1-100**, Army Aviation Operations
- **FM 3-0**, Operations
- **FM 3-06**, Urban Operations
- **FM 3-06.11**, Combined Arms Operations in Urban Terrain
- **FM 3-07**, Stability Operations and Support Operations

- ***FM 3-11***, Multi-Service TTPs for NBC Defense operations
- ***FM 3-13***, Information Operations: Doctrine, Tactics, Techniques, and Procedures
- ***FM 3-90***, Tactics
- ***FM 3-90.5***, The Combined Arms Battalion
- ***FM 4-01.45***, Multi-Service Tactics, Techniques, and Procedures for Tactical Convoy Operations
- ***FM 5-0***, The Operations Process
- ***FM 6-0***, Mission Command: Command and Control of Army Forces
- ***FM 7-0***, Training for Full Spectrum Operations
- ***FM 90-3***, Desert Operations
- ***FM 5-19***, Composite Risk Management
- ***FM 3-61.1***, Public Affairs TTPs
- ***FM 46-1***, Public Affairs Operations
- ***FM 3-05.40***, Civil Affairs Operations
- ***FM 3-05.401***, Civil Affairs TTPs.

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S-4 Duties and Responsibilities

The sustainment of the BN / TF is the primary responsibility of the S-4. He must work closely with the command and staff structure as well as the forward support company (FSC) commander.

What the S-4 generally needs to know from the BN / TF commander:

- Mission statement.
- Concept of the operation.
- Intent of the Brigade (BDE) and BN / TF Commanders.
- The threat and friendly situation.
- Priority of fires and effort.
- Priority of maintenance support.
- Priority of classes (CL) III and V supply and priority for the tailoring of emergency re-supply in the combat trains.
- Any special ammunition requirements.
- Mission essential tasks for each task force unit.
- Maneuver control measures.
- Time line for operation (to include phases).
- Future operations / next mission.
- Obstacle plan / special needs for target reference point markers in the defense.
- Chain of command, how / where the commander can be located.
- Rehearsal schedule.
- Axis of advance and the threat AAs.
- Re-supply time line / pause for recovery.

What the BN / TF commander generally needs to know from the S-4:

- Input during mission analysis and on all COAs, to include supportability of COAs (medical, maintenance, emergency re-supply).
- Key sustainment constraints and limitations.
- Does the S-4 understand the mission and tactical concept?
- Positioning of assets and units to support operations.
- Organization of trains (echelon versus unit).
- Status of Combat Health Support (CHS) Plan.
- Does the operational plan allow sustainment functions to be performed as far forward as possible?
- Is the main effort weighted?
- Unit's fuel / ammunition / maintenance / CL IV barrier material requirements versus those on-hand and available.

- Current status and expected line of departure (LD) / defend by time status.
- Class VII weapon system loss estimate.
- Transportation requirements / routes / capabilities.
- Adequacy of command and control (C2) facilities for directing sustainment activities.
- Is retransmission needed to talk to BDE Support Area (BSA) / field trains?
- Night operation measures / considerations.
- Rehearsal schedule.
- How are slice elements and other elements supported under BN / TF control?
- How are the scouts and counter-reconnaissance (in defense) supported?
- Re-supply method of distribution.

A basic (not all-inclusive) list of *doctrinal resources* available to the S-4:

- **FM 1-02**, Operational Terms and Graphics
- **FM 3-90.5**, The Combined Arms Battalion
- **FM 4-0**, Sustainment
- **FM 4-01.30**, Movement Control
- **FM 4-01.45**, Multi-Service Tactics, Techniques, and Procedures for Tactical Convoy Operations
- **FM 4-30.3**, Maintenance Operations and Procedures
- **FM 5-0**, The Operations Process
- **FM 6-0**, Mission Command: Command and Control of Army Forces
- **FM 7-0**, Training for Full Spectrum Operations
- **FM 10-27-4**, Organizational Supply and Services for Unit Leaders
- **FM 55-1**, Transportation Operations
- **FM 5-19**, Composite Risk Management
- **FM 100-9**, Reconstitution
- **FM 4-93.50**, TTPs for the Forward Support Battalion
- **FM 4-90.7**, STRYKER Brigade Combat Team (SBCT) Logistics
- **FMI 4-90.1**, Heavy Brigade Combat Team (HBCT) Logistics.

Engineer Duties and Responsibilities

Engineers provide the commander with the technical skills and equipment needed to execute the mobility, counter-mobility, and survivability (MCS) requirements of the BN / TF.

What the Engineer generally needs to know from the BN / TF commander:

- Mission.
- Concept of the operation.
- Commander's intent.
- The threat situation.
- The friendly situation.
- Any special munitions requirements (e.g., family of scatterable mines (FASCAM), smoke).
- Maneuver control measures.
- Time available.
- Chain of command.
- How / where the commander can be located.
- Rehearsal times and locations.
- Axis of advance.
- Threat AAs.
- Location where the commander wants to kill the enemy (targeted areas of interest (TAI), engagement areas (EA)).
- Targeted elements (and intent for situational obstacles.)
- Priorities for employing engineer effort (movement and maneuver / protection.)
- Obstacle intent, i.e., to turn, fix, block, or disrupt.

What the BN / TF commander generally needs to know from the Engineer:

- Does he understand the concept of operations?
- Engineer running estimate.
- Barrier material requirements.
- Counter-mobility capabilities.
- Blade hours available.
- Target turnover criteria.
- Problems he anticipates in implementing the BN / TF commander's plan.
- Has he coordinated with the fire support officer (FSO) and S-3 to ensure that obstacles are covered by fire?
- Priority assets the engineer does not control.
- Has he coordinated his terrain analysis with the S-2 and S-3?

- What equipment does he have direct access to?
- Plan for use of assets (equipment, CL IV, platoons.)
- Plan for tracking engineer work (obstacle emplacement, survivability positions.)
- Specified and implied tasks.
- Input to, and assessment of, COAs.
- Threat employment of engineer assets.
- Engineer participation in rehearsals (particularly breaching.)

The Engineer should have the following information posted in the TOC or on templates and should be part of his running estimate:

- Dozer blades available.
- Mines - CL V.
- Barrier material - CL IV.
- Situational obstacle information.
- Demolitions status.
- Status of key equipment (e.g., mine detectors.)
- Supply points, etc.
- Intelligence preparation of the battlefield (IPB) - named areas of interest (NAI) / main supply route (MSR) / route clearance operations.
- Planned, expected, status (%) of obstacle completion.
- Areas of responsibilities (AOR.)
- Planned, completed survivability status (%) (red, green, amber.)

A basic (not all-inclusive) list of *doctrinal resources* available to the Engineer:

- ***FM 1-02***, Operational Terms and Graphics
- ***FM 3-90.5***, The Combined Arms Battalion
- ***FM 4-01.45***, Multi-Service Tactics, Techniques, and Procedures for Tactical Convoy Operations
- ***FM 5-0***, The Operations Process
- ***FM 6-0***, Mission Command: Command and Control of Army Forces
- ***FM 7-0***, Training for Full Spectrum Operations
- ***FM 5-19***, Composite Risk Management
- ***FM 5-33***, Terrain Analysis
- ***FM 3-34***, Engineer Operations
- ***FM 3-34.22***, Engineer Operations, BCT and Below
- ***FM 3-37***, Protection

Fire Support Officer (FSO) Duties and Responsibilities

The commander, quite literally, calls the shots. He should make sure 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 under his control to ensure that he gets the most from his Fires warfighting function (WFF). Advanced planning is important. Once the threat is stopped, the commander must consider his next actions. He should be frugal in planning and not create an unmanageable number of targets. 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 generally needs to know from the BN / TF commander:

- Mission commander's concept of operation.
- Commander's intent.
- The threat situation.
- The friendly situation.
- Purpose of fires.
- Guidance for selection of HPTs.
- Priority of fires.
- BN / TF and BDE fire support tasks (FST) for field artillery (FA) and mortars.
- Any special fires (preparation, final protective fires (FPF), illumination.)
- Fire coordination signals.
- Any special munitions (FASCAM, smoke.)
- Commander's maneuver control measures.
- Time available.
- Obstacle plan and EAs (where the commander visualizes killing the threat.)
- Chain of command.
- How / where the commander can be located.
- Rehearsal times and locations.
- Axis of advance.
- Threat AAs.
- Ammunition re-supply procedures.

What the BN / TF commander generally needs to know from the FSO:

- FSO targeting capabilities.
- Recommended FST for mortars / cannon.
- All fire support assets available.
- Ability of fire support assets to meet defeat criteria as stated in the commander's attack guidance.
- Nomination of HPTs.
- FSO evaluation of HPTs.
- Are fire control measures synchronized with maneuver control measures?
- Are ammunition pre-stocks available?
- Is fire support coordinated with the Obstacle Plan?
- Who will position and control fire support assets?
- How will he provide continuous support to the maneuver force?
- How long to first round / shift targets / displace?
- Is fire support tied in with direct fire, close air support (CAS), EW, and air defense artillery (ADA)?
- Has he coordinated with the S-2 / S-3 / S-6 officers to reduce fire support element (FSE) electronic signature?
- FSO plan to integrate mortars into the Fire Support Plan.

A basic (not all-inclusive) list of *doctrinal resources* available to the FSO:

- **FM 1-02**, Operational Terms and Graphics
- **FM 3-90.5**, The Combined Arms Battalion
- **FM 5-0**, The Operations Process
- **FM 6-0**, Mission Command: Command and Control of Army Forces
- **FM 7-0**, Training for Full Spectrum Operations
- **FM 5-19**, Composite Risk Management
- **FM 3-09.12**, Tactics, Techniques and Procedures for Field Artillery Target Acquisition
- **FM 3-09.31**, TTPs for Fire Support for the Combined Arms Commander
- **FM 3-22.90**, Mortars
- **FM 3-09.21**, TTPs for the FA Battalion
- **FM 3-09.23**, TTP for the Modular Fires Battalion
- **FM 6-20-10**, TTP for the Targeting Process
- **FM 6-20**, Fire Support in the Air Land Battle
- Fire Support White Paper (Final)
- **FM 3-05.30**, Psychological Operations
- **FM 3-13**, Information Operations
- **FM 3-01.60**, Counter-rocket, Artillery and Mortar Operations.

S-6 (Signal Officer) Duties and Responsibilities

The importance of communications for effective command and control cannot be overemphasized. If the commander is planning for a communications system, he should be guided by the types and amounts of equipment that are available. All communications-electronic (C-E) assets available throughout the command must be considered. This includes equipment in the signal unit, as well as the C-E equipment and personnel assigned to the BN / TF.

What the S-6 generally needs to know from the BN / TF commander:

- Mission.
- Concept of operation.
- Commander's intent.
- The threat situation.
- Any special fires (preparation, FPF, illumination.)
- Maneuver control measures.
- Time available.
- Chain of command.
- How / where the commander can be located.
- Rehearsal times and locations.
- C-E requirements.

What the BN / TF commander generally needs to know from the S-6:

- C-E status.
- Communication resources available.
- Communication support available (mobile subscriber equipment (MSE) coverage.)
- Special / additional training requirements.
- Modifications in signal operating instructions (SOI).
- Frequency changes / alternate means of communications.
- Anti-jamming plan.
- RETRANS capability.
- Operational C-E dead space and the plan to mitigate it.

A basic (not all-inclusive) list of *doctrinal resources* available to the S-6:

- **FM 1-02**, Operational Terms and Graphics
- **FM 3-90.5**, The Combined Arms Battalion
- **FM 4-01.45**, Multi-Service Tactics, Techniques, and Procedures for Tactical Convoy Operations

- *FM 5-0*, The Operations Process
- *FM 6-0*, Mission Command: Command and Control of Army Forces
- *FM 7-0*, Training for Full Spectrum Operations
- *FM 6-02.43*, Signal Soldiers Guide
- *FM 6-02.53*, Tactical Radio Operations
- *FM 5-19*, Composite Risk Management
- *FM 5-33*, Terrain Analysis.

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ADA Officer's (ADO) Duties and Responsibilities

The primary air defense asset of the BN / TF is a passive measure: remaining undetected. If support is provided from the divisional ADA BN / TF, the following information checklists will ensure all key ADA-related issues are addressed.

What the ADO generally needs to know from the BN / TF commander:

- Commander's intent and scheme of maneuver.
- Nature and scope of assigned tactical missions.
- Air defense priorities.
- Priority of air corridors.
- Can ADA elements with general support (GS) mission provide incidental coverage over the BN / TF area?
- Positions of friendly forces in proximity of air defense (AD) teams.
- Aviation assets and Army airspace command and control (A2C2) controls or considerations.

What the BN / TF commander generally needs to know from the ADO:

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

Chemical Officer's (CHEMO) Duties and Responsibilities

The Chemical Officer (CHEMO) provides valuable expertise in the employment of chemical, biological, radiological, nuclear and high yield explosive weapons on the integrated battlefield.

What the CHEMO generally needs to know from the BN / TF commander:

- Mission.
- Concept of operation.
- Commander's intent (for fighting contaminated).
- Commander's acceptable loss criteria.
- Decontamination priorities / concerns.
- Employment considerations for chemical, biological, radiological, nuclear and high yield explosive (CBRNE) reconnaissance.
- Maneuver control measures.
- Time available.
- Obstacle Plan.
- Chain of command.
- How / where the commander can be located.
- Rehearsal times and locations.
- Axis of advance.
- Enemy AAs.

What the BN / TF commander generally needs to know from the CHEMO:

- Does he understand the operational concept?
- CHEMO's criteria for these assessments:
 - threat's use of chemical weapons.
 - threat's use of nuclear weapons.
 - threat's use of high yield explosive weapons.
- CHEMO's evaluation of the BN / TF monitoring teams' readiness.
- CHEMO's assessment of potential downwind vapor hazards.
- CHEMO's recommendations on employment / missions of attached CBRNE assets, if applicable.
- Decontamination (to include priorities) and smoke operation plans.
- Templated chemical strikes.
- CHEMO's identification of CBRNE reconnaissance mission(s).
- CHEMO's assessment of the use / impact of threat smoke operations.

Chaplain's Duties and Responsibilities

The Chaplain provides the commander, the staff, and the Soldiers with religious support and pastoral care.

What the Chaplain generally needs to know from the BN / TF commander:

- Mission and impact on unit and Soldiers.
- Commander's concept of the operation.
- Commander's intent.
- The threat situation.
- Time available.
- Chain of command.
- Task organization.
- How / where the commander can be located.
- Rehearsal times and locations.
- Transportation and communication support.

What the BN / TF commander generally 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.
- Location of the unit ministry team (UMT.)
- Communication link to BN / TF UMT.
- How additional religious support assets can be obtained, if needed.

Sustainment Overview**General**

The Army's transformation to units capable of modular employment and sustainment has necessitated changes in doctrine to address maneuver sustainment distribution systems that will support the warfighter structure. The results of these changes are seen in the design and capability of new logistics units, specifically, the sustainment BDE, the BDE support BN (BSB), and the BN's forward support companies (FSC.)

The BDE Combat Team (BCT) BN requires independent logistical systems and procedures, and this requirement poses new challenges for sustaining functions and leaders. With the development of new digital methods of sharing information such as the Force XXI Battle Command BDE and Below (FBCB2) System and the Battle Command Sustainment Support System (BCS-3), leaders at BN and company levels can provide the foresight and responsiveness necessary to anticipate and maintain the high operations tempo (OPTEMPO) of BN operations. Since sustainment support to the combined arms BN (CAB) is primarily synchronized through the staff of the BCT and processed through the BSB and FSC, knowledge of their design, functionality, capabilities, and staff responsibilities are critical to effective and efficient sustainment operations.

New Design and Changing Doctrine

As transformation progresses, the doctrine that supports it is also evolving. Sustainment organization support relationships can vary across the entire spectrum of command and control. Sometimes these differences are apparent in the new manuals, and sometimes not. The bottom line is that commanders must still determine what support relationship best meets their sustainment requirements. The concepts and structures of the supply-based sustaining system of the Army of Excellence have been replaced, however segmented, by a distribution-based sustaining system. As much as possible, the difficult task of sustaining operations has been removed from the company commander and placed under the control of the CAB.

The transformation of BDEs into BCTs necessitated change for the sustaining organizations that support the BCTs. Generally, maneuver BCTs are organized with self-sustainment capability for up to seventy-two hours of combat. Beyond seventy-two hours, sustainment organizations at

the division and corps levels are required to conduct replenishment of the BCT's combat loads.

The BSB is the core of sustainment to the BCT. The BSB is organic to the BCT, and consists of functional and multifunctional companies assigned to provide support to the BCT. The BSB of the Stryker BDE Combat Team (SBCT) does not have any FSCs in it, so it task organizes to provide support to individual combat arms BNs. In contrast, the BSBs of the Infantry BDE Combat Team (IBCT) and the Heavy BDE Combat Team (HBCT) have FSCs that are traditionally attached to individual supported BNs.

The FSC provides each maneuver BN commander with dedicated logistics assets organized specifically to meet his BN's requirements. The FSC commander receives technical logistics oversight from the BSB commander. Because of their criticality and proximity to combat operations, medical platoons remain organic to maneuver BNs.

In today's contemporary operating environment (COE), support can no longer be viewed as a free, continuous, and secure function. In many types of operations, support is at risk as much as maneuver, with maneuver units having an effective duration that will expire if support is not reestablished when cut off, or if the maneuver units are not directed to another source of support.

Sustainment Mission

The mission of sustaining units has been redesigned to provide modular, capabilities-based organizations that are logically consistent with tactical concepts and tempered by the current force capabilities that are reasonably available within the near term. The principal mission of a transformed logistics system is to reduce reliance on stockpiles and static inventories located at each echelon; a characteristic of the old supply-based system. Distribution management in the new logistics system substitutes reduced "order to receipt" time for large amounts of mass, and logisticians can now control the destination, speed, and volume of the distribution system. With better asset visibility and advanced decision support system technology, logisticians are able to redirect, cross-level, and mass sustainment assets more effectively in support of the maneuver commander's intent.

How the Mission is Accomplished

The current logistics system relies on reduced *order to receipt* time to produce efficiency, but is designed with an overall intent to be effective in a combat environment. Direct throughput from the theater's sustainment BDE to the BCT's BSB or, as needed, to the FSC in the maneuver BN, is key to distribution-based logistics. By bypassing one or more echelons in the supply system, handling is minimized and the speed of delivery to forward units is enhanced. Materiel management now allows supplies to be tailored, packaged, and placed into configured loads for specific units based on a specific time, location, and point of need. Commanders are able to receive supply distribution based on the mission and OPTEMPO.

Pulsed Logistics

In a theater of operations, with combat forces widely distributed and operating in often non-contiguous areas, support must be provided in ways that leverage new technologies and new ideas such as "pulsed" logistics.

TTP ► <u>Pulsed Logistics</u> is support that does not come in a continuous stream across the communications zone, rather, in distinct packages. Pulsed logistics is a new method for the commander and is now the most commonly expected method of sustainment operations.

Pulsed logistics assists combat commanders in maintaining a high degree of combat power, while, at the same time reducing the requirement on logistics units or their supported units to secure lines of communication (LOC) at all times and in all places within the area of operations (AO). Pulse operations such as a mission staging operations will be used where operations allow for cycling units to temporary bases where they can rest, refit, and receive large quantities of supplies. Hence, pulse operations are used so that maneuver units pulse in and out of contact to be replenished and returned to the fight, or readied for another mission. Pulsed logistics is especially important when sustaining combat units that are operating on a battlefield where LOCs can only be secured temporarily.

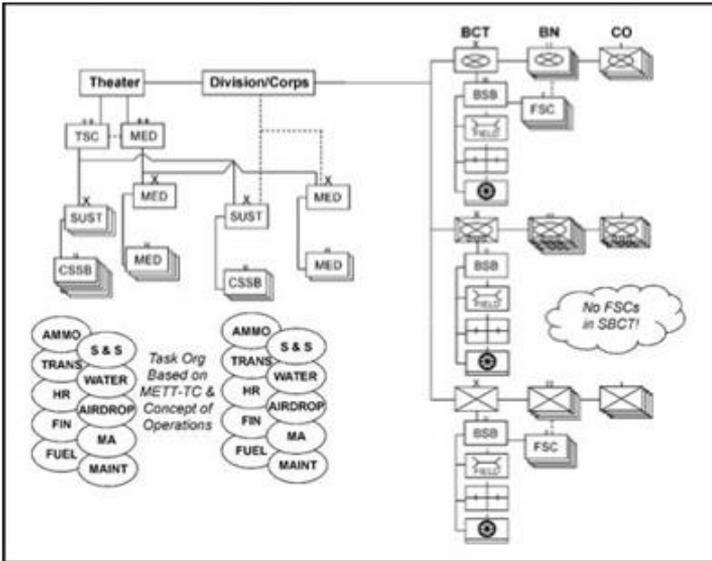
Organization

The key to modular sustainment is to organize it so that it is designed and structured with modules to sustain the combat missions assigned the maneuver commander. Under a modular construct, organizational designs incorporate multifunctional sustainment capabilities as part of maneuver BCT and maneuver BN organizations, providing them with all the necessary logistics to sustain operations internally for a period of time while minimizing the need for external support. To enable self-sustainment, a CAB will have an attached FSC, and a BCT will have a BSB as an organic part of the unit structure.

Within the BCT's sustainment structure, the BSB commander is the senior logistics operator and works closely with the BCT's Deputy BDE commander, XO, Surgeon, and S-1 / S-4 for sustainment operations. With this structure, maneuver units are organized with the self-sustainment capability to support internal needs for fuel, ammunition, medical care, maintenance, water production, and common supplies, reducing the need for reliance on higher logistics organizations for anything other than replenishment operations with three combat loads in high intensity combat. Note the BSB and maneuver BN FSCs in the following diagram.

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BSB Support to a BCT



FM 3-90.6

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Sustainment Principles

The principles of sustainment are essential to maintaining combat power, and enabling strategic and operational reach. They provide Army forces with endurance. The principles are integration, anticipation, responsiveness, simplicity, economy, survivability, continuity, and improvisation. While independent, these principles are also interrelated. For example, in order for commanders to provide responsive sustainment, they must be able to anticipate. Simplicity in planning and executing sustainment increases survivability, improves efficiencies through economy, and facilitates a continuity of resources thus reducing complexity and confusion. When the execution of plans does not proceed as expected, commanders may improvise to meet mission requirements. The most essential principle is integration. Without deliberate integration of Army sustainment with Joint and multinational forces (MNF) and other governmental agencies (OGA), the achievement of these principles becomes impossible.

Principles

FM 4-0, Sustainment, addresses each of the following sustainment principles in detail.

- **Integration.** Integration is joining all of the elements of sustainment (tasks, functions, systems, processes, and organizations) to operations assuring unity of purpose and effort. The detailed integration and synchronization of sustainment with operations maximizes the complementary and reinforcing effects from each of them. Integration is required throughout the entire operations process and the sustainment staff's job is to ensure that happens. Lack of integration could lead to mission failure.
- **Anticipation.** Anticipation is the ability to foresee events and requirements and initiate necessary actions that most appropriately satisfy a response. Anticipation of required sustainment directly relates to responsive support. By identifying sustainment triggers, the Sustainment WFF can provide the commander the support he requires when and where he requires it. Sustainment leaders must stay abreast of all operations and constantly lean forward with an eye toward future requirements.
- **Responsiveness.** Responsiveness is the ability to meet changing requirements on short notice and to rapidly sustain efforts to meet changing circumstances over time. This includes ensuring the proper amount of required classes of supply to ensure the supported elements have what they need when they need it. Responsive sustainment

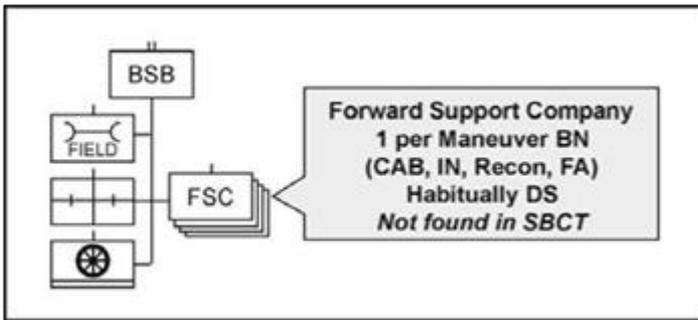
- allows commanders to maintain operational focus without worrying about sustainment shortfalls.
- **Simplicity.** Avoiding unnecessary complexity in conducting, planning, preparing, executing, and assessing sustainment operations. Mission orders, drills, rehearsals, and standardized procedures contribute to simplicity.
 - **Economy.** Economy means providing sustainment resources in an efficient manner to enable a commander to employ all assets to generate the greatest effect possible. This is achieved through management and discipline by prioritizing and allocating resources. Staffs must reduce redundancies and capitalize on joint interdependencies. Economy understands the concept of resource shortfall and recognizes the friction of military operations. Economy reduces unnecessary storage and warehouse support.
 - **Survivability.** The ability to protect personnel, information infrastructure and assets from destruction or degradation. Sustainment survivability is a function of force protection, which also consists of those actions to prevent or mitigate hostile actions against personnel, resources, facilities, and critical information. Integrating logistics with operation plans and force protection plans is critical to sustainment survivability.
 - **Continuity.** The uninterrupted provision of sustainment across all levels of war. Continuity is achieved through a series of networks linking sustainment to operations. It requires commanders to track their resources and make critical decisions eliminating interference to distribution. Sustainment personnel must work hand in hand with operations personnel to ensure synchronization of requirements across the battlefield.
 - **Improvisation.** The ability to adapt sustainment operations to unexpected situations or circumstances affecting a mission. Resources are not always available due to the “fog of war.” The sustainment expert must be creative - inventing, fabricating or arranging what he does have to facilitate mission accomplishment.

Sustainment Capabilities and Limitations

Sustainment capabilities enable the BN to initiate and sustain all possible mixes of offensive, defensive, stability operations, and in some cases may be the decisive factor in the success of the operation. Sustainment generates and sustains combat power and expands the commander’s operational reach. The following information addresses the two main sustainment sources for the maneuver BN, the BSB and FSC. A BSB is an organizational part of a BCT, and like the BCT, it is structured to

support the organizational mission. Within the modular force structure, the BSB is configured to support the variety of BDE-size organizations. For purposes of this guide, the BSB structure is addressed as it supports an HBCT, an IBCT, or a SBCT. The following provides capabilities and limitations of these support structures.

Typical Brigade Support Battalion Organization



FM 3-90.6

BSB Support to the HBCT

Capabilities

The BSB combines situational understanding (SU) with efficient delivery systems to form a distribution pipeline, reducing most stockpiles. Supplies are tailored and packaged for specific supported units based on a specific time and location. The BSB may function in a highly dispersed manner, with some BSB elements close to the maneuver units and others near the BDE Support Area or within the support area in a non-contiguous battlefield.

- The BSB commander is the BDE commander's senior logistician and serves as the senior logistics advisor for support to the maneuver BDE. His battle staff monitors and manages sustainment operations through on-site supervision, recurring reports and an array of digital information systems and other technological innovations. The BSB provides logistical support for the HBCT.
- There must be close involvement with synchronizing the maneuver of the BSB and the maneuver commander's FSC with the inbound shipments from echelons above BDE (EAB). The BSB places a single

smaller footprint on the battlefield through dispersion and centralization of sustainment.

- The BSB, with its distribution management of logistics, continues to reduce the maneuver BDE commander's involvement with most of the complex logistical support decisions but maintains task organization decisions at the HBCT level.
- The BSB TOC receives information from the BDE command post, the BN combat trains command posts (CTCP) and BN / squadron support areas. The logistics functionality on the FBCB2 and BCS-3 systems gives the warfighter a clear picture of the current sustainment situation at his echelon of command and at subordinate levels for operational planning and execution.
- The BSB has a direct support role in support of the combat BN and coordinates with the BN S-1 / S-4 for the support it provides. The maneuver BN provides Level I medical care to its supporting FSC.

Limitations

A requirement exists to plan for and receive augmentation based on factors of mission, enemy, terrain, time available, troops available, and civilian considerations (METT-TC) to accomplish missions. Assessing the mission organization of the BSB is a critical task in every mission analysis. Urban areas, dense jungles and forests, steep and rugged terrain, and large water obstacles limit movement. The BSB is not designed to provide all or part of the following logistics functions:

- Field Services:
 - Mortuary affairs—planning only—no collection, processing and evacuation without augmentation.
 - Laundry and bath is not organic at this level—support is provided by the sustainment BDE.
- Limited financial management.
- Limited Class VIII / IX storage capability.
- Limited capability to re-configure load. Ammunition from EAB must be in strategic or operational configured loads.
- No fire fighting capability.
- EOD is provided by the maneuver enhancement BDE.
- Human resources other than its own unit human resources (HR) operations. Reliance on the sustainment BDE to provide additional critical wartime personnel support.

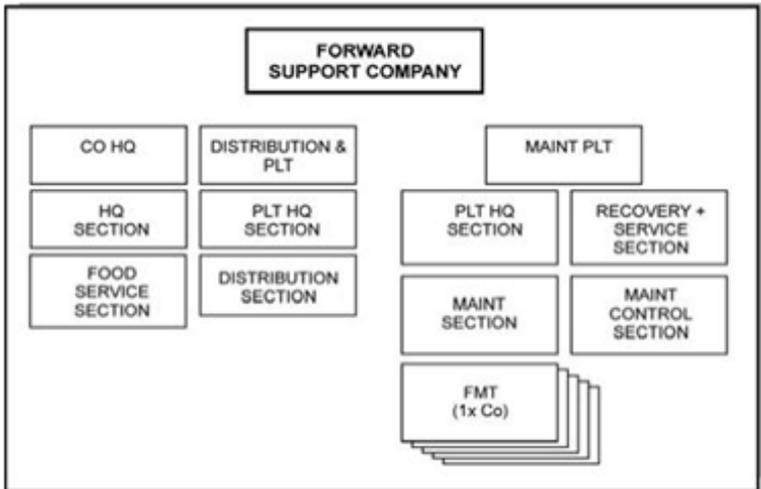
- Legal Support is limited to the assigned BDE Operations Law Team (BOLT); augmentation to support all Judge Advocate General (JAG) functions is required.
- Limited maintenance back-up support to the maneuver units.
- No organic band support.
- Optical fabrication and blood product management support.
- No organic aeromedical evacuation support.

BSB Support to the IBCT

Capabilities

- Structured similarly to an HBCT, with one FSC per BN.
- Stresses distribution-based sustainment, replacing bulk and redundancy with velocity and control. It relies on accurate reporting of requirements by the user, and use of the BCS-3 establishes a Logistic Common Operational Picture (LCOP) that is accurate and timely. Direct throughput from the theater’s sustainment BDE to the IBCT’s BSB or to the FCS, or, in some cases, directly to the maneuver company, is a goal of distribution-based logistics.

Forward Support Company Organization



- Supplies can be tailored, packaged, and placed into configured loads for specific supported units. Loads should be configured at the highest level possible to minimize reconfiguring as the supplies near

the end user. In the IBCT, logistical loads are broken down into three combat loads. The first combat load is located at the company level and is maintained by the company XO and first sergeant (1SG). The second combat load is located at the infantry BN combat trains and loaded on the FSC distribution platoons vehicles or on the ground. The BN S-4 manages the distribution of the load and the FSC maintains the load. The third combat load is located in the BSB, managed by the BSB Support Operations Officer (SPO), and loaded on the BSB distribution company's vehicles or on the ground.

- The BSB processes logistical requests from the BN and fills the requisitions through the FSC. Typically, the FSC replenishes the infantry BN and the BSB Distribution Company replenishes the FSC.

Limitations

- Same as HBCT.
- Can only move one entire infantry company at a time with organic assets.

BSB Support to the SBCT

Capabilities

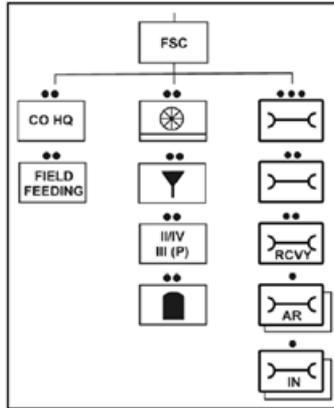
- This BSB has an austere force structure with the minimum capabilities necessary to support the SBCT. It is strategically mobile and focused only on sustainment necessities. Initial sustainment relies on a combination of unit basic loads, strategic configured loads (SCL), and the availability of fuel and water in the area of operations. By deploying with tailored packages for a specific operation, the SBCT can sustain itself with external support for up to seventy-two hours.
- Provides each infantry BN with a field feeding team and a combat repair team to provide maintenance and repair parts support to all units operating in the BN's area.

Limitations

- Same as HBCT.
- SBCT BSB has four companies: Headquarters and Headquarters Company (HHC), a distribution company, a field maintenance company, and the BDE Support Medical Company.
- Does not provide the same level of support as that provided by other support BNs. It does not have a FSC for each of the maneuver BNs.

The Forward Support Company (FSC)

Typical FSC Organization



FM 3-90.5

Capabilities

- FSCs accomplish their core functions through centralization of support. Centralization of support within the maneuver BN provides an increased efficiency and effectiveness in the flow of support and supplies. Centralization of support is enhanced through the employment of FBCB2 and BCS-3.
- The FSC has the capability to command, control, and integrate attached units such as engineer support teams or teams from sustainment BDE assets or the BSB. FBCB2 and its capability to assist with providing near-real-time situational understanding on the battlefield greatly assist in the sustainment effort.
- The FSC is a multi-functional unit that includes a distribution platoon and a maintenance platoon organized to provide support to a maneuver BN.
- The FSC must be as mobile as the unit it supports. This mobility provides greater flexibility for the maneuver commander.
- The FSCs may locate four to fourteen kilometers behind their combat BN's support area. The combat BN support areas or the unit's field trains can also be located in the BSA. Location is METT-TC dependent and is always the combat BN / squadron commander's decision, unless directed otherwise by the BCT commander.

- The maneuver unit company supply sergeants are generally located in the combat BN's support area. They assemble their logistics packages (LOGPAC) and then move forward via their combat logistics patrol to the company logistics release point (LRP). The company ISG or his representative meets the LOGPAC and guides it to the company re-supply point.
- The BN commander might use the HHC XO for operational liaison, support, and advice to the FSC commander. This is a METT-TC decision on the best utilization of this officer and the needs of the FSC versus the BN HHC.
- FSCs do not have a Support Operations Cell to collocate with its supported BN's S-1 / S-4 at the CTCP. It is incumbent upon the BN S-1 / S-4 to conduct the requisite planning with the BN staff, as applicable.
- The BN S-4 ensures the BN's orders and requirements are passed to the FSC commander, who has supported the BN S-1 / S-4 with requisite information during the planning process.
- Based on METT-TC and guidance from the maneuver BN, the FSC has the flexibility to locate the unit maintenance collection point (UMCP), recovery, emergency re-supply of Class III and V, and other assets from the combat BN's support area in the combat trains.

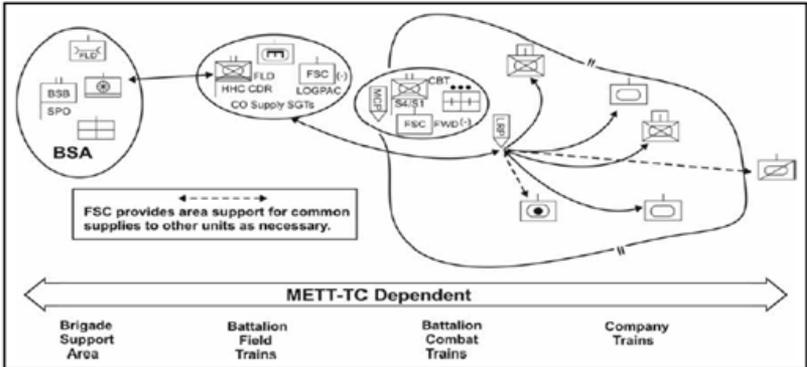
Limitations

- The FSC depends upon the maneuver BN and other units for the following support:
 - Personnel administration support.
 - Religious support.
 - BSB Support Operations Section for a common operational picture (COP) for logistics outside the FSC's AO (i.e., integrated materiel management, movement, maintenance, and distribution management direction).
 - Maneuver BN S-2 for intelligence.
 - Maneuver S-1 / S-4 for common tactical picture and supported unit / echelon logistics picture.
 - Appropriate elements of the BCT for legal, force health protection, finance, personnel, and administrative support.
 - The BSB or EAB for re-supply assets to maintain the required quantity of materiel to push forward to the supported BN.
 - All supplies as required by METT-TC.
 - The Medical Officer (MEDCO), BDE Support Medical Company (BSMC), for force health protection and patient evacuation. The maneuver BN provides Level 1 medical support to their FSC.
 - Sustainment BDE Mortuary Affairs (MA) Teams for MA support.
 - The BSB distribution company for water distribution to the FSC and its maneuver BN.

- Sustainment BDE communications and electronics assets to augment maintenance.

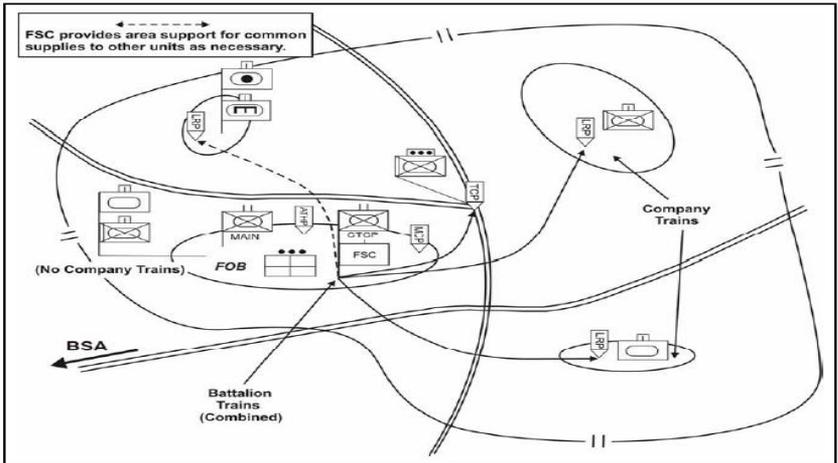
Sustainment Operations Brigade and Below for a BCT

Location of CAB Trains During Offensive and/or Defensive Operations



FM 3-90.5

Location of CAB Trains During Stability Operations



FM 3-90.5

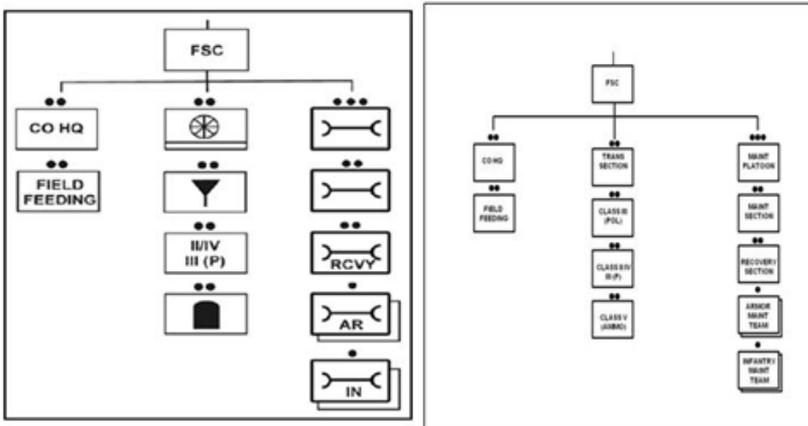
General Duties and Responsibilities of the Forward Support Company

General

The following command and staff sustainment support duties and responsibilities are not intended to be all inclusive of the myriad performed by the BDE combat team, BDE support BN, and the forward support company. The duties and responsibilities selected illustrate the critical staff integration and coordination involved in sustainment planning, preparation, and execution and to enable the CAB S-1 / S-4 to review the higher command and sustainment support tasks that affect successful execution of their staff tasks.

The Forward Support Company (FSC)

Typical Forward Support Company



FM 3-90.5

Headquarters (HQ) Section. The HQ SEC of the FSC:

- Provides C2 to assigned and attached personnel.
- Ensures that subordinate elements follow the policies and procedures prescribed by the FSC commander and the maneuver BN commander.
- Directs the operations of its subordinate sections as well as the overall logistics operations, less medical, in support of the BN.

Company Commander. The FSC commander:

- Is the senior logistics commander at BN level (not the planner, as he assists the BN S-1 / S-4 with the BN's logistics planning) for the combat BN / squadron for supply (minus Class VIII), transportation and maintenance (medical assets are assigned to the HHC of the BN.)
- Is responsible for executing the logistics plan in accordance with the maneuver BN / TF commander's guidance as developed by the BN S-1 / S-4. Responds directly to the BN XO who serves as the BN logistics integrator and assists the BN S-1 / S-4 in logistics synchronization and troubleshooting.
- Provides information, input or feedback to the BN S-1 / S-4 for their use in planning, coordination and the Logistic Common Operational Picture (LCOP.)
- Is responsible to the maneuver BN commander for the discipline, combat readiness, and training of the FSC, distribution and maintenance support for its maneuver BN, and for the maintenance of FSC equipment.
- Knows the capabilities and limitations of the company's personnel and equipment in performing the sustainment mission, as well as those of the logistical elements attached to him.
- Accomplishes all missions assigned to the FSC in accordance with the maneuver commander's intent and supports the commander's scheme of maneuver with logistics.
- Sustains the fighting capability of the supported BN and the FSC.
- Maintains continual communications with higher, lower, and adjacent units and retains connectivity of Standard Army Management Information System (STAMIS) with the BSB and other sustainment organizations that provide reach back support e.g. sustainment BDE.

Executive Officer. The FSC XO:

- Is the principle assistant to the company commander and must understand both operations that provide support to the maneuver BN and the other functions of the FSC.
- Supervises the company HQ personnel and coordinates assigned missions with subordinate elements.
- Formulates unit operating procedures.
- Supervises CP operations.

Distribution Platoon. The FSC Distribution Platoon:

- Provides supply and transportation support to the maneuver BN.
- Provides Class I (to include food service support), II, III (P, B), IV, V, VI, and VII, to the maneuver BN.
- Maintains ability to conduct simultaneous Class III, V retail support to the maneuver companies, maneuver HHC and the FSC itself.
- Delivers hot meals to maneuver company areas.
- Operates FBCB2 and the STAMIS to support supplies ordering and receipt.

Maintenance Platoon. The FSC Maintenance Platoon:

- Provides field maintenance to itself and its supported maneuver BN.
- Provides C2 and reinforcing maintenance to the field maintenance teams (FMT). The FMTs provide field maintenance and battle damage assessment and repair (BDAR) to the maneuver companies. As a maneuver commander task organizes the force, all or part of a FMT goes with the company teams in order to maintain habitual support.
- Maintains a limited quantity of combat spares (Prescribed Load List (PLL), shop and bench stock) in the Maintenance Control Section.
- Provides Class IX support (combat spares) to each maneuver company, the engineer company and the HHC.
- Maintains the company's combat spares (PLL, shop and bench stock) for the company / HHC it is supporting.
- Provides exchange of reparable items.

Classes of Supply

General

Sustainment functions for the CAB include Classes I, II, III, IV, VI, VII, VIII, and IX, plus field services (bath and laundry), religious, postal, finance, and legal services. A brief description of all classes of supply is contained in the following table.

Classes of Supply

CLASS OF SUPPLY	DESCRIPTION
I	Subsistence, including health and welfare items.
II	Clothing, individual equipment, tentage, tool sets and tool kits, hand tools, administrative, and housekeeping supplies and equipment (including maps). This includes items of equipment, other than major items, prescribed in authorization/allowance tables and items of supply (not including repair parts).
III	POL, petroleum and solid fuels, including bulk and packaged fuels, lubricating oils and lubricants, petroleum specialty products; solid fuels, coal, and related products.
IV	Construction materials, to include installed equipment and all fortification/barrier materials.
V	Ammunition of all types (including chemical, radiological, and special weapons), bombs, explosives, mines, fuses, detonators, pyrotechnics, missiles, rockets, propellants, and other associated items.
VI	Personal demand items (nonmilitary sales items).
VII	Major items: A final combination of end products which is ready for its intended use: (principal item) for example, launchers, tanks, mobile machine shops, vehicles.
VIII	Medical material, including medical peculiar repair parts.
IX	Repair parts and components, including kits, assemblies and subassemblies, repairable and -non repairable, required for maintenance support of all equipment
X	Material to support nonmilitary programs; such as, agricultural and economic development, not included in Class I through Class IX.

Class I (and Water)

- The Food Service Section from the FSC provides consolidated food preparation for the BCT BNs. The FSC has the ability to prepare meals forward in each company team area based on METT-TC; however, the Food Service Section normally operates from the Battalion Trains or Brigade Support Area (BSA).

- The Food Service Section cooks unitized group ration A (UGR-A) or B (UGR-B) or heats the heat-and-serve meal in its organic mobile kitchen. Food can be packed in insulated food containers and sent with the LOGPACs to company team locations where company team Soldiers serve the meals.
- The supported force's head count determines the quantity of rations requested. Platoons transmit head counts for rations through the company to the BN S-4.
- The S-4 consolidates all subordinate unit head counts and transmits the total projected head count to the FSC for LOGPAC build.
- When the unit is engaged in combat, the ration-supplement health care package (HCP) is usually issued with the rations.
- Water.
- There is no organic water purification capability within the FSC.
- In the BDE, the BSB can purify water, store it, as well as distribute it in hard wall tankers.
- Each maneuver company is allocated an 800-gallon water trailer (Camel). Maneuver company supply sergeants fill their water trailers at the BSA. The BSB and division-level sustainment BDE have the ability to produce and store limited quantities of water in bags mounted on trailers or in hard wall tankers.
- The primary method of water distribution in a BN is LOGPAC operations.

Class II, III (Packaged), and IV

- Classes II, III (P), IV, and unclassified maps include a wide variety of supplies and equipment, from clothing and tools to packaged petroleum products and barrier materials. Units continue to request supplies and materiel through the appropriate STAMIS (Unit Level Logistics System (ULLS) to Standard Army Retail Supply System (SARSS) or Global Combat Support System-Army (GCSS-A).)
- The FSC Distribution Platoon maintains limited stockage supporting the CAB.
- Company 1SGs consolidate requests and pass the requirements to the Company Supply Sergeant at the Battalion Trains.
- The Supply Sergeant submits these requests, via ULLS, to the BN S-4.
- Unclassified maps and Class IV barrier materials follow the same requisition flow as Class II, III (P), and IV supplies.
- Maps are issued through supply point distribution to supported units according to established tables of allowances or to fill special requirements.

Note: Unclassified maps are listed here as a logistic function, not an intelligence function. Classified maps are handled through S-2 channels.

- Class IV counter mobility materials are throughput to either an engineer pickup point or site of emplacement.

Class III (Bulk)

- The BCT usually deploys with half-full vehicle fuel tanks, purged fuelers, and empty fuel cans. Fuel is issued upon the BCT's arrival in the theater of operations.
- BN S-4s forecast their units' requirements based on the current or upcoming mission.
- The BCT S-4 considers BN forecasts and reports, and then estimates his own re-supply requirements.
- The BCT S-4 submits his forecast to the BSB SPO. The forecast period depends on the SOP, but usually is for the seventy-two hour period beyond the next day, or out to ninety-six hours.
- The BSB Fuel and Water Support Section provides service station re-supply support to the FSCs for maneuver BNs and the BSTB Support Platoon.
- FSCs use heavy expanded mobility tactical truck (HEMTT) load handling system (LHS) fuel pods to conduct forward distribution to the companies, CPs, and attachments.

Class V

- A combat load is the unit commander's designated quantity of munitions and items authorized to be carried by unit personnel and combat vehicles (turret-load).
- BCTs try to keep three combat loads of critical munitions on hand (following graphic).

Combat Load Examples

<p style="text-align: center;"><u>1st Combat Load</u> on system</p>  X 14 <p style="text-align: center;">13 HEAT 27 SABOT 40 Total</p>	<p style="text-align: center;"><u>2nd Combat Load</u> FSC</p>  X 2 PLS  X 1 Trailer <p style="text-align: center;">210 HEAT 390 SABOT 600 Total</p>	<p style="text-align: center;"><u>3rd Combat Load</u> BSB</p>  X 2 PLS  X 1 Trailer <p style="text-align: center;">210 HEAT 390 SABOT 600 Total</p>
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Example using 120mm tank rounds

The HBCT Armor Company has 14 tanks. The supporting FSC and BSBs Supply and Distribution Company *could* use 2 PLS trucks and 1 trailer to transport tank rounds.

Therefore, one armor company has sufficient ammo to engage 1760 armored targets.

FM 3-90.5

- Most units do not deploy with their ammunition basic load of Class V ammunition. Instead, they are issued their combat load upon their arrival in the theater of operations.
- BN S-4s determine their ammunition re-supply requirements based on information provided in the companies’ logistics situation report (LOGSITREP), and guidance received from their commander and S-3.
- The BCT S-4 considers BN forecasts and reports, consults with BCT operational planners, and then makes his own forecast for re-supply. The forecast is submitted to the BSB SPO.

TTP ► To sustain tactical operations, operational planners must determine their munitions requirements, and develop a required supply rate (RSR). **FM 3-90.6**

- S-3s compute RSRs as rounds per weapon per day.
- Logistics planners consider the RSR, available stocks, and due in stocks, and develop a controlled supply rate (CSR). The CSR limits the issue of munitions that are in short supply. If the RSR exceeds the CSR, the commander determines who receives the ammunition.
- Ammunition and explosives are accounted for and provided proper physical security at all times.

Class VI

- Class VI supplies are those items used for personal hygiene, comfort, and welfare. They include such things as candy, gum, dental care products, soap, and stationery. Initially, the Soldiers carry these personal items with them.
- Re-supply is by ration-supplement HCP, where personal demand items are issued gratuitously.
- Issue of Class VI items at BN level follows SOP (and theater policy), normally through S-4 channels or coincides with the delivery of the Class I LOGPAC.

Class VII

- Class VII items are intensively managed and are normally command regulated.

TTP ► Class VII replacements are based on combat losses reported through command or operations (S-3) channels. This permits commanders at all levels to remain apprised of the operational status of subordinate equipment. It also ensures distribution of items to those units having the most critical need. ***FM 3-90.6***

- Weapon systems, such as tanks, are intensively managed by weapon system replacement operations (WSRO). If the item is a WSRO, the primary linkup points of the item with its crew may occur in the Battalion Trains or in designated assembly areas.
- Class VII requests are filled as combat loss reports and are passed from company level to the BN S-4.
- The BN S-4 consolidates the company rollups and submits them to the BDE S-4.
- Units should deploy with all of their required equipment based on their modified table of equipment (MTOE).

TTP ► Company commanders must ensure their supply sergeants establish accountability on new equipment by creating hand receipts from packing lists or inventory. ***FM 3-90.6***

- New equipment must be reported through the BN S-4 and BCT S-4 to the appropriate property book officer (PBO).

Class VIII

- Usually medical units deploy with a three to five days of supply of consumable medical supplies, and all companies deploy with complete Combat Life Saving (CLS) bags.
- Individual Soldiers should deploy with a 180-day supply of their prescribed medications.
- Re-supply of medical supplies is through medical channels.
- Maneuver medical platoon personnel are responsible for maintaining their medical equipment sets (MES).
- Combat lifesavers and company or platoon medics receive replenishment for their aid bags from their unit medical platoons.
- Class VIII items can be requisitioned as routine re-supply or as immediate re-supply by the BN medical platoon to the medical company in the BSB.
- Routine Requisitions:
 - Routine requisitions from maneuver BN medical platoons for Class VIII re-supply are via a digital, voice, or paper request and sent to the highest supporting supply support agency (SSA) and the medical logistics management center (MLMC).
 - If the Class VIII digital system cannot accomplish necessary supply requests, the FBCB2 can be used.
 - Voice procedures for requisitioning of Class VIII need to be addressed in the tactical standing operating procedures (TACSOP).
- Emergency Class VIII Requisitions:
 - Emergency requisitions from CAB medical platoons are submitted to the BDE Medical Support Office (BMSO). If the BMSO is unable to fill the request, the requisition is forwarded to the highest level supporting SSA and MLMC for action.
 - Emergency requisitions from BMSO are sent through the BSB support operations medical logistics officer (MLO) to the highest level supporting medical logistics (MEDLOG) element for immediate re-supply.
 - The MLO maintains a critical shortage list of Class VIII items to ensure visibility of the requisitions and updates the BDE Surgeon Section daily on the critical Class VIII items list.
 - The Health Services Medical Officer of the BMSO maintains a record of the requisition until it is filled and notifies the MLO when these requisitions are shipped to the requestor.
 - All emergency requests received by the supporting MEDLOG element are processed for shipment by the most expedient transportation available.
 - The support operations MLO will report all emergency Class VIII requests to the BCT BDE Surgeon Section.

- Delivery of Class VIII:
 - Routine delivery of Class VIII to the requesting medical units in the BCT is accomplished by LOGPACs and nonmedical transports.
 - Shipment of these Class VIII LOGPACs from the MEDLOG element is coordinated with the division Movement Control Officer (MCO).
 - The management and in transit visibility of Class VIII delivery is accomplished through document number, transportation number tracking and radio frequency (RF) tags.
 - From the BMSO, delivery of Class VIII to CAB medical platoons via LOGPAC or nonmedical transports is coordinated by the BMSO with the BSB MLO.

Class IX

- Each company stocks and deploys with combat spares for repair parts (i.e., weapons and radio maintenance).
- The company's combat spares are not consolidated at the BN level, but kept at company level. The FSC's supporting maneuver BNs also have combat spares or shop stock to support maintenance of vehicles, generators, and other equipment.
- The Maintenance Control Section of the FSC is responsible for combat spares, including maintaining PLLs and shop supply items. Both of these inventories have different requirements for adding and maintaining parts on inventory.
- The FSC Maintenance Control Section in the Battalion Trains manages the PLL and shop stock.
- The PLL clerks manage all combat spares for the BCT BNs.
- The maintenance platoon (minus) is positioned behind the FMTs in the unit maintenance collection point. This platoon provides C2 and backup maintenance to the FMTs.
- The maintenance platoon (minus) establishes the UMCP.
- The maintenance platoon provides all The Army Maintenance Management System (TAMMS) and coordinates with the division-level sustainment BDE or contractor support for scheduled services for BCT BN equipment.
- The Maintenance Control Section receives, stores, and issues combat spares for the company team.
- The Company Supply Sergeant and maintenance personnel replenish their combat spares, and order other parts as needed through the BSB.
- Class IX repair part requisitions are prioritized based on the commander's priority of maintenance and need.

Class X

- If the BCT is tasked to conduct CMO, the BCT S-4 must seek guidance on ordering supplies and materiel for non-military use through Civil Affairs (CA) personnel on the staff.
- Materiel for civil-military operations (CMO) usually is provided by the Host Nation (HN), nongovernmental organizations (NGO) (such as the Red Cross, or the Department of State (DOS)).
- Humanitarian assistance is governed by Title 10, US Code, Section 401.
- Title 10, US Code, Section 2547, regulates the provision of excess non-lethal supplies for humanitarian relief. This includes medical supplies used by US medical units.
- Once the BCT is tasked to conduct CMO, the BCT S-4 coordinates with the BSB SPO and CA officer to establish procedures to quantify the amount of supplies ordered (i.e., purchased) or donated for humanitarian assistance.
- The BCT can use military vehicles to transport materiel for nonmilitary use.

Battalion Sustainment Operations**General**

The BN S-1 and S-4 sections collocate, generally with the FSC, to form the rear CP in the CTCF. Sustainment is the provision of the three major tasks of logistics, personnel services, and health service support (HSS) necessary to maintain and prolong operations until mission accomplishment. Logistics tasks include: maintenance, transportation, supply, field services, distribution management, contracting, explosive ordnance disposal (EOD) and related general engineering as well as internment / resettlement. Personnel services tasks include: human resources support (HRS), financial management support, legal support, religious support, and band support. HSS consists primarily of three support tasks: combat casualty care, medical evacuation (air and ground), and medical logistics.

Battalion Essential Sustainment Functions

Sustainment consists of numerous interrelated functions. Planning, managing, and executing support involve integrating and synchronizing these functions to accomplish responsive and efficient delivery of sustainment support.

Battle Command Training Center - Leavenworth (BCTC-Lvn)

Logistics Maintenance

- The overarching principle of performing maintenance as far forward as possible on the battlefield remains unchanged in BCT BN operations.
- Mechanics accomplish their mission by using advanced diagnostics and prognostics to diagnose the major component fault and then replace the component under the replace forward concept. Replace forward focuses on on-system maintenance tasks or those tasks that can be performed at the breakdown site (if possible) or at the UMCP. An operator performs preventive maintenance checks and service (PMCS), and the faults are transmitted using electronic technical manual-interface (ETM-I).
- Depending on the urgency of the fault, the operator may notify the company FMT via frequency modulated (FM) radio or FBCB2 (if equipped). The FMT diagnoses the fault and identifies the Class IX required. If the part is on hand, the FMT repairs the fault. If the part is not on hand, a request is passed to the FSC Maintenance Control Section in the BN Trains or BSA.
- The Maintenance Control Section determines whether the part is on hand in the supporting PLLs. If on-hand, it is released; if not, the Maintenance Control Section requests the part via ULLS-G or Standard Army Maintenance System (SAMS). These requests are forwarded to the SARSS located in the BSB.
- The FMTs are the first level of support for the BCT BNs. If the time, tools, test equipment, and parts are available, the team repairs the equipment, returning it to mission-capable status.
- Most of the support during combat, however, consists of BDAR, diagnostics, and on-system maintenance through the replacement of line replacement unit (LRU) components.
- The FMTs operate from the combat trains and directly support the company team.
- The FMT Non-Commissioned Officer in Charge (NCOIC), who coordinates all support requirements with the company team, controls the movement of the FMTs as directed by the company 1SG.
- The FMTs respond to the company's voice or FBCB2 (if equipped) requests for support.
- The FMTs do not carry large quantities of Class IX but do carry limited combat spares and selected LRUs (tailored to their supported unit) to facilitate repairs forward. When the workload exceeds the FMT's capabilities, they request reinforcement through the Maintenance Platoon's Maintenance Control Section located in the UMCP or the BN Trains.

- The Maintenance Platoon provides limited Class IX support and can provide additional repair and recovery support.
- The Maintenance Platoon (minus) is positioned in the UMCP to provide C2 and backup maintenance to the company FMTs.
- Backup maintenance support is provided to the FSC by the balance of the Maintenance Platoon at the BN Trains.
- The BSB can provide a combat authorized stockage list (ASL) that includes major assemblies, key fighting vehicle LRU components and may position maintenance assets from the BSB Maintenance Company forward in the BN Trains.

Transportation

- The FSC is responsible for the movement, materiel management, and maintenance evacuation functions for the BCT BN.
- The BN S-4 coordinates with either the BN Trains CP or the CTCP to synchronize the delivery of all classes of supply with units.
- Requirements not within the Battalion Trains capabilities are transferred to the BSB SPO.
- The BN CTCP schedules and synchronizes transportation support.
- The BN Trains CP coordinates inbound and outbound shipments with the BSB Movement Control NCO.
- FBCB2 allows for the connectivity and visibility of assets and support for current and future operations. Additionally, the Movements Tracking System (MTS) provides near-real-time visibility of the Global Positioning System (GPS) location of the transportation resources throughout the BSA.
- The BN S-3 plans, coordinates, and controls tactical movement for the BCT BN.
- The BN S-3 plans unit movements, and the S-4 normally coordinates them.
- The S-4 is the logistical movement manager for the BN.
- The FSC distribution platoon provides the primary source of transportation and executes transportation missions for the BCT BNs.
- The BN S-4 consolidates support requirements and passes them to the BN Trains CP for execution.
- The BN S-4 also maximizes the use of returning vehicles by coordinating with company to return recoverable parts to the BN Trains.
- The BN S-4 coordinates with either the FSC CP or coordinates with the BSB support operations section for additional assets if required.

Supply

- The BSB is responsible for:
 - Receipt, storage, issue, quality control, delivery, and dispensing of Class III (B).
 - Direct support re-supply to the FSCs and area support to BDE units.
 - A normal half-day supply to the FSCs using supply point distribution.
 - The FSC Distribution Platoon is responsible for delivery of Class III (B) to the BCT BN. The FSC's HEMTTs conduct re-supply fuel operations for the companies.
 - Fuel status is initiated at the platoon or company level and reported to the ISG. Information copies are furnished to commanders at each echelon.

TTP ► The ISG consolidates on-hand quantities and submits the fuel status to the BN S-4, with an information copy to the FSC Support Operations Section via FBCB2. In the absence of reports, the S-1, S-4, and FSC should anticipate unit requirements when assembling LOGPACs.

- The BN S-4 submits his forecast and status report to the BDE S-4 and the FSC, which in turn pass the request along to the BSB SPO. The BSB Support Operations Section submits the consolidated forecast and requirements to the division G-4 Fuels Operations Section.
- For emergency re-supply, the units request fuel via FM voice on the BN administrative / logistics net followed with an FBCB2 call for support (CFS) (if equipped). If the FSC cannot fill the request, it forwards the request to the BSB Support Operations Section with a copy to the BDE / S-4.

Field Services

- Mortuary Affairs
 - Unit responsibilities include initial recovery, search, and identification of deceased personnel.
 - The unit evacuates deceased personnel to the nearest mortuary affairs support collection point.
 - The unit transmits initial findings of its search-and-recovery teams to the mortuary affairs team.
 - The BSB's Support Operations Section coordinates the transportation of remains within the BSA. All personal effects found on the remains accompany the deceased when evacuated.
 - The recommended method of evacuation of remains is air evacuation in coordination with the BCT BN S-4.
 - The maneuver unit transmits evacuation requests to the BN S-4. The BN S-4 then coordinates with the FSC distribution platoon for evacuation.

- If evacuation requirements exceed the distribution platoon's capabilities, the FSC goes to the BSB Support Operations Section to coordinate for additional lift.

- **Airdrop**
 - The unit sends requests for airdrop of supplies or equipment to the BN S-4, who forwards them to the BDE S-4 and BSB Support Operations Section.
 - The BDE S-4 and BSB Support Operations Section coordinate to make the appropriate coordination with the division G-3 and G-4.

- **Laundry and Shower**
 - The unit sends requests for laundry and showers to the BN S-4, who forwards them to the BDE S-4 and BSB support operations section.
 - The BDE S-4 and BSB SPO coordinate with a division-level sustainment BDE SPO Section and the G-4.

- **Medical Support**
 - The HHC Medical Platoon sorts, treats, and evacuates casualties or returns them to duty. It stocks medical supplies for the BCT BN and provides all Class VIII support.
 - It is also responsible for maintaining and evacuating BN medical equipment.
 - The Medical Platoon Leader (the BN Surgeon), with the aid of a physician's assistant and field medical assistant, operate the BN Aid Station (BAS).
 - The field medical assistant, a Medical Service Corps officer, coordinates the operations, administration, and logistics of the Medical Platoon. His duties include planning, coordinating, and synchronizing FHP operations in the BN and with the BDE support Medical Company (BSMC). He also coordinates for patient evacuation and ensures force health protection coverage for the company teams.

- **Medical Evacuation**
 - Of all the sustainment tasks utilizing the planning skills of the S-1 and S-4, as well as the Medical Platoon Leader and NCO, none are more important and misunderstood than Casualty Evacuation. A Soldier who knows his BN staff will move Heaven and Earth to get him or a wounded buddy off of a hostile battlefield will gladly march into Hell following orders.
 - Often mistaken for casualty evacuation (CASEVAC) and medical evacuation (MEDEVAC) planning are medical lift capabilities. While it is nice to know that there are six 4-litter ambulances and each company has 4 Combat Lifesavers, until we determine how we are going to plan for their use, they will have little effect. It takes the integration of all medical personnel from the squad member with his combat lifesaver bag all the way up to theatre level medical and surgical personnel in a structured plan to assure Soldiers' lives will be saved.
 - The evacuation of Soldiers from the battlefield is broken into two types:

- Medical Evacuation (MEDEVAC) - The use of ground or air ambulances to evacuate from the point of injury to the Medical Treatment Facility while providing care enroute.
- Casualty Evacuation (CASEVAC) - The use of non-medical vehicles or other means of evacuation from point of injury without providing medical care.

- The MEDEVAC Plan is the key to Health Service Support Plan. The BN medical platoon with the S-1 and S-4 is responsible for MEDVAC of casualties from the point of injury to the BN Aid Station. The BN S-1 and S-4 must ensure that there is a coordinated plan to move casualties from all BN locations to the BAS and to the BDE Support Medical Company (BMSC) in the BSA. The BN S-4 coordinates all ambulance exchange points within the BN AO and posts them on support graphics. The BCT surgeon, in coordination with (ICW) the BN S-4, plans landing sites for aerial evacuation.
- The preferred method of evacuation is by air ambulance but its use is METT-TC dependent. The Aviation BDE, ICW the BCT, *may* position a forward support medical evacuation team (FSMT) consisting of three UH-60 helicopters in support of the BCT. These assets would normally be located in the BSA and their use is coordinated by the BDE Aviation Element and the BCT surgeon.
- During the MDMP, planners must anticipate the potential for high casualty rates and extended distances. By identifying and coordinating ambulance exchange points (AXP) throughout the AO and on the objectives, they mitigate some of this risk.
- Planners must be mindful of nonstandard evacuation capabilities that may be shifted to support mass casualty or CASEVAC requirements.
- Some of the key items that need to be identified while making the Medical Evacuation Plan are:
 - Casualty Identification and triage.
 - Identification of litter squads and company / platoon combat lifesavers.
 - Identification of weather, threat, or CBRNE issues preventing aerial evacuation.
 - Difference in time to medical facility if awaiting air ambulance.
 - Evacuation of injured personnel from urban area requiring hoist.
 - Identification of evacuation vehicles both medical and non-medical.
 - Evacuation routes.
 - Ambulance Exchange Points (AXP).
 - Location of medical treatment facilities.

Distribution Management

At the BN level, supply distribution is managed through the relationship between the BSB's forward support companies and the subordinate BNs of the BCT. The close relationship between the FSC commander during planning with the remainder of the BN planning, and specifically with the BN S-4, will ensure that the right supplies get to the right personnel at the right place on the battlefield at the proper time. Developing logistic

triggers during the planning process enables the FSC commander to lean forward in his foxhole and be prepared to fulfill the BN's requirements in a timely manner.

Contracting

- Operational contract support is the process of planning for and obtaining supplies, services, and construction from commercial sources in support of operations along with the associated contractor management functions. **FM 4-0.**
- Commanders are depending more heavily on contractual support to augment their organic sustainment capabilities in the field than ever before. Contractors are being called upon to perform a greater percentage of sustainment functions. This allows continuity for incoming commanders and allows units to hit the ground with fewer logistical snags.

Explosive Ordnance Disposal (EOD)

- Explosive Ordnance Disposal is the detection, identification, on-site evaluation, rendering safe, recovery, and disposal of explosive ordnance (EO) / improvised explosive devices (IED), weapons of mass destruction (WMD) which threaten forces, citizens, facilities, critical infrastructure, or operations. **FM 4-0.**
- This task, formerly under mobility, counter-mobility, survivability, has become a sustainment requirement, but because of the realignment of WFF from battlefield operating systems (BOS), falls under the Protection WFF.

Related General Engineering

- General engineering includes those engineering capabilities and activities, other than combat engineering, that modify, maintain, or protect the physical environment. Examples include: the construction, repair, maintenance, and operation of infrastructure, facilities, lines of communication and bases, and terrain modification and repair and selected explosive hazard activities **JP 3-34 / FM 4-0.**
- Based on the mission, a military operation may extend the general engineering support to include restoration of facilities, power and life-support systems. This aids in the recovery and pre-conflict conditions or may be an operational objective of stability or civil support operations.

Internment and Resettlement Operations

- Based on changes with *FM 3-0*, Internment and Resettlement (I/R) Operations are included in the Sustainment WFF. *FM 3-0*. Internment / Resettlement operations take or keep selected individuals in custody or control as a result of military operations to control their movement, restrict their activity, provide safety, and / or gain intelligence (*FM 3-19.40 / FM 4-0*). These are the measures necessary to guard, protect, sustain, and account for all personnel who are detained, captured, confined, or evacuated from their homes by US Armed Forces.

Personnel Services

- The S-1 coordinates personnel services, personnel support, finance services, chaplain activities, command information services, medical services, and legal services support.
- He prepares the unit human resource support SOP.
- In conjunction with the S-4, he also prepares the administration and sustainment portions of unit tactical orders.
- He participates in the MDMP and develops HR support materials.
- He coordinates HR support with other staff elements and pays particular attention to MA and medical support.
- Personnel (S-1) sections provide additional services at the home station.
- When deployed, the S-1 performs postal operations, essential HR (awards, promotions, evaluations, reassignments, and military pay), and morale, welfare, and recreation (MWR) support. To maximize this capability, personnel systems, including the Tactical Personnel System (TPS), Integrated Total Army Personnel Database (ITAPDB), and the BCS-3 personnel module are utilized.
- Before Operations:
 - The S-1 creates a deployed database through the manifest process.
 - The S-1 receives a download of all deploying personnel in the units and uploads this data into TPS.
 - The S-1 or HR detachment uses TPS, BCS-3, and the Common Access Card (CAC) identification (ID) card that all deploying Soldiers possess to compile a manifest of personnel.
 - A member of the manifest team operates a TPS terminal on the on-ramp of the transportation asset. As each person enters the gateway, he inserts his CAC ID card into a scanner. The scanner reads the ID card bar code and identifies the person being deployed. Using the manifests from the different serials, TPS creates the BCT BN's deployed database.

- After completing the manifest, the S-1 produces the deployed personnel roster. The deployed personnel roster contains the name, grade, battle roster number, duty military occupational specialty (DMOS), gender, and unit of each individual manifested. TPS sorts this roster by last name and first name.
 - Key personnel players use this roster to obtain personnel information on Soldiers. The primary use is to determine a battle roster number for Soldiers, which enables the completion of duty status reports.
- **During Operations**
- When casualties occur, the platoon sergeant informs the company 1SG of the casualty via the most expedient method available (FBCB2 or FM voice).
 - Using the Personnel Situation Report (PERSITREP), the 1SG submits a duty status change directly to the S-1 on all casualties.
 - Attached elements report to the supported unit for manning activity requirements.
 - Throughout this process, the S-1 can monitor, assess, and adjust the command's personnel status.
- **After Operations**
- The S-1 reviews updated personnel strength figures through FBCB2 or TPS and reorganizes units based on the commander's assessment from the strength data.
 - The S-1 also uses TPS data information to decide where to return soldiers to duty or request and assign replacements. He uses byname accountability to monitor his manning requirements.
 - Defense Integrated Military Human Resources System (DIMHRS) provides data to strategic assignment systems.
 - The S-1 updates duty status changes through FBCB2 or TPS.
 - The S-1 depends on his TPS database for detailed personnel data.
 - The S-1 is responsible for tracking Soldier in-patient status when they leave the Level I medical treatment facility.
 - The S-1 uses the Patient Accounting and Reports Real-Time Tracking System (PARRTS) (used by medical personnel) to track patients evacuated to Level III combat support hospitals and medical treatment facilities. PARRTS is a web-based Army program developed by the Patient Administration System and Biostatistics Activity (PASBA). It offers casualty location and medical condition information. The BDE S-1 and BDE Surgeon also use PARRTS to locate and get updates on the condition of BCT Soldiers.

Human Resource Support

- **Postal Services**
- The BDE S-1 establishes a daily mail schedule.
 - Outgoing mail is consolidated at the Battalion Trains HR (S-1) Section before being forwarded to the BDE S-1.
 - BN S-1 personnel drop outgoing and pick up incoming mail at the BDE S-1 section.

- E-mail service should be made available to Soldiers in a mature operational environment; however, the BN commander must address OPSEC considerations associated with unclassified e-mail.

Financial Resource Support

- Finance Services
 - During deployments, mobile pay teams from a division-level sustainment BDE finance organization provide support to the BDE.
 - The BN S-1 coordinates with the BDE S-1 for the support of the mobile pay teams.

Legal Support

- Legal Services
 - Detailed BDE JAGs provide or coordinate all legal support to the BDE.
 - Legal NCOs and specialists provide paralegal support for the BN.

Religious Support

- Religious Support
 - The CAB Chaplain is the staff officer responsible for implementing the religious program, which includes:
 - Worship opportunities.
 - Administration of sacraments.
 - Rites and ordinances.
 - Pastoral care and counseling.
 - Development and management of the unit ministry team.
 - Advice to the commander and staff on matters of morals.
 - Advice to the commander and staff on matters of morale as affected by religion.
 - Ministry to casualties, including support of combat shock casualty treatment.
 - The Chaplain's Assistant is trained to assist the BN Chaplain in religious support and:
 - Advises the Chaplain on matters of Soldier morale and serves as liaison with enlisted Soldiers.
 - Advises the commander in the absence of the Chaplain.
 - Provides force protection for the unarmed Chaplain.

Band Support

- Army bands provide critical support to the force by tailoring music support throughout military operations. Music instills in Soldiers the will to fight and win, fosters the support of our citizens, and promotes our national interests at home and abroad (see *FM 1-0* and *FM 4-0*). Army bands are modular and designed to support Army, Joint, and Multinational formations.
- They are organized into four types: small, medium, large and special. Small and medium bands are further subdivided based on operational capabilities with regards to the deployment in support of ongoing operations.
- Military Bands support Soldiers, families, wounded warriors, and community relations. They support morale-building events among Soldiers, joint-Services, and MNFs. Music serves as a useful tool to reinforce relations with host nations and favorably shapes the civil situation throughout the peace building process.

Battalion Sustainment Support

Support Areas and Task Force and Company Trains

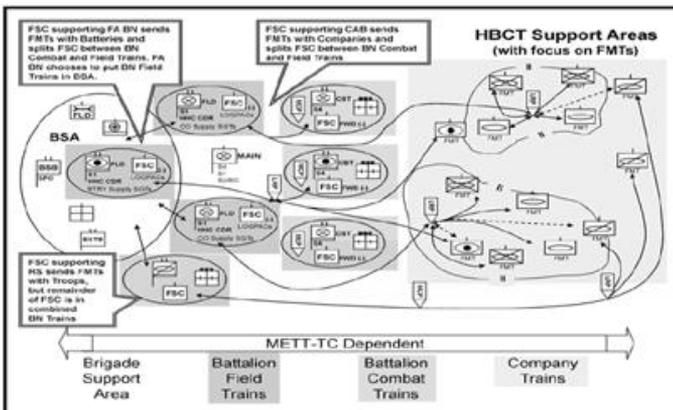
- A support area is a designated area in which sustainment elements, some staff elements, and other elements locate to support a unit. Types of support areas include:
 - Company trains.
 - BN trains.
 - BDE support area (BSA).
- Trains are a unit grouping of personnel, vehicles, and equipment to provide sustainment. It is the basic sustainment tactical organization. Maneuver BNs use trains to array their subordinate sustainment elements. Trains are usually under the control of the BN S-4, and assisted by the BN S-1. The composition and location of BN trains varies depending on the number of units attached to, or augmenting, the BN. BN trains can be employed in two basic configurations: as unit trains in one location, or as echeloned trains.
- Unit trains at the BN level are appropriate when the BN is consolidated, during reconstitution, and during major movements.
- Echeloned trains can be organized into company trains, BN combat trains, UMCP, or BN field trains.

Support Areas

- The support area is the logistical, personnel, and administrative hub of maneuver units. All locations are based on factors of METT-TC and should not interfere with unit tactical plans or the movement of units that must pass through the area of operations. As an overview at the BCT level, the BSA should contain the following:
 - BSB
 - BCT alternate CP (if formed)
 - BN Field Trains (if formed)
 - BSTB units
 - Air and Missile Defense (AMD) assets
 - Signal assets
 - Sustainment units from HHQ

- All support areas have many similarities, including:
 - Cover and concealment (natural terrain or man-made structures).
 - Room for dispersion.
 - Level, firm ground to support vehicle traffic and sustainment operations.
 - Suitable helicopter landing site (remember to mark the landing site).
 - Good road or trail networks.
 - Good routes in and out of the area (preferably separate routes going in and going out).
 - Access to lateral routes.
 - Positioned along or good access to the MSR.
 - Positioned away from likely threat avenues of approach.

Sample HBCT Support Area



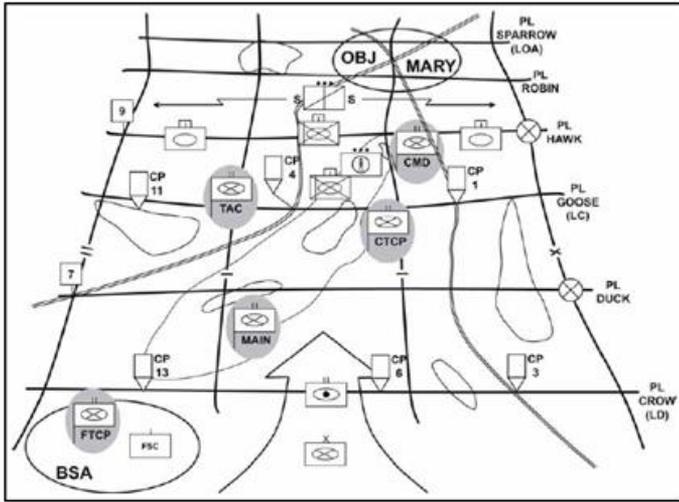
FM 3-90.6

Battalion Trains

- BN trains consist of two types: combat trains and field trains.
 - The combat trains usually consist of the FSC, or the direct support (DS) elements of the BSB, and the BN medical unit.
 - The UMCP should be positioned where recovery vehicles have access, or where major or difficult maintenance is performed.
 - The factors of METT-TC must be considered when locating combat trains in a BN support area.

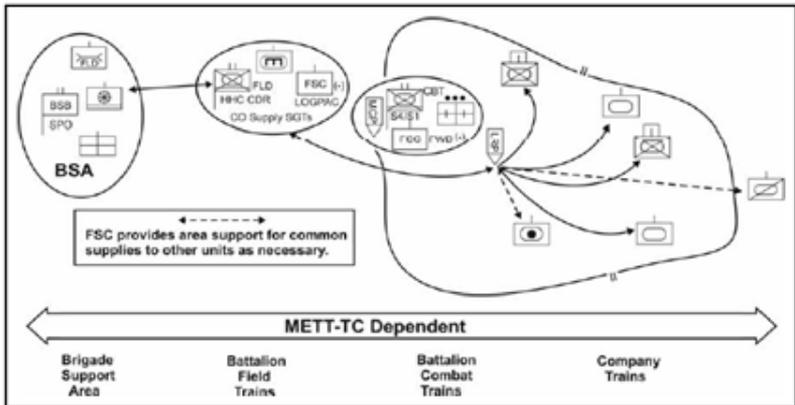
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Sample CAB Arrangement



FM 3-90.5

Sample Combat Trains layout



FM 3-90.5

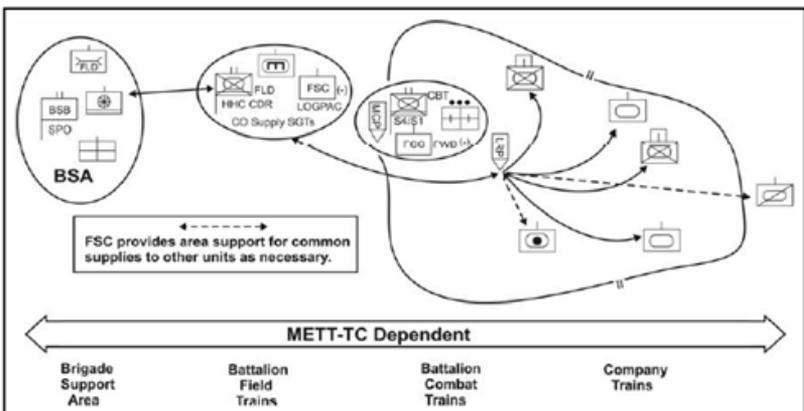
Field Trains

- Field trains can be located in the BSA or the BN Support Area and include those assets not located with the combat trains.
- The field trains can provide direct coordination between the BN and the BSB.
- When organized, the field trains usually consist of the elements of the FSC, BN HHC, BN S-1, and BN S-4.
- The field trains personnel facilitate the coordination and movement of support from the BSB to the BN.

Company Trains

- Company trains provide sustainment for a company during combat operations.
- Company trains usually include the 1SG, medical aid / evacuation teams, Supply Sergeant, and the Armorer.
- Usually, the FSC provides an FMT, with capabilities for maintenance, recovery, and limited combat spares.
- The Supply Sergeant can collocate in the combat trains, if it facilitates LOGPAC operations.
- The 1SG usually directs movement and employment of the company trains; although the company commander may assign the responsibility to the Company XO.

Sample Company Trains Layout



Combat Trains Command Post (CTCP)

- The CTCP is the coordination center for sustainment for the BN. It is the focal point of the BN sustainment efforts. The CTCP also monitors the current tactical situation on the command net and FBCB2 / Blue Force Tracker (BFT) to assume its function as the alternate Main CP. Tactical situation maps and charts in the CTCP must be continuously updated based on information gathered from these sources. The CAB S-1 and S-4 work closely with the FSC to coordinate sustainment requirements. Normally, the S-4 is responsible for directing operations, movement, and security of the CTCP. The CTCP uses internal standing operating procedures (SOP) to govern its operation and to outline duties of the personnel manning it.
- The CTCP has the following functions:
 - Plans and coordinates sustainment for tactical operations.
 - Tracks the current tactical operation.
 - Serves as Alternate CP for the Main CP.
 - Prepares to shift support if the main effort changes.
 - Monitors the ability of sustainment systems to support the operation.
 - Monitors supply routes and controlling sustainment traffic.
 - Reports to the Main CP any change in the ability of sustainment systems to support the operation.
 - Maintains logistics status reports on all organic and attached units operating with the BN.
 - Coordinating with the FSC or sustainment BN for supply requirements.
 - Aggregates the reported logistics data to report to HHQ.
 - Ensures personnel accountability of all assigned or attached personnel.
 - Coordinating movement of personnel killed in action (KIA).
 - Assisting in operation of detainee collection point.

General CP Characteristics and Imperatives

The BN S-4, S-1, FSC commander, and XO are the principal sustainment planners. The XO, operating from the BN Main CP, monitors sustainment operations and ensures appropriate synchronization of support. The S-4, S-1, and the FSC commander maintain a sustainment running estimate during all operations. They use the sustainment estimate to determine sustainment capabilities, anticipate support requirements, identify and resolve shortfalls, and develop support plans. They integrate all planning to develop and synchronize sustainment with maneuver and fire plans.

- TTP ► Sustainment planners must thoroughly understand the mission, tactical plans, and BCT maneuver BN commander's intent. They must know the following information:
- Mission, task organization, and concept of operations for all subordinate units in the BCT CAB.
 - BDE sustainment plans.
 - Known and anticipated branch plans and sequels.
 - The density of personnel and equipment of each subordinate unit.
 - Known and anticipated threat situation and capabilities.
 - Unit basic loads.
 - Mission-related consumption rates.

Survivability

- CP survivability depends mostly on concealment and mobility.

TTP ► The best way to protect a CP is to prevent the threat from finding it. Good camouflage and proper noise, light, and signal discipline enhance the security provided by a good location and physical security. ***FM 3-90.5***

- Assuming that concealment and mobility are not enough, deliberate full-time force protection of the CP is the responsibility of the commander.
- The BN commander requires a dedicated security element to travel with the Command Group, as well as dedicated security for each of the CPs. The HHC commander as HQ Commandant is specifically responsible for the external operations of the Main CP and support to the Command Group.

Location

TTP ► The best place to conceal a CP is in friendly built-up areas. When a built-up area is not available, a CP should be located on a reverse slope with as much natural cover and concealment as is available. CPs should avoid key terrain features such as hilltops and crossroads. CPs should be located on ground that is trafficable, even in poor weather (think about flooding and mud signatures). Location should be four to twelve kilometers (KM) from the maneuver units.
FM 3-90.5

- Other considerations for positioning CPs include the following:
 - Ensure line-of-sight (LOS) communications with higher, lower, and adjacent units. Ensure that the assent angle for satellite communications (joint network node (JNN)) is not masked by terrain or vegetation.
 - Mask signals from threat collection and avoid redundancy.
 - Use terrain for passive security (cover and concealment).
 - Collocate with tactical units for mutual support and local security.
 - Avoid possible threat target reference points (TRP) for artillery and CAS.
 - Locate the CP near an existing road network out of sight from possible observation (again think of mud signatures on the road network that lead directly to the CP).

Access

- CP should be centered in the AO whenever possible. They should be near, but not next to, an all-weather, high-speed avenue of approach with no more than one or two routes leading into the CP. These routes should provide cover, concealment, and access to other routes of communication.
- When possible, a helicopter landing zone should be nearby. Emergency evacuation of the CP must be planned and rehearsed.

Size

- The area selected must be large enough to accommodate and conceal all CP elements. This includes liaison teams from other units; communications support; and eating, sleeping, latrine, and maintenance areas.
- Sufficient area must be available for positioning security and vehicle dismount points and for parking.

Shelter

- Dryness and light are vital when working with computers and maps and producing orders and overlays. CPs should be sheltered from weather conditions and should have lights for night work with proper light discipline exercised. Buildings are the best choice, but if none are available, CPs operate from their organic vehicles or tents.
- Heat and cooling should be prime considerations according to the local weather requirements.
- Thought needs to be given to the effects of adverse weather on the CP and the ability to operate without the main effort of the CP being directed to life support.

OPSEC

- Following are OPSEC considerations for positioning CPs:
 - There should be no signs advertising CP locations. Disperse CP vehicles, and thoroughly camouflage all vehicles and equipment. Maintain noise and light discipline. Watch for mud trails that lead directly to the CP.
 - A dedicated external CP security force is required, and it must have communications with the CPs as well as clear understanding of both the chain of command and the ROE. Establish security force positions as in defensive posture, with a 360-degree perimeter and located far enough out to prevent fires on the CPs. The security force should have antitank weapons to protect CPs from armor and vehicle assaults. The HHC commander must establish a CP reaction force and rehearse the execution of the perimeter defense. Internal CP security and access control is provided by off-shift personnel.
 - In general, positioning CP assets off major mounted avenues of approach reduces the threat. Units should position CPs so the threat bypasses them.
 - An observation post (OP) should secure any remote antennas located outside the HQ defensive perimeter.
 - All subordinate units and elements of the CP must receive near and far recognition signals. The CP uses these signals, challenges, and passwords to control external access into its perimeter. Internal access to the CP must be controlled to ensure that unauthorized and nonessential personnel are not allowed in the CP. Make sure there are pre-coordinated mechanisms to mark the CP as friendly for supporting aircraft.
 - In case of artillery or air attack, a designated rally point and an alternate CP should be at least five hundred to one thousand meters away.

Displacement

- CPs may displace as a whole or, more often, by echelon. Displacement as a whole is normally reserved for short movements, with communications maintained by alternate means and minimal risk

of degrading CP operations. The HHC commander as HQ Commandant plans and executes displacement of the BN HQ.

- An advanced element of the CP, called a jump CP, moves to the new location, sets up operations, and takes over operational control (OPCON) of the battle from the Main CP. The remaining portion of the CP then moves to rejoin the jump CP. The jump CP has the necessary vehicles, personnel, and equipment to assume CP operations while the remainder moves. At BN level, the jump CP normally comes from within the Main CP.
- The BN XO or S-3 selects a general location for the jump CP site. The jump CP can be accompanied by a quartering party, which may consist of a security element, as well as personnel and equipment for quartering the remainder of the CP. The Signal Officer, who is usually part of the quartering party, ensures communications on all nets are possible from the new site. When the jump CP becomes operational, it also becomes the net control station (NCS) for the unit. The remainder of the CP then moves to rejoin the jump CP.
- Another technique of displacement is to hand off control to the Command Group or CTCP and move the Main CP as a whole. The Command Group can also split, with the commander moving with the main effort and the S-3 moving with the supporting effort.

Standing Operating Procedures (SOP)

- SOPs for each CP should be established, known to all, and rehearsed. These SOPs should include the following:
 - The organization and setup of each CP, including leader responsibilities.
 - Plans for teardown and displacement of the CP.
 - Eating and sleeping (safety) plans during CP operations.
 - CP shift manning and operating guidelines.
 - Physical security plans for the CP.
 - Priorities of work during CP operations.
 - Loading plans and checklists.
 - Orders production.
 - Techniques for monitoring threat and friendly situations—digital and analog.
 - Posting of CP map boards and status boards.
 - Maintenance of CP journals and logs.
 - Maintenance of vehicles, generators, and heaters / air conditioning.
 - Priorities for establishing communications—analogue / digital / satellite.
 - Settings on digital systems to filter information.
- Integrating an analog unit into the CAB information system architecture may be necessary and requires the retention of most of the analog information management techniques.

- If two control systems (digital and analog) must be in operation in the BN CPs. The CAB tactical C2 SOP should include the following:
 - Production and distribution of hard-copy, as well as digital, orders and graphics.
 - Increased graphic control measures (GCM). Digital units tend to use fewer graphic control measures due to increased SU of unit locations.
 - Receiving standardized voice, as well as analog and digital reports.

Communications

- Communication is the means through which C2 is exercised. Soldiers throughout the BN must know both the chain of command and succession of command in the unit. There must be open lines of communication up, down, and laterally. To ensure that the BN maintains effective communication, the commander should:
 - Provide for redundancy in communications means by having backup at key locations.
 - Make sure subordinates know what to do during interruptions in communications. All must understand that, with the exception of FBCB2 and Blue Force Tracker (BFT), digital systems as well as JNN satellite communications do not work on the move. Therefore, there will be planned communications outages and standard procedures for reentering the (digital) communications nets, as well as standard procedures to capture information that moved in the network during the outages.
 - Ensure SOP specifies immediate actions in case of jamming, including prearranged frequencies to switch to and code words.
 - Avoid overloading the communications systems. Use them only when necessary.
 - Practice disciplined communications procedures by eliminating nonessential conversations.
 - Ensure that all understand the order of responsibilities for communications (higher to lower . . . left to right), as follows:
 - Senior to subordinate.
 - Supporting to supported.
 - Reinforcing to reinforced.
 - Passing to passed (for forward passage of lines).
 - Passed to passing (for rearward passage of lines).
 - Left to right.
 - Rearward to forward.

TTP ►	The transmission of a BN order via FBCB2 is time consuming and difficult to read and manipulate. FBCB2 best handles short fragmentary orders (FRAGO) and warning orders (WARNO). <i>FM 3-90.5</i>
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- Obstacle and Nuclear, Biological, Chemical (NBC)-1 reports should be sent initially by voice, followed by digital reports to generate a geo-referenced situational information message portraying the obstacle or contaminated area across the network.

Maps

TTP ► 1:50,000 scale military maps are the Army standard. Use smaller or larger maps as additions, not substitutes. Place the operations map in the center flanked by the intelligence and fire support maps. Create overlays to one standard size.

- CPs maintain information as easily understood map graphics and charts. Status charts can be combined with situation maps to give commanders friendly and enemy situation snapshots for the planning process. This information must be updated continuously and every update date / time marked so that the time lines of the information can be evaluated.
- Digital information is normally displayed on a command map background and can be viewed either from computer screens or projected onto larger screens / boards for common SU.
- Digital systems allow the commander and battle staff to quickly enlarge or tightly focus the view of the operational areas through the use of zoom-in / zoom-out selections.
- Commanders must clearly define the information required to lead the BN as digital systems can generate large volumes of interesting, but not necessarily useful, information.
- For simplicity, all map boards in every BN CP should be the same size and scale, and overlay mounting holes should be standard on all map boards. This allows easy transfer of overlays from one board to another.

TTP ► Map boards must be kept up to date as digital systems other than FBCB2 and BFT do not work on the move and do not broadcast the most current and updated locations of all units due to latency. *FM 3-90.5*

CTCP Operations

Plan

- Sustainment planners use information collected from operational, personnel, and logistics reports to determine the personnel, equipment, and supply status of each unit within the BCT CAB. They consider the disposition and condition of all supporting Sustainment units as well as individual unit-level capabilities. They analyze this data and the current situation to determine the BCT BN's logistical capabilities and limitations. This data is provided to the commander in the form of a logistics estimate.
- A logistics running estimate is an analysis of logistics factors affecting mission accomplishment. Logistics planners use these estimates to recommend COAs and to develop plans to support selected concepts of operation.
- The key concerns of CAB sustainment planners are the status of supply Classes III, IV, and V and the operational status of tanks, Bradley fighting vehicles (BFV), and other combat vehicles.

TTP ► Logistics running estimates at the CAB level are rarely written. They are frequently formulated in terms that answer the following questions:

- What is the current and projected status of maintenance, supply, and transportation?
- How much of what is needed to support the operation?
- How will it get to where it is needed?
- What external (BSB) support is needed?
- Can the requirements be met using LOGPAC operations or are other techniques necessary?
- What are the shortfalls and negative impacts?
- What COAs can be supported?

- The S-4, like the commander, must visualize how the battle will unfold to determine critical requirements for each sustainment function. He analyzes each COA or plan and considers the following:
 - Type and duration of the operation.
 - Task organization, tasks, and sustainment requirements of subordinate forces.
 - Ramifications of tactical operations such as river crossings, tactical pauses, long movements, preparatory fires or defenses.
 - Need for special equipment, supplies, or services.

- Requirements to separate, disassemble, reconfigure, uncrate, or transload supplies above normal requirements.
 - Requirements for reconstitution.
 - Required varieties and quantities of all classes of supplies, especially III, V, and IX.
 - Requirements for support of reconnaissance forces, security operations, or deception efforts.
 - Need for Class IV and V obstacle material.
 - Pre-positioned stockage requirements.
 - Emergency re-supply requirements.
- The S-4's analysis also includes estimated attrition based on likely outcomes of subordinate missions. Analysis of estimated attrition primarily focuses on critical systems such as:
- Tanks.
 - BFVs.
 - Engineer systems.
- The S-1 assists by projecting potential personnel losses. To perform this analysis, the S-1 and S-4 use current unit personnel and equipment densities, standard planning factors, the BCS-3 COA planning function, historical data, or any combination of these. This projection helps the commander understand the potential losses and associated risks of each COA.

Prepare

TTP ► To understand the BCT BN's capabilities and determine support requirements, sustainment planners should apply a METT-TC analysis to the situation. <i>FM 3-90.5</i>

- The following are examples of general support considerations for tactical operations:
- Mission considerations include the following:
 - CAB mission and commander's Intent.
 - Concept of the operations and threat disposition.
 - HHQ mission and concept of operation.
 - HHQ concept of support.
 - Type and duration of the operation.
 - Commander's tracked items list (CTIL).
 - CSR.
 - RSR.

- Threat considerations include the following:
 - Threat capabilities and tactics that could threaten sustainment operations.
 - Threat avenues of approach.
 - Threat unconventional tactics that could threaten sustainment operations.
 - Anticipated number of enemy prisoners of war (EPW).
- Troops and support available considerations include the following:
 - CAB task organization to include supporting units.
 - Location and condition of all units, including sustainment units
 - Current and projected status of personnel, equipment, and classes of supply.
 - Availability and status of services.
 - Unit-level sustainment capabilities.
- Terrain and weather considerations include the following:
 - Effects of weather and terrain on support operations.
 - Additional sustainment requirements of the BCT BN due to weather and terrain.
 - Condition of infrastructure such as roads and bridges.
- Time available considerations include the following:
 - Impact on the ability to replenish supplies.
 - Planning and preparation time for support units.
 - Impact of time on support requirements and distribution methods.
- Civil considerations include the following:
 - HN support and contract services.
 - Impact of civilian and refugee movement.
 - Potential for hostile reactions by civilians against sustainment operations.
 - US (civilian) contractors on the battlefield.
- The S-4 must prepare for the event of a shortfall in sustainment capabilities. If a shortfall is identified, every means available is taken to reduce its effect. Actions to reduce a shortfall include:
 - Shift supplies or assets by phase of the operation.
 - Request support or an additional asset from HHQ.
 - Use alternate distribution methods.
 - Consider pre-positioning supplies or attaching additional sustainment capabilities to subordinate forces.

- Modify the COA or plan.

Execute

- Once operations are underway, the CTCP has two major responsibilities:
 - Sustaining the unit so it can perform its mission.
 - Being capable of assuming C2 of the unit should the Main CP become non-operational.
- In order to do this, the CTCP must manage the vast amounts of information flowing via the different communications means. Managing information within the CTCP must be planned for and carefully monitored.

Managing Information in the CTCP

- There must be a dedicated and deliberate process for information flow. Following is an example sequence for managing information in the CTCP:

Step 1. Receive information. (Check for completeness and reasonableness).

Step 2. Record and post the information received.

Step 3. Understand the information.

Step 4. Process the information

Step 5. Analyze the information.

Step 6. Disseminate the information.

Step 7. Safeguard the information.

Step 8. Follow up.

- Whether to use FM or digital means for communication is a function of the tactical situation and SOPs. Even though both systems are critical for effective C2.
- FM is the primary method of communications between BN and BDE and when elements are in contact. Before and after an engagement, the staff and commanders use digital systems for disseminating orders and graphics and conducting routine reporting. During operations, however, the BN staff uses a combination of systems to report and coordinate with higher and adjacent units.

TTP ► Staffs at higher echelons, particularly BDE level and above, must remain sensitive to the difficulty and danger of using digital systems when moving or in contact. They should not expect digital reports under those conditions. **FM 3-90.5**

TTP ► Digital reporting builds the COP (particularly the posting of threat icons based on reports), and failure to render such reports results in an incomplete and inaccurate COP. Additionally, the units must build the COP as the action occurs to provide the commander with a COP that contains relevant information that leverages his decision making. **FM 3-90.5**

- Orders, plans, and graphics should be sent digitally, accompanied by an FM voice call to alert recipients that they have critical information being sent to them. Additionally, the transmitting element should request a verbal acknowledgement of both receipt and understanding of the transmitted information by an appropriate Soldier (usually not the computer operator.)

Friendly Information Management

- The creation of friendly situational information may be digitized, requiring minimal manipulation by CPs or platform operators. Each platform creates and transmits its own position location and receives the friendly locations (displayed as icons) of all the friendly elements in that platform's wide area network (WAN).
- The situational information generated from individual FBCB2- or embedded battle command (EBC)-equipped platforms is transmitted to CPs through the TOC server to Maneuver Control System (MCS).
- Commanders must recognize limitations in the creation of friendly situational information that results from vehicles or units that are not equipped with FBCB2 or BFT.
- Dismounted Soldiers are not equipped with a digital device that transmits situational information.

Threat Information Management

- The hardest and most critical aspect of creating the situational information picture is creating the picture of the threat. Generation of the threat situational information picture occurs at all echelons.
- At BN level and below, the primary mechanism for generating situational information is FBCB2. FBCB2 and FM voice reports are the primary source of threat situational information.
- BN leaders and staffs refer occasionally to the Distributed Common Ground System - Army (DCGS-A)-generated intelligence picture to keep track of enemy forces that will be encountered in the near future but that are not yet part of the BN close fight.
- The threat situational information picture usually is incomplete and less current than friendly situational information.
- The timeliness and accuracy of the threat picture must always be scrutinized; it usually will not be timely enough.

Working with Graphics and Orders

- In creating orders, the tactical internet (TI) does not possess high transmission rates like civilian e-mail. Orders and graphics must be concise to reduce transmission times. Orders transmitted directly to FBCB2-equipped systems (as all subordinate leaders in the BN have) must meet the size constraints of the order formats in FBCB2 and EBC.
- Graphics and overlays should be constructed with the same considerations for clarity and size. Situational information reduces the need for control measures to some degree, but the staff must always consider the integration of analog units and that situational information may not always be available to all elements.
- When creating graphics on an Army Tactical Command and Control System (ATCCS) component, the primary users will be FBCB2-equipped. The following guidelines apply:
 - Create control measures relative to readily identifiable terrain, particularly if analog units are part of the task organization.
 - Boundaries are important, but digital units tend to disregard them initially until multiple units have to operate in near proximity or until it becomes necessary to coordinate fires or movement of other units.
 - Intent graphics that lack the specificity of detailed control measures are an excellent tool for use with WARNOs and FRAGOs and when doing parallel planning. Follow them with appropriately detailed graphics as required.

- Standardized colors must be used to differentiate units. This should be articulated in the BDE SOP and established at BDE level. For example, BDE graphics may be in black, BCT BN A in purple, reconnaissance squadron in magenta, and BCT BN B in brown. This adds considerable clarity for the viewer. Subordinate BN and company colors should be specified and standardized.

TTP ► Traditional doctrinal colors for other graphics (green for obstacles, yellow for contaminated areas, and so on) should be used, but an SOP should be developed that uses the color capabilities of the systems to identify both templated actions or activities (such as proposed obstacles and templated threat actions or positions) and executed or actual activities (emplaced obstacles and observed threat.)
FM 3-90.5

Working with Overlays

TTP ► When creating overlays, use multiple smaller overlays instead of one large overlay to speed transmission times. System operators can open the overlays they need, displaying them simultaneously. This technique also helps operators in reducing screen clutter. ***FM 3-90.5***

- The S-3 should create the initial GCM (boundaries, objectives, and phase lines) on a single overlay and distribute it to the staff. This overlay should be labeled as the operations overlay with the appropriate order number.
- Staff elements should construct their appropriate graphic overlays using the operations overlay as a background but without duplicating the operations overlay. This avoids unnecessary duplication and increase in file size and maintains standardization and accuracy. Each staff section labels its overlay appropriately with the type of overlay and order number (for example, FIRES, OPORD XXX).
- Before overlays are transmitted to subordinate, higher, and adjacent units, the senior Battle Captain or the XO checks them for accuracy and labeling. Hard-copy (traditional acetate) overlays are required for the CPs and any analog units.
- Personnel transmit graphics for on-order missions or branch options to the plan before the operation, as time permits. If time is short, they transmit graphics with WARNOs.

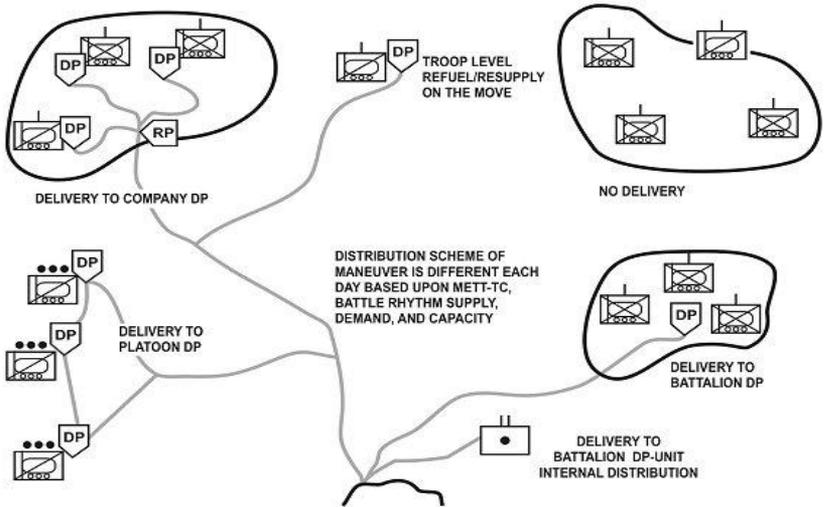
Logistical Packages (LOGPAC)

- Sustaining a BN in a combat environment, to ensure continuous operations, is the challenge facing sustainment planners and operators. The unit must be armed, fueled, and fixed and the Soldiers sustained. This requires the sustainment planners and operators at every level to anticipate needs so the unit can perform its mission with the required supplies, and is the main responsibility of the BN XO, S-1, and S-4. The identification of needs is based on subordinate reports / requests:
 - Platoons and companies pass requirements to the BN.
 - BN process the requirements and forwards them to the BCT at the BSA which encompasses the BSB.
 - The BSB processes the requests and fills the requisitions through the FSC or DS support asset.
 - The FSC delivers to the maneuver units through LOGPACs.

- The LOGPAC is the grouping of those requested or anticipated supplies the unit will need to perform the mission.
- At the BSB, the SPO consolidates the requisition and transmits the request to the Distribution Company.
- Distribution Company fills the requisition as much as practical.
- Configures the supplies.
- Loads the contents onto its trucks.
- Delivers to the BN trains.
- The FSC and company supply sections conduct final configuration of the loads and:
 - Delivers to the combat trains or,
 - Directly to companies
 - Typically, the FSC replenishes the BN and the BSB distribution company replenishes each FSC.

- The flow of supplies via the LOGPACs ensures that the appropriate loads are sustained to support the efforts of the BN. Attached units that join the BN must provide the BN S-1 with a current battle roster and provide the BN S-4 with the status of all key elements of equipment. Thereafter, the attached units submit requests and reports per the BN's SOP and are sustained as a regular member of the unit. The following graphic depicts the flow of supplies via LOGPAC operations.

Example of Supply Distribution Plan



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Network Considerations, The Battalion S-6**General**

- The BN S-6 is the principal coordinating staff officer for all matters concerning command, control, communications, and computer (C4) operations. In this capacity, he is responsible to the BN commander, but works directly for the BN XO.
- Additionally, as the BN Signal Officer, the S-6 must work closely with the BDE Signal Officer and subordinate signal personnel. There is also a close relationship between the BN S-3 and S-6 that must be mentioned.
- The S-3 will direct many of his specific duties and the S-6 must understand the S-3 plan, thought process, and methodology to make the network react intuitively to support the fight. The S-3 is responsible for battle command, while the S-6 provides the capabilities to enable this battle command function.
- Communications capability becomes a critical combat multiplier. The BN S-6 must also work closely with the BDE S-6 and adjacent headquarters to ensure efficient communications employment throughout the BDE AOR.
- The S-6 is also responsible for Network Management (NM) and Information Assurance (IA) within the BN.

S-6 - Arriving at a New Unit

- The following is an excerpt from a former commander's in-briefing for arriving staff officers. It has been included because the advice that is offered underscores much of why this guide was developed. While the content of this in-briefing excerpt provides valuable TTP, it also captures the essence of how to get off to a good start in your new assignment.

“Anxiety probably best characterizes your feelings right now. I want you to know that’s normal. You probably don’t know many people here, if any. You are wondering about what I expect of you. You wonder whether you will fit in, and the list goes on. Only you can put your anxiety to rest, but I can offer you this - you are a specialist in your WFF area, so demonstrate confidence in your ability to help the unit. Don’t expect other battle staff members to know much about what you bring to the table, and especially how you do it. You can expect, however, that your fellow staff members will trust that you know what they do . . . so prepare yourself to meet their

expectations. You may have time to settle in, but expect to hit the ground running.

Get a copy of our unit tactical standing operating procedures (TACSOP), if you haven't already. Study it to understand:

- What others have to do and how you can best support them.
- How you must contribute to the BN's battle rhythm.
- How you fit into the BN's planning process and what you will be expected to provide. Remember, the school house may have given you the right ideas, but our TACSOP will provide the details.
- How you contribute to battle tracking and how you react to mission change.
- How to be proactive in your planning and execution tasks.

And . . . much, much more.

You will get more guidance than you may want, but listening is the best half of communication. I, the XO, and the rest of the battle staff will expect you to provide seamless support. You will be doing your best work when no one is looking for you. Always push your information requirements to every battle staff user, and learn how to pull theirs to you. Be proactive. You are probably failing if you are being reactive.

Finally, being a successful member of this battle staff is a matter of task synchronization. If your tasks are synchronized with all of the other warfighting function tasks, the cohesion needed to promote a sound battle rhythm is in place. You will have done your part, and will get past any anxiety that you or anyone in the unit had before your arrival.”

- The following task list is a guide of actions a new S-6 could take after being assigned to a new unit. It is not intended to be all inclusive.

S-6 - First 30 Days

- Read all BN policy letters.
- Review and understand duties and responsibilities of the S-6 Section.
- Assess communication resources available and status.
- Know / understand purchasing process (both contracts / credit card.)
- Find out HOW the BN does MDMP, then dive-in.
- Know the BDE's and BN's contingency and deployment plans.
- Learn the signal personnel status throughout the BN (ensure the BN S-1 understands that placement of all new signal personnel is vetted through the BDE Communications Chief.)
- Review the Network Training Plan; if one does not exist, prepare one.

- Review BN Network Certification Plan; if one does not exist, prepare one.
- Coordinate with deployment HHQ S-6 (if known.)
- Coordinate with NETCOM units in the AO /operational environment (if known.)

S-6 - 31 to 60 Days

- Conduct a risk assessment for specific types of training events.
- Attend, evaluate, and conduct an after-action review (AAR) of at least one BN S-6 training event.

S-6 - Prior to 90 Days

- Become Warrior Task certified.
- Observe a Quarterly Training Brief.
- Present a class on a required subject to peers or subordinates.

Duties and Responsibilities

- The BN S-6 officer has the following responsibilities:
 - Prepares, maintains, and updates communications operations estimates, plans, and orders. (These orders will often be cause for configuration management changes across the BN).
 - Monitors and makes recommendations on all technical communications and information operations.
 - Advises the commander, staff, and subordinate commanders on communications and information operations and network priorities for C2 (for example, changing bandwidth allocation to support a specific BN mission).
 - Works closely with the BDE S-6 in developing signal-operating instructions.
 - Prepares / publishes communication operations SOP for the BN.
 - Works closely with the BDE S-6 in the planning and management of BCT Electromagnetic Spectrum Operations.
 - Plans and coordinates with higher and lower HQ regarding information systems upgrade, replacement, elimination, and integration.
 - In coordination with the intelligence staff officer (S-2) and S-3, coordinates, plans, and directs all IA and Computer Network Defense (CND) activities and information operations vulnerability and risk assessments.
 - In coordination with the staff, actively coordinates with the BDE S-6 to develop the information and communications plans, manage the information network, obtain required services, and support mission requirements.
 - Confirms and validates user information requirements in direct response to the tactical mission.
 - Establishes information policies and procedures for using and managing information tools and resources.

- Provides signal personnel with direction and guidance during preparation of network plans and diagrams establishing the information network.
 - Plans and integrates information systems and Army Battle Command System (ABCS) equipment in accordance with (IAW) unit task organization / reorganization.
 - In coordination with the BDE S-6, plans and directs all network operations (NETOPS) activities within the BN AO. Plans and monitors all BN networks and manages the LAN utilizing the organic S-6 Section personnel.
 - Oversees COMSEC operations to include storage, management, distribution, inspection, and compliance.
 - Responsible for the field level maintenance on CE systems.
- The S-6 technical duties and responsibilities generally fall into two areas: planning and management. He is responsible to plan and manage:
- Signal support and maintenance.
 - Data support (Local Area Network (LAN) / Wide Area Network (WAN)).
 - Telephone support.
 - Combat net radio (CNR) support.
 - Information assurance (IA).
 - Inter-network connectivity, and COMSEC.
- Additionally, the S-6 must manage the restoration of communications services and manage and coordinate information management (IM).
- The importance of communications for effective C2 cannot be overemphasized. If the commander is planning for a communications system, he should be guided by the types and amount of equipment that are available. All communications-electronic assets available throughout the command must be considered. This includes equipment in the signal unit, as well as the C-E equipment and personnel assigned to the BN.

BN S-6 Section Roles - A Way

- Automation
 - Headed by the O-2 (25A).
 - Servers / TOC Operations.
- Net OPS
 - Headed by the O-2 (25A).
 - Responsible for Everything Prior to the Router.

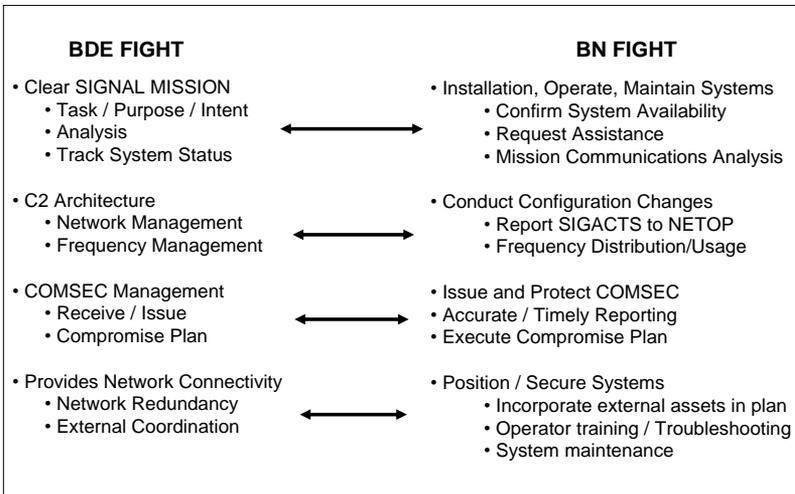
- **Combat Net Radio**
 - Headed by E-6 (25U).
 - Spectrum Management / COMSEC / Radio Management.

- **TOC OPS**
 - Headed by the O-2 (25A).
 - TOC Integration of ABCS / SICUPs / CPP.

- **Back Office**
 - Headed by O-2 (FA53).
 - Spectrum Management / COMSEC / Radio Management.
 - Server Farms.
 - Field Service Rep Management.

The following graphic depicts the difference between the BDE and BN roles and responsibilities concerning C2.

BN-Versus-BDE C2 Roles



Duties and Responsibilities of the Communications Chief

- At BN level, based on MTOE, an enlisted signal specialist usually fills the position of Communications Chief. He is supervised by the S-6. The Communications Chief provides communication services

for the BN HQ. In doing so, he supervises and operates a 24-hour message center and establishes and maintains liaison with supporting communication services. The BN Communications Chief also performs the following:

- Directs and supervises the installation and operation of subordinate unit communication systems.
- Plans, supervises, and inspects communication procedures of subordinate units.
- Prepares, maintains, distributes, and secures the BN SOI.
- Establishes and directs communication training, maintenance, and repair facilities in the BN HQ and subordinate units.
- Advises the commander on communication matters.

The S-6 and Planning

- Since the BN must be able to receive, process, and transmit orders rapidly, the S-6 must ensure that communications are planned early and in detail for every phase of an operation. The S-6 is an active member of the staff planning cell for the MDMP. As part of the commander's staff, the signal leader performs the following critical tasks during planning:
 - Develops and maintains running estimates.
 - Identifies specified and implied tasks.
 - Identifies constraints.
 - Identifies key facts and assumptions.
 - Performs intelligence preparation of the battlefield.
 - Formulates the concepts of operations and support in line with the commander's intent.
 - Develops the scheme of maneuver to support the COA.
 - Prepares, authenticates, and distributes his portion of the plan or order, annexes, estimates, and supporting plans.
- He determines the supportability and feasibility of the signal plan versus the scheme of maneuver. Early involvement in the MDMP by the BN S-6 is critical to the successful development of a comprehensive and complimentary signal plan. Good terrain analysis, competent asset management, and endless staff coordination produce success. Planning in support of operations requires the S-6 to thoroughly understand the following elements in great detail:
 - The friendly maneuver plan as developed in staff wargaming to include contingencies.)
 - The threat, both templated and actual.
 - Terrain, through analysis assisted products available in combat TOCs.
 - Equipment.

The S-6 and Combat Net Radio

- The advantage of combat net radio (CNR) is that it is easily installed and highly mobile. Combat nets are formed by functions, such as operations or logistics, and contain specific groups of users within the unit. The structure of a net depends on the existing situation, command guidance, and available equipment.
- High frequency (HF) communications (e.g., AN/PRC-104, AN/GRC-213, AN/PRC-150) is the only tactical communications asset that may achieve long-range communications independent of terrestrial or satellite relays. The use of amplitude modulated (AM) radio sets operating in the high-frequency range (greater ground wave) gains greater distance than do frequency modulation (FM) radios.
- Fast moving operations over extended distances typically exceed the range capabilities of FM radios. The primary mission of single-channel satellite communications (SATCOM) is to extend the range of the CNR. C2, reconnaissance, intelligence, surveillance, and target acquisition missions can all be performed from an ultra-high frequency (UHF) SATCOM terminal.
- SATCOM provides reliable communications in a highly-portable (either man-pack or vehicular) configuration and greatly extends the range of CNR networks.

The S-6 and Networks

- The S-6 is responsible for net supervision and ensuring that the users know how to operate the system. This includes:
 - Ensuring unit personnel remain proficient on CNR.
 - Ensuring all unit radio operators are familiar with proper FM net procedures, anti-jamming plans, and retransmission operations.
 - Monitoring FM net discipline and making corrections as necessary.

Automation and Information Management

- The S-6 is responsible for Information Management (IM) as well as Information Assurance (IA) within the BN, in coordination with the battle staff. IM personnel are positioned to best support the commander's intent, with priority normally to the S-3 Operations Cell and other critical cells within the CP.
- IM responsibilities of the S-6 include:

- Preparing, maintaining, and updating IM estimates, plans, and orders per the Command Information Management Plan (CIMP).
 - Supporting CIMP implementation at the Tactical and Main CPs (based on S-3 and BDE S-6 direction and guidance).
 - Facilitating the timely flow of relative information (RI) and enabling the staff to process, display, store, and disseminate the COP.
 - Establishing procedures that enable the staff to maintain a timely flow of RI (with the staff).
 - Establishing information system (INFOSYS) to develop the COP (with the staff.)
 - Coordinating the staff interaction necessary to develop the COP within CPs and at each major subordinate command (with the staff).
 - Providing the architecture necessary to collect, process, display, store, and disseminate RI to support C2 functions (with the staff).
 - Facilitating staff presentation of RI according to the quality criteria of accuracy, timeliness, usability, completeness, precision, and reliability.
 - Coordinating, planning, and directing the establishment of C2-system architectures that provides a sound foundation for current and future IM (with the S-3 and the staff).
- Providing information systems (INFOSYS) support through:
- Directing and supervising automation management functions, a subset of INFOSYS.
 - Planning and ensuring that deployed nonmilitary INFOSYS are open and nonproprietary, with commonly accepted standards and protocols that interoperate with military INFOSYS.
 - Establishing and providing automation configuration management for all INFOSYS hardware / software employed by the command.
 - Coordinating, planning, and directing the use of C2 INFOSYS and automation software and hardware employed by the command.

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The Non-Commissioned Officer (NCO)

"Each Sergeant and Corporal will be answerable for the squad committed to his care. He must pay particular attention to their conduct in every respect and that they keep themselves and their arms always clean. In dealing with recruits, they must exercise all their patience and while on the march, the noncommissioned officers must preserve order and regularity."

Regulations for the Order and Discipline of the Troops of the United States (1779)

There is never enough that can be said regarding the importance of the non-commissioned officer's (NCO) role in the United States Army as well as a member of a BN or BDE battle staff. Known as the "Backbone of the Army," the NCO corps has a colorful history dating back to the Roman Legions. The modern American NCO corps was established in 1775 as part of the new Continental Army. Because of the lack of standardization of the duties and responsibilities of the NCO and during the very brutal winter of 1778 at Valley Forge, Inspector General Friedrich von Steuben compiled the Regulations for the Order and Discipline of the Troops of the United States which has been dubbed the "Blue Book" and which provided standardization to the responsibilities of the NCO.

Following are a series of excerpts from the Blue Book that emphasizes that what was good then is still germane now.

The Sergeant Major serves as the assistant to the regimental adjutant. He keeps rosters, forms details, and handles matters concerning the "interior management and discipline of the regiment."

The Quartermaster Sergeant assists the regimental quartermaster, whose duties he assumes during the quartermaster's absence. He also supervises the proper loading and transport of the regiment's baggage when on march.

The First Sergeant enforces discipline and encourages duty among troops, maintains the duty roster, makes morning report to the company commander, and keeps the company descriptive book. This document lists the name, age, height, place of birth, and prior occupation of every enlisted man in the unit.

Sergeants and corporals are expected to instruct recruits in all matters of military training, including the order of their behavior in regard to neatness and sanitation. Outbreaks of disturbances are to be punished. Listings of sick are to be forwarded to the First Sergeant.

In battle, NCOs are to close the gaps occasioned by casualties and encourage men to silence, and to fire rapidly and true.

Regulations for the Order and Discipline of the Troops of the United States (1779)

Since the time of Baron von Steuben, much has changed and yet stayed the same. The same responsibilities of training, discipline, maintenance and caring for the Soldiers are as present today as they were in 1775.

The NCO Vision

An NCO corps, grounded in heritage, values, and tradition, that embodies the Warrior Ethos; values perpetual learning; and is capable of leading, training, and motivating Soldiers.

**We must always be an NCO corps that —
Leads by example.
Trains from experience.
Maintains and enforces standards.
Takes care of Soldiers.
Adapts to a changing world.**

FM 6-22 (Army Leadership)

General Duties and Responsibilities

The NCO's general duties include:

- Conducting the daily business of the Army within established orders, directives and policies.
- Focusing on individual training, which develops the capability to accomplish the mission.
- Being involved with training and leading Soldiers and teams.
- Ensuring each subordinate team, NCO, and Soldier are prepared to function as an effective unit, and each team member is well trained, highly motivated, ready, and functioning.
- Concentrating on standards of performance, training and professional development of NCOs and enlisted Soldiers.
- Following orders of officers and NCOs in the support channel.
- Getting the job done.

The Battle Staff NCO

As a member of the battle staff, the NCO must always remember that he is primarily an NCO and then a staff member. Much the same way George Washington said, “When we assumed the Soldier, we did not lay aside the citizen.” Along that same vein, when we created a Battle Staff NCO, we did not lay aside the leader.

The Battle Staff NCO’s duties and responsibilities include:

- Conducting the daily business of the Army within established orders, directives and policies.
 - Understanding the unit TACSOP and Plans Standing Operating Procedures (PSOP).
 - Developing internal section SOPs and continuity books.
 - Understanding the MDMP and being trained to understand his role in it.
 - Ensuring quality maintenance of all associated equipment.

- Focusing on individual training, which develops the capability to accomplish the mission.
 - Mentoring subordinates in the MDMP process and developing the capability in subordinate enlisted staff to take over responsibilities of higher ranks.
 - Training themselves in their officers functions to take over during high OPTEMPO periods (e.g., planning and concurrent operations).
 - Developing tools to streamline the MDMP process and ensuring the staff is prepared for upcoming steps.
 - Being involved with training and leading Soldiers and teams.
 - Developing performance oriented training tasks to ensure the subordinate staff are prepared to accomplish the mission.

- Ensuring each subordinate team, NCO, and Soldier are prepared to function as an effective unit and each team member is well trained, highly motivated, ready and functioning.
 - Providing time where TOC procedures can be trained and rehearsed in order to ensure the staff is prepared to execute operations.
 - Plan cross-training events with other staff sections to ensure battle staff synchronization between sections.
 - Involve historically affiliated slice units (FSC, Fires, CA) in training as they rarely have the opportunity to train with the unit prior to deployments.
 - Provide copies of the TACSOP and PSOP to historically affiliated slice units.

- Concentrating on standards of performance, training, and professional development of NCOs and enlisted Soldiers.

- Train, rehearse, execute and AAR all phases of the operation from pre-deployment through operations and to re-deployment.
 - Ensure standards of performance are determined prior to training.
 - Bring junior officers into your training and allow them the opportunity to learn your roles and the roles of your Soldiers.
- Following orders of officers and NCOs in the support channel.
 - Involve your section officer in your planning strategy and gain his input.
 - Ensure your officer understands his responsibility to train you in his job, allowing your section to function in his absence.
 - Getting the job done.
 - Understand that the Battle Staff NCO and his subordinates are the unsung heroes of the unit; underpaid, overworked, underappreciated, and tireless in their dedication to the mission. They may not be the ones making the decisions, but decisions cannot be made without them.

The Battle Staff NCO and the MDMP

During contingency operations, there is always the possibility that the staff primary might be involved with the current fight at the same time planning is underway for a future operation. It is the job of the Battle Staff NCO to be technically and tactically proficient to perform the duties of his superior during these times. This is something that must be trained and rehearsed. While this is the responsibility of the primary staff officer, the NCO must ensure it happens. Far too often, a junior officer or staff NCO is thrust, because of operations or other absence of the primary, into that position. Always be prepared and ensure your subordinates can do your job so your rucksack stays manageable.

Tactical Operations Center (TOC)

OCs report observing BN XOs and battle captains talking on the radio, posting maps, and logging entries in journals while NCOs stand by observing. ***More often than not, this is because the officer has not taken the time to train his subordinates, not because the NCO is incapable.***

CALL Handbook 95-7

Before Getting Started:

- Prepare for overlay production.
- Ensure that the TOC box is filled and ready.
- Check that all necessary manuals, either digital or analog, are available.
- Understand the request for information (RFI) process.
- Have a TACSOP available and understand it.
- Ensure the TOC is set up for both operations and planning.

MDMP Step 1 - Receipt of Mission

- Read the sections of the OPORD / WARNO that your staff section has been assigned.
- Brief subordinates on the mission from the HHQ WARNO.
- Ensure all products in the TOC are reproduced and distributed as necessary.
- Know what tools are needed for this step and begin leaning forward in the foxhole for Mission Analysis.
- Ensure correct maps are available (both digital and analog).
- Know what tools are required and which are critical.
- Begin developing the running estimates for your staff section / WFF.
- Know who is responsible for producing WARNO 1. (This will generally be done by a senior Battle Staff NCO from the S-3 Section).
- Proof everything prior to it leaving the TOC.
- Ensure returned RFIs are briefed to the entire TOC.

MDMP Step 2 - Mission Analysis

- You are part of your section. Your section SOP should outline what part everyone plays. There should be no one unemployed or under-employed. Ensure everyone is gainfully employed and, should they need it, train subordinates in specific tasks that will ease your burden and that of the staff primaries.
- The MDMP should not be a surprise and should be executed the same way every time.
- Start developing the products needed for COA Development:
 - Icons for each unit assigned or attached two levels down and include “specialty” units.
 - Appropriate representation (map, digital or hand rendered) to build your COAs.
- Maintain and update the RFI log.

- Collect information and build the Mission Analysis Briefing.
- IPB is not the S-2's job exclusively. Understand the inputs to IPB from your staff section or WFF and provide these to the S-2 as early as you can during Mission Analysis so it can be consolidated.
- Once you have a briefing template that is approved by your commander, put it in your digital TACSOP.
- Each staff section / WFF should develop a list of High-Value Targets (HVT) based on their staff focus.
- Become smart on threat systems that affect your staff section / WFF. The S-2 is not responsible for knowing the range of the threat counter-fire radar . . . the Fires WFF is!
- Ensure you meet time hacks during Mission Analysis.
- Be knowledgeable of **FM 1-02** and **JP 1-02** (Operational Terms and Graphics.) Become the C-in-C of graphics. When in doubt, look it up.
- Know what your unit looks like and the capabilities of the equipment supporting your staff section or WFF.
- Have a way to keep CCIR posted for viewing all the time.
- Know who is responsible for preparing the next WARNO and provide all information available.

MDMP Step 3 - Course of Action Development

- Depending on how well staffed your section is, you may be the primary staff officer for one of the COA Development groups.
- Have the tools available from Mission Analysis:
 - Maps (1:50,000, specific maps of objective areas blown up) with appropriate HHQ graphics and threat depiction based on commander's guidance.
 - Overlays, easels, or digital capability to produce COAs.
 - BN mission statement.
 - List of CCIR visible in TOC.
 - List of all specified / implied tasks identified during Mission Analysis.
 - Current Running Estimates by staff section / WFF.
 - Unit icons from Mission Analysis.
- Start thinking about what tools you need for the wargame (COA Analysis.)
- If you have depicted your COAs on sketches, determine how you will geo-reference them for the wargame.
- Understand the movement and mission task symbols from **FM 1-02**. Ensure doctrinal symbology is used.
- As you determine tasks for your units, visualize two levels down and task one level down. Always list with task and purpose.

MDMP Step 4 - Course of Action Analysis

- Begin by gathering the tools:
 - Geo-referenced products with friendly COA graphics and Threat COA that will be used to wargame against.
 - Unit icons (at this time, we can use task organization composition graphics).
 - Updated running estimates.
 - Section “Smart” books.
 - Other doctrinal references.
 - Event templates.
 - Synchronization matrix or sketch note pads (recording method).
 - Completed COAs including graphics.
 - Threat COAs to wargame against.
 - Updated list of assumptions.
 - List of outstanding RFIs.
- Post evaluation criteria.
- Post CCIR.
- During the wargame, the Battle Staff NCO might have the responsibility to serve as the primary staff officer. This happens often in the Intelligence WFF where the Battle Staff NCO might serve as either the “Blue” S-2 or non-compliant “Red” commander.
- Ensure the recorder of the wargame stays focused and not distracted. Make sure he has an assistant to help keep the input for the synchronization matrix straight. The recorder should understand all of the military acronyms being used and be familiar with the equipment of both friendly and threat forces.
- Be active in the wargame. Participate and be prepared to provide input to both the process and the comparison.

MDMP Step 5 - Course of Action Comparison

- While generally not a primary staff leader, the Battle Staff NCO provides continuity and TOC / planning experience to the MDMP process.
- During COA Comparison, your input is vital to ensure the staff represents each of the wargamed COAs properly, based on both screening and evaluation criteria.

MDMP Step 6 - Course of Action Approval

- During the COA Decision process, the commander may ask questions regarding specific staff sections or WFF rationale for choosing specific COAs.

- Be prepared to provide input based on discussions with your primary staff officer. You can have a dissenting vote on a friendly COA. What might be the best tactical plan may be the most difficult to support with sustainment or signal support. The commander needs to know so he can make a “good” decision.

MDMP Step 7 - Orders Production

- Much of the Battle Staff NCO’s responsibility happens during OPORD production. While making copies of the specific tools and products required for distribution, along with the written OPORD, he may be tasked with the actual writing of annexes or other attachments.
- Be prepared to fill this role. During OPORD production, and based on the types of rehearsals directed by the commander, a portion of the enlisted staff may be used to prepare the rehearsal site. This may involve building a sand table or other representation of the AO including all graphic control measures.
- Write / type annexes.
- Consolidate annexes.
- Reproduce orders / graphics.
- Review / read orders.
- Anticipate and support briefing requirements.
- Stay informed and involved.
- Ensure subordinates understand the plan and their parts in it.

The XO and Synchronization**Primary Functions**

The Executive Officer (XO) is the commander's principal assistant for directing, coordinating, supervising, and training the staff, except in areas the commander reserves. The commander normally delegates executive management authority (equivalent to command of the staff) to the XO. The XO frees the commander from routine details of staff operations and passes pertinent data, information, and insight from the staff to the commander and from the commander to the staff. He directs, coordinates, supervises, trains, and synchronizes the work of the staff, ensuring efficient and prompt staff actions. Staff members inform the XO of any recommendations or information they pass directly to the commander, and of instructions they receive directly from the commander.

The XO's primary responsibility is to synchronize and coordinate the efforts of all staff sections. This responsibility normally requires him to operate from, and supervise all activities within, the TOC. This is especially critical during the battle when synchronization and integration of resources are crucial. During the preparation phase of the mission, these duties can often be fulfilled by the Battle Captain. However, the Battle Captain typically lacks the appropriate experience necessary to accomplish these duties during the battle. Other important duties of the XO are:

- Supervising and coordinating the staff during the MDMP.
- Supervising the analysis and assessment of all information and submitting recommendations to the commander accordingly.
- Supervising and ensuring proper information flow within the TOC.
- Anticipating and synchronizing operations from the TOC.

NOTE: The role of the XO is METT-TC dependant. The current situation may prevent the XO from focusing all of his time and effort at the TOC.

The Executive Officer's Relationship with the Commander and Staff

The value of a close relationship between the XO and the commander cannot be overstated. During operations, the XO must anticipate events and share a near-identical visualization of operations, events, and requirements. The XO must understand the commander's intent at least as well as subordinate commanders. An effective XO understands the commander's personality, style, and instincts as they affect the commander's intentions. The XO also

uses his knowledge of the commander's preferences in directing the staff during planning sessions. By preparing products in a style that supports the commander's visualization preferences, the staff ensures the commander understands, and can fully visualize, their analysis efforts.

The XO helps the commander prepare subordinate units for future employment. The XO monitors their combat readiness status and directs actions to posture subordinate units. Under special conditions or missions, the commander may give the XO temporary command of a portion of the force. Examples of these situations include deployments, retrograde operations, obstacle crossings, and when the commander and deputy or assistant commanders are unable to command.

To the staff, the XO should be revered. He owns expert, reward and punishment power over the staff. As the primary synchronizer of the BN / staff, the Executive Officer must be well versed in all aspects of training, planning, preparation and execution. He must understand his unit and their capabilities as well as the capabilities of all units subordinate and attached to him. He plays the offense, the defense, and generally serves as referee over the staff. His decision is final during all staff planning sessions and he is the one called upon to make critical planning decisions.

As supervisor of the staff, the XO is responsible for:

- Supervising all tasks assigned to the staff.
- Directing the efforts of coordinating and special staff officers.
- Supervising the targeting and other cross-FLOT (forward line of own troops) planning cells.
- Integrating fratricide countermeasures into plans and orders.
- Directly supervising the Main CP and HQ Cell, including, displacement, protection, security, and communications.
- Monitoring the staff's discipline, morale, and operational readiness.
- Conducting staff training.
- Ensuring the staff renders assistance to subordinate commanders and staffs.
- Exercising coordinating staff responsibility for the following special staff officers:
 - Headquarters commandant.
 - Secretary of the general staff (SGS).
 - Liaison officers (LNO).

The Executive Officer's Role in the MDMP

The XO is the primary integrator of the information element of combat power into operations per the commander's intent and concept of operations. In selected BDEs, the S-7 and other coordinating staff officers assist the XO with information engagement (IE) responsibilities.

The Executive Officer's additional duties with regards to the MDMP include, but are not limited to:

- Integrating and synchronizing plans and orders.
- Supervising management of the CCIR.
- Establishing, managing, and enforcing the staff planning time line (per the commander's guidance).
- Determining liaison requirements, establishing liaison information exchange requirements, and receiving liaison teams.
- Ensuring staff work conforms to the mission, commander's guidance, and time available.
- Ensuring the staff integrates and coordinates its activities internally and with higher, subordinate, supporting, supported, and adjacent commands.
- Ensuring all staff sections participate in and provide functional expertise to IPB, managed by the S-2 in coordination with the S-3.
- Informing the commander, deputy or assistant commanders, other primary staff officers, and subordinate unit XOs about new missions, instructions, and developments.
- Directing and supervising staff planning.
- Supervising ISR integration.
- Integrating risk management across the staff throughout the operations process.
- Maintaining knowledge of all directives, orders, and instructions the commander issues to the staff, subordinate commanders, and subordinate units, and verifying their execution.

The Executive Officer and Staff Synchronization

The greatest skill the Executive Officer can bring to a staff is the capability to teach "staff" planning and synchronization. Too often, as staff sections begin Mission Analysis they become very "stove-piped." This is where staff synchronization must begin. There are many products that must be produced collaboratively in order for the commander and staff to truly appreciate the Operational Environment and mission requirements. The Executive Officer must ensure that these collaborations happen. While the S-2 might seem to

be “in charge” of Intelligence Preparation of the Battlefield (IPB) and Intelligence, Surveillance and Reconnaissance (ISR) and the Targeting Officer in charge of Targeting by virtue of their names, without staff synchronization, these missions and their required staff products would be incomplete. The XO must ensure, as he develops the staff planning time line, that he incorporates time for ISR huddles, targeting meetings and establishes specific benchmarks to get products to the S-2 for integration into the Staff IPB.

The Commander

The Role of the Commander

The commander is the key to C2 of his unit. There are certain tasks required of him that allow this to happen. First and foremost, he must develop and maintain a positive command climate where Soldiers understand that they will be defended as long as they are following the commander’s guidance and intent. Another task required of the commander is the training of both his subordinate leaders as well as his staffs. They must be trained in both leadership and C2. The commander is the focal point for reducing friction and clearing the “fog of war.” He drives the operation’s process through his decisions on what must be done to achieve his desired end state. He fosters initiative among his subordinates by giving mission-type orders with broad guidance rather than with specific instructions. He prepares his unit for operations, directs them during, and assesses them following completion of the mission. He is the developer of the C2 system for his unit which is based on needs and the capabilities of his subordinates and equipment. Most importantly, the commander describes, directs, and leads.

Creating a Positive Command Climate

The commander must accept his subordinates’ risk taking and errors. Commanders lead by example and this is also true about accepting risk. The commander and his staff use risk management tools to identify and mitigate risk and the commander must rely on his subordinate commanders to use the same tools to alleviate their risk, when possible. The commander must relay to his subordinate commanders what the level of residual risk is and why he deemed it acceptable. Not only does this let subordinate commanders understand the residual risk but allows them to attempt to mitigate it at their level. Because of this, commanders must allow subordinates to accept risk as long as they use risk management. Risk management must never become risk aversion by completely ignoring it. During training, a commander might allow a subordinate commander to accept too high a level of risk as a

training tool and teaching point. This allows the commander to gain trust in their subordinates capabilities and judgment and allows the subordinates to learn from their mistakes. However, during training, the commander must use his experience to temper overly high risk in his subordinate commanders' plans. The commander must not continually underwrite his subordinates' mistakes, nor should he create the impression of a zero-tolerance command. Finally, he must not tolerate errors of omission if the subordinates failed to use initiative.

The commander must foster mutual trust and understanding between himself and his subordinates. As stated above, in an environment of mutual trust, subordinates know they will be supported both morally and physically while acting within the confines of the commander's intent. In a trusting environment, subordinates do not fear reprisals from bad news and forward all information, both positive and negative. Mutual trust is imperative in decentralized operations. The experiences in both Iraq and Afghanistan have placed a great weight on subordinate commanders and require intrinsic trust in the following of commander's intent in subordinate areas of operation. Trust is fostered by both word and deed is brought about through a complete understanding of Army, as well as local TTPs. Army doctrine and TTPs serve as the foundation to understanding at all levels. During operations, there is seldom time for questions or debate. Only through mutual trust and understanding will the commander be assured that his subordinates will act within the commander's intent.

The commander must communicate with his subordinates and staff. The written order is sometimes not enough to convey the true meaning of the commander's intent. This is achieved through face to face meetings between the commander and his staff and the commander and his subordinate commanders. Operational "noise" must be eliminated to encourage rather than impede communications between the commander and his staff and subordinates. Commanders must not put up defensive barriers to new information that might require them to change previous guidance and they must be prepared for the questions asked by the staff following commander's guidance. The staff is not trying to "sharp shoot" the commander, only ensuring they have received adequate information to continue planning without having to make additional assumptions.

The commander must build teamwork within his staff and subordinate commanders. Building teamwork can become a challenge in this fast paced, high operational tempo era. Unit turnover and frequent deployments lead to little time to train or build cohesive teams. Some things the commander can do to improve team building are following doctrine and using doctrinal terms

and symbols. Always remember, a term to an Army staff might have a different meaning to the Air Force officer serving on the staff. To build cohesion and teamwork at all levels, commanders must strive to develop it at lower levels and must try to bridge the gap between officers and NCOs at both staff and subordinate command levels. This can be done by using officer-NCO teams during training or using senior NCOs to provide training to junior officers and members of all staff sections.

Training Subordinates in Command and Control

In command, prior to operations, the commander must foster an understanding of war. He should focus his professional development on lessons learned as he evokes an interest in past campaigns and battles. He needs to lead his subordinates through a variety of subjects that force them to think and promote an understanding of war. This could include participation in tactical exercises without troops (TEWT), simulations of tactical problems, development of new technical skills, professional reading or discussions centered around current military doctrine and/or unsolved problems.

The commander should develop staff procedures and interactions by developing TTPs where adequate doctrine does not exist (i.e., staff battle drills.) These TTPs must be adapted to aid in the commander's decisions and must be annotated in the unit's TACSOP or PSOP as required. The MDMP is a tremendous opportunity to refine staff procedures and interactions for primary staff as well as historically attached elements.

The commander must train his staff and subordinates. Training the staff and subordinates promotes actions in the absence of orders. It also allows subordinates to take advantage of unforeseen advantages that develop. Training provides a means to practice, develop and validate the application of doctrine and is the only peacetime basis for exercising command and control. Training creates experience in junior leaders. Commanders are responsible for training their staffs as integrated teams. By constantly training and establishing drills, they develop the means to exercise a standardized action tailored to a specific set of parameters. Training is not always easy for the commander. Normal rotation of staff along with increased operational tempo force the commander to make use of all of his allocated time to train. The commander must not neglect his staff's training regimen for the sake of training his subordinate commanders and their units. Finally, training increases trust in both leaders and subordinates and develops a common understanding in all ranks.

The commander must, at all times, promote leadership qualities. These are promoted through development in both commanders and subordinates. These qualities are not the same for every level of command but increase as the level of command increases. Commanders must constantly affirm the “Warrior Ethos” and must demand self discipline in themselves, their subordinates and their command. To promote leadership qualities, the commander must develop training programs that are tough but realistic. But the best way to develop leadership qualities in your subordinates are to show them what right looks like. You should be the role model for your subordinates and always strive to learn something new. No one is ever complete. There is always something to be learned.

The commander must assess his subordinates. The commander must understand that not all subordinates are the same and not all leadership styles are suited to all of them. A commander must look at his subordinates as individuals always assessing them and matching talents to tasks. This applies to staffs as well as subordinate leaders. Your subordinates, as well as your staff, will fail to grow and become stagnant if not tested. Understanding your subordinate’s limitations allows you to push the limits for tough training. The commander must place his subordinates in positions that force them to make decisions in order to determine if they are candidates for higher levels of command. He must determine if his subordinates possess the balance of intelligence, professionalism, and common sense for the next level of command.

The Commander’s Role in the MDMP

Visualize

The commander uses situational understanding to support his visualization and uses elements of information management to support his situational understanding. The commander’s situational understanding is based on relevant information provided by his WFF subject matter experts. As commanders achieve situational understanding, they use their visualization to determine end states and how to get there. Situational understanding does not exist in a vacuum. It requires a mission to support operations. Commanders use both human and technological collection assets to define their situational understanding and rely on their staff to convert raw data into relevant information. With a mission, and based on their situational understanding, commanders develop a set of information requirements (IR) to help develop their visualization and to give initial guidance. Prior to his visualization, commanders must develop a clear understanding of the situation based on METT-TC, as well as the principles of war, tenets of

Army operations, and their own personal experiences. As the operation progresses, situational understanding should increase. Commanders use the art of command to fill voids in situational understanding by developing assumptions. As these assumptions are changed into facts, the science of control becomes more prominent. As commanders will never have complete information, the science of control will never fully replace the art of command. Commanders understand they will have information gaps at the start of the MDMP. They must determine how to fill these gaps and use intuition (based on experience) until the C2 system fills them. Situational understanding helps the commander overcome uncertainty (the fog of war). Uncertainty comes from inadequate or poor quality information, misinterpretation of information, conflicting information or sometimes too much information. In order to cope with the fog of war, commanders collect and improve the quality of information for the COP, use assumptions, reason analytically or forestall or preempt.

Commander's visualization is a core mental process that commanders use in decision making. They use it to determine how to get their forces from their current state to mission accomplishment. Commander's visualization is continuous because military operations are dynamic and ever changing. During mission execution, commanders use their visualization to determine when, where, and if they need to make a decision. Visualization can also be a tool that helps commanders determine how best to lead and motivate their subordinates. As stated earlier, commander's visualization begins with situational understanding and flows to how the commander desires to get to his end state - the commander's intent. Commander's visualization begins during planning and continues until the forces accomplish the mission. Commander's visualization is difficult and complex, and combines analyzed information from the C2 structure with their own knowledge, intuition, and experience. Once the commander has developed his visualization, he describes it through his intent, the CCIR and his planning guidance.

Describe

The commander uses his intent to describe his visualization. The commander's intent focuses the staff and his subordinates and drives the MDMP process. The commander's intent, while generally broad, provides limits that allow subordinate commanders and his planning staff to use initiative to solve problems. It provides a single source linking the mission to the concept of the operation. The mission, as well as the commander's intent, must be understood two levels down. The commander begins developing his intent with the end state and the current state of both friendly and enemy forces. By visualizing the dynamics between these two forces, he develops a

list of key tasks that will be necessary to achieve his end state. These tasks are those that the force, as a whole, must perform. They can also include specific conditions that must be set. They are not tied to a specific COA and keep the staff's effort focused. Failure to address all of the commander's key tasks in a COA will likely lead to a failure of the FADS-C test for that COA. The commander does not provide the "how to." This is the concept of the operation the staff is tasked to produce. The commander's intent generally addresses risk and forms the basis for staffs and subordinate leaders to develop plans and orders. If purpose is addressed in the commander's intent, it is generally a broader sense of "why" in terms of the operational context of the mission. The commander's guidance is prepared by the commander and presented, preferably face to, to staff and subordinate leaders.

The commander is also responsible to prepare planning guidance for the staff in order to better focus them on conducting the MDMP. This, too, is developed from the commander's visualization and can be as broad or detailed as the circumstances dictate. In order to understand the commander's planning guidance, they must first understand his visualization. Commanders use their personal experience and judgment to add clarity and depth to their planning guidance, but must ensure the staff still has room to exercise initiative. The commander's planning guidance focuses on COA Development, Analysis, and Comparison and focuses on the key tasks from his intent. The planning guidance may describe how, where, and when the commander wants to utilize mass. The planning guidance will contain priorities for combat units, as well as for sustainment elements, and details how the commander visualizes the decisive, shaping, and sustaining operations. The amount of detail in the commander's planning guidance depends on time available, staff proficiency, and higher commander latitude (the broader the guidance, the greater the latitude; the more detailed, the less latitude, but quicker turnaround time to orders production). The commander's planning guidance will identify what the commander deems are decisive points. These are points on the ground where a perceived threat weakness allows the commander to exert maximum combat power. Decisive points are not end states, but rather a time, event, or location. These can be described verbally or depicted on either a sketch or a map. This description shows how the commander visualizes the array of forces at the decisive point, the expected effects, and how they lead to mission accomplishment.

Finally, the commander uses CCIR to focus collection on relevant information. These CCIR may change during a mission as the decisions the commander must make may change. The initial CCIR focus on information critical for continued planning and represent the information the staff

requires to develop a set of COAs. During preparation and execution, CCIR shift to information required to make decisions anticipated in the plan. CCIR are tied to decisions commanders must make, but may or may not be tied to specific decision points. For instance, an example of a friendly force information requirement (FFIR) might be company strength falling below 75%. Tied to a decision point on the battlefield, this might be articulated as:

Decisive Point (DP) 1. Does Alpha Company have the necessary combat power to defeat the enemy on OBJ STANLEY?

If the answer at DP 1 is “no,” this might lead the commander to make a decision either to allocate additional assets to Alpha Company to continue the fight or task another unit to take over the fight.

An FFIR tied to a decision but not necessarily a decision point might be: Loss of an O-3 or above. This could happen anywhere on the battlefield and would still require the commander to make the decision as to how he would be replaced.

The staff, based on identification of decision points, should develop branches or sequels to address the different answers of the specific questions addressed there. CCIR should be limited based on the amount of resources available to address them. CCIR focus information and spare the commander from receiving irrelevant information, as well as establishing priorities for allocating ISR assets.

Direct

During planning, commanders direct by guiding staffs during the MDMP. They do this when selecting a particular COA and communicate that decision to their subordinates in an order. They also direct during issuance and refinement of planning guidance. They direct by issuing mission-type orders. These type orders enable subordinates to understand the mission and the commander’s intent and establish guidelines that allow for subordinate initiative. By stressing not only the tasks, but also the context and purpose, they allow commanders to act first and report later rather than waiting for a confirmation from the commander.

Battle Staff Collaboration

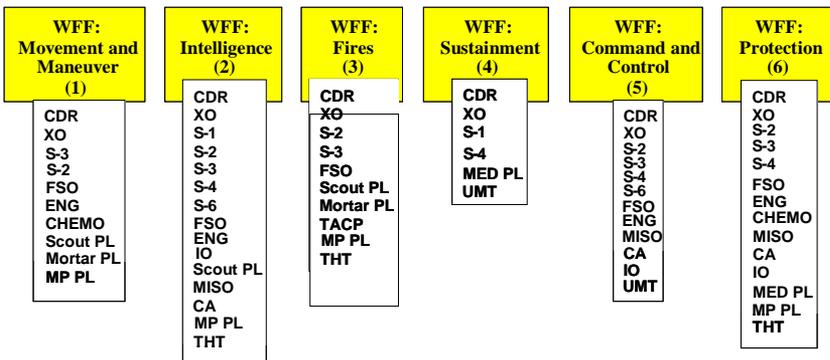
General

While the preponderance of this battle book has been devoted to the considerable involvement in the planning process, the ability to successfully accomplish all assigned tasks dictates that we know who talks to whom about what within each WFF to ensure the collaboration that must occur to execute an assigned mission. This section has been designed to assist with that effort.

XO Collaboration with the Battle Staff

One of the most difficult tasks for battle staff personnel is determining which WFF they and other members of the BN staff participate in and contribute to. In some cases, the alignment of a battle staff member to a particular WFF is easily accomplished by matching a position title to a similar WFF title, e.g., S-2 to Intelligence. For the most part, alignment must be accomplished by required tasks within the multitude of battle staff duties and responsibilities. The BN XO plays a critical role in establishing the WFF “lanes” that battle staff members must work within. The following WFF chart reflects examples of those WFF lanes, but does not identify the principal tasks unit battle staff members must accomplish within their associated WFF.

Warfighting Function Lanes



The following pages denoting XO collaboration with the battle staff address the myriad topics by WFF that the XO must be knowledgeable of, converse with the commander on, ensure answers and solutions to, and coordinate with the right person at the right time during operational planning and

execution. These lists (examples only...units may have different requirements than those shown) can be an important tool for the XO during staff meetings before, during, and after initial planning, in that they lend themselves to a focused set of questions that cover all WFF. Readers are encouraged to review the January 2009 edition of *The Azimuth* to review this complex collaboration.

WFF - Movement and Maneuver

Collaboration With	About What
CDR, S-3	Shaping the AO and area of interest (AOI)
CDR, S-3	Conditions for successful decisive operations
CDR, All Battle Staff	Synchronization of all the elements of combat power
CDR, All Battle Staff	Commander’s intent and concept of operations
CDR, S-3, S-1, S-4	Combat status of all subordinate units
CDR, S-3	Integration of attached units
CDR, S-3, S-2	Support to deception, counter-deception operations
S-3	BN ISR Plan
CDR, S-3, CA, S-2	Scope of Civil Affairs
CDR, S-3, FSO, CA	Unit taskings and assets to accomplish effects tasks
CDR, S-3	Compatibility of other national military structures with US systems
S-3	Operational assessments
CDR, S-3	Coordination with adjacent, attached, special operations forces, host nation, and coalition units
CDR, S-3, S-4	BN unit movements
CDR, S-3	Providing a reserve
S-3, S-4	Mobility in the AO
FSO, S-3, S-2	Integration of lethal and non-lethal effects
CDR, S-3	Current operations
CDR, S-3	Assets from higher headquarters (HHQ)
CDR, S-3	Training requirements, allocation of training resources, commander’s training guidance
CDR, S-3, S-2	Stability Operations (SO) planning
FSO, S-1, S-2, S-3, S-4	Positioning of fires units
CDR, S-3, S-2, FSO	Tactical Command Post execution of tactical operations
S-3, ENG	Support by engineer assets
S-3, ENG	Obstacle construction and destruction
S-3, ENG, CA TM	Civil engineer projects
S-3, ENG, CA TM	Local infrastructure support of military operations
CDR, S-3, FSO	Use of scatterable mines
CDR, S-3, S-4, ENG	Camps and facilities for BN units
ENG, S-4, S-2, MP PL	Assessment of supply routes
CDR, S-3, S-4, ENG	Transportation infrastructure
CDR, ENG	Civilian populace facilities
S-2, ENG, S-3, S-4, FSO	Mine threat
S-2, S-3, SCT PL	Reconnaissance and security to answer CCIR
CDR, S-3, S-2, FSO, SCT PL	Route, zone, area security, screening missions

WFF - Movement and Maneuver (cont)

Collaboration With	About What
CDR, S-3, FSO, Mort PL	Mortar Platoon (PLT) operations
CDR, S-4, MP PL	Enforcement of regulations along supply routes
CDR, S-3, MP PL	Use of reconnaissance patrols
CDR, S-3, MP PL	Law enforcement missions
CDR, S-1, MP PL	Criminal investigations
CDR, S-3, MP PL	Crowd and riot control operations
CDR, S-3, MP PL	Area damage control
CDR, S-3, MP PL	Reaction force operations
S-3, CA TM, S-2, MP PL	Assessment of civil defense and local police
CDR, S-3, MP PL, S-2	Battalion detainee collection point
S-2, MP PL	Physical security
CDR, S-3, MP PL	Liaison with local police
CDR, S-3, MP PL	Personnel, convoy, very important person (VIP) security

WFF - Intelligence

Collaboration With	About What
CDR, S-2, CA TM, TPT, S-1	Perceptions of the local population, belligerent factions, and local leaders
CDR, S-2, S-1, CA TM, MISO TM, IO	The political dimension of the operational environment
CDR, S-2, S-3, CHEMO, S-1	The physical and mental health of the command
CDR, S-3, S-2, S-1	Casualty evacuation (CASEVAC) Plan
CDR, S-3, S-2, S-1	Medical treatment to Soldiers, detainees (to include prisoners of war), and civilians
All Battle Staff	Input to measures of effectiveness (MOE) assessment
S-2, S-3, Fires, S-6	The BCT intelligence process
All Battle Staff	IPB, including integration of input from other staff sections
CDR, XO, S-2, S-3	Situation development, to include updating the threat, terrain and weather, and civil considerations portions of the common operating picture (COP)
S-2, S-3	Synchronization of intelligence support with combat and ISR operations commander's critical information requirements (CCIR) (including priority intelligence requirements [PIR] and friendly forces information requirements [FFIR]), and other information requirements (IR) to develop collection tasks and requests from HHQ and adjacent units
S-2, S-3	Adjustments to the ISR Plan to facilitate ISR integration
S-2, S-3	Collection operations
S-2, BDE S-2	All-source intelligence that answers PIR
S-2, S-3, Patrol Leaders	Patrol briefings and debriefings
S-2, S-1, S-4, S-3	Oversight and support of military intelligence (MI) assets and units

WFF - Intelligence (cont)

Collaboration With	About What
S-2, S-3, Fires, CA	Pertinent demographic and economic issues to include living conditions, religious beliefs, cultural distinctions, and allocation of wealth, political alliances, and social status
S-2, CA, MISO TM S-2, THT, CA, Patrol Debriefs	Third nation support to belligerents or other outside influences Indicators of continued / increased hostile activities
S-2, CA, Fires, THT	Demographics that allow for encouragement, and / or discouragement of belligerent COAs
S-2, ENG	Observation and fields of fire, avenues of approach, key terrain, obstacles and movement, cover and concealment (OAKOC) analysis
S-2, THT, CMO, CA, Patrols	Belligerent groups and their relationship to each other. (Political, cultural, and economic allegiances between belligerent groups)
S-2, Patrol Debriefs, G-2	Leadership links between belligerent groups
S-2, Patrol Debriefs, THT	Discipline and training of belligerent groups
S-2, Patrol Debriefs, THT	Capabilities of belligerent groups
S-4	
S-2, S-3, CDR	Supporting functions associated with belligerent groups for logistics, movement and populace support
S-2, S-2 Section	Responses from belligerent groups to US actions Synchronization effort to ensure every element of the BN understands the intelligence required and plays an active role in the collection and production of that intelligence
S-2, S-3, Fires	Nomination of collection tasks to support BN effects collection efforts
S-2, THT, Patrols	Threat propaganda / recruitment teams within or through the AOR
S-2, CA, THT, IO	Current situation regarding threat and environmental factors that will impact planning and operational execution
All Battle Staff	Maintain IPB
S-2, XO, CDR, S-3	Intelligence Production Team
S-2, THT, CA, CMO	Use of human intelligence (HUMINT)
S-2, SSO	Release of classified US information in accordance with the multinational sharing agreements
S-2, S-3, NGO	Integration of NGOs, international organizations, host nation (HN) / police, CIVPOL, and others into the intelligence process
S-2, G-2	Integration of intelligence assets from higher levels
All Battle Staff	The BN ISR Plan
S-3, S-2	Assessment of the threat to US forces
S-3, S-2	Historic connections of other nations' involvement in the life of the host nation
S-3, S-2	Local political, social, and economic boundaries, and design of boundaries to capitalize on the administrative political boundaries of the host nation
S-4, S-3, S-2, S-1, FSO	Logistic preparation of the battlefield
S-4, S-2	Impact of operations on the local economy

WFF - Intelligence (cont)

Collaboration With	About What
S-4, S-2	Sustainment stability / capability / vulnerability input to running estimates and COA Analysis
S-4, S-3	The unique logistics capabilities of each member of the multinational force, if applicable
S-6, S-2	Threat force communications capability (UHF, VHF, long-range cordless phone, cell phone systems, commercial, couriers, signaling mirrors, etc.) regarding their potential impact on operations for the S-2
S-6, S-2	Command, control, communications, and computers (C4) vulnerability to threat and civilian actions
FSO, S-2	BN observation plan
S-6, S-2, IO, CA, MISO TM	Battle damage assessment (BDA) and MOE are integrated into intelligence estimates
ENG, S-2	Terrain visualization on the effects of terrain on friendly and threat operations
MISO TM, CDR, S-3, XO, S-2	MISO activities in support of the BN
MISO TM, CDR, S-2	Enemy propaganda
CDR, S-3, CA TM	Public information media under civil control
CDR, S-3, FSO, CA TM	Culturally sensitive sites and protected targets
CDR, S-3, S-2, CA TM	Preparation and integration of area assessments in support of CMO.
CDR, S-3, S-2, CA TM	Civilian interference with military operations
CDR, S-3, CA TM	Performance of specific functions within the limits of the authority and liability established by international treaties and agreements
CDR, S-3, CA TM	Effects of the civilian population on BN operations
CDR, S-3, MP PL	Liaison with local civilian law enforcement authorities
S-2, CI, HUMINT, S-2X, THT	HUMINT Collection Plan to support the BN ISR Collection Plan
S-2, CMO, S-2X, THT, G-2	Coordination of HUMINT and counter-intelligence (CI) activities in the BN AO with national agencies
S-2, S-2X, S-6, THT	Technical control measures for HUMINT and CI reporting
CDR, S-3, S-2, THT	Operational guidance (not operational control) to HUMINT collectors and CI agents
S-2, S-2X, THT	HUMINT and CI activities supporting BN effects priorities

WFF - Fires

Collaboration With	About What
CDR, S-3, FSO FSO FSO	Integration of fires and effects into the BN’s tactical plan Clearance of fires Lethal and non-lethal effects planned, synchronized, and integrated IAW the commander’s intent, guidance, and desired end state for the mission
S-3, FSO	Intelligence support to the targeting process, including participating in the targeting meetings, developing high-value targets (HVT), and tracking high-payoff targets (HPT)
FSO, CMO, S-2, IO	Intelligence support to IO by integrating intelligence products into IO planning and integrating IO considerations into the other intelligence tasks
FSO, CMO, S-2, IO	International media effects that are pro- or anti-coalition (satellite TV, radio, print, etc.)
IO, CA, CMO, S-3, FSO, S-2	Effects planning and the MDMP
FSO, S-3, S-2	Electronic warfare (EW) database and C2 target list
FSO, S-3, S-2	What EW is available and its effects
All Battle Staff	Integration of targeting into the MDMP
All Battle Staff	Participation in the targeting and IO process
S-3, FSO	Integration of fire support (FS) assets into the concept of operations
CDR, FSO	Procedures for the rapid clearance of fires
FSO	Communications with host country forces and area control centers
FSO	Restrictions on the use of dual-purpose improved conventional munitions (DPICM) and area denial antipersonnel mine / remote anti-armor mine system (ADAM / RAAMS); and dependence on precision munitions to limit the amount of collateral damage and risk to civilians of unexploded munitions
BDE FSE, FSO	The effects of illumination rounds to defuse belligerent’s night activities
BDE FSE, FSO	The use of radars / artillery in a force protection role for rapid targeting and suppression of indirect fire attacks
CDR, FSO	Fires planning, coordination, and execution in support of the BN operations
CDR, FSO	Integration of fires into the maneuver commander’s concept of operation
CDR, FSO	Fire support tasks (FST)
CDR, FSO	Fire support coordination measures (FSCM)
CDR, FSO	Coordination of the commander’s fires plan
CDR, FSO	Fires capabilities and limitations
CDR, IO, TPT, CA, FSO	Integration of IO into targeting
CDR, FSO	Approval for the concept of fires and effects
CDR, FSO	Synchronization of fires and effects plan in accordance with the commander’s guidance for current and future operations
CDR, FSO, S-2	Refinement of BDE target list

WFF - Fires (cont)

Collaboration With	About What
CDR, S-3, FSO, Mortar PL CDR, S-3, FSO, Mortar PL CDR, S-3, FSO, Mortar PL CDR, S-3, FSO, TACP CDR, FSO, IO	Indirect fires in support of maneuver companies or the BN Optimization of indirect fires in urban terrain Obscuration for friendly movement Planning, integration, and execution of fixed-wing close air support (CAS) operations. The use of patrols and radio shows in the BN AO that have the mission of informing the populace about the visible effects of the BN's operations.

WFF - Sustainment

Collaboration With	About What
CDR, S-1, S-4 CDR, S-1, S-4, S-2, S-3, CHEMO CDR, S-1 CDR, S-1 S-1, PAO CDR, S-1, PAO CDR, S-1 S-1 CDR, S-1 CDR, S-1 CDR, S-1 CDR, S-1 CDR, S-1 CDR, S-1	Combat capability assets, both materiel and personnel The effects of the health threat to include: adverse environmental, occupational, industrial, and meteorological conditions; endemic human and epidemic diseases; exposure to CBRN warfare agents, and directed-energy devices Medical activities in support of the BN The staff efforts of the chaplain, surgeon, and SJA Efforts of the PAO regarding media analysis within the BN AOR, media inquiries, and media engagement Public affairs and command information programs Technical direction to BN elements in the areas of: personnel readiness management, personnel accounting and strength reporting, personal information management, casualty operations, postal operations, and morale welfare and recreation (MWR) operations The Personnel Services Support Appendix of the Sustainment Annex, as applicable Technical oversight of the BN medical platoon Medical treatment to Soldiers, detainees (to include enemy prisoners of war), and civilians Recommendations on civilian medical facilities within the BN AO Population count of local villages / towns, and the identification of changes in population numbers and demographics Translator support and availability Legal and fiscal restraints involved in logistics and materiel assistance to non-military organizations and other nations' forces

WFF - Sustainment (cont)

Collaboration With	About What
CDR, S-1	Mass Casualty Plan
CDR, S-1	Combat Health Support Plan
CDR, S-1	CASEVAC Plan
CDR, S-2, S-3, S-4, FSO, S-1	Logistic preparation of the battlefield
CDR, S-2, S-3, S-4, FSO, S-1	Current and future support requirements and capabilities; ability of the BN to provide its own support; transportation to support special transportation requirements
S-4, S-3	Allocation of resources, as applicable
CDR, S-2, S-3, S-4, FSO, S-1, CMO, ENG	Classes of supply
S-4, S-3	Sustainment resource support to BN operations
S-4, CO CDRs, S-3	Ability of HHQ to provide support
S-4, CA TM	Availability of local supplies, facilities, utilities, services, and transportation support systems by contract or local purchase
S-4, CA TM	Availability of local facilities, such as a line of communication, ports, airfields, and communications systems
S-4, CA TM, BCT S-4	Availability of HN support and contracting
S-4, CA TM, BCT S-4	Required authority to provide or receive coalition support to the local procurement process
S-4, S-3	Special equipment requirements
S-4	Sustainment input per commander priorities and requirements
S-4, S-3, CO CDRs	Logistic plans to support BN operations
S-1, MED PL, BDE	Medical capability (MEDCAP) operations and nominate potential operations
Surgeon	Technical agreements with other Services on CASEVAC and emergency care and health care logistics
S-1, S-4, MED PL, BDE	HHQ evacuation policy
Surgeon	
S-1, MED PL, BDE	
Surgeon, S-3	
CDR, UMT, CSM	Religious support across the BN's AO
CDR, UMT, CSM	Personal counseling and pastoral care to the BN

WFF - Command and Control

Collaboration With	About What
CDR, All Battle Staff CDR, S-3	MDMP participation Assessment of what needs to be done to employ combat power effectively
CDR, CA, MISO TM CDR, S-3 CDR, CA, MISO TM, S-3	Interagency, joint, and multi-national cooperation ROE to guide the tactical application of combat power Civil administration support within the limits of authority established by treaties and agreements
CDR, S-3 CDR, S-3	Training for rules of interaction (ROI) Measures of effectiveness (MOE) that will aid understanding and evaluation of mission accomplishment
CDR, All Battle Staff CDR, S-6, S-3 CDR, S-3, CSM, S-6 CDR, FSO, S-3 CDR, S-3	Commander’s critical information requirements (CCIR) Information management (IM) within the BN Supervision of BN Main CP, its operations, and its positioning Supervision of targeting meetings Direction, coordination, supervision, training, and synchronization of the work of the staff
CDR, S-3	Organization of the staff into functional and integrating cells and working groups
CDR, S-3 CDR, S-3	Staff planning time lines Integration of ISR, information operations (IO), and targeting
CDR, All Battle Staff	Lethal and non-lethal effects are planned, synchronized, and integrated IAW the commander’s intent, guidance, and desired end state for the mission
S-6, S-2, S-3	Threat force communications capability (UHF, VHF, long-range cordless phone, cell phone systems, commercial, couriers, signaling mirrors, etc.) regarding their potential impact on operations
S-6, S-2, FSO, CMO, S-3	Local populace communications (cell phone systems, hard-line phones, long-range cordless phones, radio, television, newspapers, etc.) regarding their potential impact on operations with the S-6
S-6, S-2, S-3	Information on adversary C2 systems for vulnerability assessments
S-1, S-2, SJA, CMO, S-3	Legal limits of friendly use of power Green / amber / red / white format for reporting local levels of cooperation (flags and banners) and inform subordinate units
S-3, S-2 CDR, S-2, S-3	Reports (intelligence, patrol reports, etc.) Factors that make a given population segment important to the commander
S-6, S-2, Network Control CDR, S-3 CDR, S-3 CDR, S-3 CDR, S-3	Information management and intelligence sharing issues Desired intent of the ROE Agendas of contributing nations Assessment of bilateral or multilateral agreements with the US for support and funding Rules of Interaction

WFF - Command and Control (cont)

Collaboration With	About What
CDR, S-3	Coordination and integration of joint, international, multi-national (JIM) assets into BN operations
CDR, S-3	Preparation, coordination, publishing, and distribution of BN orders, plans, and SOPs
CDR, S-3, FSO	Synchronization of the effects of BN combat units IAW the BN commander’s intent
CDR, S-3	Control and direction of current operations
CDR, S-3	Plan future operations
CDR, S-3, S-2	Orders, plans, and SOPs from subordinate units
CDR, S-3, A/S-3	Management of A2C2 and terrain in the BN AO
S-6, S-2, FSO, S-3	Communications effects matters
S-1, S-2, S-3, S-4, FSO,	Network operations and information management support of
BDE S-6, S-6	operations
S-3, S-6	EW equipment in the BN AO and counter-measure updates
S-1, S-2, S-3, S-4, FSO,	Technical oversight of BN units in the areas of network
BDE S-6, S-6	operations (NETOPS), information dissemination, and information assurance
BDE S-6, S-6, S-3	BN network priorities and constraints necessary due to bandwidth limitations
S-3, S-4, S-6	Command post (CP) locations based on communications capabilities
S-1, S-2, S-3, S-4, FSO,	Integration of Army Battle Command Systems (ABCS) and other INFOSYS with the warfighter information network (WIN)
BDE S-6, S-6	
S-1, S-2, S-3, S-4, FSO,	Communication protocols and user interfaces between the global information grid (GIG) and the BN network
BDE S-6, S-6	Radio frequency allocations and assignments
S-3, BDE S-6, S-6	C4 peculiar maintenance
S-4, S-6	Deconfliction of frequencies
S-6, S-3, S-6	Effects instructions in the Signal Annex, as applicable
FSO, S-6, S-3	Communications liaison team
S-4, BDE S-6, S-6	Nonmilitary communication systems
S-4, BDE S-6, S-6	Integration of IO sub-elements into targeting
CDR, IO, CA TM, MISO	
TM, S-3	
S-3, ENG	Status of engineer units and the engineer capabilities of other BN elements
CDR, ENG	Synchronization of environmental considerations for the BN staff
CDR, S-3, MISO TM	Execution of MISO tasks
CDR, S-3, CA TM	Legal and moral obligations incurred from the effects of military operations on civilian populations
CDR, S-3, CA TM	Integration of attached CA units into the BN
CDR, CA TM, S-3	Development of plans to deconflict civilian activities with military operations
CDR, S-3, CA TM	Liaison with other US governmental agencies, indigenous population and institutions, non-governmental organizations (NGO), and international organizations in the AO

WFF - Command and Control (cont)

Collaboration With	About What
CDR, S-3, CA TM	Relationship between the civilian population and military operations
S-3, CA TM	Input to the CA Operations Annex to the OPORD
CDR, S-3, CA TM	Execution of CMO tasks, as assigned
S-2, S-3, IO	Proposed CCIR related to IO
CDR, XO, S-6, S-3	Protection of the BN C4 network (defensive IO)
CDR, IO, S-3	Dissemination of information (related to offensive IO)
CDR, IO, S-3	Coordination of the BN IO Plan with HHQ and subordinate companies
CDR, IO, S-3	Planning, coordinating, and directing the BN IO effort
CDR, IO, S-3	IO tasks for the BN staff and companies
CDR, IO, S-3	Determination of the IO units and other resources available for each operation
XO, S-3, IO	Composition and capabilities of IO assets
CDR, IO, S-3	Identification of subjects for command information to Soldiers
CDR, IO, S-3	MISO product dissemination (print, radio, TV)
CDR, IO, S-3	MISO products from HHQ MISO
CDR, IO, S-3	MISO messages specific to the AOR
CDR, IO, S-3	IO meetings and work groups
S-3, IO	IO portion of the BN FRAGO as a result of BN targeting or synchronization meetings
CDR, IO, S-3	The IE Appendix
CDR, IO, S-3	Deconfliction of IO tasks with HHQ, the S-3, and subordinate companies
CDR, S-3, IO	IO training in the BN
CDR, S-3, CSM	Serve as confidential advisor to the commander on the spiritual fitness and ethical and moral health of the BN
CDR, S-3, CSM	Advice on the humanitarian aspects and the impact of command policies on indigenous religions

WFF - Protection

Collaboration With	About What
CDR, IO, MISO TM, S-3	Translation of political objectives into military objectives
CDR, S-3	Plans to ensure self-defense
CDR, S-3, S-2	EEFI
CDR, S-2, MP PL, BDE	Physical security programs
S-2, G-2, PMO	
CDR, FSO, S-2, S-3	Use of radars / artillery in a force protection role for rapid targeting and suppression of indirect fire attacks
CDR, FSO, S-3	Fire support coordination measures (FSCM)

WFF - Protection (cont)

Collaboration With	About What
S-3, CHEMO	Effects of toxic industrial chemicals (TIC) and toxic industrial materials (TIM) on Soldiers and the effects of BN operations on civilian TIC / TIM facilities
S-3, CHEMO	CBRN decontamination (except patient decontamination) operations
S-3, CHEMO	Battalion CBRN warning and reporting system
S-3, CHEMO, FSO	Chemical smoke use
S-3, CHEMO, FSO	Call for fire zones (CFFZ)
ENG, FSO, S-3	Survivability positions for Field Artillery (FA) assets
ENG, S-3	Engineer priorities of effort and support, maneuver support tasks, and acceptable mission risks to the commander
CDR, MISO TM, S-3	Protection / movement and maneuver missions as assigned
CDR, MISO TM, S-2	Identification and monitoring of threat propaganda
CDR, CA TM, S-3, S-2	Culturally sensitive sites and protected targets
CDR, CA TM, S-3, S-2	Community relations programs to gain and maintain public understanding and support of military operations
CDR, CA TM, S-3, S-2	Effects of the civilian population on BN operations
S-1, MED PL	Assessment of the general populace health within the BN AOR
S-1, MED PL	Requirements for forensic support to war crimes investigations
S-1, MED PL, BDE Surgeon	Medical concept for support of Foreign Humanitarian Assistance (FHA)
CDR, MP PL, S-3	Critical site, asset, high-risk personnel security to include security of convoys and very important persons (VIP)
CDR, MP PL, S-3	Law enforcement missions throughout the AO
CDR, MP PL, S-3	Early force protection to initial deployed elements, as applicable
CDR, MP PL, S-3	Reactionary force operations
S-2, S-6, THT	Release of source-sensitive information and protection of HUMINT sources
CDR, S-6, S-2, THT	Release for HUMINT reporting and products
S-2, S-6, THT, S-3	Threat intelligence collection capabilities, including efforts targeted against the BN
S-2, S-2X, S-6, MISO TM, THT, S-3	Threat intelligence capabilities, including those that affect operations security (OPSEC), counter-surveillance, signal security (SIGSEC), and MISO

Section 2 - The Military Decision Making Process

General

The Military Decision Making Process (MDMP) is an iterative planning methodology that integrates the activities of the commander, staff, subordinate HQ, and other partners to understand the situation and mission; develop and compare COAs; decide on a COA that best accomplishes the mission; and produce an operation plan or order for execution. The MDMP helps leaders apply thoroughness, clarity, sound judgment, logic, and professional knowledge to understand situations, develop options to solve problems, and reach decisions. It is a process that helps commanders, staffs, and others think critically and creatively while planning. ***FM 5-0***

The MDMP facilitates collaborative and parallel planning as the HHQ solicits input and continuously shares information concerning future operations with subordinate and adjacent units, supporting and supported units, and other military and civilian partners through planning meetings, warning orders, and other means. Commanders encourage active collaboration among all organizations affected by the pending operations to build a shared understanding of the situation, participate in COA Development and decision-making, and resolve conflicts before publication of the plan or order. ***FM 5-0***

The MDMP also drives preparation. Since time is a factor in all operations, commanders and staffs conduct a time analysis early in the planning process. This analysis helps them determine what actions are required and when those actions must begin to ensure forces are ready and in position before execution. This may require the commander to direct subordinates to start necessary movements; conduct task organization changes; begin intelligence, surveillance, and reconnaissance (ISR) operations; and execute other preparation activities before completing the plan. These tasks are directed in a series of WARNOs as the commander and staff conduct the MDMP. ***FM 5-0***

During planning, assessment focuses on developing an understanding of the current situation and determining what to assess and how to assess progress using measures of effectiveness and measures of performance. ***FM 5-0***

Depending on complexity of the situation, commanders may initiate design activities before or in parallel with the MDMP. Commanders may choose to

conduct design to assist them in understanding the operational environment, framing the problem, and considering operational approaches to solve or manage the problem. The products of design, including the design concept, would guide more detailed planning as part of the MDMP. Commanders may also conduct design in parallel with the MDMP. In this instance, members of the staff conduct Mission Analysis as the commander and other staff members engage in design activities prior to COA Development. In time-constrained conditions or if the problem is relatively straight forward, commanders may conduct the MDMP without the benefit of a formal design process. During execution, commanders may conduct design to help refine their understanding and visualization and adjust the plan as required. ***FM 5-0***

The following MDMP process chart is different than Figure B-1 in ***FM 5-0, The Operations Process*** (26 March 2010), as it includes the additional “key inputs and outputs” listed at Figures B-2, B-3, B-5, and B-14. Differences include changes to verbiage and completely different sets of inputs and outputs. Commanders and battle staffs should take the time to compare Figure B-1 with subsequent MDMP step figures. Underlined text highlights differences.

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Military Decision Making Process (MDMP) Diagram

The Military Decision Making Process

FM 5-0, *The Operations Process*, March 2010

Key Inputs	Steps	Key Outputs
<ul style="list-style-type: none"> Higher headquarters plan or order or a new mission anticipated by the commander 	<p>Step 1: Receipt of Mission</p>	<ul style="list-style-type: none"> Commander's initial guidance Initial allocation of time
<ul style="list-style-type: none"> Higher headquarters' plan or order Higher headquarters' intelligence and knowledge products Knowledge products from other organizations <u>Updated running estimates</u> Initial commander's guidance <u>COA evaluation criteria</u> Design concept (if design precedes Mission Analysis) 	<p>Step 2: Mission Analysis</p>	<p>WARNING ORDER</p> <ul style="list-style-type: none"> Approved mission statement Initial commander's intent Initial planning guidance Initial CCIRs and EEFI Information themes and messages Updated IPB products Updated running estimates Assumptions <u>Resource shortfalls</u> <u>Updated operational time line</u> <u>COA evaluation criteria</u>
<ul style="list-style-type: none"> <u>Approved mission statement</u> <u>Initial commander's intent and planning guidance</u> <u>Design concept (if developed)</u> <u>Specified and implied tasks</u> Assumptions Updated running estimates and IPB products <u>COA evaluation criteria</u> 	<p>Step 3: Course of Action (COA) Development</p>	<p>WARNING ORDER</p> <ul style="list-style-type: none"> <u>Commander's selected COAs for war-gaming with COA statements and sketches</u> Commander's revised planning guidance to include: <ul style="list-style-type: none"> <u>War-gaming guidance</u> <u>Evaluation criteria</u> <u>Updated running estimates and IPB products</u> Updated assumptions
<ul style="list-style-type: none"> <u>Updated IPB products</u> Updated running estimates Updated commander's planning guidance <u>COA statements and sketches</u> Updated assumptions 	<p>Step 4: COA Analysis (War-game)</p>	<ul style="list-style-type: none"> Refined COAs <u>Decision support templates and matrices</u> <u>Synchronization matrices</u> <u>Potential branches and sequels</u> <u>Updated running estimates</u> Updated assumptions
<ul style="list-style-type: none"> War-game results Evaluation criteria Updated running estimates Updated assumptions 	<p>Step 5: COA Comparison</p>	<ul style="list-style-type: none"> Evaluated COAs Recommended COAs <u>COA selection rationale</u> Updated running estimates Updated assumptions
<ul style="list-style-type: none"> Updated running estimates Evaluated COAs Recommended COA Updated assumptions 	<p>Step 6: COA Approval</p>	<ul style="list-style-type: none"> Commander-selected COA and any modifications Refined commander's intent, CCIRs, and EEFI Updated assumptions
<ul style="list-style-type: none"> Commander-selected COA with any modifications Refined commander's intent, CCIRs, and EEFI Updated assumptions 	<p>Step 7: Orders Production</p>	<p>WARNING ORDER</p> <ul style="list-style-type: none"> Approved operation plan or order
<p>CCIR commander's critical information requirement COA course of action</p>		<p>EEFI essential element of friendly information IPB intelligence preparation of the battlefield</p>

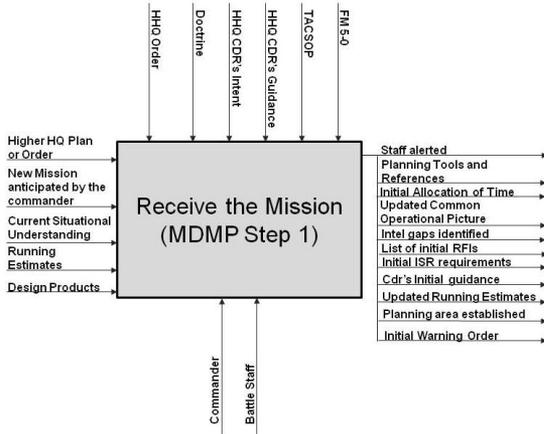
Underlined text indicates changes and additional "key inputs and outputs" listed at Figures B-2, B-3, B-5, and B-14.

Note: The following pages may be used as a reference tool for executing the MDMP. They are not intended to be all inclusive of the myriad MDMP actions and techniques that are possible, rather to provide commanders and staffs assistance with this difficult task. Included in the supporting tables are both “TTP” and doctrinal excerpts. Doctrinal excerpts are italicized.

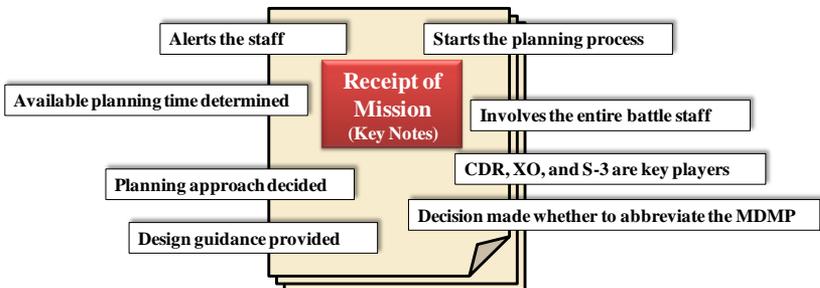
MDMP Step 1 - Mission Receipt

Commanders initiate the MDMP upon receipt or in anticipation of a mission. The purpose of this step is to alert all participants of the pending planning requirements, determine the amount of time available for planning and preparation, and decide on a planning approach, including guidance on design and how to abbreviate the MDMP, if required. *FM 5-0*

MDMP Step 1 Task Graphic



Step 1 Highlights



Alert the Staff and Other Key Participants

Actions

- Higher Headquarters (HHQ) order or a planning directive from the commander initiates the MDMP.
- S-3 Section drafts and issues an alert to the staff to prepare them for planning.
- Primary staff officers coordinate and supervise the actions of their respective staffs.
- Coordinate staff actions required to ensure staff running estimates are current and staff elements have necessary Mission Analysis tools. Ensure shared network databases are current. Identify information gaps that may require staff action.

Performers

- Commander, XO, S-3 Section, battle staff.

Outputs

- HHQ order or Commander’s directive to initiate MDMP.
- Battle staff elements alerted.
- Battle staff coordination and supervision.
- Coordinated staff actions.
- Currency of shared network databases.
- Information gaps identified.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- When the unit receives a new mission, turn your immediate attention to alerting the staff and gathering the planning tools and products that will be needed. Check the unit TACSOP. It should all be there.
- *Have the Operations Section notify required participants.* Make sure they have the required “attendee” list. Double check what the TACSOP requires, e.g.:
 - Who should be notified (staff and subordinate commanders.)
 - Contact information.
 - What their responsibilities are upon notification.
 - Who will participate in Mission Analysis?
 - Who the alternates are.
 - Where participants should assemble.

- When participants should assemble.
- Ensure the Operations Section notifies other military, civilian, and host-nation organizations that impact upcoming operations.
- Get the unit TACSOP to supporting and attached units, have them review it, and ensure they are aware of their responsibilities.
- If there is a habitual relationship between your unit and another subordinate unit, ensure they have your TACSOP prior to mission planning.
- Balance the level of participation in the unit's planning process with the complexity of the mission, ongoing mission support, the need for key leadership to be present, and the experience of both key leaders and staff representatives.
- Ensure maps are available (analog and digital) for overlay development for each WFF. Sharing of maps greatly slows the entire process and hinders vital intra-staff coordination.
- Do an inventory of orders and overlays ensuring it is complete to know what needs to be duplicated for distribution (This should be included in the PSOP / TACSOP but may be mission / staff dependent.)
- Check that all systems are a "go" for producing copies of the HHQ order and operations overlay. Determine who has the requirements for overlay production and how they are to be distributed. Ensure you address both analog and digital products and units both inside and outside the TOC.
- In order to ensure an effective plan, the S-3 Section must focus the planning effort. They do this by confirming that all plans and orders are compliant with domestic and international law, and that all planning products are relevant and suitable for subordinates, based on the commander's intent. They further focus the planning effort by visualizing the operational environment with the help of all of the staff sections and describing it to subordinate staffs and commanders.
- Distribute the HHQ order and overlay IAW the TACSOP and conduct an overview brief.
- Check the status of committed and uncommitted subordinate units and key equipment. Refer to the staff's running estimates.
- There will always be questions, so have the staff develop their initial RFIs. Ensure your internal RFI process is nested with the HHQ process.
- Have the Operations Section provide a sketch or enlarged map to display the friendly / threat situation. If this is to become the planning map, ensure the remainder of the staff has copies of it also.
- Mission Analysis is next, so lean forward and have the staff set up the TOC for it.

- Monitor external requirements / personnel tasks to ensure the necessary personnel are available for the MDMP.
- Check the plans SOP to see which staff tools will be required to complete the MDMP. Example: do you have the synchronization matrix that works for your unit and is it customized to include all assigned and attached elements?
- Ensure each member of the battle staff understands what they are responsible for (must read and / or analyze) in the base order and the annexes they have been given. Every annex / appendix has been tasked to a staff section to ensure they avoid missing specified and implied tasks and constraints.

Gather the Tools

TTP ► Have the staff prepare for mission analysis by gathering the tools needed to perform it. These tools and any other special preparatory requirements should be identified in the unit TACSOP.

Actions

- Unit staff prepares for mission analysis by gathering necessary tools.

Performers

- Battle staff.

Outputs

- References and tools for Mission Analysis.
- Battle staff running estimates.

Tips, Techniques, and Procedures

Associated TTP / Doctrine

- As a minimum, have the following tools (knowledge products):
 - Appropriate field manuals (see *FM 5-0* at Appendix B.)
 - All documents related to the mission and AO to include the HHQ plans and orders, maps, terrain products, terrain visualization products and operational graphics.
 - HHQ and other organizations intelligence and assessment products.
 - Estimates and products of other military and civilian agencies and organizations.
 - Both your own and the HHQ SOPs.
 - Current running estimates.
 - Any design products to include the design concept.
- Ensure the TACSOP addresses who gets what annexes, that all annexes are assigned to a specific staff section, and who is the primary staff representative responsible for the annex.
- Staff personnel should review the reference section of HHQ operation plans and orders to identify documents (such as theater policies and memoranda) related to the upcoming operation.
- If the MDMP occurs while in the process of replacing another unit, the staff should begin collecting relevant documents...such as the current operations order, branch plans, current assessments, operations and intelligence summaries, and SOPs, from that unit.
- In addition to the base order, each staff section should have the task organization, functional annexes, and the operational graphics.
- Check that each staff section has their list of tool requirements for the mission at hand, their relevancy, and that they will be available.
- Remember to gather / update knowledge products throughout the MDMP, not just at the beginning.
- Have the Operations Section post the HHQ order (WARNO, OPORD or FRAGO) and graphics, or the anticipated new mission statement to the TOC server home page, review it, and place it in the shared folder named for the mission at hand.
- Review all running estimates from the staff to ensure currency and relevancy. Check that each running estimate contains the minimum requirements addressed in the unit TACSOP. Often, new staff members do not have any idea what “right” looks like. Internal section SOPs will help new staff members visualize what a good estimate contains.
- Have the battle staff use pre-made charts to list PIR and FFIR recommended as proposed CCIR. Expect PIR to change based on how much is known about the operational environment.
- Start thinking early about how CCIR fits for anticipated decisions the commander must make.

Update Running Estimates

Actions

- The commander and staff quickly assess staff running estimates and / or information already available to assist planning. They review and revise running estimates as required.

Performers

- Commander and battle staff.

Outputs

- Identified gaps in staff running estimates.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- Have the battle staff initiate estimate updates immediately upon mission receipt. Check to see that correct formats by war fighting functions (WFF) are included in the unit TACSOP.
- Ensure continuous estimate updates throughout the operations process.
- Stress to the staff how estimate updates affect COA Development.
- Look for “gaps” in the knowledge needed to plan successfully and convert them into IRs and RFIs.
- Be aggressive in having the battle staff seek information important to their functional area. Know where to look for information.
- Be on the alert for updates regarding committed and uncommitted subordinate units and key equipment.
- Continuously review the situation and determine the status of the unit’s assets (includes organic, supporting, and attached.)
- Check with the S-2 and S-3 on available ISR assets, with emphasis on their respective taskings, processing, exploitation, and dissemination (TPED) and their ability to collect the needed information based upon target characteristics, capability of the asset, IPB, ISR architecture, and time and distance to move to required locations.
- Check with the S-2 and S-3 to ensure that scouts and snipers are actively involved in the IPB process and the development of the ISR Plan.

- Check with the commander to see if he did an estimate. If so, critical planning information will be included.
- Have the S-2 brief the Threat ISR Plan. (Are there ongoing / imminent threat reconnaissance operations directed against the unit? What are the likely threat PIR, and what are their reconnaissance objectives?)
- Do not overlook the possible requirement that the battle staff will have to plan for and initiate an initial counter-reconnaissance plan very early in the operation, which will be driven by an assessment of the threat’s information requirements.

Conduct Initial Assessment

Actions

- The commander and staff conduct an initial assessment of time and resources available to plan, prepare, and begin execution of an operation.

Performers

- Commander and battle staff.

Outputs

- Initial allocation of available time.
- Time needed to plan and prepare for the mission for both the headquarters and subordinate units.
- Guidance on design and abbreviating the MDMP, if required.
- Staff experience, cohesiveness, and level of rest or stress.

Tips, Techniques, and Procedures

- | |
|---|
| Associated TTP / <i>Doctrine</i> |
| <ul style="list-style-type: none">▪ Check the TACSOP lists for generic planning time lines. Remember, they are only a guide. Based on the factors of METT-TC, adjustments <u>will</u> occur.▪ Help the commander in visualizing, describing, and directing operations and planning.▪ Use the assessment to achieve how you can optimize time for subordinate commanders to perform troop leading procedures. Use the one-third, two-thirds rule to ensure that the preponderance of |

available planning and preparation time is provided to subordinate units.

- Planning consists of two separate, but closely related components: a conceptual component represented by the cognitive application of design and a detailed component, which introduces specificity through a formal planning process, such as the MDMP. The commander and staff must be aware that during planning, these components overlap.
- The commander's guidance regarding design should address three distinct elements that collectively provide a design concept: framing the operational environment (what is the context in which design will be applied), framing the problem (what problem is the design intended to solve), operational approach (what broad, general approach will solve the problem.)
- During design, the commander and staff must consider the conditions, circumstances, and factors that affect the use of capabilities and resources, as well as those that bear on decision making.
- Avoid the need for immediate action to overly influence the need for detailed planning. An acceptable balance must be found.
- The commander, with the advice of his staff, must determine whether the time available for planning will permit a complete MDMP or if the process must be abbreviated to produce an OPORD. If the decision is made to shorten the MDMP, the commander must provide accompanying guidance.
- Carefully consider the resources available for planning. Each will have a critical supporting mission. Each will need to be positioned on the battlefield, and each will need to be directly involved in the planning process.
- The XO is responsible for the staff planning time line. To accomplish it, consider at a minimum the following:
 - Time from mission receipt to mission execution.
 - Time needed by the unit HQ and subordinate units to plan and prepare.
 - The current IPB products available.
 - The current running estimates and whether they need updating.
 - Time required to position critical elements for the planned operation.
 - Staff experience, time working together, fatigue, and stress factors.
- The staff planning time line should identify what products are due, who is responsible for them, and who receives them.
- Stress to the staff the importance of meeting time requirements, benchmarks, simplicity, and a level of detail that will contribute to a successful plan. Stress that the products developed are relevant to the

moment and suitable to subordinates.

- Organize the time line into planning, preparing, and executing segments.
- Include time for meetings, briefings, briefing preparation, and rehearsals in all time estimates.
- Take a hard look at the operational time line and determine how long you believe the battle staff can spend on each step of the MDMP and which planning products will be produced by whom and by when. **FM 5-0** provides a possible allocation of Mission Analysis 30%; COA Development 20%; COA Analysis / Comparison / Decision 30%; Orders Production 20%.
- Do not overlook periodic “Targeting Cell,” ISR, and “Risk Assessment” team meetings being incorporated into the unit’s planning time line.
- Determine how to incorporate collaborative planning, should it be required.
- The design methodology fosters dialog and collaboration as commanders and staffs formulate conditions that define a desired end state and develop approaches that aim to achieve those conditions.
- Since there is rarely enough time, experience level, or trained personnel to provide everything addressed in doctrine, ensure the S-2 knows what the staff and the commander need. He should focus first on the enemy (to include refinement of Threat COAs), and then the Operational Environment and how it may affect the mission, to include terrain and its effects, and the weather.
- The commander and staff must quickly assess current IPB to determine the intelligence gaps that may exist. Since IPB is an ongoing process, it should be conducted simultaneously with other steps in the MDMP. Changes are normally dictated by the factors of mission, enemy, terrain, troops, time available, and civil considerations (METT-TC) and MDMP requirements...look for them.
- Weather products are typically available from the HHQ order or Mission Analysis products.

Issue the Commander’s Initial Guidance

Actions

- Issue initial guidance.

Performers

- Commander.

Outputs

- Initial time allocations.
- Decision to initiate design or go straight into the MDMP.
- How to abbreviate the MDMP (if required.)
- Necessary coordination, including exchange of liaison officers.
- Authorized movements and any reconnaissance and surveillance to initiate.
- Collaborative planning times and locations.
- Initial information requirements (IR).
- Additional staff tasks.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- The commander’s guidance orients the focus of operations, linking desired conditions to potential combinations of actions the force may employ to achieve them.
- The staff must know whether the commander desires to go with the deliberate planning process or the abbreviated process. Based on the operational time line, he may feel that there is not enough time to accomplish the deliberate MDMP process and some abbreviation must occur. If he decides in his guidance to abbreviate the MDMP, or portions thereof, available planning time, battle staff training levels, and position fills may need to change. His standard guidance content should be in the TACSOP.
- Look at planning time carefully. It can be an ally or an enemy depending on the amount available.
- Know the key elements of initial guidance that you should expect from the commander. If you don’t hear all that is necessary for planning, ask for it. Always refer to the TACSOP.
- Key is the commander’s review of available intelligence products. Obtain guidance from him regarding any products he wants developed or collected to include the product and collection development time line.
- The commander’s initial questions result in IRs or CCIR and helps focus the staff on what he believes is important, e.g., the ISR planner will need to refer to them to reinforce whether the gaps he has found

and the questions he has asked are adequate to answer the commander's questions. Ensure his questions are captured and addressed.

- While the commander's initial guidance will greatly assist your setup for and initiation of planning, do not confuse it with the commander's planning guidance that occurs during Mission Analysis.
- Carefully review the information requirements that have been developed and have the S-2 provide draft indicators and / or Specific Information Requirements (SIR) to guide ISR assets. Initial guidance SIR is key to the development of the initial ISR Plan.
- Written guidance is better.
- Know where the commander wants his emphasis for each type of operation. It promotes staff focus and avoids wasted time.

Issue the Initial Warning Order

Actions

- S-3 Section drafts and issues initial WARNO to subordinate and supporting units to prepare them for planning.

Performers

- S-3 Section.

Outputs

- Initial WARNO.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- Always be aware of the impact of time on subordinate elements. Planning time saved at the HQ level equates to more troop leading time given to subordinate elements (e.g., the preparation and assembly of required equipment, the conduct of battle drills, movement / repositioning.)
- Get a WARNO out as quickly as possible after the commander's initial guidance and include as a minimum:
 - The type of operation.
 - The general location of the operation.

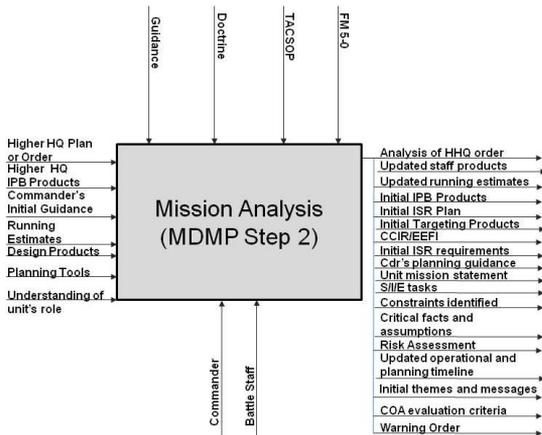
- The initial time line.
 - Any movements or reconnaissance to initiate.
-
- The S-3 should designate a staff member to draft warning orders. This is a good task for a senior non-commissioned officer from the S-3 Section.

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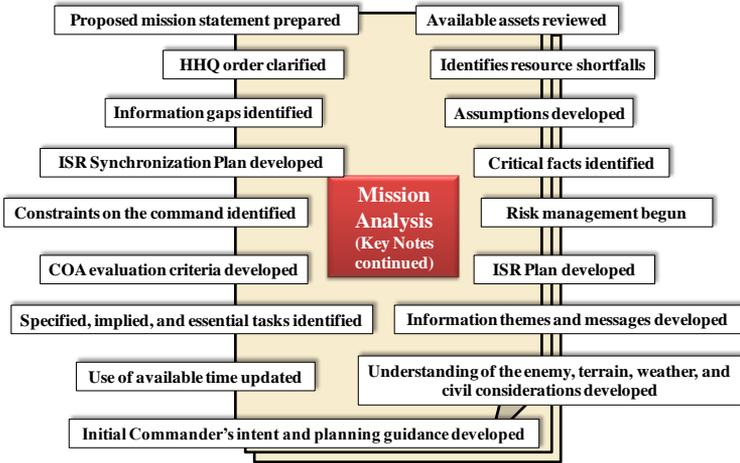
MDMP Step 2 - Mission Analysis

Commanders (supported by their staffs and informed by subordinate and adjacent commanders and by other partners) gather, analyze, and synthesize information to orient themselves on the current conditions of the operational environment. The commander and staff conduct Mission Analysis to better understand the situation and problem, and identify what the command must accomplish, when and where it must be done, and most importantly why - the purpose of the operation. Since no amount of subsequent planning can solve a problem insufficiently understood, Mission Analysis is the most important step in the MDMP. This understanding of the situation and the problem allows commanders to visualize and describe how the operation may unfold in their initial commander's intent and planning guidance. **FM 5-0**

MDMP Step 2 Task Graphic



Step 2 Highlights



Analyze the Higher Headquarters Order

Actions

- The commander and each staff officer analyze the mission and order for his / her area of expertise and / or responsibility.

Performers

- Commander and battle staff.

Outputs

- Initial analysis of HHQ order.

Tips, Techniques, and Procedures

Associated TTP / Doctrine
<ul style="list-style-type: none"> ▪ Ensure collaborative and parallel planning with like WFF at the HHQ level. ▪ Use LNOs and RFIs to obtain information. ▪ Check the TACSOP to ensure that it outlines the planning and information gathering methodologies expected of all WFF. ▪ Have the S-3 record in detail the “must knows” from the HHQ order,

and check for common battle staff understanding. This should be included in the TACSOP / PSOP for a minimum list of required information in order to begin staff planning.

- Assign each staff WFF with reviewing their applicable annex and post a list in the TOC of the reviewers. Common knowledge of who is reviewing what promotes collaboration.
- Ensure the battle staff understands “nested concepts.”
- Determine those staff members who attended the HHQ OPORD brief and have the S-3 task one of them to provide an OPORD brief on the map to get started with a common operating picture (COP).
- The XO is the TACSOP “sheriff.” He should appoint a “CinC-SOP” at the start of planning who will capture changes and additions to the unit’s plans SOP that may be required.
- Use LNOs to assist in information gathering, but ensure they are familiar with the HHQ plan.
- Have the S-3 appoint a “CinC-*FM 1-02, Operational Terms and Graphics*,” at the start of the MDMP process who will be responsible for clarifying any terms or graphics required throughout the process.
- Don’t start mission analysis until you know how higher and adjacent units will affect the unit’s mission.
- Use RFIs and LNOs to clarify or obtain additional information from a unit over which you have no tasking authority, such as adjacent units. Appoint an LNO “sheriff” IAW PSOP to orchestrate the internal RFI process.

Perform Initial Preparation of the Battlefield

Actions

- Commander and staff, lead by the S-2, provide input to IPB.

Performers

- Commander and battle staff.

Outputs

- Understanding of the threat, terrain, and weather.
- Terrain and weather products.
- Likely enemy COAs.
- High-value target list (HVTL).
- Explanations of how key civil considerations affect the operation.
- Gaps in information.

- List of IR / RFI based on intelligence gaps.

Tips, Techniques, and Procedures

Associated TTP / Doctrine

- *Assemble the staff and have the S-2 lead them through the IPB process. Do not leave IPB completely up to the S-2. Direct that every staff officer assist the S-2 and contribute to the development of IPB products, especially the SITTEMP and MCOO. Have each staff officer develop a SITTEMP and MCOO within their own area of expertise or WFF. Provide this data to the S-2 for consolidation into a joint staff product for planning. While this may be difficult to achieve based on staff experience and available time, an IPB meeting of some sort should be conducted. The S-2 could develop (as part of the unit SOP) an IPB “input required” checklist for other WFFs that is provided during the IPB meeting that helps focus the other staff / WFFs.*
- Guide the staff in accomplishing the following four actions: define the operational environment, describe environmental effects on operations, evaluate the threat, and determine threat COAs.
- Know the commander’s IPB focus. His desired focus and your assistance in initial IPB are critical. All staff sections should take the time to become knowledgeable of the Intelligence WFF. **FM 2-19.4, Brigade Combat Team Intelligence Operations, and FM 2-01.3 Intelligence Preparation of the Battlefield**, are new and excellent references.
- In order to have the staff successfully accomplish IPB and assist the commander with decision making, have them, as a minimum:
 - Use HHQ intelligence products as much as possible.
 - Identify gaps in intelligence.
 - Develop a MCOO and show and explain the impact of terrain, and identifying key terrain along key routes, at the objective, and around the Forward Operating Base (FOB), if applicable.
 - Brief the effects of weather on the unit and the threat at critical times during the planned operation. Understand that weather impacts different type units in different ways. A maneuver headquarters’ IPB products may not address specific information your unit requires for planning.
 - Identify high-value targets (HVT).
 - Develop IPB templates.
 - Develop initial event templates.
 - Develop an initial intelligence collection plan. During this early step in the MDMP, this may be no more than leveraging HQ controlled ISR assets against HHQ tasked ISR requirements.
 - Update facts and verify assumptions.

- Pre-made briefing charts for weather and terrain can save time. They should be visual and show and explain the effects of weather and terrain on the unit and the threat at critical times during the operation.
- Go back to the commander's initial guidance. If he decided that the MDMP process must be abbreviated, then it follows that the IPB process must be abbreviated as well, as discussed in *FM 2-01.3*. You must rapidly determine anticipated decision (information) requirements and direct the S-2 Section to develop supporting IPB products as a priority (a MCOO, for instance, may not be a priority product.)
- Have the Operations Section include a wind speed / direction arrow on all operational maps.
- Have the staff only brief information that is perceived to impact the operation. If the commander prefers digital (e.g., PowerPoint) briefing formats, ensure a disk is kept with the TACSOP so the staff doesn't have to recreate products.
- Direct the staff to have a capabilities template already completed and use it to visually highlight those types of threat units and weapons systems that will have the greatest impact on the operation. If you have the staff develop standard running estimates for each WFF, they can easily perform this.
- Require each staff section to develop and submit HVTs. Each is the SME in their WFF and should have a good mindset for what would be good HVTs in their respective WFF. These should be collected by the S-2 and used for the initial targeting meeting during Mission Analysis.
- Have staff members spell out / explain acronyms and abbreviations. The TOC library should have copies of *FM 1-02* and *JP 1-02*.
- The battle staff should compare threat systems with like friendly systems to better explain capabilities. This should be done by each WFF, not just the S-2. Have each staff section be prepared to brief the specifics of each threat system in their WFF by reviewing data contained in the World Wide Equipment Guide. If you do not have this guide, get one, and include it in the TOC library.
- Many of the questions that arise as part of threat evaluation can be anticipated. The staff procedures for handling them should be identified in the unit TACSOP.
- Require each staff section to provide the S-2 input on their analysis of their enemy counterpart. They should put on their "Red Hats" for their WFFs.
- Have the Operations Section put up an enlarged map or cartoon so all, especially the commander, can clearly see the impact of threat

activity on the friendly operation. This should be different than the planning map.

- Direct the staff to brief task and purpose of threat units in the order that may be seen in the planned operation. There should be a method to the briefing...from LD to LOA, by specific unit or by battlefield geometry (Disruption Zone, Battle Zone, Support Zone). Be careful here. COE OPFOR tactical tasks and purposes are different from US doctrinal tactical tasks and purposes, as are insurgent tasks, etc.
- Set a specific time for each staff section to have HVT input to the S-2. Using a product from each WFF / staff section that addresses specific section / WFF concerns during IPB will streamline this process. A “reverse” WFF worksheet is recommended.
- Check to see that any identified gaps in intelligence are used to establish initial IR and RFIs, and become part of the targeting process.
- While the definition of key terrain is constant, each staff WFF may view key terrain differently as it impacts their WFF. Regardless, the input is needed to assist in the development of the unit’s key terrain.
- The unit’s threat SITTEMP is only as good as the input from each staff member in relation to their WFF. Monitor and enforce the requirement.
- Check to see if the initial IPB products are those products that the commander directed to be produced. Check to see if they are relevant to the commander’s decision requirements.
- Overlaying all Threat COA graphics on top of each other and identifying where the Threat COAs are different and then labeling these as NAIs, provides a document that aids the S-2 in determining which COA the enemy has adopted. This is the basis for the Event Template.
- The commander will want a leader / staff reconnaissance as early as possible to confirm or deny initial assessments. Be ready.
- You, the staff, and the commander are dependent on others for updates on the threat. Ask yourself...who are they (brigade and division command posts, companies, adjacent units, MP units, civil affairs units, civilian authorities)? Know how they can be contacted. Set up a staff briefing that identifies where these sources are located.
- COA detail is critical. Make sure the S-2 provides a threat COA that is sufficiently detailed for the commander to use during the unit’s COA-D. Have a “red” smart book handy. Train the staff to think in terms that IPB products support the commander and the staff and are essential to estimates, targeting, and decision making.
- At the end of initial IPB, at a minimum, expect to see the MCOO, threat SITTEMPS, an HVT list, and any gaps in intelligence.

- The amount of products the S-2 and staff can produce are determined by three things: The amount of time available for Mission Analysis; The amount of personnel in each section that can be devoted to IPB tasks; and the experience / training levels of specific staff sections. The S-2 is the “long pole” in the tent. Historically, the S-2 at unit level is the least trained officer on the BN staff. While he might have school training, he might not have tactical experience and vice-versa. Ensure the XO / commander give good guidance to the S-2 as to how they want him to devote his time. Historically, in a time constrained environment (it’s always a time constrained environment for the S-2 during Mission Analysis), the S-2 should devote his time to developing a set of SITTEMPS for the threat along with associated HVT lists, good assessments of threat capabilities (with strong input from other staff / WFF sections) and when time permits, terrain and weather effect products. A MCOO must be done prior to beginning COA-D but might not be required for the Mission Analysis Briefing.

Determine Specified, Implied, and Essential Tasks

Actions

- The commander and staff analyze the HHQ order to determine specified, implied, and essential tasks for their area of expertise / responsibility.

Performers

- Commander and battle staff.

Outputs

- Specified tasks.
- Implied tasks.
- Essential tasks.

Tips, Techniques, and Procedures

Associated TTP / <i>Doctrine</i>
<ul style="list-style-type: none">▪ In the context of operations, a task is a clearly defined and measurable activity accomplished by Soldiers, units, and organizations that may support or be supported by other tasks. Remember, the “what” of a mission statement is always a task. The

manner of how well the “what” is defined becomes the basis for the use of design.

- Be able to differentiate between types of tasks: a specified task is a task specifically assigned to a unit by its HHQ; an implied task is a task that must be performed to accomplish a specified task or mission but is not stated in the HHQ order, and an essential task is a specified or implied task that must be executed to accomplish the mission and must be addressed in the unit Mission Statement.
- Paragraphs 2 and 3 of the HHQ order state specified tasks. Some specified tasks may also be found in paragraphs 4 and 5, annexes, overlays, and orally during collaborative planning sessions or in directives from the HHQ commander.
- Look for implied tasks during your analysis of the HHQ order, the threat situation, the terrain, and civil considerations. Don’t overlook the possibility of finding implied tasks when you analyze the doctrinal requirements for a specified task.
- Ensure the staff understands the requirements and purpose of all tasks, whether selected as specified or implied, or deemed essential. Remember, every task you identify (specified or implied) will eventually become a task that must be addressed during COA Development. A good list should be maintained and displayed in the TOC.
- Check the mission statement.
- Pay particular attention to stability tasks. While some may be specified, commanders and staffs should also consider the primary stability tasks found in *FM 3-07* (Stability Operations) as sources for implied tasks. Because of the complexity and numbers of tasks associated with stability operations, HHQ generally leave the mission task vague and require subordinate elements to “fish out” the tasks required of them within their AO to support the HHQ mission.
- Require every staff section to submit specified and implied tasks, even if theirs are not used in the staff process to get them familiar with the process. Ensure they all understand that essential tasks are “essential” to the entire unit, not just to their individual section and are required to successfully accomplish the tasks assigned to them.
- One TTP is to have the Operations Section list them on one chart and checked as to “S,” “I,” or “E.” Also have them reference the “S,” “I,” or “E” tasks from the HHQ Order by annex, page, and paragraph number. Have the S-3 “sanity check” them and check for duplicates before they make it to the chart and the eyes of the commander. Typically, a consolidated specified, implied, and essential task list is easier to brief and eliminates duplication. Have the chart identify where the task was found and who on the staff identified it.

- Be on the lookout for staff officers confusing constraints with specified tasks.
- Check task wording to ensure the task action verb clearly says what the commander wants, e.g., destroy or defeat, secure or seize. General phrasing like “major muscle movements,” “tucked in,” “hung-up,” “wipe out,” “mop up,” etc. can lead to confusion. Use doctrinal terminology.
- Detail in the TACSOP where all tasks may be found.
- Do not include standard tasks such as feeding the Soldiers, refueling vehicles, performing maintenance. These are SOP items and not included in the task list.

Review Available Assets and Identify Resource Shortfalls

Actions

- The commander and staff review available assets for their area of expertise and / or responsibility and examine additions to and deletions from the current task organization, their status (current capabilities and limitations), support relationships, and to determine additional resources needed for mission success.

Performers

- Commander and battle staff.

Outputs

- Assets available to accomplish all tasks.
- Current capabilities and limitations of available assets.
- Changes to the task organization.

Tips, Techniques, and Procedures

- Associated TTP / Doctrine*
- Understand at the outset, what this step in Mission Analysis is referring to is obvious shortfalls in equipment or resource capabilities. These must be derived by a thorough understanding of the mission and your unit’s part in it. If you are travelling five hundred miles and you only have organic fuel carrying capacity to sustain the unit for three hundred miles, there is a resource shortfall. If you must attack an objective and there is a river between you and the objective and

you have no bridging assets, there is a resource shortfall. If you have fifteen tasks and you don't think you have the manpower to do adequate troop to task, this is not a resource shortfall and must be wargamed to identify if and how many additional assets you require. If you "think" you need an additional twelve Iridium phones, this is not a resource shortfall and must be wargamed.

- Remind the staff that while this is the first formal look at assets available versus tasks required, a more detailed analysis will come during COA Development and will be finalized during COA Analysis.
- Have the S-3 work with the staff to develop an assets available (by WFF) chart. Keep it current, and it will be a useful planning tool throughout the MDMP. Develop a unit "standard" for portraying assets. Insist on early development.
- Have the S-3 examine additions to and deletions from the current task organization, support relationships, and status (current capabilities and limitations) of all units. Remind the staff to pay particular attention to any deviations that are made to the normal task organization and highlight additions or deletions to the S-3.
- Remind the staff that while the unit will fight two levels down (platoons), they should also list all combat multipliers (Sniper Section / teams, FIST / FO teams) as assets. They tend to be forgotten if not visibly listed. Have the assets chart designed to allow for the addition of attached / OPCON units. Asset monitoring and update is a job for the entire staff.
- Using icons for elements two levels down and specialty units that are even smaller is a great way to ensure a quick transition to COA Development and Analysis.
- Require the staff to use "Decision Support Graphics" (Fig. D-7, *FM I-02*) as they depict their assets. This will become useful in COA Development.
- Have the S-3 review the assets chart and verify that it reflects what is really in or available to the unit.
- Have the S-3 conduct a task analysis by carefully considering relationships among essential, specified, and implied tasks, and between them and available assets. He should compare assets to tasks, and determine shortage deltas, if any. If there is a perceived need for additional resources, the S-3 should prepare the list, and be prepared to determine, through the wargame if it needs to be submitted to BDE.
- You will fail if you don't understand what belongs to you. Be cognizant of, and thoroughly understand your organic assets and their capabilities. Demand the same from any attachments.

Determine Constraints

Actions

- The commander and staff analyze the HHQ order to identify constraints, both requirements (must do's) and prohibitions (can't do's), which may restrict freedom of action in their respective areas of expertise and / or responsibility.

Performers

- Commander and battle staff.

Outputs

- List of constraints.
- Understanding of all constraints.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- A HHQ commander normally places some constraints on subordinate commanders. You and the battle staff help the commander identify and understand these constraints.
- While constraints are primarily found in paragraph 3 of the OPORD, annexes to the order may also contain some (e.g., the operations overlay containing a restrictive fire line or a no fire area). They may also be issued orally, in WARNOs, and policy memoranda.
- Have the S-3 develop a list of constraints. *Constraints, by definition, restrict the freedom of action you have for planning, so accurate identification is critical.* Advise the S-3 regarding the sources they may come from, and have him make a list. The S-3 or his designated representative should find them, and then consider how they may be changed, if at all. Remember, the staff may often find more constraints within annexes than within the base OPORD; especially Appendix 12 (ROE) to Annex C.
- Be the final reviewer and carefully look at what the unit must do and how restrictions impact. Then, determine what the unit cannot do.
- Always check Annex C (Operations) for possible constraints, e.g., a restrictive fire line or no fire area.

Identify Critical Facts and Assumptions

Actions

- The commander and staff analyze the HHQ order to identify critical facts and assumptions in their respective areas of expertise and / or responsibility. The staff lists all appropriate assumptions received from HHQ, states expected conditions over which the commander has no control but which are relevant to the plan, and lists conditions that would invalidate the plan or its concept of operations.

Performers

- Commander and battle staff.

Outputs

- List of critical facts and assumptions.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- Pay particular attention to facts concerning the mission variables of METT-TC, as they will be the basis for developing situational understanding, continued planning, and assessing progress during preparation for, and execution of, operations.
- Appropriate assumptions used during planning have two major characteristics: they are likely to be true, and they are essential to continue planning.
- Use assumptions carefully. Ensure they are not based on preconceptions, bias, false historical analogies, or simple, wishful thinking.
- Be on the lookout for unstated assumptions.
- Continuously question the assumptions that have been made to ensure they are still valid throughout the planning and operations process.
- Check to see that:
 - Assumptions are logical, realistic, and considered likely to be true.
 - There are not too many assumptions.
 - That branches and sequels are developed for key assumptions that may prove false.
- Remember, an unstated assumption may prove more dangerous than

a stated assumption proven wrong.

- In the absence of facts, consider assumptions from the HHQ and then develop your own assumptions for continued planning. Assumptions can relate to any mission variable.
- The battle staff gathers two categories of information concerning assigned tasks - facts and assumptions.
- Have the Operations Section be the single point of contact responsible for collecting, documenting, sanity checking, and distributing all RFIs. As RFIs are returned to the unit, have them share the answers by reviewing them with the entire staff (not just the section who initiated the RFI.)
- In terms of actions to be taken, work with the staff to:
 - First, identify those pieces of information concerning the situation at hand that are “known” (factual) regarding such things as threat and friendly disposition, troop strengths, etc.
 - Second, identify assumptions that have been received from HHQ. Look again at the assumption definition. Making a supposition about the present and pre-supposing the future are difficult tasks. For each piece of information, ask yourself . . . can it be assumed true without proof, and does the commander need it to understand the situation and make a decision on a COA? To help in your determination, have the staff state those expected conditions over which the commander may have no control, but which are relevant to the plan, and list the conditions that may invalidate the plan or its concept of operations.
 - Third, have the staff identify the information needed to convert assumptions into facts and submit them back to you as IR. Note: This is a critical task because as the commander gathers information to make a decision, he may designate the IR as one or more of his CCIR.
 - Fourth, after the staff determines IRs that involve the threat and the environment and you approve, get them to the S-2, who in turn may incorporate them into the initial ISR Plan.
- Replace assumptions with facts as soon as possible.

Begin Composite Risk Management

Actions

- The commander and staff, overseen by the S-3, conduct composite risk management for their respective areas of expertise and / or responsibility, identifying hazards and making an initial assessment of the risk level for each hazard.

Performers

- Commander and battle staff.

Outputs

- Hazards associated with the operation.
- Initial assessment of risk.

Tips, Techniques, and Procedures**Associated TTP / Doctrine**

- You, the commander, and the battle staff must assess risk whenever hazards are identified. They cannot wait until a set point in the planning cycle.
- In the past, the Army separated risk into two categories, tactical risks and accidental risks. Current doctrine (**FM 5-19, Composite Risk Management**) requires that commanders and staffs pursue step 1, “Identify Hazards,” using the factors of METT-TC.
- Be familiar with the five steps of CRM (**FM 5-19**): identify hazards; access hazards; develop controls and make risk decisions; implement controls; supervise and evaluate.
- The S-3 (or the protection officer if you have a protection cell), in coordination with the safety officer integrates CRM into the MDMP.
- Exercise caution . . . this is a step that is easily overlooked, either accidentally or intentionally.
- Have the staff identify the hazards that may be encountered during a mission. Advise them to consider a hazard as being a condition with the potential to cause injury, illness, or death of personnel, damage to or loss of property, or mission degradation. If you use a Mission Analysis worksheet, ensure “identify risks” is included and the form is returned to the S-3 / Protection Officer in a timely enough manner to allow consolidation.
- For each hazard identified, ensure that staff members determine its direct impact on the operation.
- Advise the staff that risk determination is generally characterized by both the probability and severity of a potential loss that may result from the presence of an adversary or a hazardous condition.
- Risk assessment must be controlled and supervised. Assign someone to do that and annotate it in the TACSOP / PSOP.
- Ensure the use of the Risk Management Worksheet, DA Form 7566, to track the process of hazards and risks.
- Require each staff element to submit their sample risk assessment with only hazards and initial risk level filled out.
- The staff’s advice to the commander is key. He will have to make decisions that balance risk costs with mission benefits.

Develop Initial Commander’s Critical Information Requirements and Essential Elements of Friendly Information

Actions

- The staff develops information requirements and nominates (to the commander) those of sufficient importance that may need to become commander’s critical information requirements. The commander considers these nominations and designates CCIR. The staff identifies and nominates essential elements of friendly information.

Performers

- Commander and battle staff.

Outputs

- Information requirements list.
- Designated CCIR.
- Essential elements of friendly information list.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- CCIR are situational dependent and specified by the commander for each operation.
- Commanders must continuously review CCIR during the planning process and adjust them as situations change.
- While EEFI are not CCIR they have the same priority.
- It is necessary that the commander and selected staff meet prior to the Mission Analysis Brief to approve initial CCIR. This becomes a critical task to accomplish early in planning to assist the staff in developing the initial ISR Synchronization Plan and the subsequent ISR Plan. Understand that IRs are prioritized during the initial targeting meeting. As CCIR is reviewed, plan the targeting meeting in the process and annotate the time line to require staff sections to submit their HVT list to the S-2 in a timely manner.
- The staff must look for information that will help the commander visualize the battlefield and better determine or validate COAs.
- CCIR are always tied to a decision the commander must make.
- The key question is, “What does the commander need to know in a specific situation to make a particular decision in a timely manner?”

Use the following information bullets about CCIR to refresh yourself and the staff regarding the task at hand:

- Specified by the commander for each operation.
 - Applicable only to the commander who specifies them.
 - Situation-dependent—directly linked to current and future missions.
 - Directly affect the success or failure of the mission.
 - Most often arise from IPB, targeting, and wargaming.
 - Result from the analysis of IR in the context of the mission and commander's intent.
 - Focused on predictable events or activities.
 - Time-sensitive. (Answers must be immediately reported to the commander by any means available).
 - Always disseminated by an order or plan. (During planning, CCIR are disseminated by WARNOs. During preparation and execution, changes to CCIR are disseminated by FRAGOs).
 - Are key elements of information commanders require to support decisions they anticipate. (CCIR also help screen the type and amount of information reported directly to the commander).
 - Help focus the efforts of subordinates and staff, assist in the allocation of resources, and assist staff officers in making recommendations.
 - Help the commander filter information available by defining what is important to mission accomplishment.
 - Focused on information needed to determine which COA to choose. (During preparation and execution, CCIR focus on information needed to validate the selected COA or determine when to initiate critical events, such as a branch or sequel).
 - Potentially inclusive of the latest time information is of value (LTIOV) to indicate time sensitivity.
 - Inclusive of PIR and FFIR. (CCIR must be focused enough to generate relevant information).
- Because CCIR directly affect the success or failure of a mission, you and the battle staff must clearly communicate on information that will help the commander make a time-sensitive decision in a specific situation.
 - Talk with the commander. Pass on to the staff what information he deems critical. As information requirements are developed, some will be important enough to be nominated as CCIR.
 - In discussions with the commander, recommend he limit CCIR to ten or fewer. Too many will reduce the staff's comprehension. Three to five is best.
 - The key question is, "What does the commander need to know in a specific situation to make a particular decision in a timely manner?"
 - Have the battle staff use pre-made charts to list PIR and FFIR recommended as proposed CCIR. Advise the staff to expect PIR to change based on how much is known about the threat.

- Check, double-check, then re-check HHQ CCIR. Situational changes may dictate changes to CCIR.
- Have the Operations Section post the latest CCIR at each radio-telephone operator (RTO) station and ensure each RTO is familiar with them. They are often the first to receive information.
- Review CCIRs with the entire staff during lulls in the battle and always during battlefield update briefs (BUB) and shift change briefs.
- Initially, CCIR will aid you in selecting a COA, but later, CCIR should shift to information the commander needs to make decisions during execution.
- Advise the staff to not lose sight of the EEFI that have been nominated, as they give the commander a heads up for sensitive information about the unit that the threat commander may be interested in.
- Ensure initial CCIR is focused on information the commander needs to influence planning so an optimum COA can be identified.
- Identify the decision that the commander will need to make if a PIR / FFIR is answered. If the commander doesn't have to make a decision, most likely it is not a CCIR but rather an IR. The commander may task assets to answer these if he deems them important.
- EEFI drive OPSEC plans. If you identify a piece of information that needs to be protected, the staff needs to determine how they will protect it.

Develop Initial ISR Synchronization Plan

Actions

- The commander and staff review key activities (IPB, development of running estimates, development of targeting requirements) to create numerous information requirements. The commander and staff then prioritize, manage, and develop a synchronization plan to collect on those IRs.

Performers

- Commander and battle staff.

Outputs

- Intelligence Synchronization Plan.
- Analysis of IRs and intelligence gaps.

- Evaluation of available assets (internal and external) to collect information.
- Gaps in the use of those assets.
- Recommended ISR assets to collect on IRs.
- RFIs for adjacent and HHQ collection support.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- ISR synchronization is a key integrating process that contributes to the prioritization, management, and development of a plan to collect on IRs.
- ISR synchronization is critical to ensure all available information concerning the enemy, terrain and weather, and civil considerations is obtained through intelligence reach, RFIs, and reconnaissance and surveillance tasks and supports successful reporting, production, and dissemination of relevant information and intelligence to support decision making.
- As a rule, based on the commander’s guidance, the staff, led by the S-2, determines the best way of satisfying IRs. In some cases the S-2 may recommend that internal reconnaissance or surveillance assets be used to collect information.
- Often, IRs can be satisfied through research of open sources, including books, magazines, encyclopedias, web sites, and tourist maps. Academic sources, such as articles and university personnel may provide critical information. Civil consideration IRs (culture, language, history, current events, and actions of government) may be answered as easily as using open sources.
- The intelligence staff section should continue to refine the ISR Synchronization Plan throughout the MDMP, eventually resulting in Appendix 2 to Annex B of the OPORD.
- The finalized ISR Synchronization matrix will include organic collection assets, as well as HHQ capabilities along with tasked and proposed collection responsibilities.

Develop Initial Intelligence, Surveillance, and Reconnaissance Plan

Actions

- Develop the ISR Plan by developing the ISR tasking matrix, ISR overlay, and ISR scheme of support. The S-3 leads the staff through

ISR integration to task available reconnaissance, and surveillance assets to satisfy IRs identified in the initial ISR synchronization matrix. The S-3 issues a tasking order (WARNO, OPORD, or FRAGO.)

Performers

- S-2 Officer, S-3 Officer, and battle staff.

Outputs

- ISR tasking matrix.
- ISR overlay.
- ISR scheme of support.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- The ISR Plan is crucial to begin or adjust the collection effort to help answer IRs identified during ISR synchronization. It sets surveillance and reconnaissance in motion.
- Upon completion of planning (after COA decision), the initial ISR Plan becomes the Annex L (ISR Operations) of the OPORD.
- This is a difficult task for the battle staff, and requires continuous supervision and monitoring. There are six steps and the S-3 must guide the staff through each of them. During mission planning, the staff will need to first determine the information requirements, then develop an ISR Collection Plan, and finally implement the collection plan through specific taskings or requests for collection. During mission execution, the S-2 will disseminate intelligence, combat information, and targeting data. The S-2 will then evaluate reporting from ISR collection assets. Finally, the S-2 and S-3 will update collection planning to ensure synchronization with current operations.
- The six-step ISR planning process is sequential and driven by IPB. Have the staff pursue parallel planning to save time.
- Task the S-2 to report gaps in the intelligence effort and determine what assets are available to collect against those gaps.
- Consider using a pre-formatted WARNO / FRAGO. This saves time.
- Have the S-3 execute FRAGOs that task ISR assets to collect information on identified gaps.
- Coordinate with the FSO, S-2, and S-3 to synchronize fire support with ISR plans, especially where named areas of interest (NAI) could

become target areas of interest (TAI).

- Consider the development of ISR teams.
- Ensure the staff knows what the commander expects in the initial ISR Plan. Go back to the unit TACSOP. It should be there, so point that out to the staff.
- Don't let your staff overlook troop leading procedures. Reconnaissance elements require planning time, too.
- The ISR Plan is not just an S-2 product. The S-3 is the staff proponent and requires assistance from the S-2 and uses the ISR Plan to task and direct available ISR assets.
- Remember, during Mission Analysis, a plan for the operation has not been developed. All collection tasks that are going to be addressed in the initial ISR Plan will be based on collection taskings from the HHQ and to answering questions that have arisen during Receipt of Mission and Mission Analysis.

Update Plan for the Use of Available Time

Actions

- The commander and XO refine the initial plan for the use of available time and compare the time needed to accomplish essential tasks to the HHQ time line to ensure mission accomplishment is possible in the allotted time. They compare the time line to the threat time line developed during the IPB to determine windows of opportunity for exploitation or times when the unit will be at risk from threat activity and projected time lines within the civil sector regarding how conditions are anticipated to unfold. They specify when, where, and how they will conduct briefings that result from planning process, if they will use collaborative planning sessions (if so, when and on what network), and when, where, and in what form they will conduct rehearsals. They use liaison officers (LNO) to stay abreast of changes at the unit.

Performers

- Commander and XO.

Outputs

- Revised time line.
- Times of collaborative planning sessions and the medium over which they will take place.

- Briefing schedules (subject, time, and location of briefings the Commander requires.)
- Rehearsal information (times, locations, and form.)

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- The XO is the time line manager.
- The task at hand is to refine the initial plan based on what you now know as available time. Check the time you need to accomplish essential tasks; compare to the HHQ time line, and if mission accomplishment in the allotted time is not possible, discuss with the commander.
- Have the S-2 provide you the threat's time line. Compare your time line with his, and determine the windows of opportunity for possible unit exploitation or times the unit may be at risk from threat activity. The threat time line is an excellent thing to have displayed. It will help the commander and staff during COA Development and Analysis.
- Develop interim times for checking the progress of each staff section and the development of products. Set specific times for each sub-task (e.g., times for all staff input to the S-2 for IPB, well prior to the Mission Analysis Brief, to allow consolidation and synchronization.)
- Have the staff put BDE, BN, and threat critical events, including preparatory tasks, back briefs, and rehearsals, on a time chart in the TOC. Identify when the commander will not be there and that there is a start and end time for each event. Define the battle rhythm and maintain it on a chart for all to see. Some units have gone as far as to place the HHQ and their own battle rhythm on a "TOC Clock."
- Use every possible technique to maximize staff and subordinate element planning time, e.g., LNOs, FRAGOs, timely guidance, use of the 1/3 - 2/3 rule, etc.
- Even though you may want to apply the 1/3 - 2/3 rule, modern information planning techniques and collection capabilities may enable you to obtain more of a 1/5 - 4/5 planning ratio.
- Stress to the staff to backward plan. It will help eliminate planning oversights.
- Announce up-coming events well ahead of time.
- Consider the time of day for certain events and subordinate planning and travel time.

Develop Initial Information Themes and Messages

Actions

- The commander and staff develop a set of themes and messages and desired effects for the mission. The S-7 and the battle staff review HHQ information themes and messages, analyze the human aspects of the operational environment, determine the relevant actors, and then build the themes and messages for their command.

Performers

- Commander, battle staff, other partners.

Outputs

- A set of themes and messages.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- Commanders and their units coordinate what they say and do through the expression of the supporting themes and messages and desired effects for a specified mission. These describe the message to external stakeholders whose perceptions, attitudes, beliefs, and behaviors are relevant to the operation.
- Information themes and messaging considerations that have been identified assist the commander in accounting for potential information tasks in bridging the gaps among existing conditions, desired conditions, and development of the operational approach.
- There are many different populations and actors that will somehow connect with the current operation, so it is incumbent on the commander that they be identified and engaged to achieve operational success.
- During the process of identifying actors, look for those whose actions may solve or complicate the mission challenges for the command. Gaining and maintaining the trust of key actors is an important aspect of any operation.
- As commander's intent and guidance are refined throughout the MDMP, so will the information themes and messages associated with them.

Develop a Proposed Mission Statement

Actions

- The XO or the S-3 drafts the proposed mission statement based on Mission Analysis to this point.

Performers

- XO, S-3.

Outputs

- Proposed mission statement containing the elements of who, what, when, where, and why.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- Either the XO review or have the S-3 review the commander’s initial guidance and intent, threat COAs (most likely and most dangerous), specified, implied, and essential tasks, available assets, constraints, risks, CCIR (PIR, FFIR), EEFI, commander’s ISR guidance, the operational time line, and doctrinal approved tasks (breach, bypass, etc.).
- Paying close attention to the “Who,” “What,” “When,” “Where,” and “Why” dynamics of a mission statement, the XO or the S-3 then prepares a recommended mission statement. Once completed, the recommended mission statement is incorporated into the Mission Analysis Briefing to gain the commander’s approval. Double check that the correct tasks are included and the purpose for including them.
- Double-check that you have identified the “Who,” “What,” “When,” “Where,” and “Why.” The associated mission statement questions are: Who will execute the operation (unit / organization)? ; What is the unit’s essential task (tactical mission, task)? ; When will the operation begin (by time or event) or what is the duration of the operation? ; Where will the operation occur (AO, objective, grid coordinates)? ; Why will the force conduct the operations (for what purpose or reason)?
- Check for staff, subordinate element, and attached element understanding of the mission.
- The mission statement may have more than one essential task, e.g., if

an operation is phased, there may be separate essential tasks for each phase.

- Keep in mind that the unit's mission statement, along with the commander's intent, provides the primary focus for subordinate actions during planning, preparation, execution, and assessment.
- Ensure your mission statement is nested to the HHQ mission.
- Ensure all "on order" missions are addressed.
- "Be prepared" missions are not addressed in the mission statement.
- Use tactical mission tasks or other doctrinally approved tasks contained in combined arms field manuals. These have specific definitions and foster better understanding by subordinates.

Present the Mission Analysis Briefing

Actions

- S-3 conducts and chairs the Mission Analysis Briefing to the commander (time permitting). The commander may forego the briefing if he obtains the Mission Analysis information from a shared database. The commander issues guidance to the staff for continued planning based on situational understanding gained from the Mission Analysis Briefing.

Performers

- S-3 and battle staff.

Outputs

- Mission Analysis Briefing comprised of:
 - Mission and commander's intent of the HQ two levels up.
 - Mission, commander's intent, and concept of operations of the HQ one level up.
 - A proposed problem statement (if design is used).
 - A proposed mission statement.
 - Review of the commander's initial guidance.
 - Initial IPB products including civil considerations that impact the conduct of operations.
 - Specified, implied, and essential tasks.
 - Pertinent facts and assumptions.
 - Constraints.
 - Forces available and resource shortfalls.
 - Initial risk assessment.
 - Proposed information themes and messages.
 - Proposed CCIR and EEFI.

- Initial ISR Plan.
- Recommended time line.
- Recommended collaborative planning sessions.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- The Mission Analysis Briefing promotes a shared understanding of the requirements of the upcoming operation.
- Ideally, the commander will hold several informal meetings with key staff members before the Mission Analysis Briefing to include meetings to develop and approve CCIR, the problem statement (if design is used), the mission statement, and information themes. These meetings are very beneficial as they promote a common understanding, pass information to the staff, and issue guidance for certain activities such as ISR operations or assisting the commander with developing their initial commander's intent and planning guidance.
- If sufficient time is available, have the battle staff brief the commander on the Mission Analysis that has been accomplished. While the commander can require any briefing format he chooses, careful consideration should be given to those pieces of information that will contribute to an end state where the commander, battle staff, and subordinates have a shared understanding of the requirements of the upcoming operation.
- Ensure each battle staff member knows what they are to address in the Mission Analysis Briefing. Check the unit TACSOP to see if it is up to date and covers what you know the commander expects.
- Direct the S-3 to consolidate input from the battle staff to ensure the briefing is "built" in time to rehearse it before briefing the commander.
- The commander expects his staff to analyze the information in the WFFs and give him the "so whats." This is the information he must key on.
- Don't overlook something as simple as everyone being able to see the briefing charts.
- Use terrain depiction as a centerpiece. It will always impact the mission.
- The objective is to gain a briefing end state of an approved mission statement, the commander's intent, and his planning guidance. Every staff member must contribute to that end state.
- Standardized charts save time. Include the chart formats and briefing methodology in the unit TACSOP / PSOP so all know what and how

to brief.

- Remind the battle staff that while the Mission Analysis Briefing is given to the commander, it is also for the staff, as it ensures that everyone is starting from a common reference point.
- Ensure a briefing environment where everyone can ask a question and does.
- Direct the staff WFF to prepare and keep updated Mission Analysis worksheets. They are invaluable during preparation for the Mission Analysis Briefing. They also serve as a basis for running estimates.
- During the Mission Analysis Briefing or shortly thereafter, the commander will approve the problem statement, mission statement, information themes and messages, and CCIR. He then must develop and issue his initial commander's intent and planning guidance.
- Develop tools and products during Mission Analysis that allow easy transition into following steps of the MDMP.
- If possible, the commander should provide his guidance and intent, both orally and written.
- Once the proposed mission statement is accepted by the commander, it becomes the unit's mission statement and should be referred to as such.
- No Mission Analysis Briefing is perfect or complete. If the staff does not have adequate time to complete IPB, brief what you have within the constraints. Ensure you have managed your time and your section's time wisely and prioritize your effort based on what your commander habitually asks for and METT-TC. You will have the opportunity to brief by exception during the next MDMP briefing to the commander and staff.

Develop and Issue Initial Commander's Intent

Actions

- The commander personally develops and revises his initial intent statement and, when possible, delivers it face-to-face. During Mission Analysis, the commander begins his visualization and develops his initial intent for the operation. His intent statement to the staff, which is clear and concise, provides a link between the mission and the concept of operations.

Performers

- Commander.

Outputs

- Commander's initial intent statement.

Tips, Techniques, and Procedures**Associated TTP / Doctrine**

- The commander, based on his situational understanding, summarizes his visualization in his initial intent statement.
- The principal purpose of his intent is to link the operation's purpose with conditions that define the desired end state. It is not unusual for the commander's intent statement to evolve as planning progresses and more information becomes available.
- The XO's role here is to focus staff planning. To do that successfully, he must talk with the commander and stress to him that his intent needs to be easily understood two echelons down, addresses the key tasks, is written if possible, and is brief (typically three to five sentences) and clear.
- Inform the staff that in the absence of orders, the commander's intent, coupled with the mission statement, directs subordinates toward mission accomplishment. When opportunities appear, subordinates will use the commander's intent to decide whether and how to exploit them.

Develop and Issue Initial Planning Guidance**Actions**

- The commander provides the staff with enough additional guidance (preliminary decisions) to focus their activities in planning and developing COAs. The guidance may be placed on a shared database to ensure a common base of planning effort within the unit.

Performers

- Commander.

Outputs

- Commander's initial planning guidance.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- The commander will issue planning guidance when conducting design and at specific points during the MDMP. The first time is upon receipt of, or anticipation of, a mission (initial planning guidance, such as this sub-step). Subsequently, guidance will be issued following Mission Analysis (planning guidance for COA Development); following COA Development (revised planning guidance for COA improvements), and COA Approval (revised planning guidance to complete the plan.)
- The level of guidance detail depends on situational understanding, time available, staff proficiency, and the latitude the next higher commander allows.
- As commanders formulate their planning guidance, they may want to address assumptions prepared by the staff or HHQ.
- Don't forget guidance that may be applicable to the unit's role in enabling other organizations and activities (joint, interagency, intergovernmental, and multinational.)
- The guidance focuses on essential tasks, emphasizes in broad terms when, where, and how he intends to mass his combat power, and includes priorities for all combat and support elements and how he envisions their support of his concept.
- This is a task where the XO can better assist the battle staff by first assisting the commander.
- Since the planning environment is usually tense and most everyone is tired, ask the commander how you might help.
- Ask him if he would mind writing out his guidance. It is generally accepted that doing this helps organize the thought process.
- Once again, the TACSOP is key. The basic content and format for the commander's guidance should be listed within. Remind the commander that it is there and the staff and subordinate commanders will refer to it to know what to expect, as a minimum, from his guidance.
- As a rule, the commander should use the elements of operational design appropriate to their situation and echelon to focus his guidance:
 - Desired end state.
 - Conditions.
 - Centers of gravity.
 - Operational approach.
 - Decisive points.

- Lines of operation and lines of effort.
 - Operational reach.
 - Tempo.
 - Simultaneity and depth.
 - Phasing and transitions.
 - Culmination.
 - Risk.
- For detailed information regarding the guidelines for the commander's planning guidance carefully review *FM 5-0*, Appendix D. It is particularly useful regarding WFF information specificity.
 - Be able to address with the commander the pros and cons regarding the amount of guidance given.
 - Stress to the staff the "why" in the commander's guidance.
 - Check the commander's intent for implication and impact across all WFFs.
 - Stress note taking with the staff.
 - The commander is under the same strain you are. Many times, the Mission Analysis Briefing is the first time he has seen the staff's understanding and refinement of the tactical problem. As such, he may require a small amount of additional time to refine his guidance based on staff input.
 - Be prepared to ask questions. The commander expects that of his staff. Any question left unasked may lead to assumptions that will contribute to COAs that don't meet your commander's FADS-C test.

Develop COA Evaluation Criteria

Actions

- The XO initially determines the proposed criteria with weights based on the assessment of its relative importance and the commander's guidance. The commander adjusts criteria selection and weighting according to his own experience and vision. The staff member responsible for a functional area scores each COA using those criteria.

Performers

- Commander, XO, battle staff.

Outputs

- COA evaluation criteria.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- Evaluation criteria are factors that you must have the battle staff use to measure the relative effectiveness and efficiency of one COA relative to other COAs after the wargame.
- The importance of evaluation criteria cannot be understated. For every conceived COA, there are “pros and cons,” and arriving at what they are is a matter of having a set of criteria from which an evaluation can be made. Evaluation criteria concerns are inherent to any level of planning; during the MDMP, they emerge during Mission Analysis. They may receive some refinement during COA Development, but must be approved prior to COA Analysis in order to be used effectively during COA Comparison.
- Have the battle staff review the problem solving process in Chapter 2 of *FM 5-0* (the third step in the problem solving process is developing criteria) to better understand the need for evaluation criteria.
- Train the battle staff to maintain a mindset of problem solving. As problem solvers, they will better understand the need to develop criteria to assist in formulating and evaluating possible solutions to a problem.
- As each criterion is selected / developed, ensure that it is based on facts or assumptions. Have the S-3 actively involved in this confirmation.
- Monitor that battle staff consideration is paid to the development of two types of criteria: screening and evaluation.
- Consider these questions as you begin to determine criteria:
 - Does the COA facilitate flexibility? (e.g., once we reach a certain point, do we have any options remaining?)
 - Does the COA allow us to mass our combat power on the objective area? (e.g., how many squads / platoons can we mass on the objective / engagement area?)
 - Does the COA facilitate good command and control? (e.g., how many / what types of units is each subordinate commander responsible for?)
 - How simple or complex is the COA?
 - How about the element of surprise? (e.g., at what point can we realistically expect the enemy to realize what we are doing?)
- With maximum input from the battle staff, determine what criteria should be used to analyze and compare each COA. Refer back to the commander’s initial guidance or what he has used as evaluation criteria for the same type of mission in the past. Have the battle staff

review the unit TACSOP for common evaluation criteria, and match them up with possible metrics to save valuable planning time. Following are some examples that should be included:

- Mission accomplishment at an acceptable cost.
 - The principles of war.
 - Doctrinal fundamentals for the type and form of operation being conducted.
 - The commander's guidance and intent.
 - The level of tactical risk.
 - Measures of performance.
- Then get a final sensing of the commander's criteria priorities (he should have a good idea as to how he prioritized the selected evaluation criteria), and have the battle staff define the selected criteria based on the doctrinal elements of: Short Title—the criterion name, Definition—a clear description of the feature being evaluated, Unit of Measure—a standard element used to quantify the criterion. Examples of units of measure are US dollars, miles per gallon, and feet, Benchmark—a value that defines the desired state, or "good" for a solution in terms of a particular criterion, Formula—an expression of how changes in the value of the criterion affect the desirability of the possible solution. State the formula in comparative terms (for example, more is better) or absolute terms (for example, a night movement is better than a day movement.) This will establish how the solutions offered by each COA are affected.
 - Remember, to stress clarity in defining the evaluation criteria, e.g., simplicity - number of task organization or main effort changes during the attack; speed - amount of time it takes from the line of departure (LD) to consolidation on the objective; Mass - amount of combat power available at the decisive point; vulnerabilities - number of threat vulnerabilities exploited and friendly vulnerabilities exposed.
 - Finally, check for common staff understanding of the evaluation criteria. For example, the S-3 may view "ease of movement" from a maneuver point of view, while the engineer may view it primarily as trafficability.
 - Keep in mind that it is not wrong for WFF concerns to dominate a particular view of an evaluation criterion, but all views must be expressed and resolved by developing a single metric for common understanding.
 - As you mentor the staff, instill the mindset that every mission has a unique set of evaluation and weighting criteria, that they must be clearly defined and understood by all before wargaming begins, and

that factors addressing mission success or potentially causing mission failure must be addressed.

- Get with the commander and ask him to check on the analysis process, provide guidance, and ensure that the COA still meets his intent.
- Your metrics must be quantitative, not qualitative. Simplicity should be defined as “least number of subordinate commands” rather than “easiest to control.”
- Be very careful when determining weighting during this process. An evaluation criterion with a weight of two can remove two evaluation criteria, each with a weight of one. Doctrinally, weighting is not mandated. If the commander feels that a specific evaluation deserves a weight of three vice one, it should probably be the only evaluation criterion.
- Try to develop your evaluation criteria in odd numbers. This will help during COA Comparison and will make the process more quantitative than qualitative. An even number of evaluation criteria could result in a tie between two or more COAs. While the commander expects the staff to support their decisions with logic and their respective expertise, difficulties always arise during a tie.
- It is generally a good idea for the commander to approve evaluation criteria while he is available at the Mission Analysis Briefing.

Issue a Warning Order

Actions

- S-3 Section issues a WARNO to subordinate and supporting elements immediately after the unit commander provides his guidance.

Performers

- S-3 Section.

Outputs

- WARNO to subordinate / supporting units.

Tips, Techniques, and Procedures

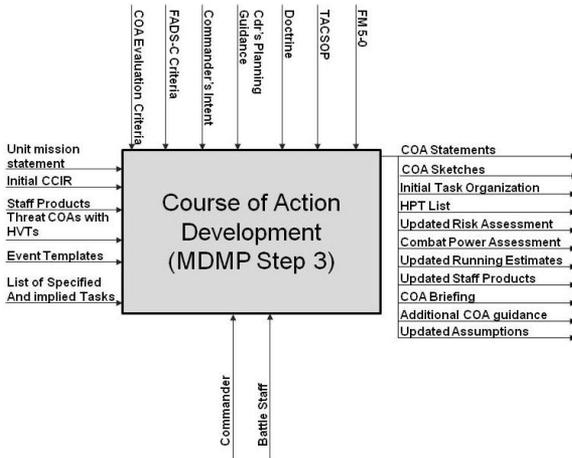
Associated TTP / *Doctrine*

- Immediately after the commander gives the planning guidance, ensure the development and issuance of a WARNO (often referred to as WARNO # 2) to subordinate and supporting units.
- Once again, check the TACSOP. Everything that should be in the WARNO should be listed.
- Take the WARNO to the commander for his review and approval or determination that a modification is required.
- Stress to the staff that time is paramount.
- At a minimum, the WARNO should contain:
 - The approved mission statement.
 - The commander's intent.
 - Changes to task organization.
 - Attachments and detachments.
 - The unit AO (sketch, overlay, or some other description.)
 - CCIR and EEFI.
 - Risk guidance.
 - Priorities by warfighting functions.
 - Military deception guidance.
 - Essential stability tasks.
 - Specific priorities.
- WARNO # 2 provides a solid basis for putting together the final OPORD, and staffs should be in OPORD formatting / production at this point. Waiting until Step 7 will result in time-driven failure.

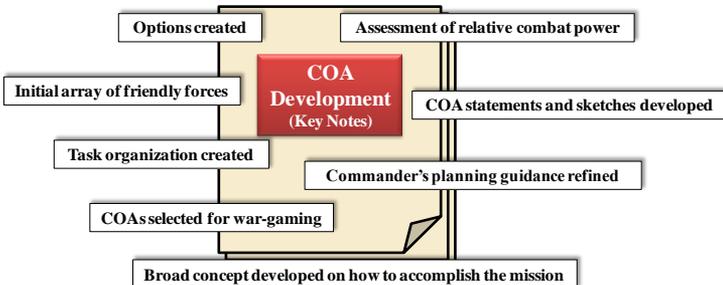
MDMP Step 3 - Course of Action Development

A COA is a broad potential solution to an identified problem. The COA Development step generates options for follow-on analysis and comparison that satisfy the commander’s intent and planning guidance. During COA Development, planners use the problem statement, mission statement, commander’s intent, planning guidance, and the various knowledge products developed during Mission Analysis to develop COAs. Embedded in COA Development is the application of operational and tactical art. Planners develop different COAs by varying combinations of the elements of operational design such as phasing, lines of effort, and tempo. (See *FM 3-0.*) The approved COA statement is converted into the concept of operations.

MDMP Step 3 Task Graphic



Step 3 Highlights



Getting Started

Notes to Consider

- Have the staff working on products which will converge, in the proper format, at the wargame.
- Discipline the staff to have all of the tools that will be needed, assembled before you start. This should have been started during Mission Analysis.
- Have the Operations Section contact the participants that are required by the TACSOP, or as designated by the commander, and give them a time and place. Do not assume they know.
- Have the Operations Sections post the feasible, acceptable, distinguishable, suitable, and complete (FADS-C) COA screening criteria for all to see and refer to.
- Review the mission. You may want to limit the size of the COA Development (COA-D) team.
- Establish a fixed time line with interim time hacks . . . then enforce it! Assign a staff member to monitor the time line.
- Brief the staff on time saving techniques, e.g., if charts are used, standardize them; use standardized overlay pegs on map boards, magnets or pins to hold down overlays; if not using a digital COP, have a magnetic wargame board with magnetic unit symbols, etc.
- Convey to the staff the established standard for expected products and outcomes. It should be in the TACSOP.
- Designate someone to be in charge of each COA.
- Keep in mind a “good idea cutoff point.” Avoid changes thereafter.
- Have the Operations Section post the commander’s intent and key tasks that must be achieved where it is visible to all. Do not assume anyone knows!
- Have the Operations Section post the mission statement.
- Have a list of all specified and implied tasks found during Mission Analysis posted and available for each COA-D working group (each of these must be addressed during COA-D). Address the essential task and purpose for decisive, shaping, and sustaining operations. *It is important for FADS-C that the staff identifies essential tasks and arrays the appropriate forces which will assure mission accomplishment.*
- The XO, the S-3, and the A/S-3 should spend 20-30 minutes drafting a COA through step two, *Generate Options*, and then have the rest of the staff refine and integrate their WFF information as applicable. COA-D “by committee,” more often than not, is dysfunctional if the entire staff starts together from scratch.

- Make sure the map is front and center. See the environment and the threat (SITTEMP, MCOO, map). Always keep the terrain in sight.
- As you lead the staff through the process, maintain a positive attitude! Brainstorming is good, and the application of new ideas can be valuable. Be willing to go back and revise what you have already done.
- Have the Fire Support Officer (FSO) ensure that any critical pieces of FSTs the unit is responsible for executing are depicted on the sketch (targets, fire support coordination measures (FSCM), etc.) and addressed in the “Fires” portion of the “Statement.”
- Check with the S-3 to make sure the concept of maneuver includes the concept of the unit ISR Plan.
- Check the staff’s understanding of the commander’s guidance and intent, and as a minimum, understand the decisive operation and the essential tasks.
- Check those units that are available (including attachments) and their asset capabilities and limitations.
- Have the S-3 check the mission and commander’s intent two levels up to ensure the unit mission stays nested.
- Recheck the combat power status of units two levels down.

Assess Relative Combat Power

Actions

- The staff assists the S-3 to compute friendly and threat force ratios and to compare friendly strengths against threat weaknesses, and vice versa, for each of the WFF, plus leadership and information. Battle staff estimates the extent to which factors of METT-TC, the environment, human factors, friction, threat will, and threat intentions may affect the operation.

Performers

- Battle staff.

Outputs

- Friendly and threat force ratios.
- Troop-to-task analysis.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- This is not an easy staff task. The commander and the battle staff will need to apply both military art and science to be able to apply overwhelming combat power at the decisive point to accomplish the mission with the least cost. The focus of the battle staff must be to know what the unit is capable of before setting off to do it.
- To get this task underway, first have the battle staff (initially the S-3 and S-2) *look at the forces available and compare the most significant strengths and weaknesses of the unit and the threat.* Consider the commander's effects guidance along with the use of the elements of combat power to focus the information needed to make an assessment.
- Use the following example questions and their answers to guide the staff and assist in identifying the right information within each combat power element.
- **INTELLIGENCE:**
 - What ISR assets are available?
 - What intelligence exists about the threat main effort and how will they employ combat multipliers to support their COAs?
 - What are the key indicators to confirm or deny threat COAs?
 - Within the time available, have sufficient threat COAs (starting with the most likely and including the most dangerous) been provided?
 - How will threat, weather, and terrain affect potential COAs? How will current intelligence affect targeting?
 - What procedures are in place to maintain an up-to-date threat picture?
 - What gaps exist in the ISR Plan?
 - Have RFIs been planned / submitted to address those gaps? Do IPB products identify facts and assumptions that will assist in determining likely threat COAs?
- **MOVEMENT and MANEUVER:**
 - Do friendly and threat elements have positional or mobility advantages or disadvantages relating to other friendly forces, the threat, and the terrain?
 - Can a positional advantage be gained to deliver fires or fire potential to accomplish a task or purpose?
- **FIRES:**
 - What are the advantages and disadvantages associated with direct and indirect fire capabilities?
 - What are the weapons systems range capabilities, day and night target acquisition capabilities, non-lethal capabilities, joint capabilities, and

sustainment capabilities?

- How would threat and friendly elements best use firepower to integrate with, and enhance the advantages of, maneuver to accomplish their task and purpose?

▪ **PROTECTION:**

- What are the advantages and disadvantages associated with the ability to prevent the threat from disrupting preparation and execution of the operation based on force protection measures?
- How will reconnaissance and security capabilities, passive and active security measures within the physical operating environment, engineer, air defense artillery, chemical, and signal capabilities, and lines of communication security capabilities impact protection?
- Have considerations for safety, field discipline, and fratricide avoidance been factored in?
- How is friendly combat power preserved while degrading threat combat power?

▪ **SUSTAINMENT:**

- What are the on-hand quantities of critical classes of supply, and how will they affect potential COAs?
- How will change of mission affect required stockage levels?
- Are staff and subordinate units familiar with emergency re-supply procedures?
- What plans are in place to conduct maintenance as far forward as possible?
- Are current communications capable of allowing connectivity and visibility of assets and support for current and future operations?
- What is the status of evacuation assets?
- What is the status of personnel assets?

▪ **COMMAND and CONTROL:**

- What are the factors that may enhance or inhibit friendly / threat ability to operate at an optimum level of proficiency?
- How long has the friendly / threat force been in combat?
- Are there effects regarding casualties and replacements, unit reorganization changes, and communications capabilities that should be considered?
- What are the threat's leadership vulnerabilities?
- What factors may enhance or degrade friendly / threat ability to conduct offensive or defensive information operations?
- How will IO and IO-related activities (military deception, military information support operations, electronic warfare, operations security, physical destruction, computer network attack, counter-deception, counterpropaganda, counterintelligence, physical security, information assurance, public affairs, and civil-military operations), both offensive and defensive, by friendly / threat elements create effects that will impact information systems and decision makers?
- Next, have the battle staff develop a rough estimate of force ratios that incorporates both objective and subjective factors. Advise them to continue to use the elements of combat power but avoid developing and recommending COAs based solely on a mathematical force ratio analysis.

- After computing force ratios, check that the staff has considered the intangible aspects of combat power (morale, training levels, etc.) and compared friendly strengths with threat weaknesses, and vice versa, for each element. Staff review and consideration of tangible and intangible factors must be well thought out, checked by the XO, and included as process methodology in the unit TACSOP.
 - Finally, have the battle staff combine any numerical force ratio computations with the results of the analysis of the combat power intangibles. Convey to the staff that the desired end state here is to arrive at a force ratio advantage that meets mission requirements.
-
- While the width and breadth of this task can be daunting, mentoring and assisting the staff with the following imperatives will pay dividends.
 - Integrate the effects of these elements with other potential combat multipliers and available assets of other Services against the threat.
 - Analyze force ratios and determine each force's strength and weaknesses as a function of combat power.
 - Consider intangible factors when analyzing relative combat power.
 - Determine capabilities that apply to assigned missions.
 - Compare unit capabilities with threat vulnerabilities.
 - Identify host nation (HN) and multi-national resources.
 - Gain insight into friendly capabilities that pertain to the operation, type of operation that may be possible from friendly and threat perspectives, how and when the threat may be vulnerable, and the additional resources that may be required to execute the mission. They may lead to insights on potential decision points and effective force deployment. Here is where you can use the essential task list you developed earlier.
 - Implement historical minimum-planning ratios for various combat missions, and consider terrain and threat templating assumptions.
 - As you and the battle staff pursue this difficult task, do not overlook the value of doing a troop-to-task analysis to gain valuable insight as to the options available and resources required. This will provide insight as to what options are available.

Generate Options

Actions

- XO works with the staff to brainstorm options that meet the FADS-C criteria (feasibility, acceptability, distinguishability, suitability, and completeness.)
- The staff begins with the decisive operation, then shaping operations, and, finally, sustaining operations.

- The staff determines doctrinal requirements for each type of operation being considered and considers possibilities created by attachments. They consider the purpose of the decisive operation issued in the commander's planning guidance, ensure it is nested within the HHQ concept of operations, and determine the best way to mass effects of overwhelming power to achieve the purpose.
- The staff then establishes a purpose for each shaping operation that is tied to creating or preserving a condition for the decisive operation.
- The staff then determines the sustaining operations necessary to create and maintain the required combat power for decisive and shaping operations.
- Lastly, the staff develops the operational organization for each COA and the essential tasks for each operation. Risk assessments are included for each COA, and METT-TC hazards are addressed for all operations.

Performers

- XO, battle staff.

Outputs

- Directed number of COA options.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- The XO's ability to guide the staff to arrive at options may well depend on whether there is time available to consider several COAs. The development of options by the unit battle staff normally involves three basic steps: determine the decisive operation, determine unit shaping operations, and determine unit sustaining operations. Work closely with the S-3 to ensure that all of these steps include the inherent battle staff task of determining essential tasks and operational purpose for each type of operation being considered.
- Stay close to the commander as you execute this task. Since there is rarely enough planning time, the commander may limit the number of options in his guidance.
- "Brainstorming" is the preferred technique for generating options and produces the widest range of choices, but it takes time, imagination, and creativity.
- Guide the staff to focus options on threat COAs arranged in order of

their probable adoption.

- It will be easy to slip into narrowing staff participation because of time. While this may be necessary, remember the optimum process should include discussion and input from as many of the WFF areas as possible.
- As staff efforts continue to determine shaping and sustaining operations, check carefully that the purpose and essential tasks for the main and supporting efforts are developed.
- A good rule of thumb when any option is developed is to apply the FADS-C test.
- As you monitor the staff's actions to determine decisive points and the decisive operation, be on the lookout for some of these imperatives:
 - Review the commander's guidance to determine what he identified as the decisive operation.
 - Ensure the decisive operation is nested within the HHQ concept of operations.
 - If not already stated by the commander, determine the decisive operation's purpose.
 - Check to see if the decisive operation's purpose directly relates to accomplishing the mission.
 - Review the decisive operation to decide how best to mass the effects of overwhelming combat power to achieve it.
 - Determine the doctrinal requirements for the unit's operation.
 - When determining the tasks for the main and supporting efforts, use doctrinal words and graphics, and prepare a sketch.
 - Generally, time available drives the number of options the battle staff can generate. Know how much time you have, and be disciplined in how you use it.
 - Ensure the S-2 is involved in determining the best terrain!
 - Talk to the commander and the S-3 regarding the potential consideration of deception operations as they may influence unit positioning.
 - Constantly remind the staff about searching for risks. It is critical that new risks are captured as they are identified.
 - For the first force array, have the Operations Section depict an informal grouping of maneuver elements two levels down. Use stickers, a pencil, or computer icons first. The objective here is to arrive at a staff consensus that the unit's elements have been arrayed in an "achieve-the-mission" configuration. If there is shortfall, mitigate it by having the S-3 determine what forces can do multiple tasks, and consider whether re-tasking to achieve a similar or the same purpose with less force is feasible.
 - Have the S-3 use any remaining forces from the initial array to weight the decisive operation, the reserve, or to support ISR operations. If you are considering having a reserve force, identify its purposes for commitment in a descending order of priority.
 - Keep constant staff focus on the planned operation, the commander's guidance, and the unit's unique contribution to the HHQ mission. During "brainstorming" sessions, it is easy get "side tracked" by branches and sequels.
 - Don't waste the commander's and staff's time on options that you don't believe will work.

- Be the time enforcer! Ensure staff discipline is applied to how available time is used.
- Each COA sketch should be portrayed in the same manner (sketch, overlay on a map, digital product). Strive to use products that can be easily translated into geo-referenced products for COA Analysis. You will have to get into the “eaches” and “everys” during this next step and time wasted is time lost.

Array Forces

Actions

- The staff arrays friendly generic forces, normally two levels down, against the threat forces to achieve the relative power required to accomplish each task, starting with the decisive operation, then each shaping operation, and, lastly, the sustaining operations.

Performers

- XO, battle staff.

Outputs

- Initial array of generic friendly forces (e.g., total number of units required.)

Tips, Techniques, and Procedures

Associated TTP / Doctrine

- The objective here is to guide the battle staff in determining a force array that will accomplish the mission and provide a sound basis for the development of a scheme of maneuver. It is not a difficult task but requires the close coordination with the commander, S-3, and S-2.
- As the battle staff determines the forces necessary to accomplish the mission, check for:
 - HHQ commander’s intent and concept of operations.
 - Unit mission statement, the commander’s intent and guidance on air and ground avenues of approach.
 - Threat COAs, starting with most likely and most dangerous.
- Work closely with the S-3 to ensure that the staff’s determination of relative combat power required to accomplish each maneuver task applies the right mix of available assets at the right place, at the right time, to accomplish the mission, starting with the decisive operation

and continuing through shaping operations.

- Have the S-3 consider the minimum historical planning ratios that are available, but exercise caution that these tools are only for planning and cannot predict actual combat.
- Work with the S-3 to determine the extent of the unit's battle area (forward edge of the battle area (FEBA) or LD, depending on the mission). If the area is non-contiguous, ensure the inclusion of subordinate unit's AOs. The extent of the battle area is critical to any COA and must be fully understood by staff planners and the commander.
- *Have the S-3 array friendly combat power two levels down for decisive and shaping operations.* Require the development of a working sketch. Look for the possibilities created by attachments.
- As you identify tasks that support shaping or sustaining operations, do not overlook ISR tasks. If there is shortfall, mitigate it by determining what force multipliers or which forces can do multiple tasks, and consider whether re-tasking to achieve a similar or the same purpose with less force is feasible.
- The XO and the S-3 review the decisive, shaping, and sustaining operations and ensure that the purpose for each meets with the commander's guidance and intent. Once you are satisfied, review the tactical tasks that will accomplish the stated purpose of each and check for staff understanding.
- The XO and the S-3 review the doctrinal requirements for each operation being considered, including those tasks for subordinate and / or attached units. Share those requirements with the rest of the battle staff.
- Review the commander's guidance to confirm that the decisive operation is nested within the HHQ concept, and when executed, it will be the unit's main effort.
- Do not let the staff just develop one good, logical COA with several "throwaways." The commander must have the option of combining COAs or moving elements from one to another.
- Caution . . . before this task is completed, ensure the S-3 has accounted for all specified and implied tasks.
- As you list tasks for each arrayed force, ensure you include the purpose for each. This will keep you on track and using doctrinally correct tasks. Additionally, these easily translate into tasks to subordinate units during orders preparation.

Develop a Broad Concept

Actions

- The staff develops a concept of operations (the “how”) for each COA. They start by designating the type of operation, to include: (1) the decisive operation with its task and purpose, linked to how it supports the HHQ concept, (2) the shaping operations with their tasks and purpose, linked to how they support the decisive operations, (3) the sustaining operations, each with their task and purpose, linked to how they support the decisive and shaping operations, and (4) a reserve, including its location and composition.
- The staff (a) outlines the purpose of the operation, (b) the location of EAs or attack and counterattack objectives, (c) subordinate AOs, and unassigned areas, (d) any prescribed formations or dispositions, (e) priorities for each WFF, (f) the integration of obstacle effects with maneuver and fires, (g) effects of WMDs on the force, and (h) graphic control measures.
- The staff identifies where the commander will accept risk, the friendly critical events and transitions between phases (if phased), and maneuver options that may develop.
- The staff also considers concepts for ISR operations, IO support, to include military deception and non-lethal fires, security operations, stability operations, and fire support operations.
- The focus of risk management here is to ensure that effective controls are in place to address hazards associated with the employment of forces.

Performers

- Battle staff.

Outputs

- Friendly concept of operations, to include graphic control measures, for each COA.
- Types of units required.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- The key thing you start with is the commander's battlefield visualization. Ensure the staff is as familiar with it as you are. The concept that must be developed expresses the "how" of that visualization with arrayed forces. It summarizes the contributions of all WFFs and information operations.
- Guide the battle staff in minimizing risks to acceptable levels (based on your identification of risk during Mission Analysis), and develop a concept of operations that best mitigates deficiencies and achieves the commander's mission intent and desired end state. Ensure the staff is ever vigilant that the critical consideration must always be the decisive operation.
- Before beginning the development of a concept of operations, The XO and the S-3 step back and review whether combat requirements exceed available combat power. It is especially important to have determined when "demand" (what you need to execute the mission) exceeds "supply" (what's available to execute the mission). This is very "broad stroke" and will not be finalized until the COA is wargamed.
- The XO, S-2, and the S-3 work to achieve an understanding of force correlation by comparing possible threats with available combat power and the combat multipliers available to mitigate them.
- Brevity and simplicity in explaining the scheme of maneuver are critical. If the COA and resulting scheme of maneuver are too complicated to be articulated in an OPORD or FRAGO, you can count on coordination difficulty.
- If you and the battle staff determine that you have insufficient combat power, pursue a scheme of maneuver that achieves the maximum possible simultaneous action within each phase. Achieving overwhelming combat power across the AO would ideally involve decisive, shaping, and sustaining operations occurring at the same time. Before you recommend to the commander that he should employ simultaneous as opposed to sequential actions consider the following: the skill and size of the opponent, the size of the area of operations, operational reach, available support, and the scope of the mission.
- It is easy to fall into a complicated scheme of maneuver. While detail is important, have the battle staff balance it with brevity and simplicity in explaining the scheme of maneuver.
- Work with the S-3 to ensure that too many graphic control measures

are not employed. The goal is to have the minimum to clearly convey the scheme of maneuver, responsibility for terrain, initial direct and indirect fire planning, and any other coordination activities that contribute to subordinate units being able to accomplish their assigned task and purpose.

- Retrace your steps. Was the scheme of maneuver developed using the decisive point as the baseline from which to detail critical unit activities, tactical movement, how the unit reaches the decisive point of the operation, how the fight is to be won at the decisive point, and how the desired end state is to be achieved? If there are “no” answers, resolve them immediately.
- Graphic Control Measure Imperatives:
 - Control subordinate units during the operation.
 - Help commanders direct action by establishing responsibilities and limits.
 - May be permissive or restrictive.
 - May be graphical, written, or procedural.
 - Are based on the array of forces and the concept of operations.
 - Should not split avenues of approach or key terrain.
 - May be used (phase lines) to trigger execution of branches and sequels.
 - Should be made to quickly transition to COA Analysis.

Assign Headquarters

Actions

- The staff assigns HQ to groupings of friendly forces with the appropriate span of control for that HQ to create a task organization.

Performers

- Battle staff.

Outputs

- Task organization.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- The first order of business is to determine the types of units to be assigned to a HQ and what the scope of C2 should be. The XO and the S-3 must take a close look at the emerging task organization and ensure that it has been developed taking into consideration the entire organization for combat, and that it addresses any special C2 requirements that may be unique to the mission at hand (e.g., passage of lines, river crossing, or air assault.)
- The XO and the S-3 take a hard look at the time available and the commander's preferences. Then, have the S-3 assign generic HQ, but not specific units, until analysis of what unit would best suit the specifics of the mission has been accomplished (This is generally a commander's task and is done following COA Approval.)
- Have the staff use decision graphics as a tool for portraying necessary force information. Add any new decision graphics that are used to the TACSOP.
- Step back. The XO and the S-3 evaluate the COA to ensure the task and purpose that was assigned to the main effort "vertically" supports mission accomplishment of the unit and BDE. Then look "horizontally" to ensure the supporting efforts task and purpose directly or indirectly support mission accomplishment of the main effort. If "vertical" and "horizontal" task and purpose alignment are off, adjust the COA as necessary. Remember, the task organization must take into account the entire battlefield organization.
- Include all WFF representatives in the review process to ensure assets are used effectively to allow the main and/or supporting efforts to accomplish their task and purpose. Find another knowledgeable source, if available, and get a different perspective on the details of the COA.
- As you decide on an effective organization for combat (task organize), check that the battle staff (all WFF staff representatives):
 - Have established clear responsibilities and authorities between subordinate and supporting units.
 - Have designated command and support relationships to weight the decisive operation and support the concept of operations.
 - Have properly used decision graphics as a tool for portraying necessary force information.
 - Are involved in evaluating the COA. If not, assets may not be used effectively to allow the main and/or supporting efforts to accomplish their task and purpose.
- Have the S-3 take the lead on assigning HQ to groupings of forces

- two levels down, and check to ensure that designated command and support relationships weight the decisive operation.
- Remember that the flexibility of allocating available assets to meet mission requirements and establish clear command and support relationships is fundamental to organizing for any operation and key to assisting the commander in achieving his desired end state.

Prepare COA Statements and Sketches

Actions

- The staff develops COA statements and supporting sketches for each COA. Together, each statement and sketch covers the “who, what, when, where, and why” for each subordinate unit.

Performers

- Battle staff.

Outputs

- Statement and sketch for each COA.

Tips, Techniques, and Procedures

Associated TTP / Doctrine
<ul style="list-style-type: none">▪ To this point the battle staff has been collectively involved in most of the COA-D efforts leading to this final step. Now, however, <i>have the S-3 and / or Operations Section prepare the COA statements and supporting sketches</i>. The COA statements and sketches are pivotal in the development of a solid solution to the unit’s current tactical problem and serve as the basis for the OPORD concept of operations if you select that COA.▪ Avoid the battle staff getting so caught up in the COA statement that they fail to apply the necessary detail in the COA sketch. Personally monitor development of the COA sketch. It should be combined with the COA statement to convey both graphically, and via narrative, the who (generic task organization), what (tasks), when, where, why (purpose), for each subordinate unit.▪ Take the time to check with each member of the battle staff to monitor awareness of how their WFF area affects the COA and whether it has been accurately considered in the COA statement and

sketch. Better to find out gaps now, rather than later during wargaming.

- If the operation is phased, clearly define, in terms of an event or conditions, when each phase starts.
- Succinctly stated, the progressive actions that you guide the battle staff through are:
 - Prepare the COA statement in terms of the battlefield organization and include the mission and the desired end state.
 - State the general type of offensive, defensive, or tactical enabling operation for the force and responsibility for the critical missions associated with the type of operation.
 - Use battlefield organization categories to describe how the integration of subordinate maneuver units and WWF supporting assets will achieve the decisive point and execute the scheme of maneuver.
 - Conclude the COA statement with the commander's desired end state from his intent.
 - Convey the scheme of maneuver using correct graphics.
 - Use decision graphics to show combat power.
 - Portray units in a manner that conveys relationship to the overall type of operation.
 - Include sketch graphics that provide a clearer picture of the scheme of maneuver, direct and indirect fire planning, and areas of responsibility.
- During the accomplishment of these actions, personally monitor:
 - That the previously-developed unit essential task list has been compared to the COA statement to ensure each essential task is being accomplished.
 - That the COA statement has been written in terms of the battlefield organization and includes the mission (who, what, where, when, and why) and the commander's desired end state.
 - That the concept of operations connects subordinate elements, either directly or indirectly, and links by purpose all functional systems within the unit.
 - That the COA statement is complete enough to be used as the "Concept of Operations" in the final OPOD.
 - That staff members have taken the bullet comments and phrases from the work performed during the previous steps and presented them in proper English sentences and paragraphs that clearly convey the flow of the operation.
 - That the battle staff articulates how the unit will successfully accomplish the mission in relationship to the decisive point.
 - That the battle staff includes all elements in the statement, such as task and purpose for the decisive operation, task and purpose for the shaping operation, task and purpose for sustaining operations, task and purpose for reconnaissance and security forces, priorities of commitment (tasks and purposes in descending order of priority) for the reserve force, and task and purpose for the tactical combat force.
- That the battle staff uses decision graphics. (They will help simplify COA Analysis as they sort out results from the wargame).

- A good way to check the validity of the COA statement is to use the battlefield organization categories of decisive, shaping, and sustaining operations to describe how the integration of subordinate maneuver units and WFF supporting assets will achieve the decisive point and execute the scheme of maneuver.
- Use the following list of sketch contents as a tool to guide staff efforts to create a clear picture of the scheme of maneuver, direct and indirect fire planning, and areas of responsibility:
 - Unit and subordinate unit boundaries to designate zones / sectors.
 - Unit movement formations (but not subordinate unit formations).
 - Additional phase lines.
 - Assembly areas.
 - Battle positions.
 - Strong points.
 - Ground and air axes of advance / direction of attack.
 - Engagement areas.
 - Objectives.
 - Forward edge of the battle area.
 - Forward line of own troops and / or line of departure / line of contact.
 - Major man-made and natural obstacles.
 - Direct fire and indirect fire support coordination measures.
 - Key terrain.
 - Obstacle control measures and tactical mission graphics.
 - Reconnaissance and security graphics.
 - Identifying features such as cities, rivers, and highways to enhance orientation
 - Designation of the decisive operation and shaping operations.
 - Location of command posts and critical information systems (INFOSYS) nodes.
 - Threat known or templated locations.
- At some point, all of the graphics from the sketch must be referenced to a map (either digital or analog) this can take a great deal of time and cause a delay before COA Analysis. Lean forward in the foxhole and have your staff either geo-reference the sketch to a map while the remainder of the staff works on the COA statement, or have the sketch done on a geo-referenced medium (map or MCS / CPOF).

Conduct a COA Briefing

Actions

- The XO (or S-3) conducts and chairs the staff COA briefing to the commander (or XO).
- The staff principals (or members designated by TACSOP or the commander) attend the COA briefing to the commander and participate, as required.

Performers

- XO, S-3, battle staff.

Outputs

- COA briefing.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- After developing COAs, the staff briefs them to the commander. Remember that a collaborative session may facilitate subordinate planning.
- The briefing includes:
 - An updated IPB.
 - Possible threat COAs.
 - The approved problem statement and mission statement.
 - The commander's and higher commander's intent.
 - COA statements and sketches to include lines of effort if used.
 - The rationale for each COA, including:
 - Considerations that might affect threat COAs.
 - Critical events for each COA.
 - Deductions resulting from the relative combat power analysis.
 - The reason units are arrayed as shown on the sketch.
 - The reason the staff used the selected control measures.
 - The impact on civilians.
 - How it accounts for minimum essential stability tasks.
 - Updated facts and assumptions.
 - Refined COA evaluation criteria.

Select or Modify COAs for Continued Analysis

Actions

- The commander (or XO) receives the staff's COA briefing, accepts or rejects the COAs, or provides guidance on COA refinement, which may include changes to COAs or development of new COAs.
- The commander (or XO) may provide directions on which COAs to analyze.

Performers

- Commander, XO, S-3, battle staff.

Outputs

- Commander's (or XO's) guidance to refine existing COAs or develop new COA(s).
- Commander's COA development guidance.

Tips, Techniques, and Procedures

Associated TTP / <i>Doctrine</i>

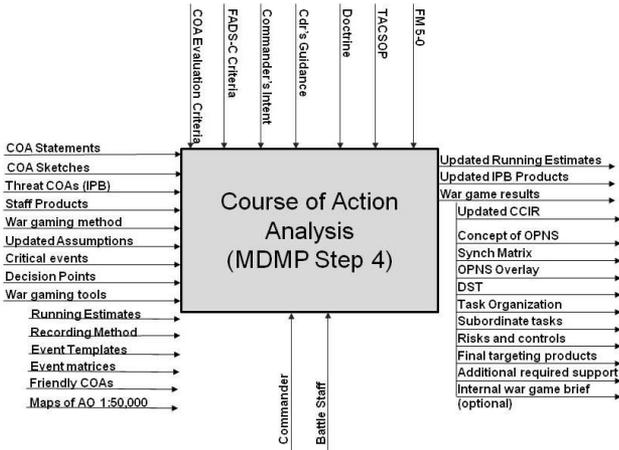
- | |
|---|
| <ul style="list-style-type: none">▪ Remember, if all COAs are rejected, the staff must begin again. If one or more COAs are accepted, the staff can begin COA Analysis.▪ The commander may decide to create a new COA by incorporating elements from one or more of the COAs developed by the staff.▪ Based on what the commander hears from the staff, he may direct an entirely new COA based on his visualization. |
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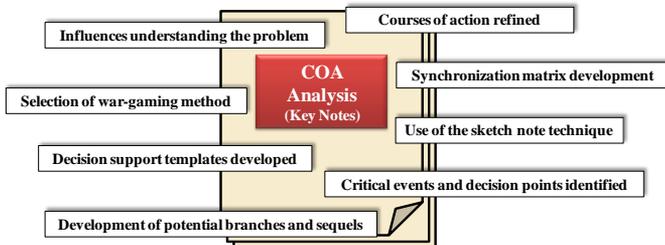
MDMP Step 4 - Course of Action Analysis

COA Analysis enables commanders and staffs to identify difficulties or coordination problems, as well as probable consequences of planned actions for each COA being considered. It helps them think through the tentative plan. COA Analysis may require commanders and staffs to revisit parts of the COA as discrepancies arise. COA Analysis not only appraises the quality of each COA, but also uncovers potential execution problems, decisions, and contingencies. In addition, COA Analysis influences how commanders and staffs understand the problem and may require the planning process to restart. Wargaming is a disciplined process, with rules and steps that attempt to visualize the flow of the operation, given the force’s strengths and dispositions, threat’s capabilities and possible COAs, impact and requirements of civilians in the AO, and other aspects of the situation. **FM 5-0**

MDMP Step 4 Task Graphic



Step 4 Highlights



Getting Started**Notes to Consider:**

- Wargaming stimulates ideas, highlights critical tasks, and provides insights that might not otherwise be discovered. It is a critical step in the MDMP and should be allocated more time than any other step. Either the XO or the commander determine how much time is available for wargaming and ensure the time line is followed.
- Like preparing for COA Development, there are numerous actions that must take place and tools that must be on hand to facilitate smooth execution. Following are actions and considerations that are critical to your role of preparing the staff to conduct wargaming.
- Know why you are doing the analysis. It allows you and your staff to synchronize the WFF for each COA and identify the one that best accomplishes the mission. Ensure the staff refers to the unit tactical standing operating procedures (TACSOP). The TACSOP should be the source document that establishes the procedures for the conduct of wargaming (e.g., who's in charge, who attends, what tools should be brought, how to set up, who says what, when, and how to capture results).
- Enforce the time line once the XO and the commander have decided how much time is available.
- The XO runs the wargame. Let the commander reflect on what is developing.
- Ensure the following:
 - The staff remains objective. Don't allow the staff to become fixed on a single COA. Sometimes the commander will develop a COA, and it is easy to just go with it. Remind the commander to be objective as well.
 - Based on the evaluation criteria that the XO, the commander, and the S-3 have chosen, accurately record advantages and disadvantages of each COA as they emerge.
 - Continually assess each COA using the FADS-C criteria. If a COA fails any of these tests, reject it. (Note, during the wargame, all comparisons are done against evaluation and screening criteria rather than against each other).
 - Avoid drawing premature conclusions and gathering facts to support such conclusions.
 - Avoid comparing one COA with another during the wargame. This occurs during COA Comparison.
- It is critical that the S-3 and S-2 come to the wargame with a good understanding of the entire fight. Ensure that happens.
- Check your staffing levels closely. The S-2 Section, as an example, is frequently understaffed so you may want to consider augmentation

during operational planning and the wargame.

- Have the S-3 select the wargame method (unless the XO or the commander has a preference) and role-play the friendly commander.
- Always be on the lookout for “war stoppers.” Some WFF may not be able to support the COA.

Gather the Tools

Actions

- The staff gathers the necessary tools as directed by the XO or TACSOP.

Performers

- XO, battle staff.

Outputs

- Tools and references for wargaming process.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- There are numerous ways to wargame. Units wargame with maps, sand tables, computer simulations, and other tools that accurately reflect the nature of the terrain.
- Units will seldom have unlimited time to wargame. Since time wasted will always be detrimental to mission accomplishment, this first sub-task of COA Analysis takes on huge importance. You must prepare the battle staff to have the right information right the first time. (This means gathering the tools must take place concurrently with COA Development to ensure you are prepared for the wargame).
- Notify the battle staff to get ready for the wargame and remind them of their input requirements. Refer them to the TACSOP, as it should provide the wargaming location, assign a recorder, and dictate that the COAs identified during COA Development are available at the wargame site for posting on maps and Army Battle Command Systems (ABCS) screens as appropriate.
- Ensure each WFF representative carefully reviews all COAs selected for wargaming and identifies any WFF-unique requirements that will

need to be addressed.

- The XO is key here. While the unit TACSOP should have all the wargaming tools listed, he must direct the staff to gather the necessary tools, materials, and data for the wargame.
- Following are sample tools for wargaming:
 - Current running estimates.
 - “Smart Books.”
 - Event template.
 - Recording means (Note: Due to the amount of information, consider using two recorders so they can compare notes).
 - Commander’s guidance posted in the TOC, so all can review.
 - Completed COAs, to include maneuver, ISR, and security graphics.
 - WFF specific technical information regarding the COAs.
 - Doctrinal references.
 - Evaluation criteria definitions.
 - Complete unit “combat power” status of subordinate units.
 - Means to post and display threat and friendly unit symbols.
 - Maps of the AO.
 - List of CCIR.
- The goal for each battle staff member is to be prepared to concisely state how, where, and when his asset or capability can best be applied during the wargame rather than wait for you or S-3 to “pull” the information from them.

List All Friendly Forces

Actions

- The staff lists all available friendly forces that can be applied to the battle.
- Commander and staff consider all units that can be committed to the operation, paying special attention to support relationships and constraints.

Performers

- Commander, S-3, Operations Section, battle staff.

Outputs

- Initial task organization.

Tips, Techniques, and Procedures

Associated TTP / Doctrine

- As units are considered for commitment to the operation, you must guide the staff to *pay particular attention to support relationships and constraints*.
- Have the S-3 get the force list that was established as a result of Mission Analysis and COA Development and account for all available units.
- Ensure that what you have is the most current friendly force list available. Anything less may defeat the entire wargaming effort.
- Have the Operations Section place the force list in the wargame area so that it can be seen and readily used by all battle staff personnel.
- Work with the commander and the S-3 to make sure consideration is given to all units that can be committed to the operation.
- *Keep the friendly force list constant for all COAs.* Caution here . . . if there is any doubt whether all available units are accounted for in the wargame force list, check COA development results and make sure.
- Have the Operations NCO create icons to use during COA Analysis. (Rule of thumb, every element on the list two levels down and all specialty units as well as attachments get an icon to go on the chart. As you array forces you should run out as the last icon is emplaced based on the specific task organization for the COA to be wargamed. This should be the same set of initial icons used for COA development.)
- Even though the battle staff has broken down the task organization of assets during COA Development, there are almost always going to be questions on the placement of many of the slice elements. Get ahead and be prepared to discuss those applicable elements.
- The decision graphics that you developed during COA Development (e.g., main and supporting effort), if reduced to “stickies,” can be an effective map tool as you wargame different COAs.

List Assumptions

Actions

- The commander and staff list and review previous assumptions for continued validity and necessity.

Performers

- Commander, battle staff.

Outputs

- Revised Assumptions.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- Since making assumptions are critical to planning, the battle staff must be alert for change and moving from assumptions to facts.
- This is a perfunctory sub-task. Although highlighted as a separate sub-task in COA Analysis, it is, in fact, an ongoing effort throughout the planning process.
- The final step of Mission Analysis, “Review Facts and Assumptions,” begins this routine requirement. It is incumbent to have both the commander and staff periodically review all facts and assumptions throughout the MDMP. New facts may alter requirements and require a re-analysis of the mission. Assumptions may have become facts or may have even become invalid.
- Facts and assumptions may change, and when this happens the battle staff must assess the impact of these changes on the plan and make the necessary adjustments, including changing the CCIR, if necessary. Reviewing and listing assumptions before initiating wargaming is an effective “check and balance” technique to ensure previous assumptions are still valid and necessary.
 - When asking about existing assumptions, ask:
 - Are they still relevant?
 - Are any new ones needed?
 - Is there any new information to help with validation?
- By task process order, first, review all previous assumptions to see if they are still valid and necessary, need to be updated, or require new ones to be added. Then, have the battle staff follow this by listing all up-to-date assumptions and post in the wargame area. Finally, have the recorder prepared to capture any additional assumptions made during COA Analysis.

List Known Critical Events and Decision Points

Actions

- The staff lists known critical events and decision points, to include: (1) events that trigger actions or decisions, (2) complicated actions requiring detailed study, and (3) essential tasks.

Performers

- Battle staff.

Outputs

- Critical events with corresponding decision points.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- The list of critical events includes major events from the unit’s current position through mission accomplishment. It includes reactions by civilians that might affect operations or that will require allocation of significant assets to account for essential stability tasks.
- A decision point may be associated with CCIRs that describe what information the commander requires to make the anticipated decision.
- The PIR describes what must be known about the threat or the environment and often is associated with a named area of interest.
- A decision point requires a decision by the commander. It does not dictate what the decision is, just that the commander must make one, and when and where it should be made to have maximum impact on friendly or threat COAs or the accomplishment of stability tasks.
- Critical events directly influence mission accomplishment, and a decision point is when the commander will make a critical decision.
- This is a critical sub-task leading up to the wargame, and it can easily become unmanageable if the list becomes too long. It is incumbent on the battle staff to keep the list of critical events and decision points focused. Have the S-3 list the critical events and decision points for each COA to be wargamed.
- There are basically two major requirements: First, have the battle staff review each COA to be wargamed and identify those events that may directly affect mission accomplishment. Examples would be,

but are not limited to:

- Events that trigger significant actions or decisions.
 - Complicated actions requiring detailed study.
 - Essential tasks identified during Mission Analysis.
 - Major events from the unit's current position through mission accomplishment.
-
- Each critical event has an associated time frame within which it will occur. Battle staff members (e.g., engineer for breach times, chemical officer for smoke buildup and duration, FSO for time required to fire FSTs) should develop timing estimates prior to wargaming.
 - Second, talk with the commander to determine where and when he will make a decision. Have the S-3 put them on a list and make it available to the battle staff. While it will not dictate what the decision is, it clearly delineates to the staff that a command decision will need to occur and when and where it should be made to have maximum impact on friendly or threat COAs. Remember, decision points are generally associated with the friendly force and the status of ongoing operations. Check for the decision point's association with critical information the commander must have to make an anticipated decision . . . essentially, CCIR.
 - The S-3 will know most of the critical times based on COA development, but usually times will not get fully refined and synchronized until the wargame. The XO should be the honest broker in terms of judging the impacts of time estimates.

Select the Wargame Method

Actions

- S-3 determines which method(s) and technique(s) will be used to analyze the COAs.
- Alternatively, the staff can develop a different technique.

Performers

- XO, S-3.

Outputs

- Selected wargame method or combination of methods.

Tips, Techniques, and Procedures

Associated TTP / Doctrine

- Wargame methods can be used separately or in combination. As you see necessary, you and the battle staff may also devise a method of your own.
- Refer to **FM 5-0**, Figures B-6 through B-13. They are excellent examples of the three wargaming techniques and the two techniques commonly used to record and display results.
- Wargaming is a conscious attempt by the commander, and the battle staff to visualize the flow of the battle, given friendly strengths and dispositions, threat assets and possible COAs, and a set piece of ground. It attempts to foresee the action, reaction, and counteraction dynamics of an operational concept. To accomplish this end, you will need to guide the battle staff to employ a method that best facilitates wargaming the operation. **FM 5-0** states that *“There are three recommended wargame methods: belt, avenue-in-depth, and box. Each considers the area of interest and all threat forces that can affect the outcome of the operation. The methods can be used separately or in combination. The staff may devise a method of its own.”*
- Like most tasks, there is a series of steps that must occur. First, confer with the S-3, and go back and review the battle staff’s efforts from COA Development (a mission has been identified and several COAs have been developed. Several determinations have been made stemming from such things as: a generic task organization for a COA, a decisive point / result, significant events or risk associated with the operation, employment of major maneuver elements, security, the main battle, and reserve operations). A sequential description of tasks and purposes, including the purpose and priorities for each available fire support asset, the engineer priority of effort / support, and integration of engineer assets and obstacles with maneuver and fires has also been accomplished.
- Next, the XO and the S-3 review the doctrinal requirements for the mission at hand and confirm / decide on the sequence of operations and potential critical events that will unfold. Get the commander’s input and approval. Note: Even though mission requirements were closely checked during COA Development, a recheck to see how best to wargame the operation is time well spent.
- Finally, the XO and the S-3 assess wargaming methodologies against the operational mission in the selected COA and confirm whether the selected COA should be wargamed using one particular methodology

or a mix of all three doctrinal wargaming methods. Carefully weigh the advantages and disadvantages of each method a selection is made.

- In stability operations, the belt method can divide the COA by events, objectives (goals, not geographic locations), or events and objectives in a selected slice across all lines of effort. It consists of wargaming relationships among events or objectives on all lines of effort in the belt.
- In stability operations, the avenue-in-depth method can be modified. Instead of focusing on a geographic avenue, the staff wargames a line of effort. This method focuses on one line of effort at a time, beginning with the decisive line, and includes not only wargaming events, objectives, or events and objectives in the selected line, but also wargaming relationships among events or objectives on all lines of effort with respect to events in the selected line.
- The XO, as the principal staff trainer, must be careful that the experience of the staff, amount of time available, and familiarity with a particular COA (if wargaming a branch, or modification of an already-produced COA) are taken into consideration. You can ill afford for the battle staff to be unfamiliar with the three different methods (belt, avenue-in-depth, box).
- As a minimum ensure the battle staff understands that:
 - *When using the belt method, more than one critical event may be included.* It supports sequential analysis, but try and avoid more than three critical events within a belt at one time. It will allow you and the staff to focus on critical events throughout the depth of the area of operations. Under most circumstances, it is the preferred method.
 - The avenue-in-depth method is good for offensive or defensive operations when in canalizing terrain that inhibits mutual support. It allows the staff to focus on one avenue of approach at a time.
 - The box method will provide detailed analysis of a critical area. It is a good technique when time is limited and the staff needs to focus on essential tasks / events and the preferred method to wargame actions on the objective.
- While not a traditional wargaming method, you may want to recommend to the commander that he wargame by critical event. In this method, the information can be better input into a synchronization matrix and the timing worked out easier than trying to do multiple events in the belt or avenue-in-depth method. Consider this as a box around each critical event that might be a subset of the belt.

Select a Technique to Record and Display Results

Actions

- S-3 determines which method will be used to record and display the results of the analysis and which staff members will be responsible for capturing the data.
- The two most common techniques are the synchronization matrix and the sketch note technique.

Performers

- XO, S-3.

Outputs

- Selected method to record and display results.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- Wargame results provide a record from which to build task organizations, synchronize activities, develop decision support templates, confirm and refine event templates, prepare plans or orders, and compare COAs.
- Selection and implementation of a recording method (doctrinally, there are two) is a critical sub-task in wargaming.
- Train the battle staff on the two doctrinal methods used to record and display results: the synchronization matrix and the sketch note technique, and ensure they know the advantages and disadvantages of each so they can help you determine which methodology will best suit yours and the commander’s needs.
- In both methods, battle staff members record any remarks regarding the strengths and weaknesses they discover, but you must be cautious that the amount of detail provided does not impact the time available.
- Ensure that how you and the commander want things done is addressed in detail in the unit TACSOP. The battle staff’s ability, especially if inexperienced, to execute either method can be greatly improved if the unit TACSOP details how each method is done and provides examples.
- Review wargaming procedures with the S-3, so that both of you can work closely with the staff during each warfighting turn. Before you

get started, double check the COA selected for wargaming. Then, confirm each critical event, sub-event, and associated times.

- The synchronization matrix is a tool the staff uses to record the results of wargaming and to help them synchronize a COA across time, space, and purpose in relationship to potential threat and civil actions.
- Use synchronization matrix job aids so that each critical event and applicable sub-event are addressed by WFF with supporting activities, unit elements, and tasks. As each wargaming turn is taken, the commander and battle staff can consider these or similarly-detailed critical event lists / aids to explore each COA and arrive at the required level of synchronization.
- As the wargaming of a critical event unfolds, the recorder notes specific actions, locations, and tasks. His notes are then recorded on a wargame worksheet, terrain sketch, execution matrix, or synchronization matrix.
- Provide a blank copy of the synchronization matrix to all wargame participants to help their participation preparation. If the staff members fill out a sticky note or portion of the synchronization matrix for the critical event prior to being called upon, the process will become faster with fewer transition or interpretation mistakes.
- Next, monitor how the staff uses the information that has been collected and that the completed synchronization matrix clearly portrays the COA across time and space in relation to the threat COA. Remember, the matrix is developed around selected functional areas or major subordinate commands of the unit. Other operations, functions, and units that are to be integrated may also need to be incorporated into the matrix. As the synchronization matrix supports synchronization of a COA across time and space in relation to a threat COA, it captures the relationship by relating / comparing the time or phase of an operation with the most likely threat action and the decision point for the friendly COA.
- Have the battle staff, at a minimum, capture “task and purpose” in each block of the synchronization matrix. Refer to the “task and purpose” used to array forces during COA Development. Try and capture “desired effect” as well. It will facilitate understanding during execution.
- If the sketch note method is selected, monitor note taking. Have the battle staff use brief notes addressing critical locations or tasks. Their notations should reference specific locations on the map or relate to general considerations covering broad areas. Note organization can be a problem, so to facilitate understanding, have the battle staff use sequence numbers to reference their notes to the corresponding location on the map or overlay. Actions may also be placed in

sequential action groups with each sub-task highlighted by a separate number. The primary objective of the sketch note worksheet is to identify all pertinent data for an event. The sketch note method is particularly good for stability operations and when developing battle drills.

- Note that while the sketch note method is a good technique to facilitate COA synchronization during wargaming, it is historically not used by commanders and battle staffs as much as the synchronization matrix.
- Use a wargame work sheet (sketch note method) to identify all pertinent data for a critical event. Assign each event a number and title and use the columns of the worksheet to identify and list in sequence:
 - Units and assigned tasks.
 - Expected threat actions and reactions.
 - Friendly counteractions and assets.
 - Total assets needed for the task.
 - Estimated time to accomplish the task.
 - The decision point tied to executing the task.
 - CCIR.
 - Control measures.
 - Remarks (Note: stability operations that depend on a strict timing sequence may be better suited to the sketch note technique).
- Both the synchronization matrix and the sketch note worksheet recording techniques contribute to the development and use of unit battle drills. Some battle drills may support a given event unchanged, and some may need to be refined for use based on information synchronization for a COA.
- If you are digital, use a single recorder and integrate laptops by WFF on a large screen matrix. This can be distracting to the staff and should be approved by the XO / commander, but is useful to review the turn following completion of a critical event.
- Having scribes by WFF armed with paper, pencil, 3x5 cards, and sticky notes is always effective. Ensure your scribes understand military language and can recognize the proper formatting of grid coordinates.
- Remember, how COA synchronization is recorded can make or break successful wargaming. There must be a definitive, well-designed, and commonly-understood technique for gathering battle staff wargame input, and using it to determine the viability of a given COA. Available time, fatigue, battle staff experience, and the fog of battle dictate commonly understood execution processes (battle

drills), and the technique employed for wargaming is a primary catalyst for determining what they need to be.

Wargame the Operation and Assess the Results

Actions

- Task actions are covered in detail in “Associated TTP.”

Performers

- Commander, battle staff.

Outputs

- Wargame results are identified in “Associated TTP”.

Tips, Techniques, and Procedures

Associated TTP / Doctrine

- During wargaming, the XO is the catalyst to ensure the commander and staff can foresee the battle’s action, reaction, and counter-action dynamics. He must have the battle staff analyze each selected event, identify tasks that the unit must accomplish one echelon down, using assets two echelons down, identify each COA’s strengths and weaknesses, and adjust as necessary.
- All that has been done during the previous seven sub-tasks has been preparatory for the wargame itself. Wargaming is a process whereby the unit battle staff visualizes the execution of each friendly COA in relation to established threat COAs using an action-reaction-counter-action methodology. Sounds simple enough, but it is complex when viewing the enormity of WFF considerations that must be taken into account, the exploration of a plan’s possible branches and sequels, and the importance of the results.
- *The wargame focuses not so much on the tools used but on the staff members that participate.* They should be those who are deeply involved in developing COAs. Following are the responsibilities of key staff members during wargaming. Refer to them as you review the wargame process. Also review the extensive warfighting function collaboration list provided earlier in this document.
 - XO - The XO coordinates all staff actions and serves as the referee providing on the spot arbitration between the friendly and threat commander during the

wargame. He is also responsible for ensuring the staff stays on time and on track during the process. Ultimately he, with input from the commander determines which events will be wargamed in a time constrained environment ensuring that the decisive operation is always assessed.

- S-2 - The S-2 plays two roles during the wargame. First, he provides input as the friendly intelligence officer identifying IR, refining the situation template (SITTEMP) and event template (EVENTEMP), to include the NAIs, continues to participate in the targeting process through the refinement of HVT and their subsequent acceptance as HPTs, and recommends PIR that correspond to decision points. Second, he role-plays the non-compliant threat commander *by developing decision points based on his SITTEMP and projecting threat reactions to friendly actions*. He projects both threat losses based on the friendly maneuver plan and also adjudicates friendly casualties to stress the friendly CASEVAC and maintenance recovery systems. (In order to lessen the load for the S-2, consider using the Assistant S-2 in one of these roles . . . if experienced enough). Note, the S-2 is a tool for friendly staff planning and is not supposed to win. However, certain realistic threat reactions may cause branches or sequels to be developed or may prove to make the COA fail the FADS-C test. The S-2 needs to ensure he uses the same set of threat reactions (based on friendly maneuver) for each COA in order to not skew the results of wargaming. This doesn't mean the S-2 does the same thing all the time. If necessary, he should exploit vulnerabilities in the blue plan to drive changes in maneuver.
- S-3 - The S-3 generally selects the technique for wargaming and role plays the friendly commander. He will be assisted by other staff members such as the aviation officer and engineer. He must ensure the wargame covers every operational aspect of the mission.
- Fires - The FSO assesses the fire support feasibility of each COA. He will develop the fire support matrix and measures of effectiveness. He develops a high-payoff target list (HPTL), target selection standards, and attack guidance matrix. He identifies NAIs, TAIs, HVTs, HPTs, and additional events which may lead to positioning of assets.
- Protection - The Provost marshal (PM), or protection representative for the staff, advises the commander of MP, security, and force protection issues. He will assess MP operations and their role in supporting freedom of maneuver / movement, as well as security of ground lines of communications (GLOCS), operational law enforcement, and operational internment and resettlement operations.
- Sustainment - The S-1 assesses the personnel aspect of building and maintaining the combat power of units. He also should point out the personnel shortfalls and estimates potential losses based on threat reactions. His primary responsibility, with the Surgeon Section, is to develop a CASEVAC Plan (not a list of personnel recovery assets) and ensure it is tested during wargaming. The S-4 assesses the logistics feasibility of each COA. He determines critical requirements, problems, and deficiencies. He determines if there is additional support required for civilians and develops sustainment triggers to assist in resupplying the force.
- Command and Control - The S-6 assesses network operations, electromagnetic spectrum operations, and network defense and information protection. He determines communication requirements based on his analysis of systems and terrain. The S-7 assesses how effectively messages and themes are reflected in operations. He assesses the effectiveness of media and how information and themes impact various audiences both in and outside the AO. The S-9 ensures each COA integrates civil considerations in, not only tactical, but also

sustainment issues. The civil affairs officer (or commander designee) represents the other actors' points of view if they are not available for the wargame. The SJA advises the commander on all matters pertaining to law, policy, regulations, and good order and discipline. He provides legal advice across the spectrum of conflict.

- The XO should get together with the S-3 to discuss the flow of the wargame. It is important that it have a definite structure, that the structure is available for all to see in the unit TACSOP, and that all battle staff participants understand it. Consider the following process as a way to wargame:
 - First, you select the critical events to be wargamed, generally not more than five. (Note: This does not mean you can't do fewer or more than five, just that available time and fatigue will influence what is manageable). Typical events in a deliberate attack are the approach, establishing the support by fire, the breach, the assault, actions on the objective, and the enemy counterattack. For a defense, events might include the security zone fight, the forward security element / advanced guard main body fight, the main effort fight, the repositioning plan, and the commitment of the reserve. Your first critical event in any environment should be the initial set. This sets the stage for the upcoming operation and positions critical assets. From this position, especially during wargaming of stability operations, you may find there are few changes to many of the subordinate units.
 - Second, consider the situation a kinetic environment and:
 - Have the force with the initiative, the attacker, begin the first turn of the wargame with the appropriate action, e.g., when conducting a movement to contact, the friendly force has the initiative.
 - If the attacking element is friendly, the S-2 will begin by briefing the threat SITTEMP, and the S-3 will address the reconnaissance effort and describe the maneuver action. He describes the action for the event in detail from start to finish, states the task and purpose, how the units relate to each other on the battlefield, the timing involved in movement, and other significant aspects of the battle. (While the S-3 may not relate the event in time increments, ensure that he presents the event in a logical sequence from start to finish). A security patrol or combat logistics patrol in a stability environment that comes under attack should not be considered the attacker. The action should be the attack on the convoy, the reaction should come from blue forces, and the counteraction should come from the threat.
 - Third, the defender responds to the action sequence with reactions by WFF. The designated threat representative is first and addresses threat maneuver. He is followed by the other applicable WFF. Again, the focus is on a logical visualization of the action with the reaction addressing each one of the friendly force's actions. (Example: If the S-3 described a friendly element's occupation of a support-by-fire (SBF) position vicinity XX, the S-2 should address the threat's indirect fires on the friendly element as part of the reaction).
 - Fourth, the attacker then addresses counteractions beginning with maneuver. (Example: The S-3 addresses maneuver counter-actions and is followed by

individual battle staff members addressing their particular WFF. Referring back to the aforementioned SBF, the S-3 states that the friendly element repositions to vicinity XX to lessen the effects of threat indirect fires while maintaining effective suppression. The FSO then states that critical friendly zone is activated when the first vehicle from the friendly element arrives at the SBF position).

Fifth, you must carefully review the turn. Ensure all synchronization matrix entries have been made. Ensure that all issues, required coordination tasks, specified tasks, and as applicable, evaluation criteria advantages and disadvantages are recorded. Note any task organization changes, and have them recorded.

- Sixth, at the end of the critical event, you should recap the end state of the event (e.g., did friendly and threat forces achieve their task and purpose for the event? What were the friendly and threat losses? How are each arrayed at the end of the wargame?) You should also review the event against the key tasks of the commander's intent. It is easy for subtle changes to occur, so review the COA with the battle staff to see if it still passes the FADS-C criteria test. Record the strengths and weaknesses of the COA against the evaluation criteria. This will greatly assist you in completing COA Comparison.
- Finally, just as you should have done at the beginning of wargaming, refer to **FM 5-0**, Figure B-5, and review the results and products that should have been accomplished. (Have them in the unit TACSOP for easy accessibility. Appropriate wargaming "how to" should also be there). Check them off. Was each accomplished? Have the S-3 post the expected results from wargaming in the wargaming area for all participants to see.

▪ Also:

- Stress to the battle staff that all wargame results are achieved by an integrated and synchronized staff effort. Review a result to make your point. It will clearly show that nothing is accomplished by any one battle staff member.
 - Refer to the fold-out section (pages 43 - 45) of the July 2008 edition of *The Azimuth*. It offers "tips," techniques, and procedures that have been aligned with the wargaming results and products identified in **FM 5-0**, and are presented in a checklist format to assist unit battle staffs with this critical task.
 - Designate a recorder prior to the start of wargaming. He should have been involved in COA development. Consider an additional recorder to record issues.
 - Know the bottom line. You and the battle staff are working together to develop a synchronized / shared vision of the fight.
- When time is limited and there is doubt that sufficient time can be applied to wargaming actions on the objective, starting on the objective may be the best sequence to pursue. This situation is more apt to occur in the current COE than in a kinetic environment, where movement to an objective and associated activities and time requirements will probably affect resulting actions on the objective. Try and allot a specific amount of time for each event.
- After a full iteration of action / reaction / counter-action, you should ask if any battle staff member has other actions to synchronize for the battle period. This is a good time for you to ask, "Can anyone else

contribute to the fight during this event?”

- Recording the results of the wargame is fraught with potential pitfalls. Battle staffs can find themselves falling into the trap of simply filling out blocks in the synchronization matrix rather than visualizing the fight. The synchronization matrix must not become the focus of the wargame. It must be viewed as a valuable staff tool to assist the staff in visualizing the battle.
- Compare the finished “synchronization matrix” with current “operations overlays” to ensure proper control measures are portrayed.
- Other wargaming actions that you should take include:
 - Adding “triggers” to specific actions recorded on your synchronization matrix to ensure they are executed at the proper time and place.
 - Being prepared to go back if you and the battle staff fail to gain sufficient clarity of an event to warrant it.
 - Advising the battle staff to always think . . . “What if we are successful?” . . . “What if we are not?”
 - Ensuring the battle staff considers all possible forces, including templated forces outside the AO that can influence the operation.
 - Having the battle staff continuously look for ways to create conditions for success, protect the force, and shape the battlefield.
 - Continuously pursuing risk assessment. Have every WFF perform a risk assessment for each COA and propose controls.
 - Not overlooking the WFF assets needed to synchronize sustaining operations.
 - Always maintain tactical flexibility, if you can. You may need, as an example, to brief the commander that withholding some of the unit’s assets for unforeseen tasks or opportunities is necessary.
 - Making sure you validate the composition and location of the decisive operation, shaping operations, and the reserve if the commander requires changes.
 - Having the staff “earmark” the commander’s input with yellow “stickies.” The recorder should post them to the synchronization matrix.
 - Looking for situations, opportunities, or additional critical events that you believe should be analyzed further.
 - Always seeking to retain or regain the initiative. Look for ways to take the threat force out of what appears to be their most likely COA.
 - Entering graphic control measures on the operations overlay when they are talked about, e.g., if the staff talks about establishing a re-trans site, mark it on the overlay. When the staff talks about an ammunition exchange point, mark it. When the staff talks about an infiltration route, mark it along with the passage point and release points. Even though a wargame briefing may not need to be done for the commander, it is a very effective technique to ensure all members of the battle staff understand the results of the wargame before presenting the commander with the COA Decision Briefing.
- Ensure the battle staff is familiar with the results listed in *FM 5-0*, Paragraphs B-161 through 165. Develop a checklist matrix to judge the effectiveness of your wargaming efforts. Use the following

actions as a checklist:

- Refinement or modification of:
 - Each COA including identifying branches and sequels that become on-order or be-prepared missions.
 - Locations and times of decisive points.
 - Threat event template and matrix.
 - Task organization, including forces retained in general support.
 - C2 requirements, including control measures and updated operational graphics.
 - CCIR and IR, including the LTIOV, and incorporating them into the ISR Plan and information management plans.

- Identification of:
 - Key or decisive terrain and determining how to use it.
 - Tasks the unit retains and tasks assigned to subordinates.
 - Likely times and areas for enemy use of weapons of mass destruction and friendly nuclear, biological, and chemical defense requirements.
 - Potential times or locations for committing the reserve.
 - The most dangerous threat COA.
 - The most dangerous civilian reaction.
 - Locations for the commander, command posts, and INFOSYS nodes.
 - Critical events.
 - Requirements for support of each WFF.
 - Effects of friendly and threat actions, along with second and third order effects, on civilians and infrastructure, and how these will affect military operations.
 - Or confirming the locations of named areas of interest, target areas of interest, decision points, and the IRs needed to support them.
 - Analyzing and evaluating the strengths and weaknesses of each COA.
 - Hazards, assessing their risk, developing controls for them, and determining residual risks.
 - Coordination required for integrating and synchronizing interagency, host nation, and non-governmental organization involvement.

- Analysis of:
 - Potential civilian reactions to operations.
 - Potential media reactions to operations.
 - Potential impacts on civil security, civil control, and essential services in the AO.

- Development of:
 - Decision points.
 - A synchronization matrix.
 - A decision support template and matrix.

- Solutions to achieving minimum essential stability tasks in the AO.
- The ISR Plan and graphics.
- Or refinement to information engagement themes and messages.
- Fires, protection, and sustainment plans, and graphic control measures.

- Commander and staff:
 - Determining requirements for military deception and surprise.
 - Determining the timing for concentrating forces and starting the attack or counterattack.
 - Determining movement times and tables for critical assets, including INFOSYS nodes.
 - Estimating the duration of the entire operation and each critical event.
 - Projecting the percentage of threat forces defeated and remaining in each critical event and overall.
 - Projecting the percentage of minimum essential tasks that the unit can accomplish.
 - Anticipating media coverage and impact on key audiences.
 - Integrating targeting into the operation, to include identifying or confirming high-payoff targets and establishing attack guidance.
 - Allocating assets to subordinate commanders to accomplish their mission.

- If there is time, go back and wargame from each decision point, but make a “different” decision to develop branches and sequels.

Conduct a Wargame Briefing

Actions

- The battle staff delivers a briefing (optional) to all affected elements to ensure everyone understands the results of the wargame.
- The commander modifies, updates, and approves CCIR.
- Battle staff revises their respective running estimates.

Performers

- Commander, battle staff

Outputs

- Wargame briefing.
- Results of wargame.
- Commander-approved CCIR.
- Revised running estimates.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

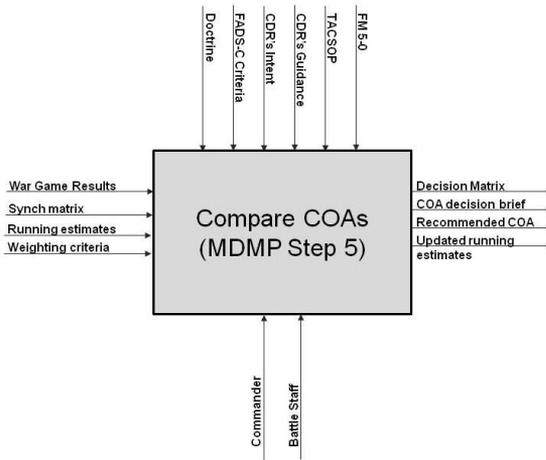
- The staff uses the optional wargame briefing for review and ensures that all relevant points of the wargame are captured for presentation to the commander or XO. Note: in a collaborative environment, the briefing may include selected subordinate unit staff representatives.
- The briefing format includes:
 - HHQ mission, commander’s intent, and military deception plan.
 - Updated IPB.
 - Friendly and threat COAs that were wargamed, to include:
 - Critical events.
 - Possible threat actions and reactions.
 - Possible impact on civilians.
 - Possible media impacts.
 - Modifications to the COAs.
 - Strengths and weaknesses.
 - Results of the wargame.
 - Assumptions.
 - Wargaming technique used.

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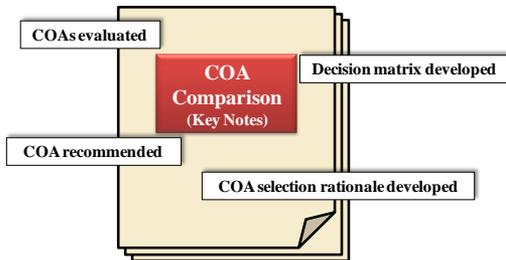
MDMP Step 5 - Course of Action Comparison

COA Comparison is an objective process to evaluate COAs independently of each other and against set evaluation criteria approved by the commander and staff. The goal to identify the strengths and weaknesses of COAs enables selecting a COA with the highest probability of success and further developing it in an OPLAN or OPORD. **FM 5-0**

MDMP Step 5 Task Graphic



Step 5 Highlights



Conduct Advantages and Disadvantages Analysis

Actions

- The staff, led by the XO, determines the comparison technique that facilitates reaching the best recommendation for a decision by the commander.
- The battle staff uses previously developed and refined evaluation criteria to outline each COA and highlight advantages and disadvantages.
- Battle staff members analyze and evaluate the advantages and disadvantages of each COA from their WFF perspective.
- They then present their findings for other staff consideration.

Performers

- XO, battle staff.

Outputs

- Evaluation (strengths and weaknesses) of each COA by WFF.
- Highlights of each COA’s advantages and disadvantages.
- Comparison of each COA’s strengths and weaknesses.

Tips, Techniques, and Procedures

Associated TTP / Doctrine
<ul style="list-style-type: none">▪ Before you get started, orient the battle staff with how the process of COA Comparison will take place. Bottom line . . . you are having the battle staff compare feasible COAs to identify the one with the highest probability of success.▪ The XO is the manager here. Have each battle staff member analyze the advantages and disadvantages of each COA from their perspective, and then present their findings to the rest of the staff for their consideration. The methodology for conducting the analysis should be identified in the unit tactical TACSOP.▪ Monitor the staff’s use of the evaluation criteria developed during Mission Analysis. They should be applied as the staff outlines each COA. Comparing the strengths and weaknesses of COAs identifies their advantages and disadvantages with respect to each other.▪ Caution . . . with time running out, convenience can lead to error. Don’t let the battle staff make something up just to have advantages

and disadvantages. These should have been drawn, at least partially, by listing the advantages and disadvantages of each COA during COA Analysis based on comparison to the evaluation criteria.

- For the most part, advantage and disadvantage analysis, if the previous steps were done correctly, should have been little more than taking the list of advantages and disadvantages and placing them in a simple matrix.

Compare Courses of Action

Actions

- The staff, led by the XO, determines the comparison technique that facilitates reaching the best recommendation for a decision by the commander. They then compare their advantages and disadvantages with respect to each other.
- The staff develops a recommendation for the COA that best accomplishes the mission.
- The Targeting Team meets to finalize targeting products to support the approved COA. The team also finalizes input to the intelligence collection plan and performs required coordination.

Performers

- XO, battle staff.

Outputs

- Recommended COA.
- Comparison technique.
- Finalized targeting products.
- Evaluation of each COA by WFF.

Tips, Techniques, and Procedures

Associated TTP / Doctrine

- The bottom line here is to compare COAs against criteria that, when met, produce mission success. Staff officers may each use their own matrix to compare COAs with respect to their functional areas. Matrices use the evaluation criteria developed before the wargame.
- This is a critical sub-task. Your choice of technique to make a COA comparison is not dictated by doctrine (you may use any technique

that facilitates reaching the best recommendation and the commander making the best decision); however, *the most common technique is the decision matrix.*

- Allowing the battle staff to use their own matrix to compare COAs with respect to their functional areas can be an effective technique, depending on the battle staff's experience. Remind the staff that as they develop their matrix, they use the evaluation criteria developed before the wargame.
- *Advise the battle staff that a decision matrix alone does not provide decision solutions.* Its greatest value is providing a method to compare COAs against criteria that, when met, produce mission success. (They are analytical tools that staff officers use to prepare recommendations. Commanders provide the solution by applying their judgment to staff recommendations and making a decision.)
- Once again, the principal action here is for you to have the battle staff compare COAs to identify a course of action that best accomplishes the mission.
- Ensure you emphasize if lower is better or higher is better when developing your decision matrix.
- Remember, as stated earlier, a criterion with a weight of two (2) can negate two evaluation criteria with a weight of one (1). It is entirely possible for one course of action to be mathematically better un-weighted but worse as weighting is applied. Apply weighing of criterion judiciously and never after the comparison to break a tie.
- There is always the possibility of a tie. This should have been mitigated by choosing an odd number of criteria but happens if two or more courses of action can achieve success. This is why the commander has a staff. He relies on his subject matter experts in each WFF or staff area to make a recommendation. Ultimately, he will make the decision based on own his experience and judgment.

Conduct a Course of Action Decision Briefing

Actions

- The staff identifies its preferred COA; makes a recommendation; and then delivers their recommendation in a decision briefing to the commander.

Performers

- XO, battle staff.

Outputs

- COA decision briefing.
- XO COA decision if the staff cannot reach a decision.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- All wargamed COAs will be presented in the COA Decision Briefing, where the commander will decide which will best accomplish the mission.
- Recheck the evaluation criteria you approved earlier. If not applied, fix it now.
- Caution here . . . don't allow the commander to make a COA decision based solely on the numerical values applied in a decision matrix. Making a subjective judgment based on quantifiable analysis can be risky.
- Ask the commander to apply his judgment to the battle staff's recommendations. He may not agree with what you and the staff have done and want to provide additional guidance.
- Look for and advise the battle staff that the eventual selection of a COA should as a minimum:
 - Pose the least risk to the unit and mission accomplishment.
 - Best position the unit for future operations.
 - Provide the best flexibility to meet "unknowns."
 - Provide maximum latitude for initiative by subordinates.
 - Be the simplest plan that accomplishes the preceding criteria.
- The COA decision briefing should include:
 - The commander's intent of the higher and next higher commanders.
 - The status of the force and its components.
 - The current IPB.
 - The COAs considered, to include:
 - Assumptions used, especially any new ones made.
 - Results of running estimates.
 - Summary of the wargame for each COA to include critical events, modifications to any COA, and wargaming results.
 - Advantages and disadvantages (including risk) of each COA.
 - Completed COA decision matrix.
 - The recommended COA (Note: if a significant disagreement exists, the staff should inform the commander and discuss as necessary).

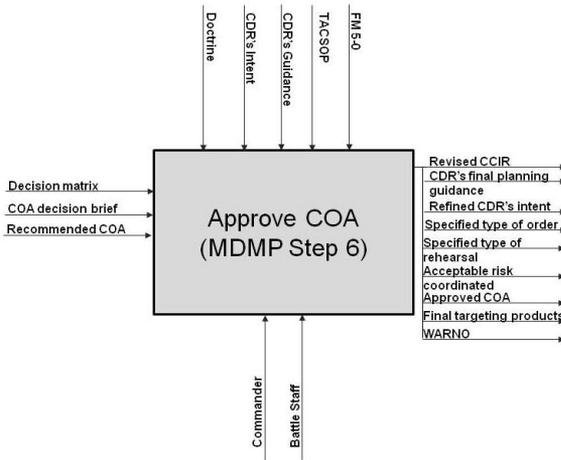
- The COA decision briefing is where the commander expects to hear the staff's preferred COA. In situations where the staff is unable to decide, the XO must make the call.

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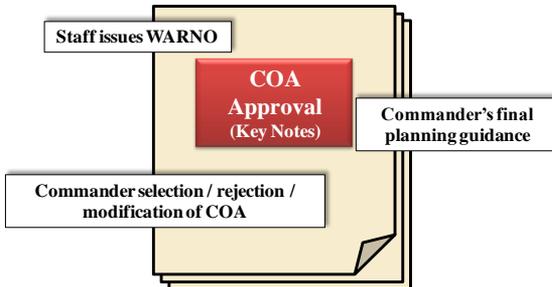
MDMP Step 6 - Course of Action Approval

After the decision briefing, the commander selects the COA to best accomplish the mission. If the commander rejects all COAs, the staff starts COA Development again. If the commander modifies a proposed COA or gives the staff an entirely different one, the staff wargames the new COA and presents the results to the commander with a recommendation. **FM 5-0**

MDMP Step 6 Task Graphic



Step 6 Highlights



Commander Selects COA

Actions

- The commander selects the COA that best accomplishes the mission.

Performers

- Commander.

Outputs

- Recommended COA.
- Additional COA development guidance, if refinement is required.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- Although the battle staff recommends a COA, they must remain flexible in case the commander desires to modify or replace it.
- The key task here is to provide the commander with a COA that he will clearly see as the best to accomplish the mission. Keep in mind that if he rejects it, COA Development may start again. If the commander modifies it or presents you with a completely new COA, wargaming is again necessary.
- Remind the staff that this will throw off the time line of products to subordinate elements. It is always best to be too thorough in the beginning than to have to change.
- If all the commander wants to do is refine the COA, make the dictated changes as visual as possible for staff understanding.
- Based on the commander’s knowledge of his subordinate commanders, he will assign specific HQ to the COA, since they have been “generic” C2 elements until now.
- The commander’s selection options include: (1) select one COA, with or without modification, (2) issue guidance to refine one or more of COAs (requires that MDMP Steps 3-5 be repeated on the refined COAs), or (3) issue guidance to develop one or more new COAs (again, requires that MDMP Steps 3-5 be repeated.)

Commander Issues Final Planning Guidance

Actions

- The commander issues final planning guidance.

Performers

- Commander.

Outputs

- Commander’s final planning guidance.
- Refined commander’s intent (if necessary.)
- New CCIR to support execution.
- Approved CCIR.
- Commander’s analysis of acceptable risk.

Tips, Techniques, and Procedures

Associated TTP / <i>Doctrine</i>
<ul style="list-style-type: none">▪ The commander’s COA decision and final planning guidance lead to production of the WARNO.▪ The commander may provide additional guidance, to include: (1) new CCIR to support execution, (2) additional guidance on priorities of WFF activities, (3) orders preparation guidance, (4) rehearsal guidance, (5) preparation guidance, (6) priorities for resources required to preserve freedom of action and assure continuous sustainment, and (7) the risk the commander is willing to accept.

Issue a Warning Order

Actions

- Once the commander has approved the COA to develop, the S-3 section issues a WARNO to subordinate and supporting units for planning purposes.

Performers

- S-3 Section.

Outputs

- WARNO to subordinate and supporting units with approved COA.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

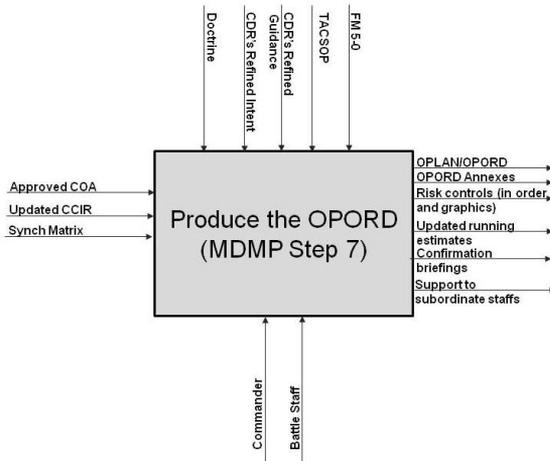
- After the commander’s final decision and planning guidance, check to see that a timely WARNO gets out to subordinate units so they can develop their plans.
- The contents of this WARNO, often referred to as WARNO # 3, should be detailed in the unit TACSOP. *Contents normally include:*
 - Mission.
 - Commander’s intent.
 - Updated CCIR and EEFI.
 - Concept of operations.
 - AO.
 - Principal tasks to subordinate units.
 - Preparation and rehearsal instructions not included in SOP.
 - Final time line for the operations.

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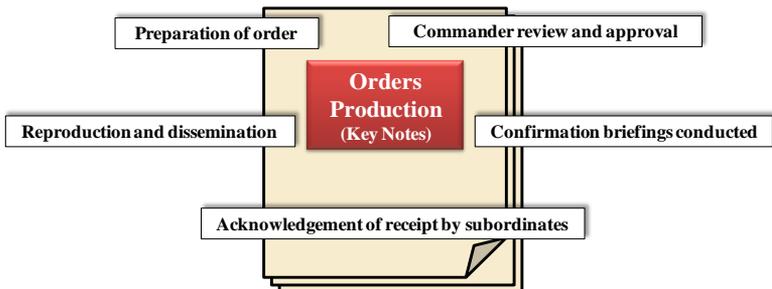
MDMP Step 7 - Orders Production

The staff prepares the order or plan by turning the selected COA into a clear, concise concept of operations and required supporting information. The COA statement becomes the concept of operations for the plan. The COA sketch becomes the basis for the operation overlay. Orders and plans provide all the information subordinates need for execution. Mission orders avoid unnecessary constraints that inhibit subordinate initiative. The staff assists subordinate staffs with their planning and coordination. **FM 5-0**

MDMP Step 7 Task Graphic



Step 7 Highlights



Produce the Order and Conduct Confirmation Briefings

Actions

- The staff assists the S-3 during the orders production process by coordinating and integrating risk controls into the appropriate paragraphs and graphics.
- The staff develops and updates running estimates and OPORD annexes for inclusion into final OPORD.
- The S-3 Section develops the selected COA into a clear, concise concept of operations and supporting information by writing a complete five-paragraph field order with the concept of operations, scheme of maneuver, required fire support, and operational graphics.
- The S-3 Section collects and integrates staff annexes into the OPORD.
- The commander reviews OPORD, directs modifications, if required, and approves final version for distribution. The commander may delegate review and approval to the XO or S-3.
- The commander and staff brief the OPORD, to subordinate commanders. S-3 Section reproduces and distributes the OPORD once the commander has reviewed and approved it.
- S-3 OPS NCO supervises the production and distribution of the final OPORD, annexes, and graphics.
- The commander and staff participate in formal or informal confirmation briefing(s), as required, with subordinate staffs after order issue. This ensures that subordinate staffs understand commander's intent and concept.

Performers

- Commander, XO, S-3 Section, battle staff.

Outputs

- Final approved and signed OPORD and copies that include:
 - Risk controls integrated into the appropriate paragraphs and graphics.
 - Updated running estimates and / or annexes.
 - Finalized operations annexes.
 - Clear and concise concept of operations.
 - Scheme of maneuver.
 - Required fire support.
 - Completed OPORD annexes.
 - Confirmation briefing(s) to subordinate units.

Tips, Techniques, and Procedures

Associated TTP / *Doctrine*

- At this point, you and your staff have completed the planning process, but still must ensure timely preparation, review, and confirmation of the order. Following are some associated basic tenets:
 - The COA statement for the approved COA becomes the concept of operations (paragraph 3b.) for the plan.
 - The refined COA sketch, after wargaming, becomes the basis for the Operation Overlay.
 - Your staff must assist subordinate units with their planning and coordination.
- Implement risk controls by integrating them into appropriate order paragraphs and graphics.
- Unless you have delegated the responsibility, be the last to have eyes on, review, and approve the order.
- If possible, brief the order to subordinates face-to-face, and then conduct confirmation briefings for understanding.
- The commander and staff participate in formal or informal confirmation briefing(s), as required, with subordinate staffs after the order is issued. This ensures that subordinate staffs understand the commander's intent and concept.
- The staff assists subordinate staffs by reviewing subordinate commander's plans and orders upon completion and integrating subordinate graphics into the staff products.

Section 3 - Intelligence Preparation of the Battlefield (IPB)

General

Since the publication of *FM 34-130* in 1984, much has changed in terms of intelligence preparation of the battlefield. Published in October 2009, *FM 2-01.3* uses terms like ASCOPE and removed words like Battlespace and Battlefield Operating System. It replaced the mnemonic OCOKA with OAKOC and placed an increased emphasis on civil considerations. It removed Doctrinal Templates and replaced them with “threat / adversary templates.” It changed our definition of Situation Templates and aligned offensive and defensive discussions with *FM 3-0*. Basically, it is now realigned with the doctrine which has emerged since 1984.

What hasn't changed? IPB still:

- is a continuous activity.
- is conducted by the entire staff.
- is designed to support the Military Decision Making Process (MDMP).
- builds an extensive database for each potential area in which a unit might be required to operate.
- allows the commander and staff to gain the information necessary to selectively apply and maximize combat power at critical points in time and space.
- is most effective when it integrates each staff element's expertise into the process.
- is directly related to targeting and collection management.
- consists of four steps:
 - Define the Operational Environment.
 - Describe Environmental Effects on Operations.
 - Evaluate the Threat.
 - Determine Threat Courses of Action.
- is supervised by the Executive Officer, led by the S-2 and developed by the entire staff.

One of the most daunting tasks during IPB, as in Mission Analysis in general, is the melding of each independent staff section / WFF's information into a format usable by the entire staff. During Mission Analysis some poor guy from the S-3 Section must pour over unintelligible slides

formatted in at least a dozen different fonts to produce a document that has the necessary information to allow the commander and staff to continue with the MDMP as well as not cringe as each slide in the PowerPoint slideshow is advanced. The same is true for IPB. In order to alleviate some of the drama, units must describe, in detail, the information they require from each staff section, the format it needs to come in, the person who it is to be given to and the benchmark during Mission Analysis when it is due. This should become a PSOP entry and placed in the time line designated by the Executive Officer for MDMP planning.

One format often used is that of the “Reverse Warfighting Function” Worksheet.

Reverse Warfighting Function Worksheet

REVERSE WFF WORKSHEET
WFF Addressed?
CHARACTERISTICS OF THE ENVIRONMENT AFFECTING YOUR WFF
SPECIFIC WEATHER OR TERRAIN CONSIDERATIONS AFFECTING YOUR WFF
INPUT TO MCOO OR SITTEMP
THREAT HIGHER CONCEPT (Paragraph 1 your WFF Annex)
THREAT MISSION (Paragraph 1 your WFF Annex)
MOST LIKELY THREAT COA (Your WFF)
THREAT FORCES AVAILABLE (Your WFF)
THREAT EQUIPMENT & CAPABILITIES (Your WFF)
THREAT CONSTRAINTS (Your WFF)
CRITICAL FACTS & ASSUMPTIONS ABOUT THREAT (Your WFF)
HVTs AND WHY IMPORTANT TO THREAT (Your WFF)
THREAT CCIR & POTENTIAL DECISION

This example, in a single document provides the S-2 with all the information each WFF deems important to them. This information is extracted from the operations order, the specific annexes, open sources and the staff section's personal experience and serves to form the basis of the information the S-2 needs to develop threat templates.

Step 1 - Define the Operational Environment

Defining the Operational Environment identifies, for further analysis, specific features of the environment or activities within it and the physical space where they exist that may influence available COAs or the commander's decision. *FM 2-01.3.*

The sub-steps for defining the operational environment are:

- Identify significant characteristics of the environment.
- Identify the limits of the command's area of operations.
- Establish the limits of the area of influence and the area of interest.
- Evaluate existing databases and identify intelligence gaps.
- Initiate collection of information required to complete IPB.

Identify Significant Characteristics of the Environment

To be able to understand the effects of environmental characteristics on the unit's AO, we must first identify them. Specifically, we will want to look at the following terrain characteristics:

- Hydrological Data.
- Elevation Data.
- Soil Composition.
- Vegetation.

Climate and weather can significantly impact our operations also. While weather data would be the preferred information we would like to have, based on duration of the operation, we may have to suffice with climactic data.

Weather is the day-to-day state of the atmosphere, and its short-term (minutes to weeks) variation. Popularly, weather is thought of as the combination of temperature, humidity, precipitation, cloudiness, visibility, and wind. We talk about the weather in terms of "What will it be like today?", "How hot is it right now?", and "When will that storm hit our section of the country?"

Climate is defined as statistical weather information that describes the variation of weather at a given place for a specified interval. In popular usage, it represents the synthesis of weather; more formally it is the weather of a locality averaged over some period (usually 30 years) plus statistics of weather extremes. **National Snow and Ice Data Center (NSDIC.org)**

The military aspects of weather we need to understand in order to determine the effects on our operations are:

- Visibility.
- Wind.
- Precipitation.
- Could cover / ceiling.
- Temperature.
- Humidity.
- Atmospheric pressure (as required.)

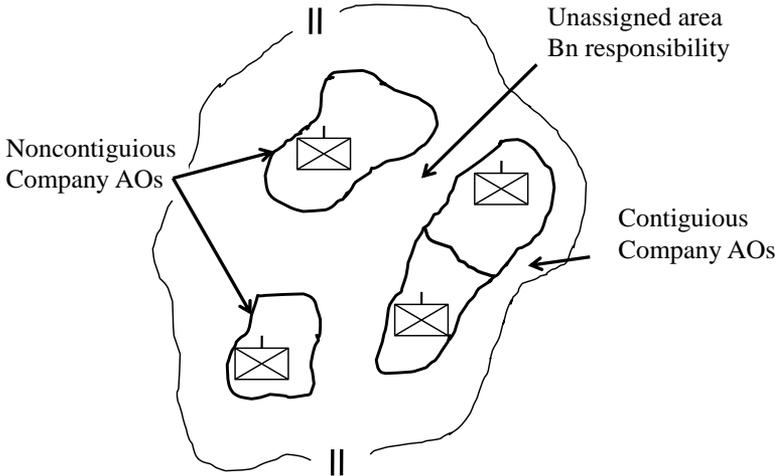
Identify the Limits of the Command's Area of Operations

The **Area of Operations (AO)** is defined as an operational area defined by the joint force commander for land and naval forces. Areas of operations do not typically encompass the entire operational area of the joint force commander, but should be large enough for component commanders to accomplish their missions and protect their forces. **FM 1-02**

The AO is defined by boundaries set by HHQ. The area of operations can be:

- Contiguous - two or more AOs sharing common boundaries.
- Noncontiguous - not sharing a common boundary with another element.
- Unassigned - responsibility of the HHQ.

Example of an Area of Operations



Establish the Limits of the Area of Influence and the Area of Interest

Area of Influence - A geographical area wherein a commander is directly capable of influencing operations by maneuver or fire support systems normally under the commander's command and control. **FM 2-01.3**

This includes areas both inside and outside the commander's Area of Operations and is determined by both the S-2 and the S-3. Key here is the capability to influence outside the commander's AO through the use of fire support systems.

Area of Interest (AOI) - That area of concern to the commander, including the area of influence, areas adjacent thereto, and extending into threat territory to the objectives of current or planned operations. This area also includes areas occupied by threat forces that could jeopardize the accomplishment of the mission. **FM 2-01.3**

The AOI is established by the commander with input from the S-2 and S-3 and must include consideration of the elements of METT-TC. This area is generally larger than the area of influence and may require more intelligence

assets to monitor. The development of the AOI must be done early on during Mission Analysis rather than a side note and a slide during the Mission Analysis briefing. The AOI is an area that could potentially have an impact on the unit's mission. Because of this, the Operational Environment for that area (especially that area outside the AO) must be understood. If the AOI is not identified early, there will be little to no analysis done on it.

Evaluate Existing Databases and Identify Intelligence Gaps

At each echelon, staff sections and WFF elements must identify specific gaps in information. There is no section that this is truer than the Intelligence WFF. Prior to sending RFIs to higher or lateral HQ or sending out ISR assets to answer critical information shortages, the analyst should examine national, multinational, joint and higher headquarters databases to determine if the information already exists. Where information does not exist indicates a "gap" which must be filled. Identifying these gaps early allows the analyst to:

- Identify and prioritize them based on commander's intelligence requirements.
- Identify those which cannot be filled within the time allowed for IPB.
- Discuss the gaps not expected to be filled and generate reasonable assumptions to fill them to allow for continued planning.

Initiate Collection of Information Required to Complete IPB

If the information required is not available from existing databases, the S-2 must initiate collection or send up Requests for Information. This collection is not limited to collection against threat forces but must be done for all aspects of the Operational Environment (weather, terrain, people). If assumptions must be made, based on lack of information, the commander must be notified. This must be done early in the process for if the commander denies any of the assumptions, any evaluations or decisions made based on these assumptions must also be reexamined.

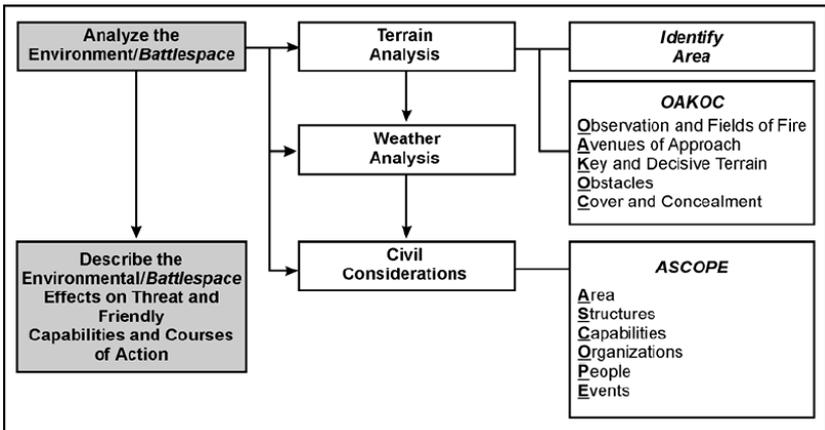
We will never fill all of the gaps. There is a reasonable amount of assumptions that must be made. Once the intelligence gaps are filled either through open source collection, RFIs or use of ISR assets, the S-2 must ensure his databases are updated in order to reduce the number of new requests for information coming in from higher, lower and adjacent units.

Step 2 - Describe Environmental Effects on Operations

In Step 1 of IPB we identified and defined the significant characteristics of the environment. During Step 2 we will describe the effects those characteristics may have on both friendly and threat operations. By understanding the environmental effects, the commander has the ability to choose how he utilizes them to best support mission accomplishment. By ignoring or not fully understanding the effects, the commander misses an opportunity to exploit the opportunities the environment provides. Step 2 of IPB involves the analysis of -

- Terrain.
- Weather.
- Civil considerations.

Describing Environmental Effects



FM 2-01.3

Terrain Analysis

Terrain analysis is the collection, analysis, evaluation, and interpretation of geographic information on the natural and manmade features of the terrain, combined with other relevant factors, to predict the effect of the terrain on military operations. **JP 1-02**

The best terrain analysis will always be based on reconnaissance of the AO and AOI. This method is used when gaps are identified that can't be

answered by a map or imagery analysis. At higher command echelons, terrain analysis personal and geospatial engineers are available who have the capability to create computer generated models of the terrain which include factors such as:

- Cross-country mobility.
- Lines of communication (LOC).
- Vegetation type and distribution.
- Surface drainage and configuration.
- Surface materials.
- Subsurface materials.
- Obstacles.
- Infrastructures.
- Flood zones.

When possible, avail yourself to these tools. Use the RFI process to determine if these databases already exist. When looking at terrain, understand that weather has an impact on the terrain as well. These two areas of analysis must be looked at together to understand the combined effects on friendly and threat operations.

A *wadi* or trench provides a good defilade position during a defensive operation. During light to moderate rains, these terrain features are prone to flash flooding.

In order to make conclusions about the effects of terrain you must -

- Analyze the military aspects of the terrain.
- Evaluate the terrain's effects on military operations.

Military Aspects of Terrain

As stated at the beginning of this section, *FM 2-01.3* changed the mnemonic of OCOKA to OAKOC. The letters still represent the same military aspects of terrain:

- Observation and fields of fire.
- Avenues of approach.
- Key terrain.
- Obstacles.
- Cover and concealment.

Observation and Fields of Fire

Observation is the condition of weather and terrain that permits a force to see friendly, threat, and neutral personnel, systems, and key aspects of the environment. *FM 2-01.3*

Evaluation of observation and fields of fire identifies:

- Potential engagement areas.
- Defensible terrain and specific equipment or equipment positions.
- Areas where friendly forces are most vulnerable to observation and fires.
- Areas of visual dead space.

When we look at observation and fields of fire on the battlefield, we must recognize where variations in terrain elevations limit it. These limitations are known as intervisibility lines (IVL). Sometimes these IV lines are not discernible on a map and ground reconnaissance is necessary to identify them. Intervisibility is the condition of being able to see from one point to the other.

Line of sight (LOS) is an unobstructed path from a Soldier's weapon, weapon sight, electronic sending and receiving antennas, or reconnaissance equipment from one point to another. *FM 2-01.3*

There is a relationship between intervisibility and line of sight. Line of sight is intervisibility between two points (i.e., a straight line). Observation is line of sight applied to one point in relation to all other points. Fields of fire is observation limited to a specific linear distance (weapon range).

Avenues of Approach

An **avenue of approach (AA)** is an air or ground route of an attacking force of a given size leading to its objective or to key terrain in its path. *FM 2-01.3*

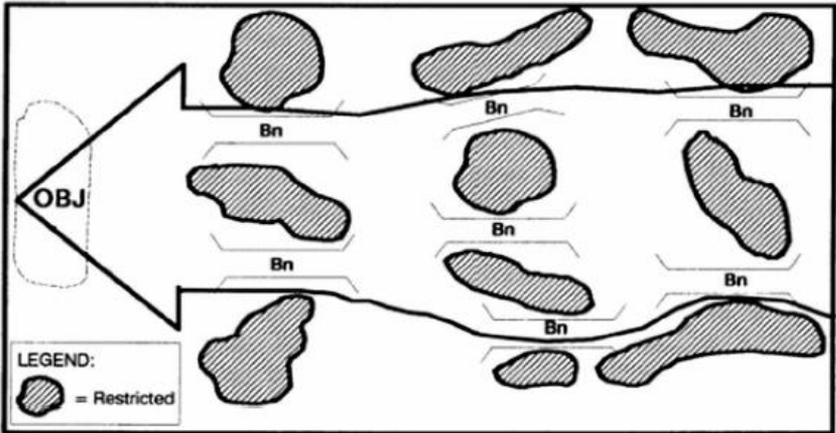
We identified significant characteristics of the environment during Step 1 of IPB. We must use the results obtained during obstacle evaluation to:

- Identify Mobility Corridors.

Mobility Corridor - Areas where a force will be canalized due to terrain restrictions. They allow military forces to capitalize on the principles of mass and speed and are therefore relatively free of obstacles. *FM 2-01.3*

- Categorize mobility corridors (by size or type of force they will accommodate).
- Group Mobility Corridors together to form Avenues of Approach.
- Evaluate Avenues of Approach based on -
 - Access to Key Terrain and adjacent avenues.
 - Degree of canalization and ease of movement.
 - Use of military aspect of terrain in accordance with METT-TC.
 - Sustainability (Line of Communication Support).
 - Access to the objective.

Sample Mobility Corridors Lead to AAs



Key Terrain

Key terrain is any locality or area whose seizure, retention, or control affords a marked advantage to either combatant. *FM 2-01.3*

There are many factors influencing what is or is not key terrain. In an urban area, tall buildings (even two story buildings if they represent the only elevation and provide observation and fields of fire), choke points, intersections, bridges, industrial complexes or other facilities may be included as key terrain. In offensive or defensive operations, key terrain might be that piece of terrain that allows domination over a particular area either through observation or fires. High ground at the NTC might be considered key terrain simply due to the increase capability in line of sight radio retransmission that it offers. **Decisive Terrain** is that terrain whose

seizure and retention is mandatory for successful mission accomplishment. Key terrain is not necessarily decisive terrain. Decisive terrain is designated by the commander to communicate to the staff and subordinate commanders how important the terrain is to the concept of the operation.

Obstacles

An *obstacle* is any obstruction designed or employed to disrupt, fix, turn, or block the movement of an opposing force, and to impose additional losses in personnel, time, and equipment on the opposing force. Obstacles can be natural, manmade, or a combination of both **FM 2-01.3**

There are two products that military analysts use to evaluate and portray obstacles in their areas of operation; The COO or Combined Obstacle Overlay and MCOO or Modified Combined Obstacle Overlay.

Through Template Analysis, planners take the Observation and Fields of Fire, Cover and Concealment, and Obstacle data from the map and build the Combined Obstacle Overlay. From there, analysts perform Maneuver Analysis determining, based on the COO, where the mobility corridors are and where the friendly (or threat forces) can or cannot maneuver and determine the key terrain based on this information rounding out the last two letters (K- Key Terrain and A - Avenues of Approach) of the military aspects of terrain to form the MCOO. The modification in MCOO is based on additional analysis of the map terrain. *Extracted from CALL Newsletter 01-19*

Some examples of obstacles to ground mobility are buildings, mountains, steep slopes, dense forests, rivers, lakes, urban areas, minefields, trenches, certain religious and cultural sites and wire obstacles. Obstacles affect movement differently. A heavily wooded area would cause concern for mechanized forces, but the cover and/or concealment it provides would be a benefit for dismounted elements. Minefields, concertina wire and steep slopes might have a greater effect on dismounted forces than mounted. When evaluating obstacles, some factors to consider are -

- Vegetation (type, tree spacing, trunk diameter).
- Surface drainage.
- Surface materials.
- Surface configuration (elevation, slope).
- Obstacles (natural and manmade).
- Transportation systems (bridge classification and road characteristics).

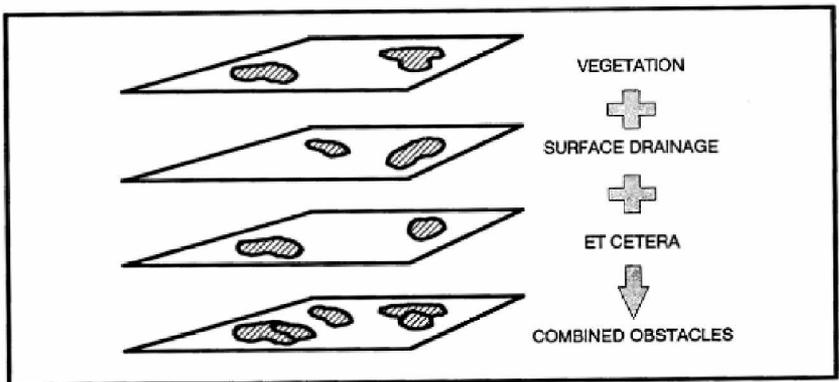
- Effects of actual or projected weather on terrain.

The MCOO, like the rest of IPB is not strictly an S-2 product but requires input from all staff sections. The FSO / FSNCO must do slope analysis to determine where the terrain will allow them to fire artillery systems. The S-4 must determine which bridges are necessary to carry out sustainment operations and determine if they are strong enough to carry his vehicles. The S-6 must do line of sight analysis to determine if there is any FM dead space. The MCOO depicts terrain in three mobility classifications -

- Severely restricted -Severely hinders or slows movement in a combat formation unless some effort is made to enhance mobility.
- Restricted - Hinders movement to some degree. Little effort is needed to enhance mobility.
- Unrestricted - Free of any restriction to movement.

All subordinate staffs should recognize who their parent unit is. A BCT’s focus is on maneuver. There will be little effort made to define obstacles with regards to non-combat related elements. Sustainment, Fires and other “support” functions need to understand that the terrain products they receive from their HHQ **WILL** be incomplete.

Building the MCOO



Cover and Concealment

Cover is protection from the effects of fire. *Concealment* is protection from observation or surveillance. **FM 2-01.3**

Cover can be provided by ditches, caves, river banks, even folds in the ground. Cover does not necessarily go hand in hand with concealment. A bunker provides cover but not concealment. Foliage camouflage might provide concealment but does not provide cover. Cover can be provided by trees, vegetation, tall grass, or cultivated vegetation. Weather conditions such as snow, rain, and fog can also provide concealment.

Evaluate the Effects of Terrain on Military Operations

The commander and staff require the comprehensive intelligence estimate, the “so what” of terrain analysis to make educated decisions. The terrain’s effects are evaluated on both offensive and defensive COAs for both friendly and threat forces. This evaluation identifies potential -

- Engagement areas or ambush sites.
- Battle positions.
- Immediate or intermediate objectives.
- Potential obstacle locations.
- Assembly and dispersal areas.
- Observation posts.
- Artillery firing positions.
- Intelligence / target acquisition system positions.
- Forward area arming and refueling points.
- Infiltration lanes.

Much of this evaluation must be balanced with available time and may have to be delayed until after Mission Analysis.

Weather Analysis

Like terrain, the identification of weather characteristics in our operational area is only half the battle. Here we must take into account what the possible impacts and effects of that weather could be to both friendly and threat forces. Weather teams can provide detailed descriptions of the weather’s effects on each equipment system and subsystem. At BN and BCT level, we rely on the individual subject matter expert from each staff section or WFF to do the weather analysis based on the impact it has on their systems and capabilities.

The primary military aspects of weather to be evaluated are -

- Visibility.
- Wind.

- Precipitation.
- Cloud cover.
- Temperature and humidity.

Visibility

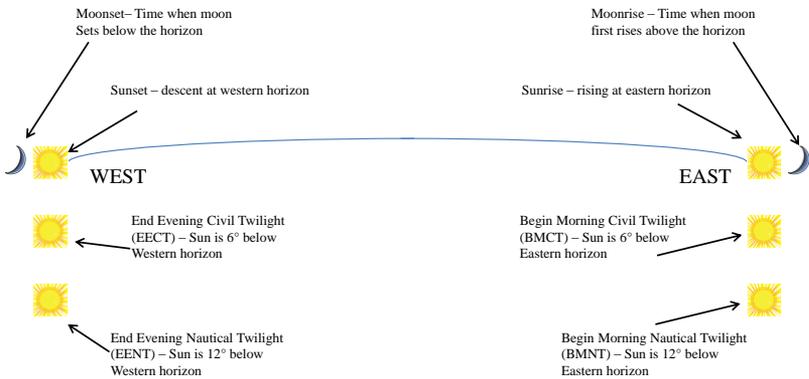
When evaluating visibility, consider the weather and phase of the moon in determining the amount of available light. Understand, percentage illumination is not based on how much light will be available, but rather how much of the moon’s face will be illuminated. Even with 100% illumination, a heavily overcast sky can reduce this to almost no available light.

Phases of the Moon



When considering operations, remember the effects of the horizon on available light. The diagram below depicts the sun at different angles below the horizon.

Angles of the Sun



Wind

Understand not only the effects of the wind, but how they, combined with your terrain may affect your operation. A strong wind by itself may not reduce your capability but coupled with fine sand environment, this creates blowing sand and dust which will impair visibility as well as damage optical sights and create hazards for vehicles and rotary-winged aircraft. It also reduces the capabilities of radar, communications and other electronic devices.

Precipitation

Precipitation affects soil trafficability, visibility and, like wind, certain electro-optical devices. Heavy precipitation will hinder sustainment, as well as personnel, military operations, and civilian activities. Precipitation includes all falling moisture to include rain, hail, snow, drizzle, freezing rain, and sleet.

Cloud Cover

Cloud cover limits illumination and can affect the thermal signature of targets. It may degrade ISR and target acquisition systems as well as general aviation operations. Low cloud cover may increase the available light in an urban area due to reflection while excessive low cloud cover may restrict visibility and limit safe aviation operations.

Temperature

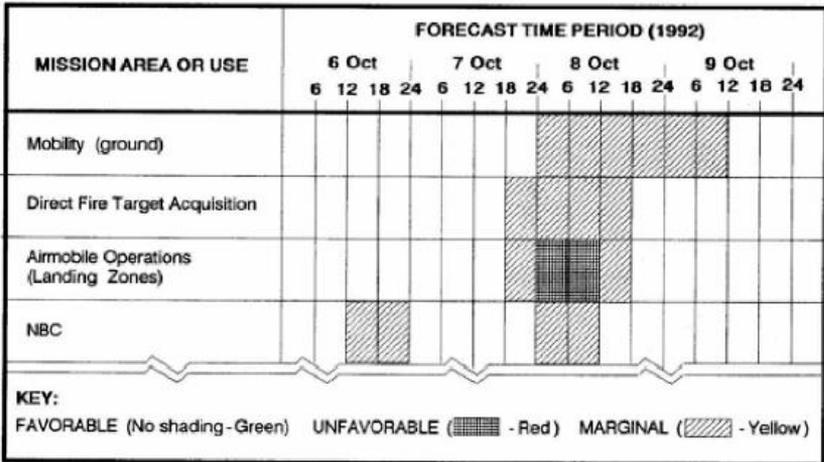
Extreme temperatures limit the capability of personnel and equipment. Based on temperatures, operations may only be able to be conducted at night. Temperature could affect the timing of operations as much as illumination.

Humidity

Some automated sensors will not operate when humidity rises above 90% or below 20%. High humidity limits the body's ability to cool itself off. In tropical areas, humidity can make troops less effective.

Like the effects of terrain, the commander and staff need to understand the impact of these weather considerations. The weather effects table is a good graphical expression of these effects.

Weather Effects Table



Civil Considerations

Nothing has changed as much over the past twenty-six years as the attention we give to Civil Considerations as they pertain to military operations. This helps us to better select our objectives, where we locate, how we move and control our forces, how we use our weapons and how we protect ourselves. There are six characteristics of Civil Considerations and are expressed in the mnemonic ASCOPE:

- Areas.
- Structures.
- Capabilities.
- Organizations.
- People.
- Events.

Areas

These are places within the AO which may or may not be operationally significant. These places must be analyzed to determine the effect on military operations as well as the impact caused by military operations. Examples of key civilian areas include:

- Areas defined by political boundaries.

- Government centers.
- Social, political, religious, or criminal enclaves.
- Agricultural and mining regions.
- Trade routes.
- Possible sites for the temporary resettlement of displaced civilians.

Structures

Many structures play key roles in military operations. Some of these structures are traditional high-payoff targets, such as:

- Bridges.
- Communication towers.
- Power plants.
- Dams.

Other structures are traditionally protected by international law or other agreements, such as:

- Churches.
- Mosques.
- Temples.
- National libraries.
- Hospitals.
- Clinics.

Others might have military use, such as:

- Jails.
- Warehouses.
- Media broadcast facilities to included print plants.

When evaluating structures as part of ASCOPE, ensure you determine:

- Location of police and security personnel facilities.
- Location of essential services:
 - Potable wells.
 - Sewage treatment plants.
 - Refineries.
 - Lines of communication.
 - Phone company facilities.
 - Airports.
 - Highways and major intersections.

- Tribes and clans.
- Cultural shrines.
- Universities, newspaper, television stations, cultural associations, financial and trade centers, seminaries.

Capabilities

Capabilities describe the ability of the local government to provide basic life support functions, such as:

- Public administration (government).
- Public safety.
- Emergency services.
- Food.
- Technology.
- Public works and utilities.
- Public health.
- Economics.
- Commerce.

These capabilities also include resources that can be leveraged to support the military mission such as interpreters, laundry service, construction materials, and equipment.

Organizations

Organizations here refer to non-military groups within the AO. They have the ability to interact and influence the population, the force and each other. They are characterized by an organizational structure, a defined set of goals, established operation procedures, fixed facilities and a means of both financial and logistical support. Some organizations may be indigenous to the area. These may include:

- Religious groups.
- Fraternal organizations.
- Patriotic or service organizations.
- Labor unions.
- Criminal organization.
- Community watch groups.

Some may be from outside the area and may include:

- Multinational corporations.

- International organizations (IGO).
- Other governmental agencies.
- Nongovernmental Organizations (NGO).

Many operations require the coordination with IGOs, NGOs, and other civilian organizations. In most cases, military organizations have better resource capabilities than the local agencies. The local agencies, however, may have specialized capabilities that they might share based on the relationship developed with the military commander.

People

“People” is a broad term meant to cover many aspects of the non-military population. These may include actions, opinions and political influence. An analysis of the people within an area of operations based on capabilities, needs and intentions must be done to understand the operational environment.

An understanding of the language is important to ensure phrase cards, translators and other communication aids can be prepared. In countries that do not use the English alphabet, transliteration of names and key phrases must be used.

Religion is another key consideration in the analysis of the AO. You must:

- Understand the religious traditions and know how and when they might be affected by the mission.
- Know the local religious figures and understand how they influence the population positively or negatively.
- Consider all parties, no matter how exclusive or violent.

The consideration of cultural terms and conditions lets us understand specific behaviors and ways of thought. Broad factors which must be identified are:

- Social structure.
- Behavioral patterns.
- Perceptions.
- Religious beliefs.
- Tribal relationships.
- Behavioral taboos.
- Centers of authority.
- Lifestyles.
- Social history.

We are not conquerors. We are not tasked with changing the way the population acts nor are we the judges. We must understand the behaviors of the population we are tasked to work in. This study requires historical perspective as well as current information analysis.

Events

Events are routine, cyclical, planned, or spontaneous activities that significantly affect organizations, people, and military operations. **FM 2-01.3**

Examples of events include:

- National and religious holidays.
- Agricultural crop or livestock or market cycles.
- Elections.
- Civil disturbances.
- Celebrations.
- Traditional shopping days.

Other events creating civil hardship brought on by a military force might include combat operations, deployments redeployments and paydays. Once these events are identified, they must be templated and operations molded around them to cause the least impact.

Once the impacts of terrain, weather, and civil considerations have been identified and analyzed, a products must be built that addresses the impacts of this analysis. Again, this is a staff effort and coordination among the staff is vital. Not knowing what friendly course of action will be developed, endeavor to evaluate the effects of the environment based on the threat courses of action from the HHQ order. These products will become the Appendix 1 (Intelligence Estimate) to the Annex B (Intelligence) of your operations order.

Step 3 - Evaluate the Threat

During this step, the staff will attempt to portray how this particular threat normally executes operations, how they have executed in the past and, based on the current situation and their status, what they are capable of doing.

Based on how well known a threat is, historical databases might exist to help the S-2 create threat models. When faced with a new or relatively unknown

threat, he may need to develop his own database and threat models at the same time. In order to do this, the S-2 should conduct threat characteristic analysis for each group he identified during Step 1. This should be done based on the following factors:

- Composition.
- Disposition.
- Tactics.
- Training.
- Logistics.
- Operational Effectiveness.
- Communications.
- Intelligence.
- Recruitment.
- Support:
 - Local.
 - Regional.
 - National.
 - International.
 - Popular.
- Finance.
- Reach.
- National Agency Leverage.
- Law enforcement agency impact.
- IGO / NGO organizations.
- Personality.

Update or Create Threat Models

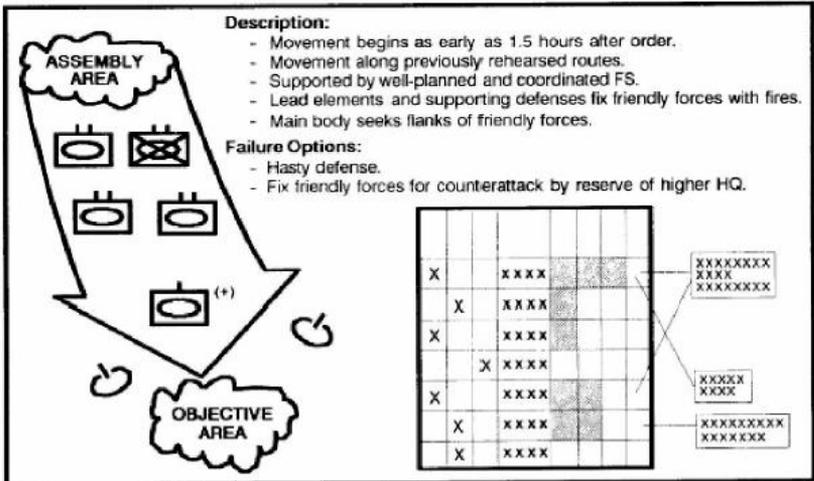
Threat models consist of three parts:

- Convert threat doctrine or patterns of operations to graphics.
- Describe the threat's tactics and options.
- Identify high-value targets (HVT) and high-payoff targets (HPT).

Converting threat doctrine to graphics results in a threat model (previously doctrinal template)

This describes graphically how the threat generally arrays itself to fight. This does not take into account effects of weather or terrain.

Sample Threat Model



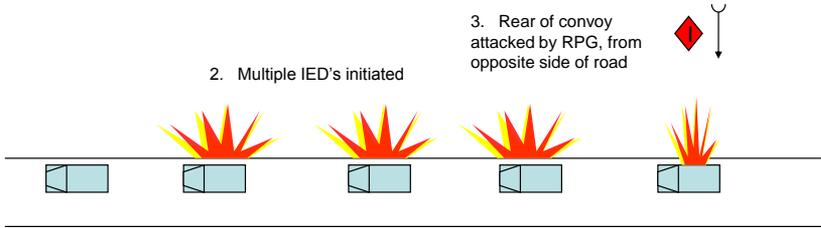
Describe the Threat’s Tactics and Options

Even if the threat’s tactics are depicted in the graphic, a description is still needed. The description:

- List the options available to the threat should his operation succeed or fail.
- Prevents the threat model from becoming more than a “snapshot in time.”
- Aids in mentally wargaming the operation for its full duration and during the development of threat COAs and situation templates (SITTEMP).
- Addresses typical time lines and phases of threat operation as well as where and how units will transition from one form of maneuver to the next.

Sample Description of Threat Tactics

Convoy Ambush – Gun Fire Initiation



1. Gun team initiate ambush bringing front vehicle to a halt

Previous multiple IED ambushes have exploited the spacing disciplines of military convoys. The ambush is initiated by a gun team, bringing the convoy to a halt. The insurgents draw the fire to their side of the road, then a second team initiates the IED/IED's. There have also been cases where the 'tail' vehicle has been attacked by RPG.

Identification of Threat High-Value and High-Payoff Targets

High-value and high-payoff targets are discussed in detail in the section on targeting in this guide. HVTs should be identified through existing intelligence studies, evaluations of existing databases, patrol debriefs, and SALUTE reports. You must also determine how their loss would hinder the threat commander’s execution of his mission.

Identify Threat Capabilities

Threat capabilities are described in broad categories using narrative statements or graphics. They can be statements such as “*The threat can establish a prepared defense by _____*” or “*Terrorists can perform multiple car bombings simultaneously.*” Threat capabilities can also include support to COAs or specific types of operations such as -

- Use of CBRNE weapons.
- Intelligence collection.
- Electronic warfare.
- Use of air assets.

- Engineering operations.
- Air assault operations.
- Amphibious operations.
- Propaganda.
- Car bombings, bomb scares and suicide bombers.
- Chemical theft related to drug or explosive manufacturing.

While you must start with a full set of threat capabilities, a thorough evaluation of the threat's strength may cause you to determine that he doesn't have the necessary force to conduct all of these operations. Ensure, when determining threat capabilities, you do not limit yourself to the threat's conventional forces. Non-conventional and affiliated forces may have additional capabilities that must be factored in. Also, do not overstate their capabilities. Have the S-3 look over your shoulder time to time and ensure they are realistic. Cultural awareness is an important factor to consider and may identify groups that may be friendly, threat or somewhere in-between.

Step 4 - Determine Threat Courses of Action

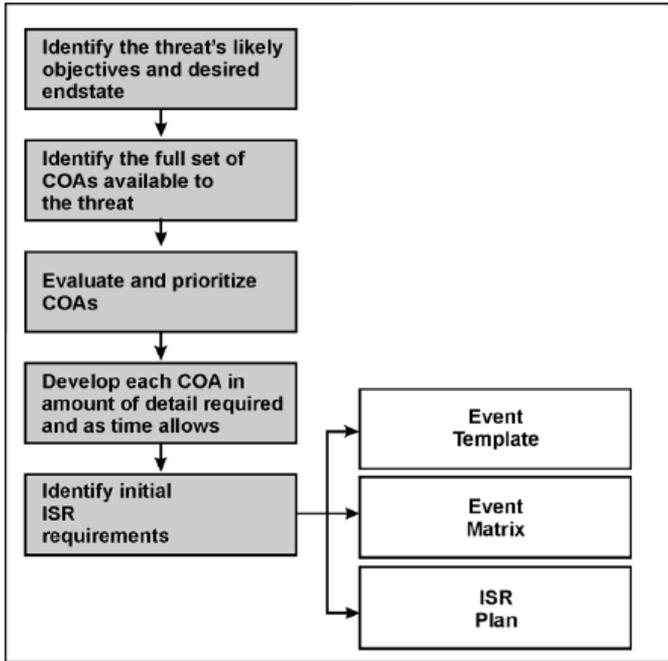
A detailed analysis during the first three steps in IPB will enable the staff to:

- Replicate a set of COAs that the threat is considering.
- Identify all COAs that will influence the friendly mission.
- Identify the areas and activities that, when collected, will indicate which COA the threat has chosen.

The staff will use the threat COAs along with other facts and assumptions to drive COA Analysis and influence friendly COA Development and refinement.

There are five sub-steps to determining threat COAs:

Determining Threat COAs



Identify the Threat's Likely Objectives and Desired End State

In order to accomplish this task, a thorough understanding of the threat is required. With conventional forces in an offensive or defensive operation, the end state and objectives are generally understood and can be derived through examination of the HHQ threat COA. In an asymmetric environment, this may be difficult because the different participants might be pushing toward the same goal but with different intermediate objectives. Ongoing evaluation of propaganda, graffiti, and other signs and indicators may help in determining the actors and aligning them with their desired end states.

Identify the Full Set of Courses of Action Available to the Threat

To ensure the full set of threat COAs has been identified, the staff must consider:

- That the COAs are appropriate to the accomplishment of the threat's likely objectives.
- How the threat could influence the friendly mission.
- That the threat's doctrine and tactics could change based on our reaction to them. The larger the element, the harder to change doctrinal practices. For a small unit such as a terrorist cell or individual, this is relatively easy.
- The threat's recent activities. A thorough understanding of "why" the threat performed in a specific was is imperative to ensure you are not surprised by a change of threat doctrine or tactics.

Like our doctrine, they must pass something like a "FADS-C" test. Threat COAs must be:

- Feasible.
- Acceptable.
- Distinguishable.
- Suitable.

The threat, like us, is not going to develop a COA that will lead to failure but will endeavor to create COAs that lead to success with minimal casualties. Ensure you look back to other environmental consideration when determining threat COAs.

When determining threat COAs, consider:

- The threat's desired end state.
- Likely attack and counterattack objectives.
- Effects of the operational environment.
- Threat's vulnerabilities in both personnel and sustainment.
- Location of main and supporting efforts.
- Current disposition of forces, groups, cells.
- Threat perception of friendly forces.
- Threat's efforts to present an ambiguous situation or achieve surprise.

While determining doctrinal requirements for each threat COA, remember, they may look at how they mass combat power differently than we do. Their doctrine has the ability to change quickly, based on our previous reactions to it. Threat forces within the COE are smart, very adaptable, and resourceful. Do not come up with a single threat COA. While a time saver, this does not give the staff adequate threat capabilities and situations with which to wargame.

Ensure the staff looks at IPB from both friendly and threat perspectives. This means how the threat views the battlefield based on how we are arrayed and our capabilities. This is not the job for the S-2, but for the entire staff and should be a required product during Mission Analysis.

Evaluate and Prioritize Each Course of Action

The commander and staff must prioritize each threat COA based on the likelihood that it will be adopted. This initial priority allows the staff to plan for friendly COAs. There may be cause, as planning continues, to reorder the list based on intelligence gathering or threat's perception of friendly force array. To analyze the threat COAs, consider the following:

- Each COA's strengths, weaknesses, decision points, and potential centers of gravity.
- How well each COA meets the FADS-C criteria.
- How each threat COA makes use of the operational environment and does the OE encourage or discourage a particular threat COA.
- Recent activity and indicators that a particular COA has already been adopted.

Many times, the threat COAs created are refinements of HHQ threat COAs. The staff does not have the luxury of creating their own threat COA to wargame against as HHQ has developed their plan based on the Threat COAs they have adopted.

Develop Each Course of Action

Once the prioritized list of threat COAs has been identified, they must be developed in as much detail as the situation requires and time permits. Each COA should answer six basic questions:

- **Who** is the threat?
- **What** is the type of operation?
- **When** is the earliest **time** the action will begin?
- **Where** are the objectives in our AO?
- **How** will the threat employ its assets?
- **Why** is the threat doing what it is doing? What is the objective or end state?

The threat COA is made up of three parts:

- Situation Templates.

- Threat COAs and Options.
- High-Value Target List.

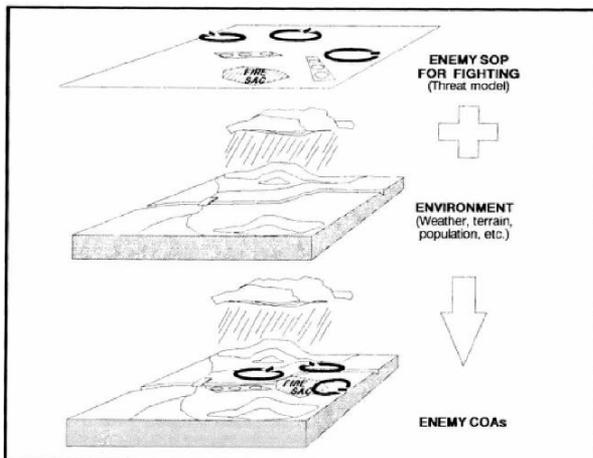
Situation Templates

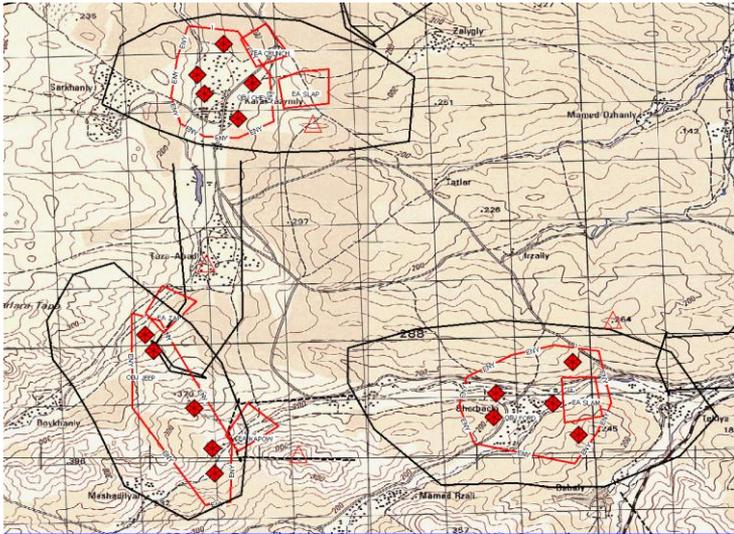
Situation Template - A depiction of assumed threat dispositions, based on threat doctrine and the effects of the environment if the threat should adopt a particular course of action. In effect, situation templates are the threat models depicting a particular operation modified to account for the effects of the environment and the threat's current situation. **FM 2-01.3**

The Situation Template or SITTEMP is developed based on the threat's current situation, the environment, and threat doctrine or pattern of operations.

Begin with the threat model built in Step 3. Overlay this onto the product you are using to depict the environmental effects (probably the MCOO from Step 2). Use analytical judgment and knowledge of threat TTPs and operations to adjust the disposition. Check to ensure you have accounted for all of the threat's capabilities. Ensure you have identified the main effort or multiple targets. Include as much detail as possible (based on time). Identify the location of HVTs identified. Use the descriptions as a guide to develop your SITTEMP. Mentally wargame the threat's scheme of maneuver. Use the S-3 as a sounding board to ensure your SITTEMP is doctrinally sound.

Development of the SITTEMP



Completed SITTEMP for Company Battle Positions**Threat Courses of Action and Options**

As part of Step 4 a verbal description is created based on the activities depicted on the SITTEMP. It can be done based on time, WFF, or battlefield geometry. It should address time lines and phases and decisions the threat commander might make. Again, the depth of each narrative is based on threat COA priority and time allocated. The following should be addressed during the threat COA narrative:

- Preferred tactics of the threat.
- When and where the commander will make important decisions (ensure these are recorded in the narrative).
- The link between events or activities and time lines or geospatial areas.
- Threat decision criteria.

High-Value Targets (HVT)

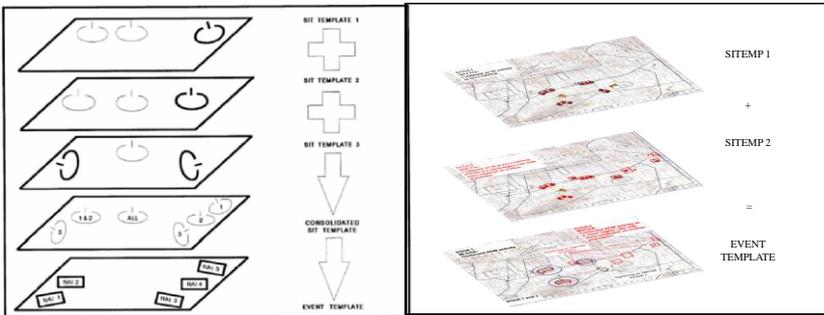
High-Value Targets are discussed in detail in the targeting section of this guide. These must be identified during the development of the threat COAs and brought to the initial targeting to ensure they are properly collected

against. When identifying HVTs, attempt to define where on the map they can be found and when they are expected to be at that location. By narrowing these windows, we can direct our collection assets more effectively. This information becomes the basis for our collection tasks to subordinate units.

Identify Initial ISR Requirements

By laying each of our threat COAs on top of one another, we create the Event Template. This is a tool which guides ISR synchronization and planning. It depicts the NAI where activity or lack of it either confirms or denies threat COAs.

Event Template



Along with the event template, the event matrix puts into words the details of the activity we expect to see in each of our NAIs and the relationship to other events in the AO. When building the Event Matrix -

- Look at the event template and restate the events in the form of indicators.
- Enter the indicators into the matrix where you expect them to occur.
- Use time phase lines or time lines to establish the expected time of the events.
- Refine the matrix during wargaming.
- During the wargame, the S-2 should assist the staff in the preparation of the threat Decision Support Template.
- Ensure, when complete, the event template and matrix form the basis for intelligence synchronization.

Sample Event Matrix

NAI No.	NO EARLIER THAN (HOURS)	NO LATER THAN	INDICATOR
NAI 1	H-7	H-2	Engineer preparation of artillery positions
NAI 1	H-2	H-30min	Artillery occupies firing positions
NAI 1	H-1	H-15min	Artillery commences preparatory fires
NAI 2	H-2	H-1.5	Combat recon patrol conducts route recon
NAI 2	H-1.5	H-30min	Rifle company (+) in march formation

The Abbreviated IPB Process

The IPB Process is time intensive, especially where automated tools are not available. Other factors may also require the use of an abbreviated process, factors such as lack of time, inadequate personnel (both numbers and level of training) and / or equipment, or connectivity constraints. The following are effective techniques to abbreviate the process (Source: *FM 2-01.3*):

- Work ahead (do as much ahead of time as possible):
 - Keep databases updated.
 - Update threat models as intelligence develops.
 - Regularly review base IPB products such as descriptions of the battlefield environment and threat.
 - Be familiar with support available; know how to get it.

TTP ► The primary technique to abbreviate the IPB Process is to develop, in detail, only those threat COAs the commander has specified, usually the most likely and / or most dangerous.

- S-2 manages the process by focusing on essentials:
 - Consider general factors of METT-TC.
 - Backward plan the IPB effort.
 - Develop an IPB time line.
 - Decide on which products to develop and to what degree of detail.
 - Develop all threat COAs to the same level of detail.
 - Work in priority established by commander’s intent and needs.

TTP ► Another technique to abbreviate the IPB Process is to refine HHQ products to make them pertinent to the BN / TF's AO and mission.

- Stay objective oriented:
 - Objective of IPB is to help commander and staff to put together the best possible plan in the time available.

TTP ► The EVENTEMP and event matrix are essential tools to support the finished plan with intelligence. Everything else is only a means to produce these products.

- The minimum essentials:
 - In a pinch, you can get by with a good set of threat COAs, a good EVENTEMP, and an event matrix.
 - To save time and materials, combine all threat COA model templates and the EVENTEMP on a single map overlay ("one-overlay product,") or use cartoons and sketches as a map substitute.
 - If you have not described the battlefield environment's effects, work directly from a map or sketch of major terrain features.
 - Identify the set of threat COAs, then briefly compare them to determine most likely and most dangerous; rank order the rest in order of likely adoption.

TTP ► NEVER take just one threat COA into wargaming! This is an unacceptable technique for abbreviating the IPB Process.

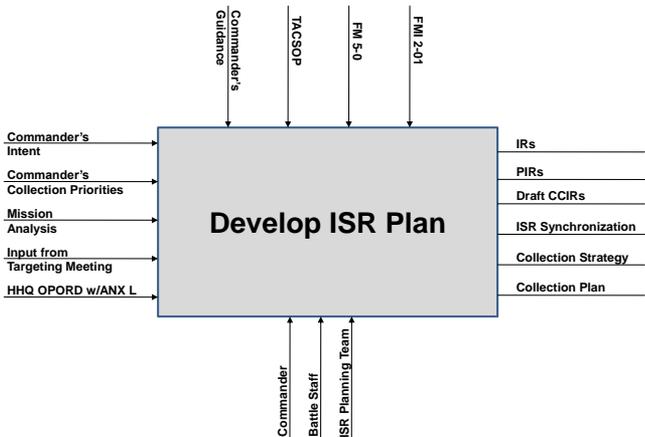
Section 4 - Intelligence, Surveillance, and Reconnaissance (ISR)

General

Intelligence, Surveillance and Reconnaissance (ISR) planning is one of the most difficult tasks the staff must accomplish. It is tied to virtually all aspects of the MDMP and occurs during the planning, preparation, and execution phases of operations. While the emphasis is placed on the S-2, like IPB and targeting, this is a staff function combining intelligence (a staff task) with surveillance and reconnaissance (maneuver tasks).

With the introduction of the new *FM 5-0* in March 2010, a new task step was added to the original 17 in Mission Analysis (“Develop Initial ISR Synchronization Plan”). This step, added to the earlier step of “Develop Initial Intelligence, Surveillance and Reconnaissance Plan,” will serve as the basis of this section and will be tied into the targeting section of this guide.

ISR Plan Graphic



Develop Initial ISR Synchronization Plan

The essential elements of the ISR Synchronization process are:

- Anticipation - Identification by the staff as to when and where to shift collection or identify new intelligence requirements.

- Integration - This integration is based on the intelligence WFF being integrated with the remainder of the staff as well as lateral, higher, and subordinate staffs.
- Prioritization - Prioritization is necessary due to the finite amount of collection resources and the infinite amount of collection requirements.
- Balance - The staff must not be too reliant on a specific ISR asset. Ensure an appropriate mix of collection assets from a mix of intelligence disciplines.
- Control - First, use the assets you control. They are more responsive and this will decrease the reliance on assets from other units.
- Reach - Use reach to answer RFIs without the use of assigned or attached ISR assets but do not depend entirely on reach to satisfy a PIR.

FMI 2-01 states that ISR Synchronization accomplishes the following:

- Analyzes information requirements and intelligence gaps.
- Evaluates available assets (internal and external).
- Determines gaps in the use of those assets.
- Recommends ISR assets controlled by the organization to collect on CCIRs; and submits RFIs for adjacent and higher collection support.

The results of ISR Synchronization conducted during Mission Analysis lead to the initial Intelligence Synchronization Plan. We start by reading the HHQ operation order and determining if there are any intelligence gaps or information requirements (IR).

TTP ► An intelligence gap is a conspicuous disparity in the intelligence information we have and the intelligence information we need to plan, prepare, and successfully accomplish our mission.

Information requirements are any information elements the commander and staff require to successfully conduct operations, that is, all elements necessary to address the factors of METT-TC. **FM 1-02**

Identifying these gaps and IRs occurs during Mission Analysis (leaning forward in the foxhole, an astute reader of the HHQ OPORD might begin as early as Receipt of Mission) and answer questions about the enemy and terrain, contain information required to complete the plan and fight smoothly, and address specific tasks from the HHQ order.

The commander and staff must evaluate the information requirements and determine which of those pieces of information are critical based on the mission, experience, higher commander’s intent, and staff running estimates. These commander’s critical information requirements (CCIR) consist of friendly force information requirements (FFIR) and priority intelligence requirements (PIR) which assist the commander in controlling the flow of information.

Friendly Force Information Requirements (FFIR) are pieces of information the commander and staff need about the forces available for the operation. *FM 1-02*

Priority Intelligence Requirements (PIR) are those intelligence requirements that the commander has an anticipated priority in his task of planning and decision making. *FM 1-02*

After analyzing the information requirements and identifying gaps, we continue by identifying the collection assets directly under our control and those that have been allocated to us (for specific periods of time) from our HHQ. For an infantry BN, we might list our Scout Platoon, Sniper Section, Infantry Companies and our organic IMINT platform, the RAVEN. Based on the HHQ order, we might find we have been allocated collection time with the SHADOW UAS, a section of HUMINT Collection Teams and the PROPHET. This product can be based on specific ISR assets, units or intelligence disciplines. Building a blank time line that includes these assets might look like this:

Initial ISR Synchronization Matrix

	0001-0200	0200-0400	0400-0600	0600-0800	0800-1000	1000-1200	1200-1400	1400-1600	1600-1800	1800-2000	2000-2200	2200-2400
Bn Assets												
Scouts												
Snipers												
Infantry Companies												
RAVEN												
HHQ Assets allocated												
SHADOW												
HCT												
PROPHET												

By filling in the blocks of time with HHQ collection assets we have been allocated, we can start to develop a picture when we can see the battlefield and when we can't. Later, based on developing specific information requirements (SIR) we will fill in these blacked out blocks with the names of the named areas of interest (NAI) that we will task the assets against to include our internal collection assets.

Specific Information Requirements (SIR) describe the information required and may include both the location where, and the time during which, the information can be collected. ***FMI 2-01***

Named Areas of Interest (NAI) - The geographical area where information that will satisfy a specific information requirement can be collected. ***FMI 2-01***

As we continue to build the ISR Synchronization Plan we must ensure we include:

- PIRs and information requirements.
- Indicators.
- Times and dates of the collection mission or RFI.
- LTIOV.

Last Time Information is of Value (LTIOV) - The absolute latest time the information can be used by the commander in making the decision the PIR supports. ***FMI 2-01***

- NAIs.
- Available, assigned, attached, supporting, and higher echelon units and organizations which provide collection assets to be tasked or requested for collection tasks.
- Tasks and RFIs.
- Other information deemed necessary to support the management of the collection effort.

As we gather all this information and begin developing a format to put it into, it begins taking the shape of what will eventually become the ISR Collection Matrix.

Sample ISR Synchronization Plan in Matrix Format

CCI PIR or Intelligence Requirements	SIR			LTIOV	Capable Assets				Reporting	Action Required	Remarks
	Indicators	Indicator Specifics	NAI								
INSTRUCTIONS											
List PIR and IR. Leave enough space to list indicators for each PIR and IR in column 2.	List indicators that will satisfy each PIR and IR.	If necessary, list specific information required to satisfy the indicator. Key requirements to NAI on the event template if possible. These requirements form the basis for order and requests.	Number.	Time may be specific, periodic, or as obtained.	Place an "X" under each agency that can collect the required information. Circle the "X" when an agency has been selected and tasked.	Include established communications; for example, multichannel, FM, SINGARS, or state "by SOP." Include means of reporting; for example, via spot report format. Report precedence: Example: Flash, immediate	Examples: - Retasking of assets - Execution of branch or sequel - Call for fire orders - Information S2 for decision - Report in INTSUM				

FMI 2-01

Once all this information has been compiled into the Intelligence Synchronization Plan (Step 9 of Mission Analysis), the staff can continue with the next step; Develop the Initial ISR Plan.

Building the Collection Plan

Developing a Battalion Collection Plan takes the information we gathered in "Developing the Initial ISR Synchronization Plan," adds IRs and collection tasks we developed during our targeting meeting, and builds a synchronized way to use our available assets to develop answers to the questions the staff and commander have asked. It is a sequential process as follows:

- Determine IRs.
- Prioritize IRs into CCIR, RFIs and intelligence requirements.
- Selecting CCIR, RFIs and intelligence requirements.
- Developing a collection strategy.
- Consider available ISR assets.
- Develop the plan.

IRs are determined by the commander and staff during Receipt of Mission and Mission Analysis as the staff begins to understand the HHQ order and identifies gaps in information. These questions may answer questions about the enemy or terrain (including human) and contain other information

required to complete the plan and fight smoothly. These IR may result in specific RFIs for some specific information. Some of this information might serve to confirm or deny enemy SITTEMPS.

Situation Templates (SITTEMP) - A depiction of assumed adversary dispositions, based on adversary doctrine and the effects of the Area of Operations if the adversary should adopt a particular COA. In effect, the situation templates are the doctrinal templates depicting a particular operation modified to account for the effects of the Area of Operation environment and the adversary's current situation (training and experience levels, logistic status, losses, dispositions). ***FM 1-02***

IRs can be answered in three ways:

- Through research of open sources.
- Through the RFI process.
- Through the ISR process.

So before we start sending our precious ISR assets out, ensure the answer is not already there. The last thing we want to do is send questions to our HHQ asking them to answer questions they have tasked us to answer.

We must determine how important the IRs are, where we are in the battle, how much collection time we have, and understand both the assets we have and have been given priority (from HHQ) for collection, as well as understanding their capabilities.

Once we prioritize our IR, we must develop PIR to support the question that need to be answered. PIR:

- Are derived from the original list of IR.
- Support a single tactical decision (maneuver / fires).
- Ask only one question each.

Example of Bad PIR

What is the status of insurgents and explosives in the hotel on Ali Baba Drive? (This asks two specific questions that should be two, specific PIR).

- Focus on a specific activity fact or event.
- Are linked to NAI (a place), a time, and a latest time information is of value (LTIOV).
- Address post-Mission Analysis of commander's guidance.

Battle Command Training Center - Leavenworth (BCTC-Lvn)

- Should be listed in descending order of importance (to ensure collection assets are tasked according to PIR priority).
- Are focused and specific.
- Are directly related to friendly decisions to be executed during the COA.

A common misconception is that all HHQ PIR automatically become subordinate command's PIR. Another misconception is that if I am tasked with collecting on a HHQ PIR, it becomes my PIR.

CCIR are specified by the commander for each operation and are applicable only to the commander who specifies them. **FM 5-0**

So, some HHQ PIR may morph into subordinate command's PIR based on the commander deeming that they are important to his mission . . . but if you are tasked with collecting on a PIR and it is not a priority to the commander, it is merely a task to subordinate unit and a collection requirement that must be built into the unit's ISR Plan.

While developing an ISR Plan, we must make considerations for:

- Cueing - The use of one or more systems to provide data that directs collection by other systems. **FM 2-0**
- Redundancy - The use of several same type ISR assets to cover the same NAI. **FM 2-0**
- Mix - Planning for complementary coverage by combining assets from multiple units and intelligence disciplines (signals intelligence (SIGINT), imagery intelligence (IMINT), measurement and signature intelligence (MASINT), electronic intelligence (ELINT)) designed to increase the probability of collection success. **FM 2-0**
- Integration - Task of assigning and controlling a unit's ISR assets (in terms of space, time, and purpose) to collect and report information as a concerted and integrated portion of operation plans and orders. **FM 2-0**

We must also look at our collection assets and ensure we are not doing it through jaundiced eyes. We must consider the asset's:

- Availability - What are the collectors and processors available to the unit?

- Capability - What are the range, day and night effectiveness, technical characteristics, reporting timeliness, geo-location accuracy, and durability of the collection assets available?
- Vulnerability - How vulnerable are the assets to threat forces both during collection times and during ingress / egress operations?
- Performance History - Which ISR asset has the collection manager historically relied on to meet the commander's intelligence requirements?

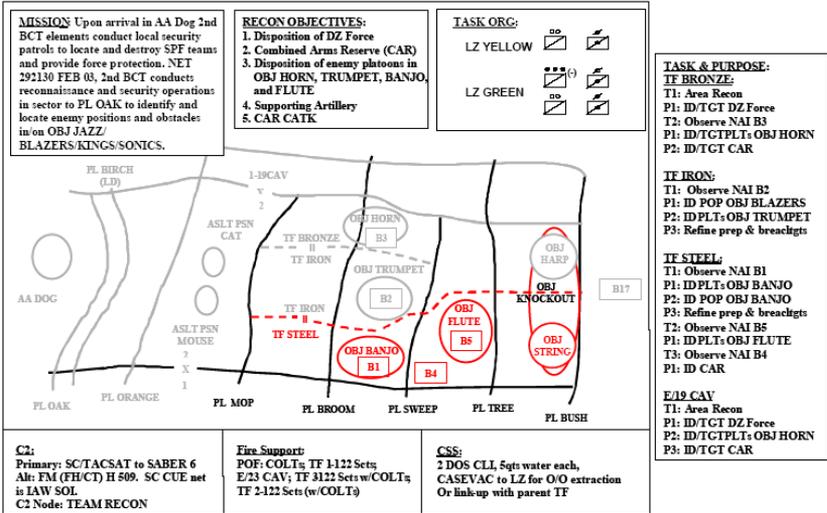
The final plan ingredients include:

- ISR assets (e.g. Scout PLT, Sniper Section, intelligence assets, maneuver elements, FISTs, COLTs, radar, RAVEN, and other assets).
- Commander's ISR guidance:
 - Focus - What types of information is the commander most concerned with (CCIR, targeting, voids in information).
 - Tempo - Establishes the degree of completeness, covertness, and potential for engagement the commander is willing to accept based on collection tasks to be accomplished compare to allocated time for collection.
 - Engagement Criteria - Establishes what size enemy force he expects his reconnaissance assets to engage.
- Event or time frame to answer IR.

The following diagrams provide samples of the ISR concept sketches for a BCT and subordinate BN / TF:

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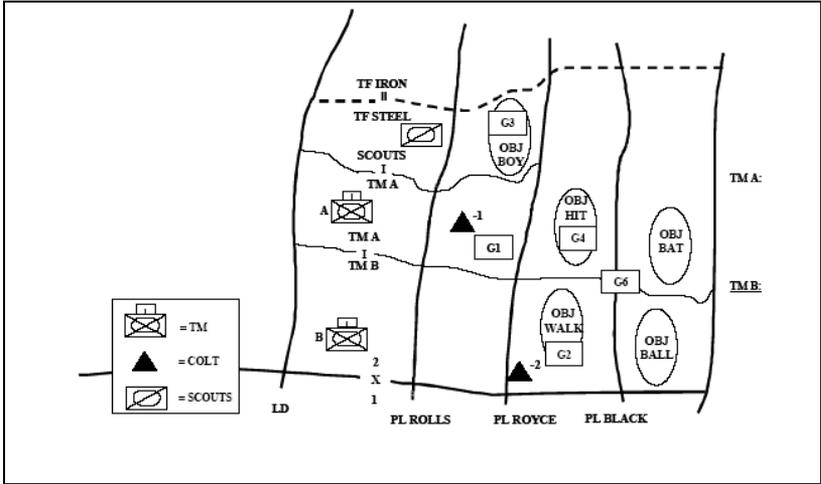
Sample ISR Concept Sketch (BDE)



The BN's ISR concept is to conduct reconnaissance and surveillance operations in sector to PL BLACK in order to locate enemy positions and obstacles in VIC OBJs BOY / HIT / WALK.

Reconnaissance objectives are to determine disposition of enemy forces, designated objectives, and support targeting for artillery. The BN's ISR focus is (in order): (1) TM A (NAIs G1, G4, G6, forces VIC PL ROYCE, TGT OBJ HIT), (2) TM B (NAIs G2, G6, forces VIC PL ROYCE, TGT OBJ Walk), and (3) Scouts (NAIs G3, G4, zone recon, TGT OBJ BOY).

Sample ISR Concept Sketch (TF STEEL)



All of this planning does not occur in a vacuum. The S-2 doesn't just sit down, figure out a few good gaps, develop some good sounding PIR, and set the scouts out to scouting. ISR, like targeting and IPB, are staff driven products and sometime, during Mission Analysis, the Executive Officer must dedicate some time for a few principals to come together and discuss the ISR Plan and how it will be integrated into the operation and COA Development. Your unit must determine when the initial ISR huddle will take place and who will be the participants. Once you determine this, it should be placed in the PSOP.

Generally, the ISR planning team would include the following members:

- S-2.
- S-3.
- FSO.
- S-4 and/or S-1.
- S-6.
- S-7.
- Scout Platoon Leader (if available).
- Engineer (if Engineer Reconnaissance Teams are to be used).
- Others, as required.

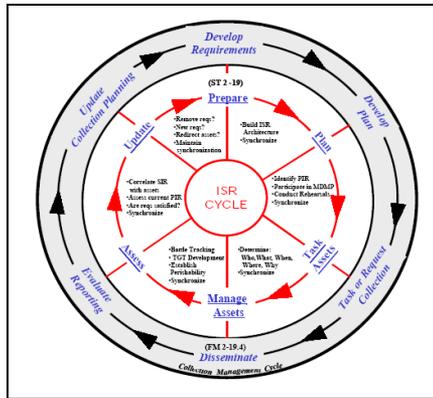
As we look at this list and attempt to balance this against the staff requirements for completing Mission Analysis in an acceptable time, it is easy to understand how often the required / requested personnel might not make it to the ISR huddle. In fact, as much as we state ISR planning is a staff responsibility, it is rarely accomplished that way. Too often the S-2, with occasional help from the S-3, will “nug” out the entire concept and pass it by the S-3 for a sanity check. This tends to lead to loss of synchronization between the collection assets and communications, sustainment, fires, and medical evacuation.

Using an ISR COA checklist might help solve some of those issues and might include:

- Allocation of assets (based on stated priority).
- Determining the sequence to answer the IRs.
- Determine which IRs will not be answered or placed on a waiting list based on troop-to-task analysis between the number of requirements and number of collection assets.
- How will the ISR assets move from the RP to their OPs?
- What integration is needed between the Intelligence WFF and other WFFs?
- Who is in charge of the C2 for the operation?
- How will collection assets be sustained?
- Are there any communication issues which must be addressed?
- How will ISR assets be covered with direct fire and/or indirect fire assets?

The ISR Cycle is continuous. The following graphic is provided as a guide to manage the cycle effectively.

ISR Cycle



When developing the ISR Plan, the following things should be addressed:

- AO for surveillance and reconnaissance assets.
- A Mission Statement (this will be different than the unit’s mission statement for the operation).
- Provisions for communications, logistics, and fire support.
- Task organization.
- Reconnaissance objective or focus.
- CCIR, PIR, IR, and SIR.
- Line of Departure (LD) or Line of Contact (LC) time.
- Initial EVENTEMP, including NAIs and associated HVTs.
- Routes to the reconnaissance AO and passage of lines instructions.
- Fire support coordination and airspace control measures.
- Provisions for medical evacuation.
- LTIOV for each PIR / NAI.

The planning considerations that must be made should include:

- Does the IPB identify the risks (including threat counter-reconnaissance) to the infiltration of ISR assets?
- Does the IPB identify the threat reconnaissance effort?
- How will the S-2 and S-3 track the status of ISR assets in a timely manner and cross-cue ISR assets to improve their chances of success and minimize their loss?
- Are adequate fires and control measures planned to support ISR operations? No fire area (NFA) areas?

- Did the staff (S-4 and/or the HHC commander) plan casualty evacuation and allocate resources to support the reconstitution of ISR assets?
- Did the signal officer plan adequate communications support for ISR operations?
- Did the staff develop an ISR tasking matrix to capture all of the integrated staff planning and requirements?
- Did the staff develop the counter-reconnaissance plan and is its emphasis on identifying threat reconnaissance COAs?
- Did you assign the right assets required to execute your ISR?
- Did you assign the right assets required to execute your security effort?
- Does the ISR Plan enable the commander to see the threat reconnaissance effort and enable him to blind it through counter-reconnaissance?
- Is the ISR Plan and rehearsal in synch with the commander's PIR / IR, IPB, DST, staff synchronization matrix, and ISR synchronization matrix?
- Does the plan address re-tasking?
- Does the plan address dissemination of orders, conduct of rehearsals, and ensure ISR activities in support of the decision making process by ongoing ISR operations?

ISR synchronization planning, as well as ISR planning, are staff functions that require many players and are part of the plan, prepare, and execute phase of operations. They can't be "hand-waved" with the expectation that things will just work out. In order for the commander to get a true visualization of the battlefield, ISR must be well-thought-out, integrated, synchronized, and thoroughly planned. During COA Analysis, special emphasis must be taken to ensure they are not overlooked, as new requirements will arise and assets will have to be tasked and re-tasked to meet mission requirements.

Section 5 - Task Organization

General Considerations

Military units are made up of organic components. Commander's can alter an organization's organic and assigned unit relationships to better allocate assets to subordinate commanders. They can also establish temporary command and support relationships to facilitate command and control. These relationships establish clear responsibilities and authorities between subordinate and supporting units. Knowing the inherent responsibilities of each command and support relationship allows commanders to effectively organize their forces. Commanders consider two organizational principles when task organizing forces:

- Maintain cohesive mission teams.
- Do not exceed subordinates' span of control capabilities.

Command and Support Relationships

The following graphic illustrates the four *command relationships* (attached, operational control (OPCON), tactical control (TACON), and assigned) and the four *support relationships* (direct support (DS), general support (GS), general support reinforcing (GSR), and reinforcing (R)), and the responsibilities inherent in each.

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Command and Support Relationships

If relationship is:	Then inherent responsibilities:																																																																																																										
	Have command relationship with:	May be task organized by: ¹	Unless modified, ADCON have responsibility through:	Are assigned position or AO by:	Provide liaison to:	Establish/maintain communications with:	Have priorities established by:	Can impose on gaining unit further command or support relationship of:																																																																																																			
Organic	All organic forces organized with the HQ	Organic HQ	Army HQ specified in organizing document	Organic HQ	N/A	N/A	Organic HQ	Attached; OPCON; TACON; GS; GSR; R; DS																																																																																																			
Assigned	Combatant command	Gaining HQ	Gaining Army HQ	OPCON chain of command	As required by OPCON	As required by OPCON	ASCC or Service-assigned HQ	As required by OPCON HQ																																																																																																			
Attached	Gaining unit	Gaining unit	Gaining Army HQ	Gaining unit	As required by gaining unit	Unit to which attached	Gaining unit	Attached; OPCON; TACON; GS; GSR; R; DS																																																																																																			
OPCON	Gaining unit	Parent unit and gaining unit; gaining unit may pass OPCON to lower HQ ¹	Parent unit	Gaining unit	As required by gaining unit	As required by gaining unit and parent unit	Gaining unit	OPCON; TACON; GS; GSR; R; DS																																																																																																			
TACON	Gaining unit	Parent unit	Parent unit	Gaining unit	As required by gaining unit	As required by gaining unit and parent unit	Gaining unit	TACON; GS; GSR; R; DS																																																																																																			
<p><i>Note:</i> ¹ In NATO, the gaining unit may not task organize a multinational force. (See TACON.)</p> <table border="0"> <tr> <td>ADCON</td> <td>administrative control</td> <td>HQ</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>AO</td> <td>area of operations</td> <td>N/A</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>ASCC</td> <td>Army Service component command</td> <td>NATO</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>DS</td> <td>direct support</td> <td>OPCON</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>GS</td> <td>general support</td> <td>R</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>GSR</td> <td>general support--reinforcing</td> <td>TACON</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>headquarters not applicable</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>North Atlantic Treaty Organization</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>operational control</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>reinforcing</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>tactical control</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>									ADCON	administrative control	HQ							AO	area of operations	N/A							ASCC	Army Service component command	NATO							DS	direct support	OPCON							GS	general support	R							GSR	general support--reinforcing	TACON									headquarters not applicable									North Atlantic Treaty Organization									operational control									reinforcing									tactical control						
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If relationship is:	Then inherent responsibilities:							
	Have command relationship with:	May be task organized by:	Receive sustainment from:	Are assigned position or an area of operations by:	Provide liaison to:	Establish/maintain communications with:	Have priorities established by:	Can impose on gaining unit further command or support relationship by:
Direct support¹	Parent unit	Parent unit	Parent unit	Supported unit	Supported unit	Parent unit; supported unit	Supported unit	See note ¹
Reinforcing	Parent unit	Parent unit	Parent unit	Reinforced unit	Reinforced unit	Parent unit; reinforced unit	Reinforced unit; then parent unit	Not applicable
General support--reinforcing	Parent unit	Parent unit	Parent unit	Parent unit	Reinforced unit and as required by parent unit	Reinforced unit and as required by parent unit	Parent unit; then reinforced unit	Not applicable
General support	Parent unit	Parent unit	Parent unit	Parent unit	As required by parent unit	As required by parent unit	Parent unit	Not applicable
<p><i>Note:</i> ¹ Commanders of units in direct support may further assign support relationships between their subordinate units and elements of the supported unit after coordination with the supported commander.</p>								

Task Organization Unit Listing Sequence

	Corps	Division	Brigade	Battalion	Company
Movement and Maneuver	Divisions Separate maneuver brigades or battalions Combat aviation brigades or battalions Special operations forces • Ranger • Special forces	Brigade-size ground units • Infantry • Heavy • Stryker • Brigades in numerical order Battalion TF • Named TFs in alphabetical order • Numbered TFs in numerical order Combat aviation brigade	Battalion TFs Battalions • Combined arms • Infantry • Reconnaissance Company teams Companies Air cavalry squadron	Company teams • Named teams in order • Letter designated teams in alphabetical order Companies • Rifle • Mechanized infantry • Armor	Organic platoons Attached platoons
Fires	Fires brigade	Fires brigade	Fires battalion	Mortar platoon	
Intelligence	Battlefield surveillance brigade	Battlefield surveillance brigade	RSTA squadron	Scout platoon	
Protection	MEB Air defense CBRN Engineer Military police EOD	MEB Air defense CBRN Engineer Military police EOD	Air defense CBRN Engineer Military police	Air defense CBRN Engineer	
Sustainment	Sustainment brigade Medical brigade	Sustainment brigade Medical brigade	BSB	FSC	
C2 (Units under C2 of Force Headquarters)	Signal Public affairs Civil affairs PSYOP Space	Signal Public affairs Civil affairs PSYOP Space	Signal Public affairs Civil affairs PSYOP		
BSB C2 CBRN EOD FSC	brigade support battalion command and control chemical, biological, radiological, and nuclear explosive ordnance disposal forward support company		MEB PSYOP RSTA TF	maneuver enhancement brigade psychological operations reconnaissance, surveillance, and target acquisition task force	

Task Organization Formats

Because it is easily recognizable and understood by other Services and multinational forces, task organization is generally represented in an outline format.

The *outline format* lists all units under the HQ to which they are allocated or that they support. Place long or complex task organizations in Annex A of the OPORD or OPLAN. Non-habitual relationships or specific attachments or detachments that are due special attention should also be mentioned in the “Attachments and Detachment” subparagraph g of Paragraph 1 (Situation) of the base OPORD, as well as Paragraph 1 of supporting Annexes, as necessary.

Note: List subordinate units under the C2 headquarters to which they are assigned, attached or in support. Place DS units below the units they support. Indent subordinate and supporting units two spaces. Identify relationships other than attached with parenthesis. Below is a sample Division Task Organization:

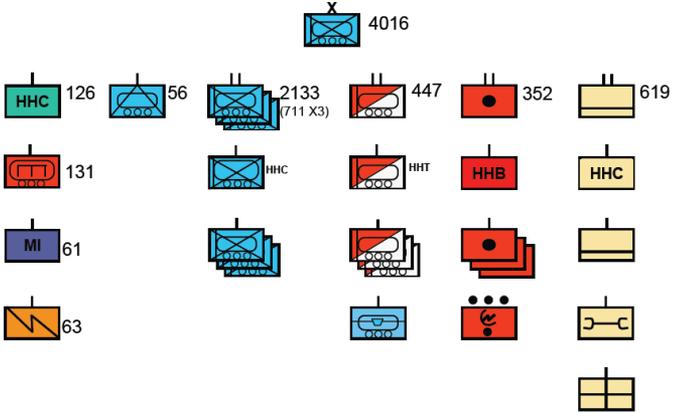
Sample Outline Task Organization (DIV)

<p>2/52 HBCT 1-77 IN (-) 1-30 AR (-) 1-20 CAV A4-52 CAV (ARS) (DS) 2-608 FA (2x6) TACP/52 ASOS (USAF) 521 BSB 2/2/311 QM CO (MA) 1/B/2-52 AV (GSAB) (TACON) 2/577 MED CO (GRD AMB) (attached) 842 FST 2 BSTB 31 EN CO (MRBC) (DS) 63 EOD 2/244 EN CO (RTE CL) (DS) 1/2/1/56 SIG CO (COMCAM) 2D MP PLT RTS TM 1/A/52 BSTB RTS TM 2/A/52 BSTB RTS TM 3/A/52 BSTB RTS TM 4/A/52 BSTB</p> <p>2/54 HBCT 4-77 IN 2-30 AR 3-20 CAV 2/C4-52 CAV (ARS) (DS) 2-607 FA TACP/52 ASOS (USAF) 105 BSB 3/2/311 QM CO (MA) 2/B/2-52 AV (GSAB) (TACON) 843 FST 3/577 MED CO (GRD AMB) 3 BSTB A 388 CA BN 1/244 EN CO (RTE CL) (DS) 763 EOD 1030 TPD 2/2/1/56 SIG CO (COMCAM) 3D MP PLT</p>	<p>116 HBCT (+) 3-116 AR 1-163 IN 2-116 AR 1-148 FA 145 BSB 4/B/2-52 AV (GSAB) (TACON) 4/2/311 QM CO (MA) 4/577 MED CO (GRD AMB) 844 FST 116 BSTB 366 EN CO (SAPPER) (DS) 1/401 EN CO (ESC) (DS) 2/244 EN CO (RTE CL) (DS) 52 EOD 1/301 MP CO 1020 TPD 1/3/1/56 SIG CO (COMCAM) 1/487 CM CO (MX) (S) C/388 CA BN 116 MP PLT</p> <p>87 IBCT 1-80 IN 2-80 IN 3-13 CAV A/3-52 AV (ASLT) (DS) B/1-52 AV (ARB) (DS) C/4-52 CAV (ARS) (-) (DS) 2-638 FA A/3-52 FA (+) TACP/52 ASOS (USAF) Q37 52 FA BDE (GS) 99 BSB 845 FST 1/577 MED CO (GRD AMB) 3/B/2-52 AV (GSAB) (TACON) 1/2/311 QM CO (MA) 87 BSTB 53 EOD 1010 TPD 3/2/1/56 SIG CO (COMCAM) B/420 CA BN 2 HCT/3/B/52 BSTB 745 EN CO (MAC) (DS) 1/1/52 CM CO (R/D) (R) 2/487 CM CO (MX) (S) 1/1102 MP CO (CS) (DS)</p>	<p>52 CAB AASLT HHC/52 CAB 1/B/1-77 IN (DIV QRF) (OPCON) 1-52 AV (ARB) (-) 4-52 CAV (ARS) (-) 3-52 AV (ASLT) (-) 2-52 AV (GSAB) 1 (TUAS)/B/52 BSTB (-) (GS) 2/604 EN CO (HORIZ) (DS)</p> <p>52 FIRES BDE HHB TAB (-) 1-52 FA (MLRS) 3-52 FA (-) (M109AB) 1/604 EN CO (HORIZ) (DS)</p> <p>17 MEB 52 ID 25 CM BN (-) 700 MP BN 7 EN BN 1660 TPD 2/2/1/56 SIG CO (COMCAM) 11 ASOS (USAF)</p> <p>52 SUST BDE 52 BTB 520 CSSB 521 CSSB 10 CSH 168 MMB</p> <p>52 HHB A/1-30 AR (DIV RES) 35 SIG CO (-) (DS) 154 LTF 2/1/56 SIG CO (-) 14 PAD 388 CA BN (-) (DS) 307 TPC</p>
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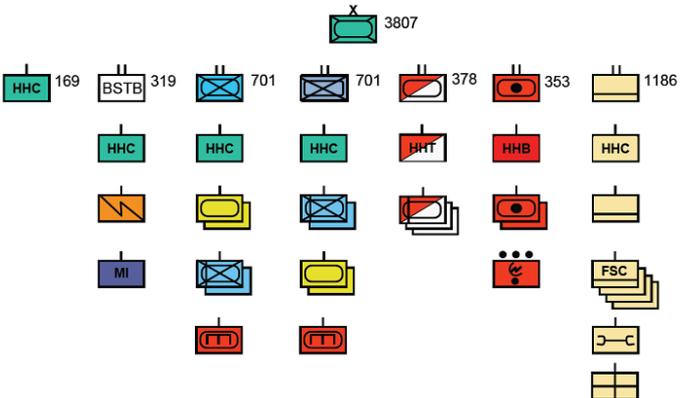
BCT Task Organization

Stryker Brigade Combat Team (SBCT)

Stryker Brigade Combat Team



Heavy Brigade Combat Team (BCT)

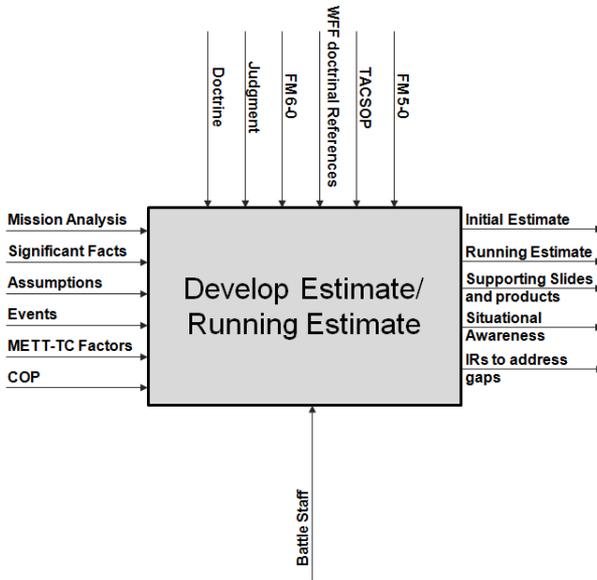


Section 6 - Estimates

General

Estimates are tools to support and advise the commander through the operations process. Estimates generally parallel the MDMP and provide both *information* and *analysis* in a staff section’s WFF, two key responsibilities of the staff officer. Estimates consist of significant facts, events, and conclusions based on analyzed data, and gaps in the estimate are identified as IRs to be submitted to the appropriate agencies as requests for information (RFI). Tactical estimates are generally presented orally, supported by charts and other decision support tools.

Estimate Graphic



Essential Qualities of Estimates

Estimates:

- Consider both quantifiable and intangible aspects of military operations.
- Are as thorough as time and circumstances permit.

- Parallel the MDMP; mission analysis, facts and assumptions, and the analysis of the factors of METT-TC (mission, enemy, terrain, time available, troops available, civilians) furnish the basic structure.
- Translate friendly / threat strengths, weapon systems, training, morale, and leadership into combat capabilities.
- Reflect a clear understanding of the military effects of weather and terrain.
- Provide a timely, accurate evaluation of the unit, the threat, and the AO at a given time.
- Recommend the best use of available assets.
- For current operations often provide a basis for estimates for future operations; they link current operations with future plans and analyze implications for the future.
- Represent a visualization of the AO or crisis situations; they contribute to the commander's ability to visualize, especially the end state of an operation.
- Often form the base for annexes to plans and orders.

TTP ► The common operating picture (COP) (including running estimates) + JUDGMENT = situational understanding (SU)

Types of Estimates

Types of estimates include:

- Running estimate(s) (one for each staff or WFF section / element).
- Operations Estimate.
- Intelligence Estimate.
- Personnel Estimate.
- Sustainment Estimate.
- Civil-military Estimate.
- C4 Estimate.
- Information Engagement Estimate.
- Special staff element / WFF element estimates.
- Other staff element / WFF element estimates, as required.

Running Estimates

The running estimate:

- Is a staff estimate that is *continuously updated* based on the impact of new *facts and assumptions* as the operation proceeds.

- Continuously updates friendly force status, threat activities and capabilities, environment conditions, and civil considerations.
- Includes updated conclusions and recommendations.
- Is a useful tool for *assessing* a situation, especially the items listed above.
- Is maintained by each staff section.
- Is provided, as required by the commander or the situation.
- Provides a basis to determine if the current operation is proceeding according to the commander's intent and if future operations are supportable.

TTP ► The **entire staff** continuously reviews and updates their respective running estimates throughout the MDMP. This becomes the basis for WFF wingboards and contains the essential elements necessary to brief commander and staff during update briefings.

Operations Estimate

The Operations Estimate:

- Is prepared by the S-3 Section.
- Does not form the basis of an order Annex [except Annex C (Operations Overlay)], unlike other estimates.
- Addresses all elements that influence current operations and any feasible future COAs.
- Includes (as a minimum):
 - Commander's intent, one and two levels up (e.g., BDE and DIV).
 - Risk assessment.
 - Task organization, two levels down (e.g., to PLT and special attachments).
 - Unit status and missions, to include locations and capabilities.
 - Availability and capability of joint assets (e.g., air support, Naval gunfire, amphibious, etc.)
 - Other key information (e.g., location, status, and missions of flank and supporting units.)

Intelligence Estimate

The Intelligence Estimate:

- Is prepared by the S-2 Section.
- Is included in order as Appendix 1 to Annex B (*Intelligence*).
- Concentrates on *threat* information.

- Forms basis for staff’s facts and assumptions (MDMP).
- Is developed from IPB products.

Sample Format for the Intelligence Estimate

<i>Paragraph</i>	<i>Title</i>	<i>Paragraph Contents</i>
1	Mission	Restated mission.
2	Area of Operations	From Step 1 and 2, includes sub-paragraphs “effects on Threat COAs” and “effects on friendly COAs.” Describes battlefield’s effects on operations.
3	Threat Situation	From Step 3, includes evaluation of the threat and a discussion of <i>facts</i> and <i>assumptions</i> concerning the threat.
4	Threat Capabilities	From Step 3 and 4, includes list of COAs available to the threat, corresponding to developed COA models.
5	Conclusions	Summary of battlefield’s effects on threat and friendly COAs, prioritized list of probable threat COAs (from most likely), and list of threat’s exploitable vulnerabilities.

TTP ► The S-2 requires input from the entire staff in order to consolidate and prepare the intelligence estimate. The S-2 section is **not** responsible for determining how the threat will sustain itself other than the fact that he knows it must, nor are they responsible for determining how the threat will use its fire support assets even though they know they will. The other staff sections / WFFs have the responsibility to determine how their counterparts will operate and get this information back to the S-2 so he can form a comprehensive estimate that can be used to develop threat COAs to be used in the development and assessment of friendly COAs.

Sample Format of Generic Running Estimate

The *generic running estimate* is governed by tactical standing operating procedures (TACSOP).

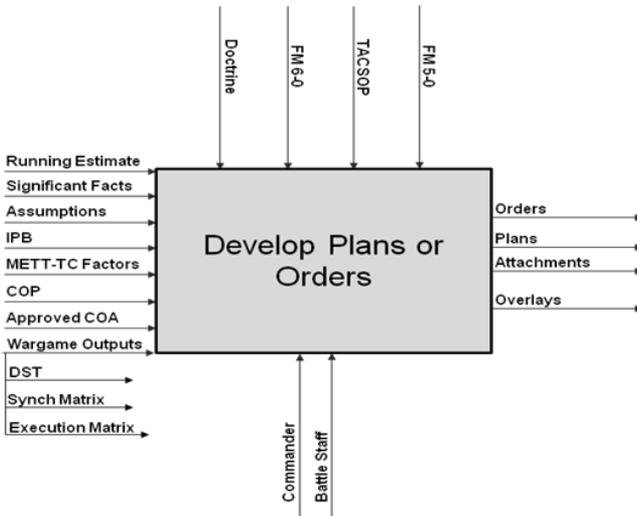
- **SITUATION AND CONSIDERATIONS:**
 - **Area of Interest.** Identify and describe those factors of the area of interest that affect functional area considerations.
 - **Characteristics of the Area of Operations.**
 - *Terrain.* State how terrain affects staff functional area's capabilities.
 - *Weather.* State how weather affects staff functional area's capabilities.
 - *Threat Forces.* Describe threat disposition, composition, strength, and systems within a functional area as well as capabilities and possible COAs with respect to their effects on a functional area.
 - *Friendly Forces.* List current functional area resources in terms of equipment, personnel, and systems. Identify additional resources available for the functional area located at higher, adjacent, or other units. List those capabilities from other military and civilian partners that may be available to provide support within the functional area. Compare requirements to current capabilities and suggest solutions for satisfying discrepancies.
 - *Civil Considerations.* Describe civil considerations that may affect the functional area to include possible support needed by civil authorities from the functional area as well as possible interference from civil aspects.
 - **Assumptions.** List all assumptions that affect the functional area.
- **MISSION.** Show the unit mission resulting from mission analysis.
- **COURSES OF ACTION:**
 - List friendly COAs that were wargamed.
 - List threat actions or COAs that were templated that impact the functional area.
 - List the evaluation criteria identified during COA analysis. All staff use the same criteria.
- **ANALYSIS.** Analyze each COA using the evaluation criteria from COA analysis. Review threat actions that impact the functional area as they relate to COAs. Identify issues, risks, and deficiencies these threat actions may create with respect to the functional area.
- **COMPARISON.** Compare COAs. Rank order COAs for each key consideration. Use a decision matrix to aid the comparison process.
- **RECOMMENDATIONS AND CONCLUSIONS:**
 - Recommend the most supportable COAs from the perspective of the functional area.
 - Prioritize and list issues, deficiencies, and risks and make recommendations on how to mitigate them.

Section 7 - Plans and Orders

General

Plans and orders convey the commander’s visualization, intent and decisions to the staff and to subordinate, supporting, and supported units, and serve to inform adjacent units. Plans and orders focus on the results the commander expects to achieve by providing the “what” and “why,” but allowing subordinates the tactical freedom to accomplish a mission (“how”).

Plans / Orders Graphic



The amount of detail provided depends on several factors:

- Experience and competence of subordinate commanders.
- Cohesion and tactical experience of subordinate units.
- Complexity of the operation.
- Time available to prepare.

TTP ► Be ruthless on the 1/3 - 2/3 Rule of allocating planning time. *BN Commander’s Handbook, USAWC, 1996.*

Characteristics of Plans and Orders

Source: *FM 5-0*, Appendix E:

- Contain critical facts and assumptions (assumptions in OPLANs only).
- Authoritative expression (reflect commander's intent and will).
- Positive expression (stated in the affirmative).
- Avoid qualified directives (no meaningless or unnecessary words).
- Balance (of centralized versus decentralized control).
- Simplicity (KISS).
- Brevity (include only necessary details; not details in the SOP).
- Clarity (easy to read and understand; use clear abbreviations / acronyms).
- Completeness (all detail required for execution and control).
- Coordination (fit together WFF areas and allows direct contact).
- Flexibility (leave room for adjustment; Murphy lives!).
- Timeliness (allows subordinates time to plan).

TTP ► A GOOD plan or order now is better than a PERFECT one delivered too late!

Types of Plans

A plan is a design for a future or anticipated operation. Major types of plans include:

- Campaign Plan.
- Joint Operation Plan:
 - Used when simultaneous or sequential operations exceed the scope of a single major operation.
 - Only developed by joint force commanders.
- OPLAN:
 - Plan for preparation, execution, assessment of military operations.
 - Becomes an OPORD when the commander sets an execution time or designates an event that triggers the operation.
- Supporting Plan:
 - OPLAN prepared by supporting or subordinate commander.
 - Concept Plan.

- Abbreviated format.
 - Requires substantial expansion to convert it into a complete plan or order.
 - Generally used with branches or sequels.
- **Branch:**
 - Plan or COA for changing mission, disposition, orientation, or direction of movement.
 - **Sequel:**
 - For future operations that follow current operation.
 - Anticipate possible outcomes (success, failure, stalemate).

Types of Orders

An order is a written, oral, or signal communication which conveys instructions from a superior to a subordinate. Three basic types of combat orders include:

- **OPORD:**
 - Directive issued by a commander to subordinate commanders.
 - Used for both long term and short term operations.
 - Also called a 5-paragraph field order, which includes (as minimum):
 - Task organization.
 - Situation.
 - Mission.
 - Execution.
 - Administrative and logistic support (sustainment).
 - Command and signal for the specified operation.
 - Always specify execution *date and time*.
- **Warning Order (WARNO):**
 - Preliminary notice of an order or action.
 - Details depend on information and time available.
 - Helps subordinate elements by describing the situation, providing initial planning guidance and directing preparation activities.
- **Fragmentary Order (FRAGO):**
 - Abbreviated form of verbal, written, overlay, or digital order.
 - Same 5-paragraph format as OPORD.

- Address parts of base OPORD that have changed or “no change.”

Techniques for Issuing Orders

- *Written orders* (text and graphics; 5-paragraph format is standard for combat orders, plus graphic overlays).
- *Verbal orders* (usually in a time-constrained environment).
- *Electronic orders* (using matrices and overlays).
- *Overlay orders* (technique to issue order, usually a FRAGO, combines abbreviated instructions in a 5-paragraph format on an overlay).
- Graphics convey information / instructions through military symbols.
- Overlays portray location, size, activity of depicted units.

TTP ▶ Keep tactical orders simple and concise. <i>BN Commander's Handbook, USAWC, 1996.</i>

Administrative Instructions

Detailed instructions are explained in detail in *FM 5-0*, Appendix E. *FM 1-02* addresses abbreviations. Basic administrative instructions include:

- All paragraph *headings*, with / without entries, shown for written orders.
- *Abbreviations* save time and space, but must be clear and consistent.
- Place and directions designations.
- *Naming conventions* are simple and do not reveal identities; IAW standing operating procedures (SOP).
- *Classification markings* (top / bottom of each page and paragraphs).

Note: If the entire plan or order is unclassified, no classification markings are required. *FM 5-0 pg E-5*

- *Unnamed dates and times* (most common conventions listed):
 - C-day (unnamed day deployment commences).
 - D-day (unnamed day operation commences).
 - M-day (unnamed day full mobilization commences).
 - N-day (unnamed day AD unit notified for re- / deployment).
 - R-day (unnamed day re-deployment commences).
 - F-Hour (effective time of mobilization of Reserve units by the SECDEF).
 - H-hour (specific hour on D-day when operation commences).
 - L-hour (specific hour on C-day when deployment commences).
 - C-, D-, and M- days end at 2400 hours, Universal (ZULU) Time.
 - Days / hours prior are indicated with a dash (e.g., C-3).

- Days / hours after are indicated with a plus (e.g., C+3).
- Operational code word precedes time [e.g., “BALD EAGLE (D-day)”].
- *Time* (6-digit date-time group (DTG) includes date, hours, minutes (DDHHMM), expressed in 24-hour clock system, plus Time Zone).
- *Dates* (day-month-year) with dash to separate inclusive dates.
- *Identify pages* with short title heading to include plan designation and issuing HQ.
- *Number pages* of base order and attachments separately:
 - Use Arabic numerals, preceded by alphanumeric designation for attachments, separated by hyphens.
 - Assign (in order): capital letters to annexes, Arabic numerals to appendices, capital letters to tabs, and Arabic numerals to exhibits.

Attachments

Attachments to orders represent an information management tool; they include details not incorporated in the base order. They may use any combination of text, matrix, trace, overlay, map, sketch, plan, graph, or table to convey information. Attachments keep the base order clear and useful. They are listed at the end of the document they expand and specify when a required attachment is omitted. The hierarchy of attachments includes (in order) annexes, appendices, tabs, and exhibits. Avoid going lower.

Orders Annexes

Following is a list of orders annexes. A complete listing, to include annexes, appendices, and tabs, can be found in ***FM 5-0 at Appendix E***. Units may dictate which annexes and appendices they want to accompany their base order and the length of these components. ***FM 5-0, Appendix E***.

- A - Task Organization.
- B - Intelligence.
- C - Operations.
- D - Fires.
- E - Protection.
- F - Sustainment.
- G - Engineer.
- H - Signal.
- I - not used.
- J - Public Affairs.
- K - Civil Affairs Operations.
- L - Intelligence, Surveillance, and Reconnaissance.

M - Assessment.
N - Space Operations.
O - not used.
P - Host-Nation Support.
Q - not used.
R - Reports
S - Special Technical Operations.
T - not used.
U - Inspector General.
V - Interagency Coordination.
W - not used.
X - not used.
Y - not used.
Z - Distribution.

As in all staff processes, the commander, with input from the executive officer and S-3, will determine which annexes will accompany the base OPORD. Generally, if you can reduce the information contained in your annex to a few sentences which describe the requirements for your subordinate elements, they can be included in the base OPORD and an additional annex is not required.

The development of the base OPLAN / OPORD is a continuous process during the MDMP, but becomes the staff's main focus following the wargame. The BN / TF may use a matrix order to expedite the final step of the MDMP. In this case, the order will be neatly hand-written with only the essential information required for company commanders, specialty platoon leaders, and supporting elements to issue their plans.

Operations Matrices and Templates

Matrices and templates are staff tools to support the commander and staff during the MDMP to develop the order. ***FM 5-0, Chapter 5.***

Decision Support Template (DST)

- Created by the staff during MDMP and used during wargaming.
- Graphically represents DPs and projected situations.
- Indicates WHEN / WHERE / under WHAT condition decision is required:
 - Contains Time Phase Lines (TPL) to control movement.
 - Contains NAIs tied to decision points (DP).

- Contains TAIs developed during targeting.
- Contains DPs supported by one or more CCIR.

Decision Support Matrix

- Part of the decision support template (DST):
- Aid to commander and staff to make battlefield decisions:
- Staff product (matrix) of the wargaming process (MDMP) that lists:
 - DPs.
 - Locations of DPs.
 - Criteria to be evaluated at each DP.
 - Actions / operations to occur at each DP.
 - Unit / element that is to act or has responsibility to observe each DP and report information affecting criteria for the decision.

Synchronization Matrix

- Planning tool; not formal part of plans and orders.
- Synchronizes a friendly COA across time, space and purpose in relation to a Threat COA.
- Combined with DST forms a powerful graphic C2 tool to assist in writing OPLAN / OPORD once a COA is selected.

TTP ► Each WFF / section can create their own synchronization matrix to provide more detail on specific tasks.

The synchronization matrix provides an excellent tool for recording the results of wargaming.

Execution Matrix

- Visual and sequential representation of critical tasks and responsible organizations by time.
- Can represent either an *entire force* (e.g., Air Assault Execution Matrix) or a *WFF* (e.g., Fires Execution Matrix).

TTP ► An *execution matrix* can serve as an *annex* to an OPLAN / OPORD. Understand, it does not stand alone due to the lack of synchronization with all WFFs.

Section 8 - Symbols and Graphics

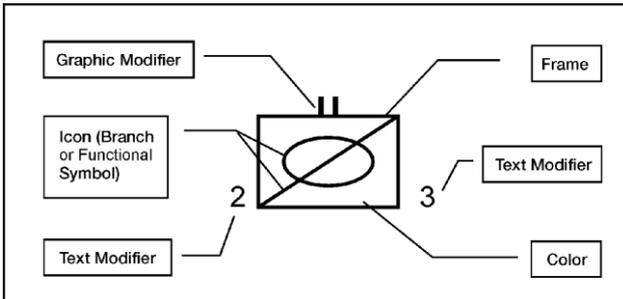
General

This section contains selected graphics, either unit symbols or maneuver graphics, to include decision graphics. The primary reference consulted for this section is *FM 1-02*.

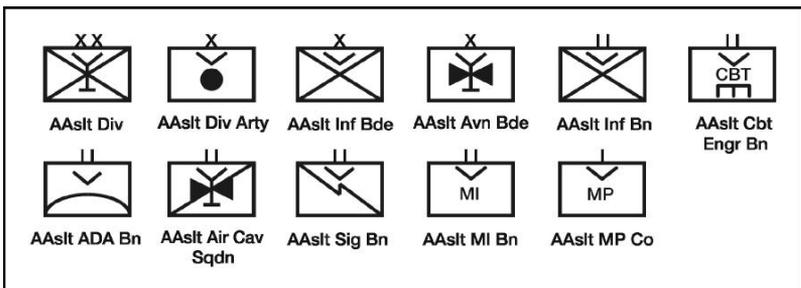
Unit Symbols

This section offers examples of unit symbols that show the logical application of using a symbol or picture, to depict organizations, equipment, and actions. Detailed descriptions can be found in *FM 1-02*. The following shows the common organization, using unit symbols, of typical divisional structures.

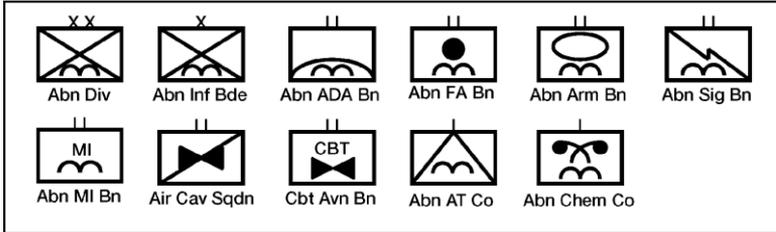
Construction of a Unit Symbol



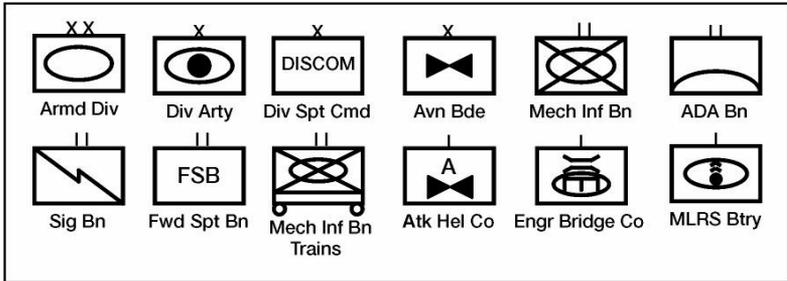
Air Assault Symbols



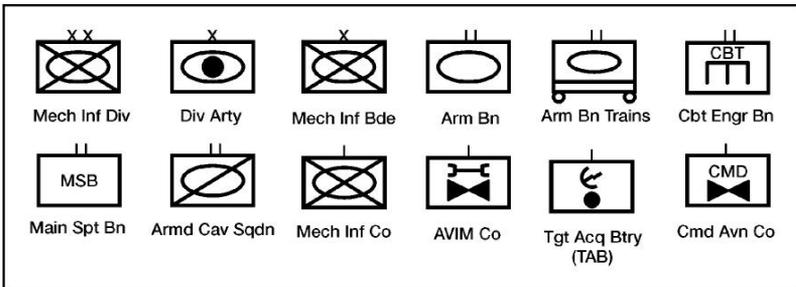
Airborne Symbols



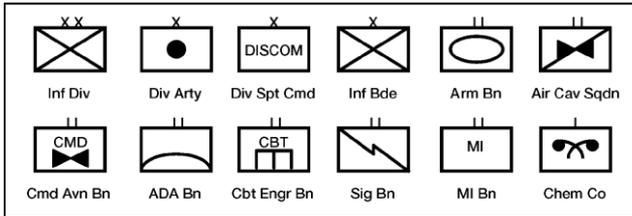
Armor Symbols



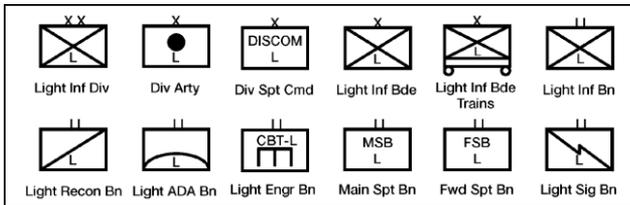
Mechanized Infantry Symbols



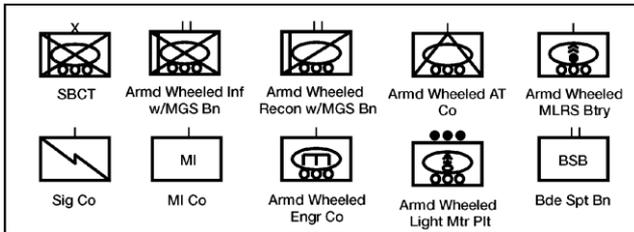
Infantry Symbols



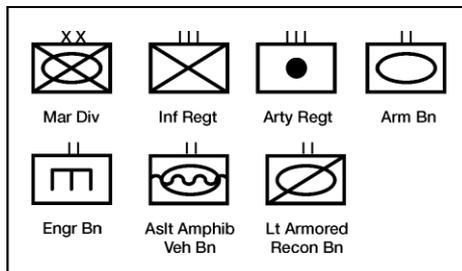
Light Infantry Symbols



Stryker BCT Symbols



Marine Symbols



System and Equipment Symbols

Equipment Types	Friend	Hostile	Neutral	Unknown
<p>Equipment The use of frame shapes is optional for equipment and recommended only for ships, aircraft, and aerial vehicles.</p>				
<p>Weapon System The use of a shaft indicates a weapon system.</p>				
Missile Launchers				
<p>Missile Launcher The use of a dome covering the entire shaft indicates a missile launcher.</p>				
<p>Air Defense (AD) Missile Launcher Surface-to-Air (SAM) The use of a closed radar dome at the base of the shaft indicates the weapon system is primarily for air defense.</p>				
<p>Air Defense Missile Launcher Short Range</p>				
<p>Missile Launcher Antitank (AT) The use of an upside down V at the base of the shaft indicates the weapon system is primarily antitank.</p>				
<p>Antitank Missile Launcher Light</p>				
<p>Antitank Missile Launcher Medium</p>				

System and Equipment Symbols, Continued

Equipment Types	Friend	Hostile	Neutral	Unknown
Multiple Rocket Launcher The double arrowheads at the top of the shaft indicate a rocket launcher. In addition, the use of parallel lines on both sides of the shaft indicates a multiple rocket launcher.				
Multiple Rocket Launcher Light				
Multiple Rocket Launcher Medium				
Multiple Rocket Launcher Heavy				
Antitank Rocket Launcher The use of an upside down V at the base of the shaft indicates the weapon system is primarily antitank.				

System and Equipment Symbols, Continued

Equipment Types	Friend	Hostile	Neutral	Unknown
Antitank Rocket Launcher Light				
				
Antitank Rocket Launcher Medium				
				
Antitank Rocket Launcher Heavy				
				
Automatic Weapons				
Rifle/Automatic Weapon				
				
Rifle/Automatic Weapon Rifle				
				

System and Equipment Symbols, Continued

Equipment Types	Friend	Hostile	Neutral	Unknown
Tank Heavy Recovery				
				
Armored Personnel Carrier				
				
Armored Personnel Carrier Recovery				
				
Armored Combat Service Support (CSS) Vehicle				
				
Armored Fighting Vehicle (Infantry Fighting Vehicle)				
				

Maneuver Graphics

Graphics control measures are directives given by the commander to subordinate commanders to assign responsibilities, coordinate fire and maneuver, and control combat operations. Usually placed on maps and overlays, these graphics represent the commander’s intent for operations. To ensure an accurate alignment of an overlay, it must have at least two reference marks at opposite locations. Colors are also helpful in drawing the control measures:

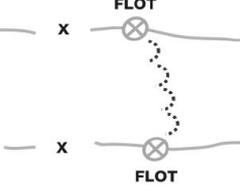
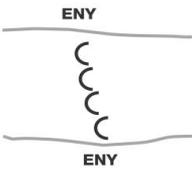
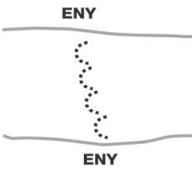
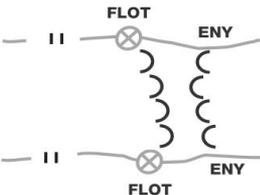
- **Black:** All friendly control measures.
- **Red:** All hostile control measures and forces. If the actual color red is unavailable, use black, but mark the graphic with the abbreviation “ENY” in at least two locations on the graphic.
- **Green:** If available, for all neutral control measures. If unavailable, use black, but mark the graphic with the abbreviation “NEU” in at least two locations on the graphic.
- **Yellow:** If available, for all unknown control measures. If unavailable, use black, but mark the graphic with the abbreviation “UNK” in at least two locations on the graphic.

The following graphics are not intended to be all inclusive, but are provided as examples.

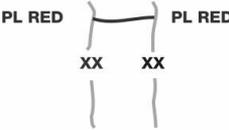
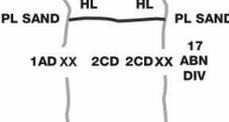
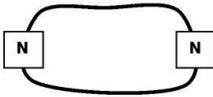
Maneuver Graphics and Control Measures

Control Measure	Graphic	Example
Forward Boundaries		
Rear Boundaries (See page 1-157 for definition.)		
Lines		
Forward Line of Own Troops (FLOT): (See page 1-85 for definition.) Friendly Present		

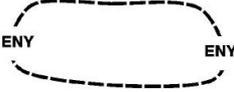
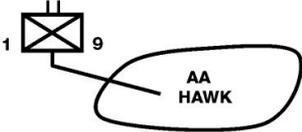
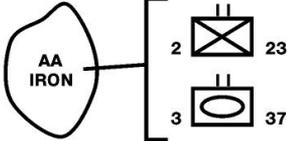
Maneuver Graphics and Control Measures, Continued

Control Measure	Graphic	Example
Forward Line of Own Troops (FLOT) Friendly Planned or On Order		
Forward Line of Own Troops (FLOT) Enemy Known or Confirmed		
Forward Line of Own Troops (FLOT) Enemy Suspected		
Line of Contact (LC).		

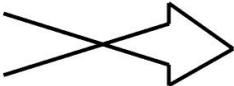
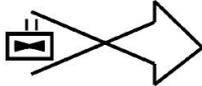
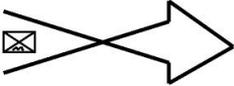
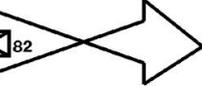
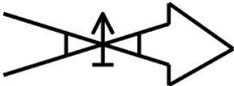
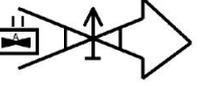
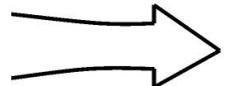
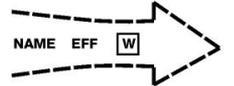
Maneuver Graphics and Control Measures, Continued

Control Measure	Graphic	Example
Phase Line (PL). (See page 1-145 for definition.)	PL (NAME) — PL (NAME)	
Handover Line.		
Areas		
Friendly Area		
Friendly Planned or On Order Area		
Enemy Known or Confirmed Area		

Maneuver Graphics and Control Measures, Continued

Control Measure	Graphic	Example
Enemy Suspected Area		
Assembly Area (AA).		
Occupied Assembly Area (AA)		
Assembly Area (AA) Occupied by Multiple Units		
Proposed or On Order Assembly Area (AA)		
Forward Assembly Area (FAA)		

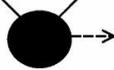
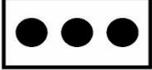
Maneuver Graphics and Control Measures, Continued

Control Measure	Graphic	Example
<p>Axis of Advance Note: A unit symbol will precede friendly axis of advance control measures.</p>		
<p>Friendly Aviation Axis of Advance</p>		<p>1-101 </p>
<p>Friendly Airborne Axis of Advance</p>		<p>3  82</p>
<p>Friendly Attack Helicopter Axis of Advance</p>		<p>1-17 </p>
<p>Friendly Ground Axis of Shaping Operations Friendly Ground Axis of Supporting Attack</p>		<p>1  45</p>
<p>Friendly Ground Axis of Decisive Operations Friendly Ground Axis of Main Attack</p>		<p>2  7</p>
<p>Friendly Ground Axis On Order with Date and Time (if known) Effective</p>		<p> GOLD EFF 210730MAY</p>

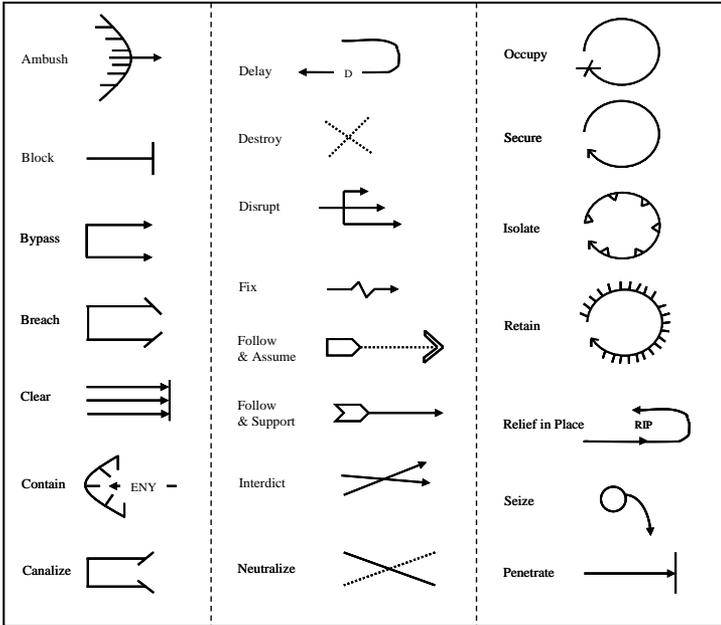
Maneuver Graphics and Control Measures, Continued

Control Measure	Graphic	Example
Attack Position		
Friendly Attack Position		
Friendly Occupied Attack Position (only if a unit must stop in the attack position)		
Friendly Attack Position Planned, Proposed, or On Order		
Attack by Fire Position.		
Support by Fire Position.		
Objective.		

Maneuver Graphics and Control Measures, Continued

Control Measure	Graphic	Example
Antipersonnel Mine with Dashed Arrow Showing Direction of Effects		
Antitank (AT) Mine		
Antitank Mine with Anti-Handling Device		
Unspecified Mine		
Mine Cluster		
Wide Area Mine		
Minefields		
Completed Minefield		
Planned Minefield		
Antipersonnel Minefield		
Antitank Minefield		

Tactical Mission Graphics



MDMP Graphics

Gumball Status Chart

UNIT	OVERALL	TANKS	AFV	HOW	ATKHEL	PER
1ST BDE	●	●	●	○	○	●
2D BDE	●	●	●	○	○	●
3D BDE	●	●	●	○	○	●
DIVARTY	●	○	○	●	○	●
AVN BDE	●	○	○	○	●	●

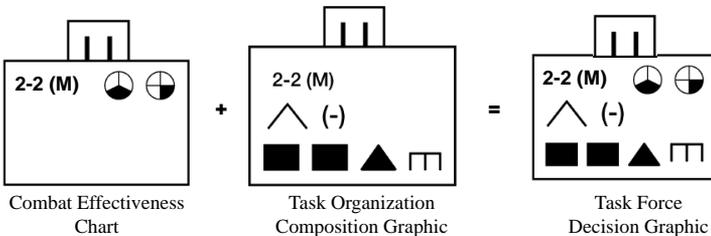
Combat Effectiveness Graphics

Commander's Assessment of Unit's Ability to Perform Its Mission	Effectiveness Pie Charts	Selected Status Pie Chart <div style="display: flex; justify-content: space-around; font-size: small;"> Personnel Ammunition </div> <div style="display: flex; justify-content: space-around; font-size: small;"> POL Weapons </div>
No Problems in Any Area		
Some Problems in Personnel		
Major Problems in Weapons Systems		
Cannot Perform Mission—Personnel, Ammunition, and Weapons Problems		

Task Organization Composition Graphics

Infantry		Antitank	
Air Assault Infantry		Attack Helicopters	
Airborne Infantry		Air Cavalry	
Light Infantry		Assault/Lift Helicopters	
Mechanized Infantry		Engineer	
Medium Infantry		Field Artillery	

Building Task Force Decision Graphics



Section 9 - Targeting

Targeting and the Initial Targeting Meeting

At the onset, understand that targeting is a cyclical process like Intelligence Preparation of the Battlefield (IPB) and like IPB is a process requiring input from a great deal of staff personnel. What we are attempting to address here is the basic format, in a pristine environment, of the targeting process during an initial MDMP. Being involved in a current operation will generally only change the timing based on the HHQ targeting cycle and an additional set of inputs to the targeting session. Unfortunately, there is a lot of disagreement on when the different pieces of targeting take place during the MDMP. **FM 3-60** (the future replacement for **FM 6-20-10**), for example, utilizes different timing than its predecessor.

TTP ► Targeting is the process of selecting targets and matching the appropriate response to them on the basis of operational requirements and capabilities. **FM 6-20-10**

Targeting follows a four stage tested methodology of Decide, Detect, Deliver and Assess. Because of the scope of this publication, we will address the “Decide” function and detail how it ties into the “Detect” function as these happen during the planning and partially into the preparation phases of combat. Successful targeting enables the commander to synchronize intelligence, maneuver, fire support systems, non-lethal systems and special operations forces by attacking the right target with the best system at the right time.

Targeting Link to the MDMP

MDMP Step	Receipt of Mission	Mission Analysis	COA Development	COA Analysis	COA Approval and Orders	Rehearsals	Execution and Assessment
Targeting Process Function	Assemble Target Team	Initial DECIDE Initial DETECT (ISR Plan)	Draft DECIDE	Refine DECIDE	DECIDE function continues	Possible Targeting Meeting	DETECT DELIVER ASSESS Targeting Meeting
Targeting Products		HVTs Draft FSTs	Draft FSEM Draft HPTL Draft HPTL TSM Draft ISR Plan	FSEM HPTL TSM ISR Plan		Refined: FSEM HPTL TSM ISR Plan	Refined: FSEM HPTL TSM ISR Plan
Unit Battle Rhythm	Plan	Plan Execute ISR Plan	Plan	Plan	Plan	Prepare and Plan	Execute and Plan

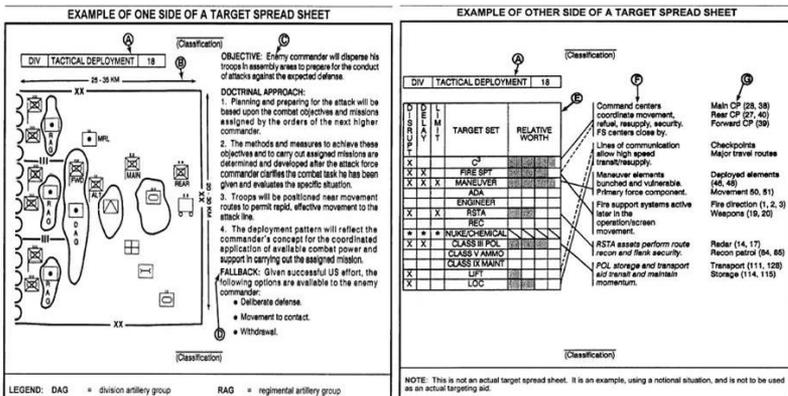
FM 3-09.31 pg 4-12

The targeting process begins with IPB. A staff function, IPB is managed by the Intelligence WFF. During Receipt of Mission and Mission Analysis, the lion’s share of products dealing with IPB are created. These include doctrinal templates, situation templates, event templates, threat decision support templates, threat COA narratives, the modified combined obstacle overlay (MCOO) and a high-value target list based on threat COA.

TTP ► The high-value target list is a list of things (both tangible and intangible) whose loss to the threat commander would seriously degrade important functions throughout the friendly commander’s area of interest. Tangible things would include people, weapon systems and capabilities while intangible things might include attitudes of population. **FM 1-02**

While the above mentioned products are necessary to complete the MDMP, none are more important to the targeting process than threat situation templates and the associated list of HVTs. The list of HVTs does not only come from the S-2 as he refines the HHQ threat COAs and does target value analysis (TVA) (refer to **FM 6-20-10**) but also from each staff section / WFF as they perform their initial assessment of the operational environment (OE). The S-6 might address how the loss of cell phone communications might disrupt the information flow of the threat while the S-4 might determine the loss of a particular route might hinder his re-supply operations. Each of these HVTs must be brought to the initial targeting meeting for consideration. One method of capturing the HVTs from TVA is the target spreadsheet from **FM 6-20-10**.

Example Target Spreadsheet



FM 6-20-10 pg A-9 and A-10

Notice that it takes into account the thirteen targeting categories, allows the staff officer to determine how he wishes to affect the target (Disrupt, Delay or Limit) and even allows the subjective valuation of each target using the “relative worth” column. This could be the tool that each staff section presents to the S-2 for compilation prior to the initial targeting meeting.

The Initial Targeting Meeting

The initial targeting meeting must be integrated into Mission Analysis because it serves as the basis for other products of this step of the MDMP. Maximum staff participate is encouraged but, at a minimum, the Executive Officer, S-2, S-3 and FSO / FSNCO must be there.

The basic agenda should be:

- The S-2 provides an intelligence update which includes the weather, current threat situation, the current ISR Plan, any BDA from previous targeting, an analysis of the threat’s most likely COA and possible locations for the next 24-36 hours using an event matrix and list of HVTs.
- The S-3 briefs the commander’s initial guidance or any changes to his intent, any additional requirements from the HHQ, and the status of all available assets.
- The FSO / FSNCO reviews the status of anything already on the target synchronization matrix and a proposed list of high-payoff targets for the staff’s concurrence and refinement.

TTP ▶	The high-payoff target list (HPTL) is a prioritized list of targets whose loss to the threat will significantly contribute to the success of the friendly COA. High-payoff targets are those high-value targets that must be acquired and successfully attacked for the success of the friendly commander’s mission. The HPTs are targets which are critical to friendly success. Targets that can be acquired and attacked are candidates for the HPTL. Targets that need outside acquisition or attack are sent to HHQ. Simply stated, in order for an HVT to be an HPT, the commander must want to affect the targets and have the means to both acquire and affect them. <i>FM 1-02 / FM 6-20-10</i>
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The targeting staff conducts targeting based on any changes to threat situation, threat COAs, or changes in the commander’s guidance.

Initially, the targeting staff might want to use the charts in *FM 6-20-10* to record their information however, any TTP or PSOP method that helps the staff is acceptable.

The basis of targeting, as stated earlier, are the HVTs developed through TVA and brought to the initial targeting meeting. These may be annotated by using the thirteen (13) standard target categories: C³ (Command, Control and Communication Centers), Fire Support, Maneuver, Air Defense Artillery (ADA), Engineer, Reconnaissance, Surveillance, and Target Acquisition (RSTA), Radio-electronic Combat, Nuclear, Chemical, CLASS III (POL), CLASS V (Ammunition), CLASS IX (Maintenance), Lift, Lines of Communication (LOC); by using the six warfighting functions: Movement and Maneuver, Fires, Command and Control, Intelligence, Protection, and Sustainment; or any other method that helps include all of your HVTs as there is no doctrinal reference for it.

During the entire targeting process, the staff is tasked with synchronizing it’s assets to allow, once we have completed “deciding” which targets we wish to affect, the successful completion of the “detect,” “deliver,” and “assess” portions of the targeting process. The doctrinal tool for this is the target synchronization matrix.

Example Target Synchronization Matrix

EXAMPLE TSM (Format)

DECIDE			DETECT		DELIVER		ASSESS	
P	Category	HPTs	Agency	Asset	Agency	Asset	Agency	Asset

FM 6-20-10 pg C-11

A non-doctrinal, but effective, method for target synchronization is this one that incorporates all of the information that needs to be made during the “decide” phase of the targeting process.

Example Unit Target Synchronization Matrix

Target Category by WFF	HVTs	HPTs	Staff Prioritization	HPTL	EFFECT DESIRED	Asset	PIR
Intelligence	En Reconnaissance Assets	yes					
	Bypassed Reconnaissance Assets	yes					
Fire	En Mortar	y/n					
	Company Mortar	yes					
	FA Assets	no					
	MRL	no					
Maneuver	Infantry Platoon	yes					
	Bypassed Maneuver forces	yes					
	Weapons Platoon	yes					
Protection	Wire/Fine Obstacles	yes					
	Point Mines/fields	yes					
Sustainment							
Command and Control							

This chart is a stylized version of the target synchronization matrix from **FM 6-20-10** and serves to help the staff, in a single document, move through both the decide and detect portions of the targeting process as well as beginning to determine PIR based on targeting needs.

Notice on this chart, the staff has already determined that they either do not have the need to affect the HVTs that have been annotated “no” or lack the capability to detect or target them. Once the staff has created the list of HVTs, the next step is to prioritize them. There are two schools of thought on the prioritization of HPT. One school believes that HPTs cannot be prioritized without a friendly COA to determine how they should be prioritized. However, the other school might say, we have already subjectively determined relative value of each HVT from TVA on the target spreadsheet. Which is right? That will be based on how you decide and annotate in your PSOP. There is no harm developing a prioritized list of HPT during Mission Analysis as long as you recognize that, based on the COAs developed by the staff, they might change.

Prioritization of HPTs can be done in many ways. The best way to do it is by using the commander’s targeting guidance. If the commander hasn’t made it clear how he wants to prioritize our targets through his guidance we must

use other methods. We can use the “think-tank” method of prioritization by coming up with a democratic consensus approved by the Executive Officer to be presented to the commander. Finally, there are TTPs such as “CARVER” which prioritize HPTs based on numerical values as to their criticality to the enemy. “CARVER” addresses the factors of:

- **Criticality** - A target is critical when its destruction or damage has a significant impact on military, political, or economic operations.
- **Accessibility** - A target is accessible when an operational element can reach the target with sufficient personnel and equipment to accomplish its mission.
- **Recuperability** - A target's recuperability is measured in time; that is, how long will it take to replace, repair, or bypass the destruction of, or damage to, the target?
- **Vulnerability** - A target is vulnerable if the operational element has the means and expertise to successfully attack the target.
- **Effect** - The effect of a target attack is a measure of possible military, political, economic, psychological, and sociological impacts at the target and beyond.
- **Recognizability** - A target's recognizability is the degree to which it can be recognized by an operational element and/or intelligence collection and reconnaissance assets under varying conditions.

Other considerations include the following:

- The sequence or order of appearance.
- The ability to detect, identify, classify, locate, and track the target. (This decision must include sensor availability and processing time-line considerations).
- The degree of accuracy available from the acquisition system(s).
- The ability to engage the target.
- The ability to suppress, neutralize, or destroy the target on the basis of attack guidance.
- The resources required to do all of the above.

Once we have prioritized our HPTs, it becomes the HPTL and should be used as a tool to determine both targeting and collection responsibilities for each friendly COA we build. Below is the HPTL worksheet from **FM 6-20-10**, but any format can be used.

Example High-Payoff Target List

HIGH-PAYOFF TARGET LIST		
EVENT OR PHASE		
PRIORITY	CATEGORY	TARGET

FM 6-20-10 pg C-1

As the staff identifies the HPTs for each friendly COA, a determination must be made as to how they are going to be attacked in terms of timeliness and accuracy. The target selection standard (TSS) matrix is a graphic device to display this.

Example Target Selection Standard Matrix

HPTL	ATTACK SYSTEM	TLE / ACQ TIME
FROG Launcher / MRL Battery	MLRS / ATACMS	< 1 km / 10 min
COP	OB cannon	100 m / 2 hours
286 / 287 Battery	MLRS	200 m / 20 min
SA - 11	MLRS / ATACMS	200 m / 20 min
Armored reserves	AVN BDE	1 km / 2 hours
LEGEND: ACQ TIME = acquisition time OB = general support AVN = aviation km = kilometer BDE = brigade m = meter COP = command observation post MRL = multiple rocket launcher		
NOTE: Acquisition time is the length of time from acquisition to attack that the target information is valid. It is based on estimated dwell time of the target.		

The next step must determine what effect (lethal and/or non-lethal) the staff plans to use to affect the targets. We use the Attack Guidance Matrix (AGM) to portray this.

Attack Guidance Matrix

PHASE / EVENT: Attack through the Security Zone.																		
HPTL	WHEN	HOW	EFFECT	REMARKS														
RISTA and OPS	P	GS ARTY	N	Plan in initial prep.														
COPs	P	GS ARTY	N	Plan in initial prep.														
281 and 283	P	MLRS	N	Plan in initial prep.														
286, SA 9, and SA 13	P	GS ARTY	S	SEAD for AVN OPS.														
REGT CP	A	MLRS	N															
Reserve BN	P	AVN BDE	D	Intent to attack reserve BN in EA HOT.														
LEGEND: <table style="width:100%; border:none;"> <tr> <td style="width:33%;">WHEN (I) = IMMEDIATE</td> <td style="width:33%;">EFFECT (S) = SUPPRESS</td> </tr> <tr> <td>WHEN (A) = AS ACQUIRED</td> <td>EFFECT (N) = NEUTRALIZE</td> </tr> <tr> <td>WHEN (P) = PLANNED</td> <td>EFFECT (D) = DESTROY</td> </tr> <tr> <td>BN = battalion</td> <td>prep = preparation</td> </tr> <tr> <td>EA = engagement area</td> <td>REGT = regiment</td> </tr> <tr> <td>OPS = operations</td> <td>CP = command post</td> </tr> <tr> <td>AVN = aviation</td> <td>SEAD = suppression of enemy air defense</td> </tr> </table>					WHEN (I) = IMMEDIATE	EFFECT (S) = SUPPRESS	WHEN (A) = AS ACQUIRED	EFFECT (N) = NEUTRALIZE	WHEN (P) = PLANNED	EFFECT (D) = DESTROY	BN = battalion	prep = preparation	EA = engagement area	REGT = regiment	OPS = operations	CP = command post	AVN = aviation	SEAD = suppression of enemy air defense
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AVN = aviation	SEAD = suppression of enemy air defense																	

FM 6-20-10 pg C-3

The link between the “Decide” function and the “Detect” function in the Targeting Process is the Sensor / Attack Matrix. This serves to let the staff know if their organic collection assets (sensors) and attack systems can acquire and attack the HPTs for each critical event or phase of the battle.

Example Sensor / Attack Matrix

Sensor/ Attack System Matrix									
Event: Secure village of Yamar									
HVT	Lookouts / Observation Post	Sniper	Mortars	ADA	HVI	IED Factory	VBIED	IED	
Sensor									Attack System
Patrols	S A	S A			S A	S	S	S	Sniper
HUMINT	S A	S A	S A	S A	S A	S A	S A	S	MNVR
CA Teams	S	S	A	S	S A	A	S A	S	155 FA
PA Teams	S A	S A	A	S A	S A	A	S	S	AH-64
UAS	S	S		S	S A	S A	S	S	UAS
OH-58D	S		A	S A	A	A	S A	S	F-16
AH-64	S			S			S A	S A	Engineers
Engineers	S			S			S	S	
Q-48 Radar			S						
Q-36 Radar			S						
S: Sensor					A: Attack				
ADA	air defense artillery				MNVR	maneuver			
CA	civil affairs				PA	public affairs			
IED	improvised explosive device				UAS	unmanned aircraft system			
HUMINT	human intelligence				VBIED	vehicle-borne improvised explosive device			
HVI	high value individual								
HVT	high value target								

FM 3-60 (ID) pg D-4

Once the determination has been made that these targets can be acquired and attacked we can move on to the next step in the targeting process: Detect.

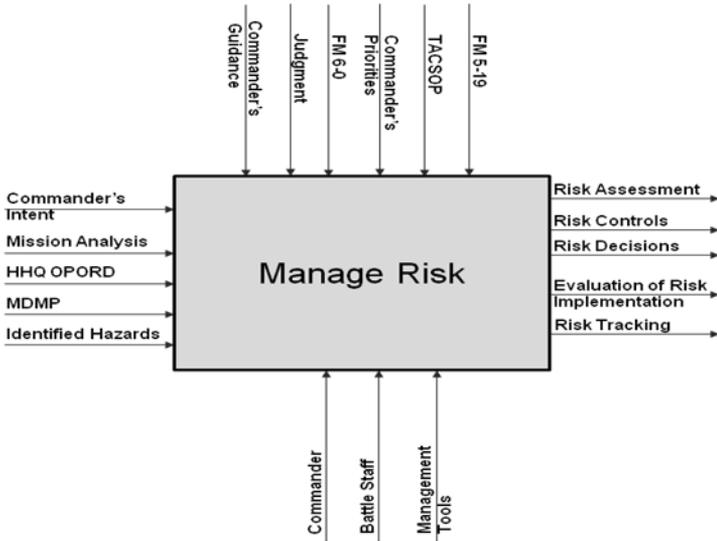
Detect

The “Detect” portion of the targeting process occurs during mission planning, preparation, and execution. Initially, we use our organic collection assets to gain information in order to answer taskings from our HHQ order and to fill information gaps required to continue planning. The remainder of our organic tasking and requests for information are based on the PIR developed based on the commander’s stated requirements and from the targeting process. This was discussed in detail in the section on ISR.

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Section 10 - Composite Risk Management (CRM)

Risk Management Graphic



General

The identification of hazards and the management of associated risk is the responsibility of all staff officers. This process, which is detailed in *FM 5-19*, parallels the MDMP. We have condensed the process in the following paragraphs. *FM 5-0* and *FM 5-19*

Defining the Characteristics of Risk

FM 100-14 separated risk into two categories:

- Tactical risk.
- Accidental risk.

FM 5-19 (Composite Risk Management) marked a change in the way the Army approached risk. This new holistic approach focused on the composite risks from all sources rather than the traditional practice of separating risk into the two categories. This new culture change represented the mentality of “how to think” rather than “what to think.”

TTP ► In some instances (i.e., the development of standardized hazards for unit PSOPS), while not expressed as such in the Field Manual, separating the risks into habitual accidental and METT-TC tactical might enable your unit to build, not only a set of hazards to be used for each OPORD / OPLAN but also for the development of policy and procedure to reduce accidental risk both tied to mission and not.

Risk Management Process

There are five steps to risk management according to *FMs 5-0* and *5-19*:

- *Identify* hazards (performed during MDMP Steps 1-4).
- *Assess* hazards to determine risk (performed during MDMP Steps 2-4).
- *Develop* controls and *make risk decisions* (performed during MDMP Steps 3-6).
- *Implement* controls (MDMP Step 7 and during preparation and execution).
- *Supervise* and *evaluate* risk (during preparation and execution).

The staff (to include the S-2 and S-3) identifies risk hazards and assesses the level of risk for each hazard; the assessment is overseen by the S-3. The commander assesses where he will accept risk. The XO integrates risk management into the orders process.

Risk Management and the MDMP

Military Decision-making Process	Risk Management Steps				
	Step 1 Identify Hazards	Step 2 Assess Hazards	Step 3 Develop Controls (+) Decision	Step 4 Implement Controls	Step 5 Supervise (+) Evaluate
Mission Receipt	X				
Mission Analysis	X	X			
COA Development	X	X	X		
COA Analysis	X	X	X		
COA Comparison			X		
COA Approval			X		
Orders Production			X	X	
Rehearsal	X	X	X	X	X
Execution/Assessment	X	X	X	X	X

Step 1 - Identify Hazards

A hazard is a condition with the potential to cause injury, illness, or death of personnel; damage to, or loss of, equipment or property; or mission degradation. A hazard may also be a situation or event that can result in degradation of capabilities or mission failure.

TTP ► The factors of METT-TC provide a sound framework for identifying hazards when planning, preparing, and executing operations.

Step 2 - Assess Hazards

Hazards are first assessed according to five degrees of probability, depicted by capital letters A through E:

- Frequent (A) - Occurs very often, continuously experienced.
- Likely (B) - Occurs several times.
- Occasional (C) - Occurs sporadically, but not uncommon.
- Seldom (D) - Remotely possible; could occur at some time.
- Unlikely (E) - Can assume will not occur, but not impossible.

Hazards are further assessed according to four degrees of severity, depicted with Roman numerals:

- Catastrophic (I) - Mission failure or death, unacceptable collateral damage.
- Critical (II) - Severely degraded mission; permanent partial or temporary total disability.
- Marginal (III) - Degraded mission capability; lost time due to injury or illness.
- Negligible (IV) - Little impact on mission capability; first aid treatment.

Hazards are finally assessed according to four levels of overall risk:

- Extremely High Risk (E) - Loss of ability to accomplish the mission if hazards occur during the mission.
- High Risk (H) - Significant degradation of mission capabilities, inability to accomplish all parts of the mission, or inability to complete the mission to standard if hazards occur during the mission.

- Moderate Risk (M) - Expected degraded mission capabilities in terms of the required standard and will result in reduced mission capability if hazard occurs during a mission.
- Low Risk (L) - Expected losses have little to no impact on accomplishing the mission.

Step 3 - Develop Controls and Make Risk Decisions

This is a 2-part step:

- Develop controls.
- Make risk decision.

There are three major categories of controls that must meet the criteria of *suitability*, *feasibility*, and *acceptability*:

- Educational (based on knowledge and skills of unit / individuals).
- Physical (barriers, guards, signs, etc.).
- Avoidance (positive actions to prevent contact).

A key element of the risk decision is to determine if the risk is justified. The commander, alone, makes this determination.

Step 4 - Implement Controls

Implementing controls involves coordination and communication, and by incorporating controls in SOPs, orders, briefings, and staff estimates.

Step 5 - Supervise and Evaluate

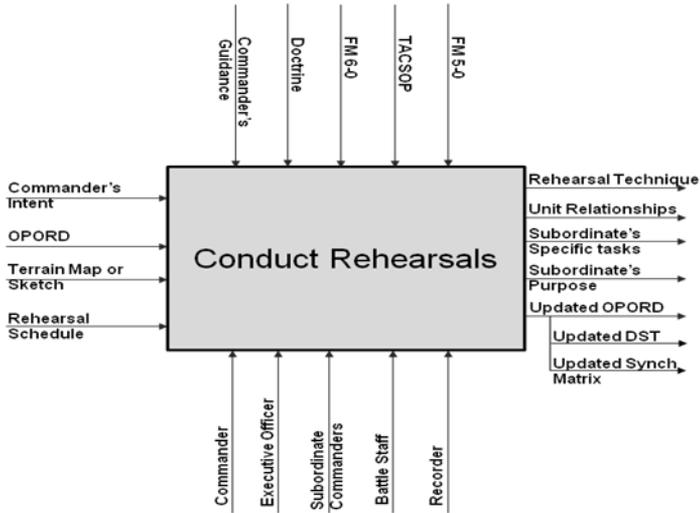
The supervision and evaluation of risk is a leadership responsibility. Use the AAR process as an assessment tool to determine if changes need to be made to your unit's safety program. Use hazards identified by the AAR in building a database for future operations.

BN / TF Risk Management Worksheet Instructions

<i>Item</i>	<i>Instruction</i>
1 through 4	Self explanatory.
5	Subtask relating to the mission or task in block1.
6	Hazards – Identify hazards by reviewing METT-TC factors for the mission or task. Additional factors include historical lessons learned, experience, judgment, equipment characteristics and warnings, and environmental considerations.
7	Initial Risk Level– Includes historical lessons learned; intuitive analyses, experience, judgment, equipment characteristics and warnings; and environmental considerations. Determine initial risk for each hazard by applying risk assessment matrix (Figure 2-4). Enter the risk level for each hazard.
8	Controls – Develop one or more controls for each hazard that will either eliminate the hazard or reduce the risk (probability and/or severity) of a hazardous incident. Specify who, what, where, why, when, and how for each control. Enter controls.
9	Residual Risk Level– Determine the residual risk for each hazard by applying the risk assessment matrix (Figure 2-4). Enter the residual risk level for each hazard.
10	How to Implement – Decide how each control will be put into effect or communicated to the personnel who will make it happen (written or verbal instruction; tactical, safety, garrison SOPs, rehearsals). Enter controls.
11	How to Supervise (Who) –Plan how each control will be monitored for implementation (continuous supervision, spot-checks) and reassess hazards as the situation changes. Determine if the controls worked and if they can be improved. Pass on lessons learned.
12	Was Control Effective – Indicate “Yes” or “No.” Review During AAR.
13	Overall Risk Level – Select the highest residual risk level and circle it. This becomes the overall mission or task risk level. The commander decides whether the controls are sufficient to accept the level of residual risk. If the risk is too great to continue the mission or task, the commander directs development of additional controls or modifies, changes, or rejects the COA.
14	Risk Decision Authority – Signed by the appropriate level of command.

Section 11 - Rehearsals

Rehearsal Graphic

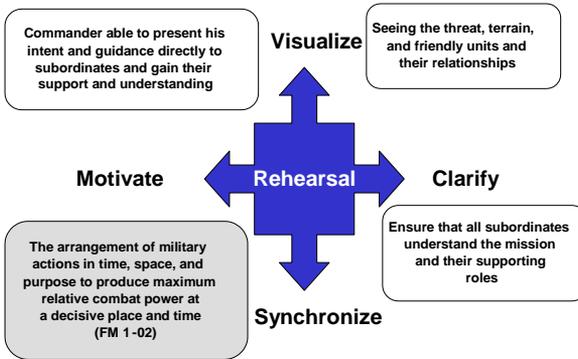


General

The BN / TF rehearses its operations as part of the MDMP. *FM 6-0* provides doctrinal guidance for rehearsals. The doctrinal definition of rehearsals, as stated in *FM 6-0*, is “a session in which a staff or unit practices expected actions to improve performance during execution. Rehearsing key combat actions before execution allows participants to become familiar with the operation and to translate the relatively dry recitation of the tactical plan into visual impression. This visual impression helps them orient themselves to their environment and other units when executing the operation. Moreover, the repetition of combat tasks during the rehearsal leaves a lasting mental picture of the sequence of key actions within the operation.” Rehearsals have proven to have a dramatic effect on battlefield results.

It is important that the commander and staff understand what they want from a rehearsal. Consider the following:

What to Gain from a Rehearsal



Five Rehearsal Types

The five types of rehearsals are (Source: **FM 6-0**):

- Confirmation brief.
- Back brief.
- Combined arms rehearsal (CAR).
- Support rehearsal.
- Battle drill / SOP rehearsal.

Confirmation Brief

This brief is routinely performed by a subordinate leader immediately after receiving any instructions, such as an OPORD, a FRAGO, etc. The higher Commander is briefed on the subordinate’s understanding of his intent, his specific task and purpose, and the relationship between the subordinate unit’s missions and other units in the operation.

Back Brief

A back brief is a briefing by subordinates to the commander to review how subordinates intend to accomplish their mission. This brief is normally performed throughout the MDMP and preparation. This rehearsal allows the commander to clarify his intent early in the subordinate’s tactical estimate procedure. It allows the higher commander to: (1) identify problems in his concept of operation, (2) identify problems in a subordinate unit commander’s concept, and (3) learn how subordinates intend to accomplish their mission.

Combined Arms Rehearsal (CAR)

A CAR is normally conducted by a maneuver unit HQ after subordinate units have issued their OPORD. This rehearsal ensures that subordinate plans are synchronized with other units, and that the plans of all subordinate commanders will achieve the intent of the higher commander. Units should strive to conduct combined arms rehearsals whenever possible.

Support Rehearsal

Units usually perform support rehearsals within the framework of a single or limited number of WFFs (e.g., Sustainment rehearsal). Support rehearsals are designed to ensure that the specific WFF can support the higher commander's plan, accomplish all assigned missions, and synchronize the particular WFF plan with the maneuver plan.

Battle Drill / SOP Rehearsal

This is conducted to ensure that all participants understand a technique or a specific set of procedures. This type of rehearsal is performed at all echelons (most extensively at platoon, squad, and section). They are performed throughout preparation and can include unit specific, non published drills.

Six Rehearsal Techniques

TTP ►	Rehearse! Rehearse! Rehearse! Conduct rehearsals whenever possible for each mission. <i>BN Commander's Handbook, USAWC, 1996.</i>
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The six techniques for conducting a rehearsal are (Source: *FM 6-0*):

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

Full Dress Rehearsal

This rehearsal provides the most detailed understanding of the mission. It involves every Soldier and system participating in the operation and is the most time and resource intensive technique.

Reduced Force Rehearsal

This rehearsal involves only the unit's and subordinate unit's key leaders, and is less time and resource intensive than the full dress rehearsal.

Terrain Model Rehearsal

This rehearsal is the most popular rehearsal technique. Requires less resources and time than the full dress or reduced force rehearsals. The commander determines the level of leader involvement. Model must be accurate and in sufficient detail to allow battlefield visualization.

Sketch Map Rehearsal

Can be used almost anywhere, day or night. You use the same procedures as the terrain model technique, except the commander uses a sketch in place of the model. Sketch must be large enough for all participants to see as each subordinate commander walks through the verbal interactive execution of the operation.

Map Rehearsal

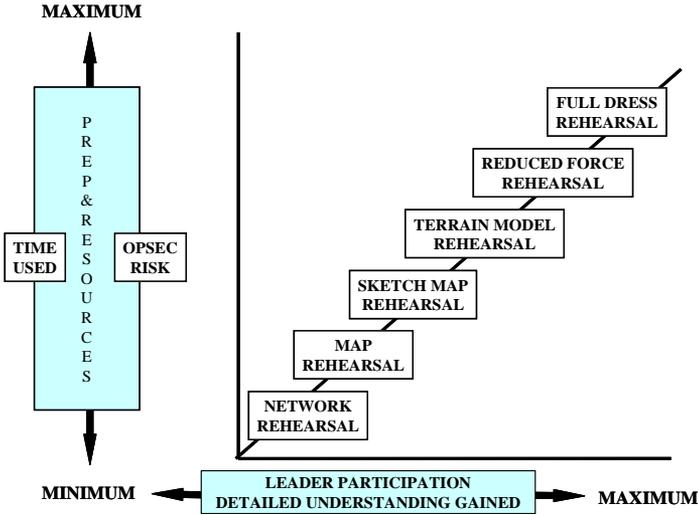
Similar to the sketch map rehearsal, except the commander uses a map and operations overlay of the same scale as being used to plan and control the fight. This technique is generally the least effective because of map scale.

Network Rehearsal

Conducted by interactively and verbally executing critical portions of the operation over established communications networks. The commander establishes a general sequence of events. The unit rehearses only the essential, most-critical portions of the operation.

The following figure depicts the relationships between the six rehearsal techniques and the amount of preparation / resources required, time used, OPSEC risk, leadership participation and the amount of detailed understanding that the participants will likely gain.

Rehearsal Relationships



As previously stated, the most popular type of rehearsal technique is the **terrain model rehearsal**. In order for this technique to be effective, the following tools must be incorporated:

TTP ► Always construct a sand table to aid in the rehearsal of new OPORDs.
BN Commander’s Handbook, USAWC, 1996.

Terrain Model Rehearsal Tools

- | | |
|---|-----------------------|
| - CCIR | - Task Org |
| - Synchronization matrix | - Key terrain |
| - Decision Support Template (DST) | - Decision points |
| - Grid designation | - Coordination points |
| - Magnetic north | - Passage points |
| - Relief | - Routes/lanes |
| - Boundaries and objectives | - Engagement areas |
| - Fire control measures | - Axis of advance |
| - Obstacle belts | - Critical events |
| - Day/night indicator (daylight/moon/light) | |

Rehearsal Responsibilities**Planning**

In his initial guidance, the Commander provides the type of rehearsal, technique, place, attendees and threat COA to be portrayed. The XO ensures all rehearsals are included in the unit's time management system.

Preparation

The commander, ideally, prepares to rehearse the mission with events phased in proper order from start to finish. The XO, through wargaming, coordinates and allocates time for the key events requiring a rehearsal, establishes time limits, verifies site preparation, and determines the method for controlling the rehearsal and ensures its logical flow. Subordinate leaders complete their planning process. HHQ de-conflicts all sub-unit graphics and publishes composite overlays.

Execution

The commander must command the rehearsal, just as he will command the fight, maintaining focus and level of intensity, allowing absolutely no potential for subordinate confusion. The rehearsal's purpose is to validate synchronization - the what, when, and where of subordinate unit's tasks to execute the commander's intent. The XO should direct the rehearsal. The S-3 assists the commander in the fight forward and should rehearse that task. The S-2 bases his execution actions on the threat COA the commander selected during the planning process and provides current intelligence. Subordinate leaders articulate their units' actions and responsibilities. Recorder captures any unresolved problems, restates any changes, coordination, or clarification and estimates when a written FRAGO will be issued. The staff updates the OPORD, the DST, and the synchronization matrix.

Rehearsal Group Attendees

- BN / TF commander.
- BN / TF XO.
- BN / TF CSM.
- BN / TF Staff (includes S-2 and S-3).
- Company Commanders.
- BN / TF Special Staff (i.e., Engineer Company XO).
- Attached PLT leaders, squad or team leaders (i.e., HCT, MP).

Sample Rehearsal Schedule

TOPIC	BRIEFER
Orientation	S-3
Enemy Situation	S-2
ISR Operations	S-2/ S-3
Main Effort CO TM	CO Commander
Supporting Effort CO/TM	CO Commander (s)
Fire Support	FSO
Engineer Tasks	Engineer
MI	HCT Leader/MI Rep
Mission Command	S-6

Rehearsal Script

A script is an effective technique for controlling a rehearsal. There are normally two major parts to a rehearsal script:

- Agenda.
- Response sequence.

Agenda

Units have to rehearse with the tools they have, especially:

- OPORD.
- Synchronization matrix.
- DST.
- Fire support execution matrix (for fire support (FS) rehearsal).
- Sustainment synchronization matrix (sustainment rehearsal).

Response Sequence

Players must have a logical response sequence. This could be by WFF, or by unit. The sequence should be determined beforehand and posted for all to see. The following guidelines from *FM 6-0* provide an example of the conduct of the rehearsal in a *before, during, and after* format:

Before the Rehearsal

The Rehearsal Director performs the following actions:

- Starts on time and calls roll.
- Briefs participants.
- Introduces self and participants.
- Provides an overview and administrative instructions.
- Orients participants to the training aid and / or terrain.
- Provides and discusses the script to control the rehearsal.
- Provides the ground rules and reviews the rehearsal SOP.
- Has subordinate maneuver commanders brief their respective task organizations to ensure assets are accounted.
- Briefs the time line and asks for questions.

TTP ► An effective rehearsal SOP facilitates the rehearsal. It should include, as a minimum: (1) who controls the rehearsal? (2) who walks the rehearsal medium? (3) when special staff officers brief the commander, and (4) the relationship between how the execution matrix portrays events and how events are rehearsed.

During the Rehearsal

The following generic steps were developed for a CAR, but could be modified for fire support or sustainment rehearsals:

- Step 1 - S-2 deploys threat forces; briefs most likely threat COA and status of ISR operations.
- Step 2 - S-3 and staff deploy friendly forces; subordinate commanders brief disposition, purpose, task organization, strength.
- Step 3 - Advancement of threat forces from execution matrix; threat actions based on SITTEMP; S-2 portrays the threat.
- Step 4 - commander assesses situation to determine if a DP has been reached (taken directly from the DST).
- If DP, commander decides to continue or select a branch.
- If no DP, continue to next event from execution matrix, repeating Steps 1-3.
- Step 5 - End state reached for that COA.

- Step 6 - Rehearsal Director “re-cocks” to DP where branch begins; staff repeats Steps 1-5 until all branches are addressed, time permitting.

After the Rehearsal

- Commander leads rehearsal after-action review (AAR).
- Commander directs that required minimum modifications / refinements be made to OPORD.
- Staff makes necessary changes to DST, OPORD, execution matrix.
- Subordinate commanders incorporate changes into their OPORDs.
- Staff converts FRAGO from verbal to written as soon as possible.

Back Briefs

Back briefs, previously mentioned as one of the five types of rehearsals, is a valuable tool for the commander to ensure operational clarity.

TTP ► If time does not allow a rehearsal, ensure that a BACK BRIEF is conducted.
BN / TF Commander’s Handbook, USAWC, 1996.

Sample Back Brief Format

Final back briefs are conducted after the BN / TF OPORD, but before the company OPORDs. Each company commander back briefs the BN / TF commander using a blow-up sketch (butcher block size) and desk-side binder. Time allotted is normally twenty minutes for each company commander. Location is normally the BN / TF TOC.

Sample Back Brief Agenda

Specified Tasks	(desk-side binder)
Implied Tasks	(desk-side binder)
Essential Tasks	(desk-side binder)
Mission	(desk-side or blow-up)
Intent	(desk-side or blow-up)
Concept of the Operation	(blow-up)
Concept of Fires	(blow-up)
Concept of Engineer Support	(blow-up)
Concept of Sustainment	(blow-up)
Casualty evacuation (CASEVAC) Concept	(blow-up)
Mission Command Concept	(blow-up)
Issues	(OPORD Time / Place)

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PART 2 - COORDINATION / ADVISING

Section 1 - Liaison

Field Manual (FM) 6-0, *Mission Command: Command and Control of Army Forces*, defines coordination as the action necessary to ensure adequately integrated relationships between separate organizations located in the same area. Coordination may include such matters as fire support, emergency defense measures, area intelligence, and other situations in which coordination is considered necessary. Coordination takes place continuously throughout operations.

Commands will not be able to operate successfully in isolation; they must synchronize their actions with those of others. Coordination is essential to this synchronization. It has four objectives:

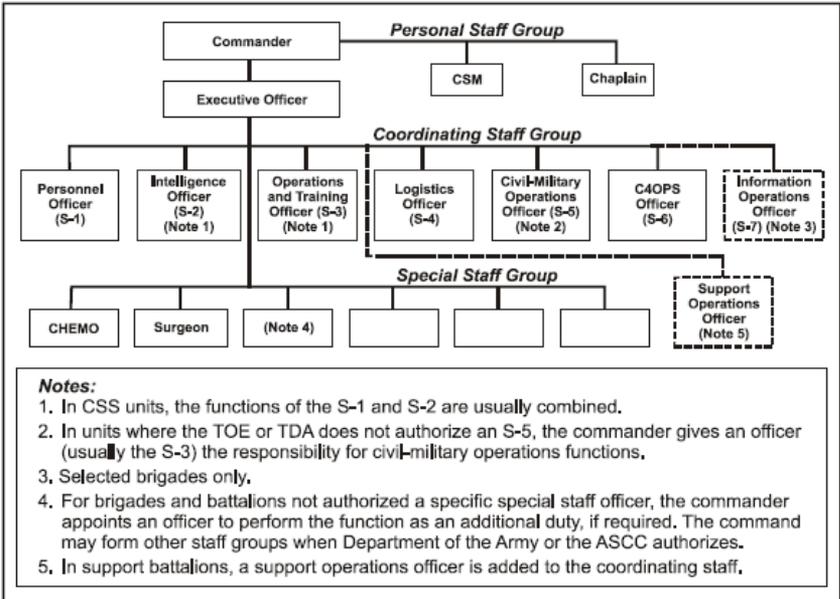
- Ensure a thorough understanding of the commander's intent as well as subordinates' and supporting forces' roles.
- Ensure all affected and interested personnel have been consulted or informed, as time allows, so they may respond as desired or adjust their plans and actions.
- Avoid conflict and duplication of effort among units, reducing fratricide and expending resources.
- Ensure commanders and staffs consider as many relevant factors as time permits and effectively employ all available assets.

Locations, times, and functions may all require coordination. Coordinating begins during planning. However, a plan alone does not guarantee coordination. Exchanging information is critical to successful coordination. During preparation, commands coordinate with higher, lower, adjacent, supporting, and supported units.

- TTP ►** Coordination includes the following:
- Sending and receiving liaison teams as necessary.
 - Establishing communications links that assure continuous contact during execution.
 - Exchanging standing operating procedures (SOP), as needed.
 - Synchronizing security and reconnaissance plans to prevent breaks in coverage.

The coordinating staff serves as the Commanders’ principal staff assistants. While commanders may tailor their staff for specific needs, the normal staff structure is depicted in the chart below: *FM 6.0*

Battalion Staff Structure



Coordinating staff officers are responsible for collecting information and analyzing its implications and impact on the BN / TF. More important, coordinating staff officers provide timely and accurate recommendations to the commander to help him make the best possible decisions. The range of responsibilities is usually outlined in the BN / TF TACSOP. Staff coordination requirements fall into two categories: internal and external.

TTP ▶ Remember: Staff actions require coordination that extends beyond the immediate command to higher, subordinate, supported, and adjacent commands.

TTP ▶ The S-3 should work with a new commander to cross-walk a detailed mission-essential task list (METL) from BN / TF down to individual tasks.
BN Commander’s Handbook, USAWC, 1996.

Section 2 - Coordination

Internal coordination occurs within the HQ. It starts activities within and among staff sections. It ensures staff members remain fully informed of requested information affecting their functional responsibilities. During preparation, internal coordination ensures that staffs refine plans based on updated information. This also helps resolve problems with external coordination. Internal coordination also supports subordinate units' preparations by resolving problems, conflicts, and resource allocations. **FM 6-0**

TTP ► The S-3 should talk to and back brief the commander daily. If the commander does not require it, do it anyway.
BN Commander's Handbook, USAWC, 1996.

Internal coordination involves the four objectives previously mentioned, but focuses on actions or events that affect the BN / TF.

TTP ► Consider the following:

- Section members understand the desired end-state.
- Resources are available to accomplish the task.
- Subordinates receive ample time, e.g., the 1/3 - 2/3 planning time line.
- Regularly conduct checks on progress so problems are addressed early in the planning cycle and do not grow into "war stoppers".
- Delegate section members (if available) who can assist.
- Knowledge is NOT power; share the load where appropriate.
- Some things can be accomplished without involving the commander. If confusion exists; ASK!

External coordination includes coordinating with subordinate units, adjacent units, HHQ, and supported and supporting units for resources or forces that may not be immediately under the command's control during planning. **FM 6-0**

TTP ► Places where two HQ must coordinate their actions are potential weak points. Enemies may exploit them, or commanders may commit too many or too few resources there. These points include unit boundaries, where unit interdependence may delay execution.

TTP ► Be on the lookout for coordination with forces that may not be contiguous to the BN / TF's AO. Such a situation requires special efforts, since the HQ that assigned units to noncontiguous AOs retains responsibility for controlling the area between them.

The HHQ makes provisions for coordination between subordinate units assigned noncontiguous AOs and those operating in the space between those AOs. The BN / TF will need to coordinate with units located in their AOs regardless of whether they are adjacent.

TTP ► The S-3 should cultivate and maintain good relationships with the BDE staff and with sister BNs. Coordinate with and / or visit them often.
BN Commander's Handbook, USAWC, 1996.

External coordination is similar to those things conducted for internal coordination, but focuses beyond the immediate command to higher, subordinate, supporting, supported, and adjacent commands.

TTP ► Graphic control measures (GCM) are among the most basic means of coordination. (See *FM 1-02, FM 3-90*.) The "Coordinating Instructions" subparagraph of OPLANs and OPORDs lists control measures in written form. (See *FM 5-0*.) In graphic and written forms, GCMs help commanders coordinate forces' actions geographically, functionally, or chronologically, as well as control individual subordinates' actions. Written GCMs are the most likely source for chronological coordination, although some GCMs contain chronological restrictions.

Section 3 - Liaison

General Liaison Considerations

FM 6-0 defines liaison as the contact or intercommunication maintained between elements of military forces or other agencies to ensure mutual understanding and unity of purpose and action.

Establishing and maintaining liaison is vital to external coordination. Liaison provides a means of direct communications between the sending and receiving HQ. It may begin with planning and continue through preparation and execution, or it may start as late as execution. Available resources and the need for direct contact between sending and receiving HQ determine when to establish liaison. The earlier liaison is established, the more effective the coordination.

This section outlines the responsibilities and equipment necessary for personnel designated as a liaison officer (LNO) / liaison NCO. This section is applicable to personnel serving adjacent and higher units, as well as personnel attached to this unit.

The LNO represents the commander at the HQ of another unit. He is responsible for effecting coordination and for promoting cooperation between the two units. As the commander's direct representative, it is imperative that the selected individual possess certain qualities:

- *Bearing.* The LNO is the standard bearer for his unit. Personal appearance, physical fitness, technical / tactical expertise, and professionalism are key to ensuring that the LNO gives a lasting first impression.
- *Briefing Skills.* The LNO will often be required to brief the gaining unit on various topics. He must be articulate and possess good briefing skills.
- *Aggressiveness.* The information flow is critical to the success of the LNO. He must be aggressive in gathering information and ensure it flows properly to the right people.

TTP ► During operations, always send the best officer possible as the LNO. It pays dividends, even if pulled from his / her primary or special staff.
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BN Commander's Handbook, USAWC, 1996.

Responsibilities for Establishing Liaison

- Higher-echelon units establish liaison with lower echelons.
- Units on the left establish liaison with units on their right.
- Supporting units establish liaison with units they support.
- Units of the same echelon and units in the rear establish liaison with those to their front.
- Units not in contact with the threat establish liaison with units that are in contact.
- During a passage of lines, the passing unit establishes liaison with the stationary unit.
- During a relief in place, the relieving unit establishes liaison with the unit being relieved.

Liaison Duties

The LNO normally takes his direction for routine matters from the unit XO, but the Commander may designate other pertinent duties as required by the situation. Listed below are the specified duties of the LNO. They have been broken down into actions taken prior to departure, during execution of the mission, and actions taken upon return. This list is not all-inclusive but does provide a solid base to facilitate planning once notified that an LNO will be required.

Duties Prior to Departure

- Obtain information from each staff section on unit's status.
- Understand mission and unit capabilities.
- Ensure arrangements for communication and transportation will meet mission requirements.
- LNO should be licensed to operate a vehicle even if assigned a driver.
- Obtain necessary credentials for identification.
- Check language / interpreter requirements.
- Whenever possible, deploy as a liaison team (Officer-in-Charge and NCOIC).

Duties During Assignment

- Keep informed on the situation of own unit and make that information available to the commander and staff.
- Keep an accurate record of reports.
- Report on all matters within the scope of the mission.

- Aggressively seek out information and ensure it reaches the proper people.
- Establish communication with parent unit.
- Provide credentials and obtain badges if necessary.
- Report to S-3 Battle Captain and provide update.
- Arrange for classified material storage.
- Visit each staff section or WFF and exchange information.
- Attend all briefings and be prepared to brief unit status / plans.
- Monitor parent unit Command Net and status (informs supported commander).
- Ensure supported commander receives parent unit's reports.
- Ensure parent unit receives supported commander's FRAGO / OPOD.
- Deliver messages between parent and supported units, as required.

Duties Upon Return

- Brief your commander on information reference the mission of HHQ, unit locations, future operations, and commander's intent.
- Transmit mission requirements and / or requests for information.
- Brief staff sections as to detailed information received during the assignment.
- Prepare a trip report, if applicable, to ensure that "lessons learned" are recorded for others who may be required to serve as an LNO in the future.

TTP ► At a minimum, the BN / TF should provide one LNO team to the Main Command Post (based on HHQ TTPs and directives).

LNO Supporting an Analog Unit

- Have the means of following operations in the analog unit (paper maps with overlays, necessary communications, printed orders, and prompt access to changes and FRAGOs).
- Manually create the analog unit blue and red situational awareness (SA) and transmit them back to the BN / TF via digital means.
- Confirm that any fire support coordination measures (FSCM) are understood at the parent HQ.
- Coordinate actions between the two elements using the appropriate communication system.

Liaison with Civilian Authorities and Organizations

Command group and staff will:

- Specify what information the liaison team will provide and what information they will protect.
- Direct what, when, how to report, duration of the mission, limitations on release of information, and authority to commit the BN / TF to specific actions.
- Arrange for movement, link-up, and support for liaison teams sent to civilian authorities and organizations. If interpreters are necessary, the S-3 will coordinate for them before the liaison team joins its supported organization.

Liaison team chiefs should:

- Assure the security and logistical support of their teams on site.
- Understand their mission, the nature of the organization they're supporting and the BN / TF commander's intent and CCIR.
- Promptly provide critical information to the BN / TF TOC.
- Closely follow the tactical situation.
- Maintain constant communication with the BN / TF TOC.
- Safeguard classified information including sensitive tactical information pertaining to BN / TF operations.
- Keep supported organization's leadership informed about LNO whereabouts and duties.
- Be able to rejoin the BN / TF HQ on short notice.

Sample LNO Responsibility Matrix

<i>Parent Unit provides to LNO:</i>	<i>LNO provides supported unit:</i>	<i>Supported Unit provides LNO:</i>
Initial briefings and updates on operations	Unit mission and task organization	Sleeping area within proximity of CP
Transportation (with camouflage)	Boundaries with changes and effective times	Logistical support
Radios and digital equipment with current / future fills	Current personnel and logistical status	Vehicle parking area
Map of operational area and current graphics	Combat power status	Access to all necessary sections of the CP and to all relevant meetings and briefings
Current OPORD/FRAGO and overlays	Intelligence update	
Most recent commander's SITREP	Completed plans	
Sufficient CL I, III, and V to sustain team		
Organic and supported Unit TACSOPs		
Common Operating Picture		
Interpreters as necessary		

LNO Briefing Checklist

- _____ Ensure proper clearance of host nation LNO prior to brief. Don't give more information than necessary.
- _____ Introductions - exchange notes.
- _____ Map orientation - main supply route (MSR), key terrain, traffic patterns, usage.
- _____ Language barrier - interpreter?
- _____ Terrorist threat.
- _____ Tone / mood of country / attitude toward US forces.
- _____ Debrief him of situation (threat air, sniper, ambushes, assault fires).
- _____ Thank him for support - Airborne operations, etc.
- _____ History of war. Try to get background / perspectives of belligerents.
- _____ Communications link secure? Authentication procedures required?
- _____ Who are the forward observers (FO); where trained, experience?
- _____ Specialized equipment?
- _____ Someone taking notes?
- _____ Future weather.
- _____ Tactical ROE (TACROE).
- _____ Escort - military police (MP).

- _____ Mines.
- _____ Training level.
- _____ Build up his morale - appreciation.
- _____ Guest in country?
- _____ When was the last live fire?
- _____ Frequencies / call signs / radio equipment compatibility.
- _____ Terrain / trafficability / trails (any not on maps).
- _____ Coordinate through division.
- _____ Press - noises / flashes in his AO.
- _____ Grid location of TOCs
- _____ Staff interaction.
- _____ Permanent LNO?
- _____ Weapons systems.
- _____ Ammunition haul capability?
- _____ Repair parts?
- _____ Tactical SOP (TACSOP) exchange.
- _____ Civilians on the Battlefield (COB) issues.
- _____ Land management .
- _____ Destruction of land.
- _____ Civilians contracts.
- _____ Language / customs.
- _____ Exchange of tactical info overlays plus future coordination.

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Section 4 - Briefings and Speaking

General

Military briefings are addressed in *FM 5-0, The Operations Process*.

Briefings are a means of presenting information to commanders, staffs, or other audiences. The purpose of the briefing, the desired response, and the role of the briefer determine the techniques employed.

Briefing Techniques

Effective briefings require similar skills necessary for an oral presentation. The main difference is that briefings often used visual aids (slides, charts, view graph transparencies, 35-mm slides, maps, photographs, sample items, film clips, etc.). Most good briefers let the visual aids tell the story, but only if they are:

- Effective.
- Visible.
- Meaningful.
- Uncluttered and clear.
- Legible.
- Relate to the audience.

The quality of visual aids can make or break a briefing. And briefings must be rehearsed, preferably until they are perfect.

TTP ▶ Do not read slides to the audience! Move on when the senior member briefed has indicated s/he is ready (nod, word, look, etc.)
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TTP ▶ Good briefers are never caught without a pointer of some type! Lots of pointing can often be handled by an assistant.

Types of Briefings

The following provides an explanation and format for each of the four major types of military briefings:

- Information briefing.
- Decision briefing.
- Mission briefing.

- Staff briefing.

Information Briefing

An information briefing provides facts in a form the audience can understand. It does not include conclusions or recommendations. No decisions result.

The briefer begins an information briefing by addressing the audience, identifying themselves and the organization, and gives the classification of the briefing. The briefer states that the purpose of the briefing is for information and no decision is required. The briefer then introduces and defines the subject, orients the audience, and presents the information. Examples of information appropriate for an information briefing are:

- High priority information requiring immediate attention.
- Complex information—such as, complicated plans, systems, statistics, or charts—that require detailed explanation.
- Controversial information requiring elaboration and explanation.

Information Briefing Format

TTP ►	All staff briefings (garrison and field) must be done in an established format. <i>BN Commander's Handbook, USAWC, 1996.</i>
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Introduction

- *Greeting.* Address the audience. Identify yourself and your organization.
- *Type and Classification of Briefing.* For example, “This is an information briefing. It is classified SECRET.”
- *Purpose and Scope.* Describe complex subjects from general to specific.
- *Outline or Procedure.* Briefly summarize the key points and general approach. Explain any special procedures (such as, demonstrations, displays, or tours). For example, “During my briefing, I’ll discuss the six phases of our plan. I’ll refer to maps of our area of operations. Then my assistant will bring out a sand table to show you the expected flow of battle.” The key points may be placed on a chart that remains visible throughout the briefing.

Main Body

- Arrange the main ideas in a logical sequence.
- Use visual aids to emphasize main ideas.
- Plan effective transitions from one main point to the next.
- Be prepared to answer questions at any time.

Closing

- Ask for questions.
- Briefly recap main ideas and make a concluding statement.
- Announce the next speaker.

Decision Briefing

A decision briefing obtains an answer to a question or a decision on a course of action. It presents recommended solutions resulting from analysis or study of a problem or problem area. Decision briefings vary in formality and detail depending on the level of command and the decision makers' knowledge of the subject.

In situations where the decision maker is familiar with the problem, the briefing format may resemble that of a decision paper: a problem statement, essential background information, impacts, and a recommended solution. However, briefers are prepared to present assumptions, facts, alternative solutions, reasons for adopting the recommendation, and the coordination involved.

If the decision maker is unfamiliar with the problem, the briefing format resembles that of a decision briefing. The briefing should include facts bearing on the problem, assumptions, and a discussion of alternatives, conclusions, and the coordination involved. The briefer begins by stating, "This is a decision briefing." At the conclusion, if the decision maker does not state a decision, the briefer asks for one. The briefer should be certain that he understands the decision. If uncertain, the briefer asks for clarification. The recommendation the briefer asks the decision maker to approve should be precisely worded in a form that can be used as a decision statement. Presenting the recommendation this way helps eliminate ambiguities. If the decision requires an implementing document, it should be prepared before the briefing and given to the decision maker for signature if the recommendation is approved.

Decision Briefing Format

Introduction

- *Greeting.* Address the decision maker. Identify yourself and your organization.
- *Type and Classification of Briefing.* For example, “This is a decision briefing. It is UNCLASSIFIED.”
- Problem Statement.
- Recommendation.

Body

- *Facts.* An objective presentation of both positive and negative facts bearing upon the problem.
- *Assumptions.* Necessary assumptions made to bridge any gaps in factual data.
- *Solutions.* A discussion of the various options that can solve the problem.
- *Analysis.* The criteria by which you will evaluate how to solve the problem (screening and evaluation). A discussion of each COA’s relative advantages and disadvantages.
- *Comparison.* Show how the courses of action rate against the evaluation criteria.
- *Conclusion.* Describe why the selected solution is best.

Closing

- Questions?
- Restatement of the recommendation.
- Request a decision.

Mission Briefing

The mission briefing is an information briefing presented under tactical or operational conditions. The briefer may be the commander, an assistant, a staff officer, or a special representative.

The mission briefing is used during operations and training and is especially appropriate for critical missions or when it is necessary to give individuals or smaller units information not in the plan or order. The mission briefing can:

- Issue or reinforce an order.

- Provide more detailed requirements or instructions.
- Instill a general appreciation for the mission.
- Review the key points of a forthcoming military operation.
- Ensure participants know the mission's objective, their place in the operation, problems they may confront, and ways to overcome them.

The type of mission or the nature of the information to be presented determines the mission briefing format. The five-paragraph operation order is the most common format used. Others include the movement order, sustainment order, and reconnaissance order.

Staff Briefing

The purpose of a staff briefing is to coordinate unit efforts by informing the commander and staff of the current situation. The person who convenes the staff briefing sets the agenda. Staff representatives each present relevant information from their functional areas.

Staff briefings facilitate the exchange of information, announcement of decisions, issuance of directives, or presentation of guidance. They may have characteristics of information briefings, decision briefings, and mission briefings.

Attendance at staff briefings varies with the size of the HQ, type of operation, and commander's preferences. Generally, the commander, deputies or assistants, chief of staff / XO, and coordinating and special staff officers attend. Representatives from major subordinate commands may be present. The chief of staff / XO usually presides. The commander usually concludes the briefing and may take an active part throughout it.

In garrison, staff briefings (sometimes called "staff calls") are often regularly scheduled. In combat, staff briefings are held as needed. The presentation of staff running estimates culminating in a commander's decision to adopt a COA is a form of staff briefing that incorporates aspects of a decision briefing. In this type of briefing, staff representatives use the running estimate for their respective WFF as an outline.

Military Briefing Checklist

<p>Analyze the Situation and Prepare a Briefing Outline</p> <ol style="list-style-type: none">1. Audience.<ul style="list-style-type: none">• What is the size and composition? Single Service or joint? Civilians? Foreign nationals?• Who are the ranking members and their official duty positions?• How well do they know the subject?• Are they generalists or specialists?• What are their interests?• What is the anticipated reaction?2. Purpose and Type.<ul style="list-style-type: none">• Is it an information briefing (to inform)?• Is it a decision briefing (to obtain decision)?• Is it a mission briefing (to review important details)?• Is it a staff briefing (to exchange information)?3. Subject.<ul style="list-style-type: none">• What is the specific subject?• What is the desired depth of coverage?• How much time is allocated?4. Classification.<ul style="list-style-type: none">• What is the security classification?• Do all attendees meet this classification?5. Physical Facilities and Support Needed.<ul style="list-style-type: none">• Where is the briefing to be presented?• What support is needed?6. Preparation Timeline and Schedule.<ul style="list-style-type: none">• Prepare preliminary outline.• Determine requirements for training aids, assistants, and recorders.• Schedule rehearsals, facilities, and critiques.• Arrange for final review by responsible authority.
<p>Collect Information and Construct the Briefing</p> <ol style="list-style-type: none">1. Collect materials needed.<ul style="list-style-type: none">• Use the Seven-Step Army Problem Solving Method.• Research.• Become familiar with the subject.• Collect authoritative opinions and facts.2. Prepare First Draft.<ul style="list-style-type: none">• Prepare draft outline.• Include visual aids.• Review with appropriate authority.3. Revise First Draft and Edit.<ul style="list-style-type: none">• Verify facts, including those that are important and necessary.• Include answers to anticipated questions.• Refine materials.4. Plan Use of Visual Aids.<ul style="list-style-type: none">• Check for simplicity and readability.5. Practice.<ul style="list-style-type: none">• Rehearse (with assistants and visual aids).• Refine.• Isolate key points.• Memorize outline.• Develop transitions.• Anticipate and prepare for possible questions.

Mechanics of Effective Speaking

The following techniques may prove helpful for the staff officer required to conduct briefings.

- *Language* - Keep it simple! Conversational language works best.
- *Affection* - Be yourself. Period.
- *Gestures* - Use cautiously, although they do tend to ease tensions.
- *Words* - Understandable words work best; make listening easy. Use doctrinal terminology.
- *Sentences* - Let your verbs be verbs and nouns be nouns.
- *Audience contact* - Look at them. Do not ignore them.
- *Humor* - When in doubt, don't use it.
- *Unity* - Keep the subject in the forefront. Don't digress.
- *Accuracy* - Get it right. Check and double check data.
- *Clarity* - Keep it simple and direct.
- *Coherence* - Organize the talk logically.
- *Objectivity* - Tell it like it is. No sales pitch.
- *Completeness* - Tell the complete story. All of it.

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Section 5 - Management, Supervision, and Administration

General Management Considerations

Good staff officers need to be effective managers of resources, especially time and money. They must be good stewards, as resources are, and will continue to be, austere. Management is related to efficiency and requires skills in planning, organizing, directing, coordinating, and controlling resources to accomplish missions and tasks. In many respects, the military has borrowed much from the business world. On the other hand, successful businessmen often look to the military for several reasons: military personnel have developed high levels of skill in the aforementioned managerial areas, they have developed attractive work practices and ethics, and military leadership has proven itself time after time.

Staff Supervision

The typical staffing sequence is as follows: the staff recommends, the commander approves or disapproves, and orders are issued. The remainder of the action consists, primarily, of command and staff supervision of a given action. The staff is committed to do everything within its power to achieve the mission, including assisting the commander to supervise. A few rules concerning staff supervision follow:

Alert Subordinates Quickly

Generally speaking, the sooner a subordinate command is alerted to an upcoming requirement, the greater the chances of success. In fact, timely notification of an action may spell the difference between success and failure.

There are many ways to notify subordinates of upcoming requirements: by telephone, fax, message, through an LNO, a letter, etc. The best means to the situation should be employed. While a telephone notification may be the most expeditious and often used means, it cannot equal face-to-face coordination. Nothing can substitute for personal contact! Meaningful, on-the-spot observation, while a skill in itself, facilitates understanding unmatched by any other method.

Answer the Questions

It is up to the staff officer to answer either the commander's questions or those from a subordinate command. The staff provides the necessary clarification of an issue. The staff at each intermediate HQ should attempt to solve a given problem with its own resources and within its own capabilities before passing it along.

Monitor the Action

The staff monitors the progress of an action once set in motion. This may take many forms, from daily conversations to frequent visits to periodic reports. The degree of contact depends upon the criticality of the action and the speed at which it should move. Items of command interest obviously require more attention than do routine matters, since one of the staff's primary responsibilities is to keep the commander informed. The conduct of coordination visits is a major topic unto itself.

Report on the Action

The staff officer often reports the result of his / her actions and findings, formally or informally, at least to the immediate supervisor. This often takes the form of a trip report.

Administration

Good staff officers must also be effective and organized administrators. They deal with large quantities of information that must be processed, understood, and recalled, as required. The maintenance of data is a staff requirement. All HQ maintain libraries of regulations, manuals, and publications. In addition to these sources, the staff officer must have available and use additional information. Data storage takes many forms:

Memory

A keen memory is a valuable asset to a staff officer. The ability to recall precise facts, figures, and details is indispensable.

Working Files

Record and reference files are very useful, but must be stored properly in accordance with the security classification of the data. There are many forms of working files and even more degrees of detail. There is no "best" way to

maintain these files, but a good rule of thumb is that these files should be useable by others in the absence of the staff officer.

TTP ► A “HOT” box and a series of folders are proven methods to prioritize your daily administrative workload. Examples of folders might include:

- “Do Today”
- “Signature / Approval”
- “INFO / LOW Priority”

BN Commander’s Handbook, USAWC, 1996.

Databases

All HQ maintain a number of databases that can be accessed, but it is often useful for staff officers to maintain separate, more specific databases that they access frequently. These mini-databases are useful, but data constantly changes, and such mini-databases run the risk of containing outdated information. An effort must be made to keep them up-to-date.

Policy Files

Command policy is extremely important, but staff officers often have to maintain other policy files, from other supervisors. It is important to understand the nuances and requirements of supervisors at all levels. An extensive policy file makes a staff officer’s life easier.

Staff Communications

While staff officers are not expected to be communications experts, they are required to be competent communicators, who understand the capabilities and limitations of the available communications systems. These systems include, but are not limited to:

- Computers, especially word processing, graphics, and e-mail.
- Postal and messenger services.
- Electronic messaging.
- Telephones, civilian and military, to include voice mail features.
- Fax.
- Radio.

Section 6 - Meetings

General

Time is one of the most critical elements for any staff officer; usually it is in short supply. Meetings, while a draw on that time, are necessary in order to affect proper planning, synchronization, and allocation of resources. An effective meeting can obtain the desired result and make the most productive use of that limited time.

Meetings should be established for efficiency so time is not wasted. Positions and recommendations should be supported by valid, applicable data and information.

TTP ► Reduce meetings by number, length, and frequency. Make them short and to the point. Use a specific agenda.
BN Commander's Handbook, USAWC, 1996.

Presentation should be based on the same criteria as other correspondence: brevity, clarity, completeness, cohesion, etc.

- Determine if a meeting is necessary.
- Can the appropriate people gather for the meeting at this time?
- Plan the meeting with an agenda and stick to it.
- Identify the objective of the meeting. (Everyone approaches the issue from the same starting point.)
- The staff officer that calls the meeting is the one in charge. (Outcomes or results are clearly identified.)
- Set a time limit and adhere to it.
- Record the results of each agenda item, so you will know what issues still remain to be resolved and what needs to be followed up.

TTP ► The S-3 should schedule, plan, and conduct Weekly Training Meetings and Quarterly Training Briefings that:

- Are IAW FMs 7-0 (this is a good time to teach company / troop / battery commanders about training),
- Are protected from unimportant interruptions,
- Are attended by the commander, primary staff, subordinate commanders, command sergeants' major (CSM), first sergeants, and "slice" representatives.

BN Commander's Handbook, USAWC, 1996.

- TTP The S-3 should schedule, plan, and conduct Weekly Training Meetings and Quarterly Training Briefings that:
 - ▶
 - Are targeted for four hours in length,
 - Begin with a sequential review of the next six weeks of training (starting with Week 6), and
 - Require that resource needs and logistics supportability be addressed by the commander and staff.

BN Commander's Handbook, USAWC, 1996.

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Section 7 - General Staff Advisory Considerations

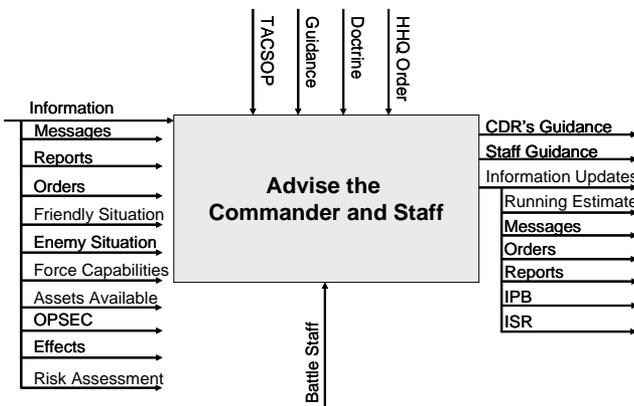
General

Staffs continuously provide relevant information (RI) to their respective commanders on the progress of operations. The staff is offering recommendations and suggestions in order for the Commander to base a decision for action. This RI helps commanders achieve situational understanding. One piece of information alone may not be significant; however, when combined with other information from the common operational picture (COP), it may allow the commander to formulate an accurate commander’s visualization and make an appropriate decision. Staff members inform and advise the commander and other staff members concerning all matters pertaining to their individual fields of interest and related functional responsibilities, specifically on:

- Capabilities, limitations, requirements, availability, and employment of resources.
- Capabilities, limitations, and employment of supporting forces.
- Directives and policy guidance from higher headquarters.

Effective staff officers advise commanders with correct and timely RI and well-analyzed recommendations.

Advising Operational Graphic



Advising Considerations

When advising, consider yourself:

- Am I in a position of knowledge to offer advice, or should I defer?
- Do I have the right information from which to advise?
- Am I approachable if advice is sought?
- Can I advise on information succinctly and clearly?
- Is advising sufficient, or should I provide or arrange for assistance?

When advising, consider your audience:

- Their experience.
- Their duty position.
- The operational environment (static, moving, etc.).
- Their ability to assimilate.
- Time available for them to react.
- Battle rhythm.

When advising, consider your expectations:

- What do you expect from the person you are advising?
- Can the person you are advising achieve your expectations with the advice provided?
- How will you know if the person being advised understands your advice? Are follow-up questions necessary?
- Is your advice time sensitive? Did you stress this?

Staff Advising Tasks

Following are examples of staff areas of interest that may require your advice. They are not meant to be all inclusive, rather as an example of the magnitude of subject area expertise that you may have to manage in order to advise the commander and other staff members.

Entire staff should be able to advise regarding:

- Capabilities, limitations, requirements, availability, employment of resources.
- Capabilities, limitations, employment of supporting forces.
- Directives and policy guidance from HHQ.
- Priorities for employment, distribution, support.
- Acceptable risk and composite risk management.

- Resource allocation and employment synchronization of organic and supporting assets.
- Compliance with operational security (OPSEC).
- Effectiveness of support.
- Identify requirements for additional support.
- Training requirements.
- Changes to the CCIR.
- Inspection results and requirements.
- Matters affecting the command.

S-2, be able to advise regarding:

- Intelligence training plan.
- Intelligence collection capabilities and limitations.
- Intelligence production capabilities and limitations.
- Intelligence to support BN / TF operations.
- Identified intelligence gaps.
- Intelligence preparation of the battlefield (IPB).
- Recommended priority intelligence requirements (PIR).
- Tasking for intelligence collection (to the S-3).
- Need to refocus intelligence collection assets (to the S-3).
- Deception plans (to the S-3).
- New or updated intelligence information received by the unit.
- Adjustments to the ISR Plan.
- Linguist requirements.
- Threat intelligence capabilities.
- Battalion's security programs.
- Intelligence support to information operations (IO).
- Intelligence support to force protection.
- Intelligence support to battle damage assessment (BDA).

S-3, be able to advise regarding:

- Training within the command.
- Training guidance.
- Unit mission-essential task list (METL) development.
- METL-based training requirements.
- Requirements for and allocation of training resources.
- Results of training inspections and evaluations.
- Unit readiness status.
- On-going status of the battle plan.
- Battle impact information.
- Courses of action.

- Suggestions for developing situations.
- Intelligence requirements (to the S-2).
- Integration and synchronization of all WFF areas into the tactical plan.
- Unit task organization and assigned missions.

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Section 8 - After Action Review (AAR)

General

An after-action review (AAR) is a professional discussion of an event, focused on performance standards, that enables Soldiers to discover for themselves what happened, why it happened, and how to sustain strengths and improve on weaknesses. It is a tool leaders and units can use to get maximum benefit from every mission or task. *Training Circular (TC) 25-20*.

The AAR provides:

- Candid insights into specific Soldier, leader, and unit strengths and weaknesses from various perspectives.
- Feedback and insight critical to battle-focused training.
- Details often lacking in evaluation reports alone.

Key Points to Address in AARs

- AARs are conducted during or immediately after each event.
- AARs focus on intended training objectives.
- AARs focus on Soldier, leader, and unit performance.
- AARs involve all participants in the discussion.
- AARs use open-ended questions.
- AARs are related to specific standards.
- AARs determine strengths and weaknesses.
- AARs link performance to subsequent training.

The AAR Format

- Introduction and rules.
- Review of training objectives.
- Commander's mission and intent (what was supposed to happen).
- Opposing force (OPFOR) commander's mission and intent (when appropriate).
- Relevant doctrine and tactics, techniques, and procedures (TTPs).
- Summary of recent events (what happened).
- Discussion of key issues (why it happened and how to improve).
- Discussion of optional issues.
- Discussion of force protection issues (discussed throughout).
- Closing comments (summary).

Types of AARs

- Formal reviews:
 - Have external observers / controllers (O/C).
 - Take more time.
 - Use complex training aids.
 - Are scheduled beforehand.
 - Are conducted where best supported.

- Informal reviews:
 - Conducted by internal chain of command.
 - Take less time.
 - Use simple training aids.
 - Are conducted when needed.
 - Are held at the training site.

The AAR Process

The amount and level of detail leaders need during the planning and preparation process depends on the type of AAR they will conduct and on available resources. The normal AAR process has four steps:

- Step 1. Planning.
- Step 2. Preparing.
- Step 3. Conducting.
- Step 4. Following up (using AAR results).

Step 1 - Planning

- Select and train qualified observer / controllers (O/C).
- Review the training and evaluation plan and Soldier training publications.
- Identify when AARs will occur.
- Determine who will attend AARs.
- Select potential AAR sites.
- Choose training aids.
- Review the AAR plan.

Step 2 - Preparing

- Review training objectives, orders, METL, and doctrine.

- Identify key events O/Cs are to observe.
- Observe the training and take notes.
- Collect observations from other O/Cs.
- Organize observations. (Identify key discussion or teaching points).
- Reconnoiter the selected AAR site.
- Prepare the AAR site.
- Conduct rehearsal.

Step 3 - Conducting

- Seek maximum participation.
- Maintain focus on training objectives.
- Constantly review teaching points.
- Record key points.

Step 4 - Following Up

- Identify tasks requiring retraining.
- Fix the problem -- retrain immediately, SOPs, integrate into tutors training plans.
- Use to assist in making commander's assessment.

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PART 3 - STAFF FUNCTION (INFORMATION MANAGEMENT)

Section 1 - General Information Management Considerations

Information management is one of three interdependent contributors commanders direct to achieve information superiority. Intelligence, surveillance, and reconnaissance (ISR), and information operations (IO) are the other two. *FM 3-0, Operations*, defines information superiority as “the operational advantage derived from the ability to collect, process, and disseminate an uninterrupted flow of information while exploiting or denying an adversary’s ability to do the same.” By gaining and maintaining information superiority, commanders are able to shape their information environment and use information as a key element of combat power. How information is managed by the commander and his staff is paramount to achieving this goal.

FM 3-13, Information Operations: Doctrine, Tactics, Techniques, and Procedures, defines information management as “the provision of relevant information to the right person at the right time in a usable form to facilitate situational understanding and decision making.” The following topics have been selected as critical to successful information management:

- Command Post and TOC operations.
- Battle rhythm and tracking.
- Tactical standing operating procedures (TACSOP).
- Reports and combat records.

Each of these battle staff areas will be addressed with the objective of assisting staff officers with duties and responsibilities and tips and techniques that will help them “provide the right information to the right person at the right time,” in essence, effectively managing information.

Section 2 - Command Posts and TOCs

General

This section discusses command posts and TOCs. The primary references for this section are *FMs 5-0 and 6-0*.

Command Posts

The command post (CP) is the basic HQ organization used to perform command and control (C2) during operations. It is a unit HQ where the commander and staff perform their activities and is often divided into echelons. CPs are the principal facilities commanders use to control operations, and each facility is a CP, regardless of whether the commander is present. Commanders may choose to personally control the battle from other locations. *FM 6-0*.

Most CP functions directly relate to assessing and directing ongoing operations, planning future operations, or supporting the force. CP functions that directly contribute to these tasks include the following:

- Developing and disseminating orders.
- Information management.
- Maintaining staff section / element running estimates.
- Controlling operations.
 - Directing and regulating actions.
 - Performing critical ongoing functions of execution.
- Assessing operations.
- CP administration:
 - Displacement.
 - Providing security.
 - Organizing for operations.
 - Maintaining continuity of operations.

For the BDE / BCT, the basic modular CPs are the Command Group, the Main CP, and the Tactical (TAC) CP. The combined arms BN / TF also has a Combat Trains CP and a Field Trains CP or Support Area CP. The BDE / BCT CP characteristics and functions are synchronous with those at the BN / TF level. *ST 3-90.63, Modular Brigade Combat Team, December 2005 and FM 5-0*).

Command Group

- Consists of the commander and selected staff members.
- Organized and equipped to suit commander's decision making and leadership requirements.

Main CP

- Commander's principal C2 facility.
- The XO is responsible for the Main CP.
- The Main CP moves as required to maintain communications and control.
- Main CP is probably inside a subordinate unit's AO.
- In contiguous AOs, the Main CP is located beyond medium artillery range of the threat.
- The Main CP is organized for 24-hour operations for an extended period of time.
- The normal Main CP functions include:
 - Monitoring / assessing the progress of operations.
 - Monitoring / assessing the progress of higher and adjacent HQ.
 - Performing detailed analysis.
 - Performing mid- to long-range assessment of the overall conduct of operations.
 - Controlling current operations for short periods based on METT-TC.
 - Planning future operations.
 - Developing intelligence.
 - Conducting detailed coordination.
 - Providing a facility for the commander to control operations, issue orders, and conduct rehearsals.

Tactical CP

- The Tactical CP (TAC CP) is austere and forward deployed.
- Used when the commander must be away from the Main CP for an extended period or when the Main CP is moving.
- Usually the S-3 is responsible for the TAC CP.
- TAC CP functions depend on connectivity to the Main CP.
- Normal TAC CP functions include:
 - Controlling current operations, to include re-synchronizing forces and WFFs.
 - Providing information to the COP.
 - Monitoring / assessing the progress of operations.
 - Monitoring / assessing the progress of higher and adjacent units.
 - Performing targeting for current operations.

- Performing short-range planning.
- Providing input to future operations planning.
- Providing a facility for the commander to control operations, issue orders, and conduct rehearsals.

Tactical Operations Center

General

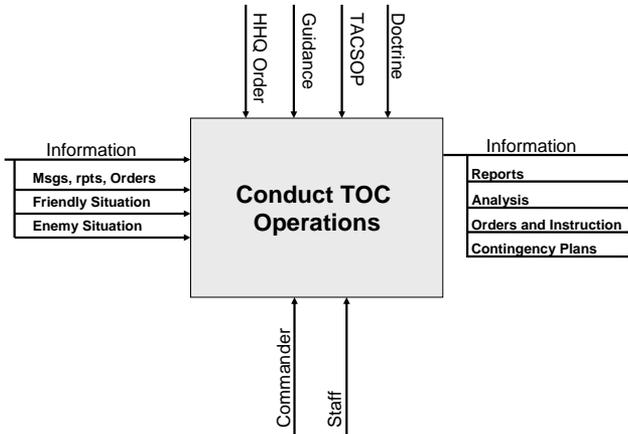
The Tactical Operations Center (TOC) serves as the unit's C2 hub and is key to assisting the commander in synchronizing operations. It is the location where the majority of planning, staff coordination, and monitoring of key events occur. Those personnel that man the TOC are responsible for ensuring that the right resources have been brought together and are used to provide the right information to the right people at the right time. TOC personnel must function as a team where each member understands the overall function of the TOC and how they individually and collectively contribute.

This guide addresses TOC operations from the standpoint of:

- TOC functions.
- TOC assessment.
- TOC operations checklist.
- Shift change.
- TOC configuration.
- Battle rhythm.
- TOC information management.
- Duties and responsibilities.

The following task graphic provides a brief capture of the TOC operational process.

TOC Operational Graphic



TOC Functions

There are six high-level TOC functions. Each is critical and interrelated. The order in which they occur may vary.

- Receive information.
- Distribute information.
- Analyze information.
- Submit recommendations to the commander.
- Integrate resources.
- Synchronize resources.

Receive Information Tasks:

- Receive messages, reports, and orders from subordinate units and HHQ.
- Monitor the tactical situation.
- Maintain a journal of all significant activities and reports.
- Maintain and update unit locations and activities.
- Monitor the enemy situation.
- Maintain a status of critical classes of supply.

Distribute Information Tasks:

- Submit reports to HHQ.
- Serve as a communications relay between units.

- Develop and disseminate orders and instructions.
- Process and distribute information to appropriate units and staff sections.

Analyze Information Tasks:

- Consolidate reports.
- Maintain situational understanding (SU) and the common operational picture (COP) (know yourself, the threat, and the terrain).
- Maintain running estimates.
- Anticipate events and activities and take appropriate action, as required.
- Conduct predictive analysis based on the tactical situation.
- Identify information that relates to the CCIR.
- Conduct the MDMP.
- Identify the need to execute contingency plans based on the current situation.
- Assess operations.

Submit Recommendations to the Commander Tasks:

- Submit recommendations to the commander based on information available and analysis conducted.
- Use the *decision support template (DST) / matrix* to focus recommendations to the commander.

Integrate Resources Task:

- Coordinate the integration of combat multipliers.

Synchronize Resources Task:

- Coordinate the synchronization of combat multipliers.
- Control operations.
- Coordinate with higher, lower, and adjacent units.
- Conduct CP administration, to include displacement operations, security operations, organizing the CP, and maintaining continuity of operations.

TTP ► Expect the unexpected! Have a backup communications plan if secure nets don't work. <i>BN Commander's Handbook, USAWC, 1996.</i>

- TTP ►
- Recognize that TOC functions and tasks are not easily accomplished and may not be successfully accomplished by a single individual.
 - Every TOC contributor must have a clear understanding of the TOC mission.
 - Each Soldier in the TOC must contribute to the accomplishment of the six TOC functions. Identify the gaps if there are any.

TOC Assessment

The S-3’s assessment of the TOC is critical to sustained TOC effectiveness. You can’t make adjustments to TOC processes unless you know the processes involved, assess them to determine effectiveness, and identify what it will take to make them more effective. Following is an assessment tool that S-3s can use to gauge the effectiveness of the TOC.

Sample TOC Assessment Tool

<i>Assessment Question</i>	<i>Answer</i>	<i>Action(s) Required</i>
Is there a current TOC SOP?		
Do RTOs know the mission of the TOC? Does the TOC SOP address and explain the mission?		
Can a newly assigned 2LT, SSG, or SPC read the TOC SOP and determine their duties and responsibilities?		
How often does the TOC deploy to the field? Is the slice included?		
On the current operations map, are both the threat and friendly units posted two levels down?		
Are there places reserved in front of the current operations map for the commander, XO, and S-3 to view the map while using the radio?		
Does the TOC police the communications net and enforce net discipline?		
How often do TOC RTOs get the hand mike pulled away from them by an officer?		
Who posts and updates the operations and intelligence maps...officers, NCOs, Soldiers?		
During the peak of the battle, are incoming messages occasionally lost or misplaced?		
Do the RTOs know the meaning of CCIR?		
Do your NCOs have a detailed understanding of the MDMP? Do they participate / contribute to the process?		
Who serves as recorders while the staff conducts wargaming... officers, NCOs, Soldiers?		
When responding to requests for information, does the TOC have to make several inquiries before providing an answer?		

There may be many other assessment questions you may want to add to your assessment tool. If the answers to these questions are not satisfactory, identify the actions required to correct the deficiencies.

- TTP ►
- Regardless of staff position, TOC assessment is critical. While the S-3 may use the assessment above, each staff officer should create an assessment tool for their respective TOC section.
 - Incorporate the six TOC functions into the TACSOP.
 - Identify what is expected of the TOC.

TOC Operations Checklist

- _____ BN battle tracking (unit rosters, reporting and situation tracking).
- _____ Civil-military operations (CMO) requesting, tracking, coordination and information operations (IO) targeting.
- _____ BN / TF estimate workbook / journal.
- _____ Sleep plan and shift plans / Shift Chart by name enforced.
- _____ Ready pre-made OPORDS, reports, templates, combat power tracking sheet, etc. during down times.
- _____ Include graphics like unit “stickies,” etc.
- _____ AARs for both specific operations or overall issues or team / staff weaknesses and strengths overall.
- _____ Rules (eating, drinking, sleeping, hot washes, badge, equipment arrangement).
- _____ Enforce sound, noise, light disciplines.
- _____ Enforce vehicle start schedule and generator fueling and change-over schedules.
- _____ Status Boards - S-3, S-2, FDO (lap), NBC (lap), CA, MISO.
- _____ Summaries posted (operations, intelligence, etc.)
- _____ Journal (DA Form 1594 Logs - past, present and Joint message book).
- _____ Ledger (S-3, S-2, S-5) to track specific IR, CCIR, CMO actions.
- _____ Shift change-over briefs (formal – time).
- _____ Jump TOC SOP equipment, forms, references available.
- _____ commander’s abbreviated update, any time of day.
- _____ Standard briefing sequence (S-2, S-3, S-6, etc.)
- _____ Significant activities.
- _____ Future plans.
- _____ Issues.
- _____ Situation Maps (operations, intelligence, fire support / fire direction).
- _____ Field footlocker (per SOP, packing list to include: forms / supplies / manuals).

- _____ Pre-Combat checklist.
- _____ Preventive Maintenance Checks and Services (PMCS) (Vehicles, Generators, Radios, Weapons).
- _____ Movement / closure reports and orders forms.
- _____ Casualty evacuation (CASEVAC) procedures.
- _____ Battle Roster of entire BN / TF and any attachments.
- _____ Radio-Telephone Operator (RTO) Cheat Sheets.
- _____ WARNO / FRAGO.
- _____ Blank orders pre-formatted.
- _____ Frequency change-over / signal operating instructions (SOI) with 2-day flip.
- _____ SOI compromise plan / counter-jamming SOP.
- _____ TOC CBRNE team identified.
- _____ Defense sketches, range cards, TOC layout diagram.
- _____ IO targets.
- _____ Weather posted.
- _____ Communications and logistics status chart.
- _____ TOC Continuity Book (layout, load plan, job description, recurring actions, etc.).
- _____ TOC immediate action drills.
- _____ Artillery attack / air attack / CBRNE attack / ground attack procedures.
- _____ Frequency call sign de-confliction twenty-four hours out.
- _____ Operation schedules, standardized and published.
- _____ Intelligence summaries (INTSUM).
- _____ Orders groups have been identified.

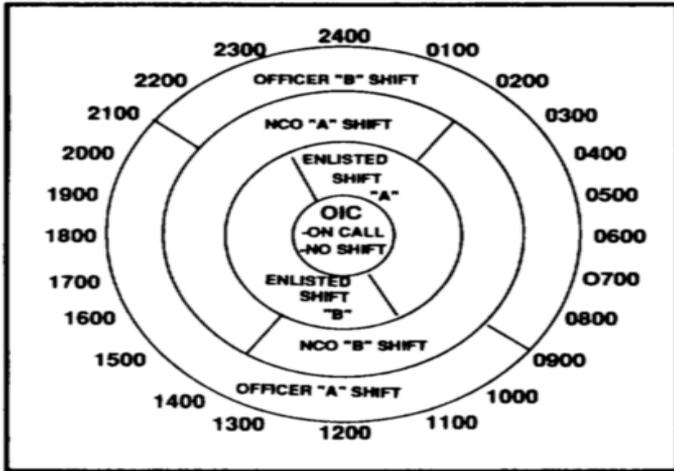
TTP ► Train in the TOC as much as possible. One example of such training would be to conduct OPOD drills in a time-constrained environment. <i>BN Commander's Handbook, USAWC, 1996.</i>

Shift Change

During tactical operations, the BN / TF uses the staggered shift change technique to maintain continuity of information during each 12-hour shift window. The staggered shift is implemented by each TOC element independently, depending on reporting requirements and peak load times. The staggered shift change involves scheduling officers, NCOs, and enlisted Soldiers on overlapping shifts so that the new shift element has access to a body of knowledge four to six hours old. The shift wheel technique may be used by each internal cell and element within the BN / TF TOC,

Administrative / Logistics Operations Center (ALOC), and Field Trains. Company CPs will implement a similar system.

Shift Change Wheel



When the CP displaces, it should do so without unduly disturbing the sleep cycle of off-shift personnel. Every effort should be made to ensure off-shift personnel receive all the rest the tactical situation will allow so that they are as physically rested and mentally alert when they come on shift. When rest for the off shift is not feasible, essential rest periods will be reestablished as soon as possible.

TTP ► The S-3 organizes, trains, and rehearses TOC personnel. Cross train all TOC personnel in other areas to ensure continuous operations.
BN Commander's Handbook, USAWC, 1996.

Sample Shift Change Briefing

- Current mission and Commander's intent (XO)
- Threat situation (S-2)
- Civil situation (S-9)
- Friendly situation (S-3)
- Running estimate summaries by WFF / staff section
- CP operations / administration (HQ commandant or OPS NCO)
- XO guidance to the next shift, including -
 - staff priorities
 - changes to the battle rhythm

FM 5-0

TTP ► The HHC commander or Commandant should be charged with the following responsibilities:

- Development and setup of the TOC security plan,
- Publication of, and adherence to, a vehicle dismount and parking plan,
- Development of, and adherence to, a prioritized list of events when occupying a new TOC site
- Setup of CBRNE defense systems,
- Setup of mess, sleeping, and latrine facilities in the TOC vicinity, and
- Procedures for daily preventative maintenance checks and services of TOC vehicles.

BN Commander's Handbook, USAWC, 1996.

Orders Groups

The BN / TF orders group assembles to develop and disseminate oral or written orders. Orders groups assemble at a location and time designated by the commander. The commander will call upon one of the following orders group compositions, depending on the situation.

Sample Orders Groups

Orders Group A	Orders Group B	Orders Group C
BN CDR w/CMD GRP	BN Commander	BN Commander
S2	BN XO	BN XO
S3	S2	BN CSM
Company Commanders	S3	Company Commanders
Scout PLT LDR	FSO	Scout PLT LDR
Mortar PLT LDR	Company Commanders	Mortar PLT LDR
	Scout PLT LDR	S1
	Mortar PLT LDR	S2
		S3
		S4
		S6
		FSO
		Engineer
		ADO

TOC Configuration

The physical layout of the TOC will directly impact its effectiveness. TOC layout contributes to how efficiently messages are passed from one staff section to another and how effectively sections communicate. That said, there is no doctrinally-approved TOC configuration, however, there is a publication available at <https://www.us.army.mil/suite/page/547567> called the *Warfighter’s Command Post Handbook* that provides tremendous detail and insight on Tactical Operation Centers; their organization, characteristics, establishment, transportability, sustainment, field and training support as well as equipment and maintenance. The commander, XO, and S-3 must identify what techniques best satisfy their mission requirement; plan for implementation through a well-thought-out TOC SOP, and implement. No matter the configuration, there are three common factors that affect the effectiveness of the TOC.

- A high degree of organization.
- Configured in a manner that facilitates functionality and precludes segregated staff sections.
- Planning areas segregated from briefing and operational areas.

TTP ► Rehearse battle staff functions in various TOC configurations (e.g., stationary, displacing / jump, and partial).
BN Commander’s Handbook, USAWC, 1996.

Simply put, know where everything goes. Every staff officer should be able to refer to the TOC SOP and know what has to be packed into what and where each item goes when the TOC is established.

TTP ► Develop packing lists for supply footlockers and field desks; Include them in the TOC SOP; use and enforce them.

Functionality (Physical Configuration)

Staff section positioning in the TOC is critical and should be accomplished using the factors of mission, enemy, terrain, time available, troops available, civilians (METT-TC). Having the S-2, S-3, and FSE positioned together has proven effective in most mission circumstances. In Stability Operations, having the S-9 (CMO) in close proximity to the S-2 / S-3 may be the best arrangement. Following are configuration considerations.

TTP ►

- Staff section proximity configured by METT-TC.
- XO and / or Battle Captain centrally located in the TOC.
- Configure to a standard and enforce.
- Different environment and conditions may dictate different configuration.
- Different operations may dictate different configurations for movement, e.g., configured for rapid displacement.
- Established (SOP) positioning for Civil Affairs, MISO, Engineer, Aviation, Plans, etc.
- Traffic in and through the TOC.
- Reproduction equipment.
- TOC storage.

TTP ► The TOC should be small, light, and organized for 24-hour operations. It should be streamlined but survivable.
BN Commander's Handbook, USAWC, 1996.

Planning Area

Minimize distractions when locating your planning area. If available resources preclude having separate operations, planning, and briefing areas, consider an area that can double for planning and briefings.

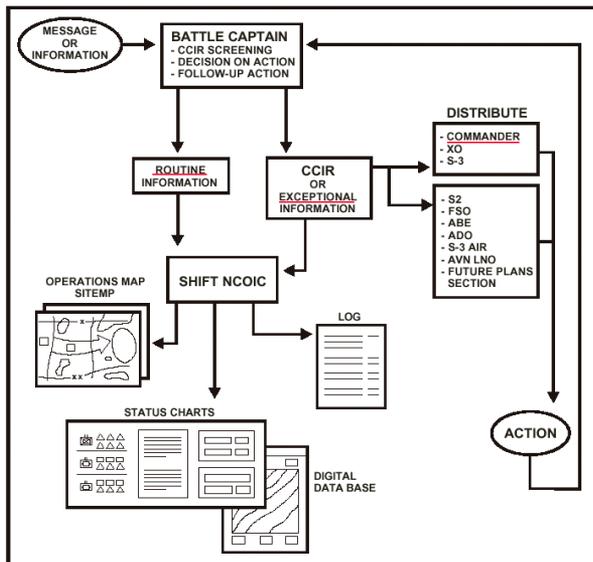
TTP ► Plan for a separate area that accommodates planning and briefings.
 Conduct briefings outside when feasible to free up space for planning.

Managing TOC Information

Managing information within the TOC must be planned for and carefully monitored. There must be a dedicated and deliberate process for information flow. Following is an example sequence for managing information in the TOC:

- Step 1. Receive information. (Check for completeness and reasonableness).
- Step 2. Record and post the information received.
- Step 3. Understand the information.
- Step 4. Process the information
- Step 5. Analyze the information.
- Step 6. Disseminate the information.
- Step 7. Safeguard the information.
- Step 8. Follow up.

Sample TOC Message Flow



TTP ► Identify / categorize the information that flows into the TOC into “routine,” “exceptional,” and “CCIR.”

Visual displays of information in the TOC will generally change by operational phase:

- Planning Phase.
- Preparation Phase.
- Execution Phase.
- Post operation.

Staff responsibility for displays (e.g., charts) can be accomplished via color coding. One standard for color coding of information follows:

- Blue = Operations.
- Green = Intelligence.
- Red = Personnel.
- Yellow = Sustainment.

Potential Information Displays by Operational Phase

- Planning Phase:
 - Specified, implied, and mission-essential tasks.
 - HHQ mission statement and intent.
 - Weather data.
 - Constraints.
 - Critical facts and assumptions.
 - Time line, including expected enemy events.
 - Unit mission statement.
 - Task organization.
 - Commander’s guidance.
 - COA development sketch.
 - Synchronization matrix.
 - Wargame worksheet.
 - CCIR.
 - COA comparison.
 - Decision support matrix.

- Preparation Phase:
 - CL III / IV / V status.
 - Subordinate units order issue and rehearsal status.
 - Task organization completion status.

- Maintenance status.
 - Combat power.
 - Rehearsal status.
 - Survivability status.
 - Obstacle completion status.
 - Engagement areas.
 - Target reference point emplacement.
- Execution Phase:
- Combat power.
 - Unit locations and activities.
 - CL III / V status.
 - Threat contacts, locations, and movements.
 - Threat BDA.
 - Aid station locations.
 - Friendly assets in sector.
 - Status of adjacent units.
- Post Operation:
- Unit equipment readiness.
 - Unit personnel strength.
 - Re-supply status of CL III, V, and IX.
 - Unit locations.
 - Consolidation and reorganization status.
 - Maintenance and casualty collection status.

TTP ► Displace the TOC frequently, during daylight and at night. <i>BN Commander's Handbook, USAWC, 1996.</i>
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TOC Duties and Responsibilities

The following duties and responsibilities primarily address S-2 and S-3 actions in the TOC. Other key TOC personnel have been included.

XO

- Synchronize and coordinate the efforts of all staff sections in the TOC.
- Operate from the TOC and supervise all TOC activities.
- Supervise and coordinate the staff during the MDMP.
- Supervise the analysis and assessment of all information and submit recommendations to the commander.
- Supervise and ensure proper information flow within the TOC.

- Anticipate and synchronize operations from the TOC as situation allows.

S-3

- Gain and / or maintain situational understanding.
- Participate in the MDMP.
- Prepare, coordinate, authenticate, publish, and distribute the TACSOP, OPORDs, FRAGOs, WARNOs, and OPLANs in coordination with other staff officers.
- Review entire OPLANs and OPORDs for synchronization and completeness.
- Review plans and orders of subordinate units
- Develop and provide applicable graphics to subordinate elements.
- Acknowledge and record receipt of orders and graphics by all subordinates.
- Process, analyze, and disseminate information.
- Prepare, update, and maintain operations running estimate in accordance with TACSOP and / or commander's guidance.
- Issue FRAGOs to implement guidance or directions of the commander.
- Verify FRAGOs are received by all necessary elements.
- Participate in targeting.
- Conduct staff coordination.
- Coordinate and manage battlefield update briefs (BUB) and shift changes.
- Monitor the battle.
- Recommend:
 - information requirements (IR) to the S-2.
 - allocation of time (available planning time).
 - allocation of ammunition basic loads and the controlled supply rate (CSR) of ammunition.
 - allocation of personnel and equipment replacements.
 - allocation of electronic frequencies and secure key lists.
 - use of resources to accomplish both maneuver and support.
 - general locations of CPs.
 - task organization and assign missions to subordinate elements.
- Determine the restricted supply rate (RSR).
- Task ISR elements to collect the commander's PIR.
- Integrate fire support into all operations.

- Plan tactical troop movement, including route selection, priority of movement, timing, security, bivouacking, quartering, staging, and preparation of the Movement Order.
- Determine sustainment resource requirements in coordination with the S-1 and S-4.
- Participate in COA and DST development with other staff officers.
- Plan and supervise:
 - OPSEC.
 - force protection measures.
 - A2C2.
 - communications operations IAW the S-6.
 - area damage control.
 - rear operations.
 - operations concerning enemy prisoners of war (EPW) and civilian internees in coordination with the S-1 and S-4.
- Develop, maintain, and revise the troop list.
- Assign, attach, and detach units, detachments, or teams.
- Receive units, detachments, or teams.
- Exercise coordination of staff responsibility for the air liaison officer, aviation liaison officer, chemical officer (CHEMO), fire support officer, liaison officer, military information support operations officer, if available.
- Plan and coordinate:
 - mobility, counter-mobility, and / or survivability (MCS) operations.
 - CBRNE defense and smoke operations w/ the CBRNE Section.
 - signal security (SIGSEC) measures with the S-6.
 - terrain management.
 - ISR Annex with the S-2.
- Assign ISR assets to find and / or verify route, approach, and obstacle characteristics.
- Identify existing obstacles and likely or effective potential positions for reinforcing obstacles along threat routes, friendly approaches, and other routes.
- Assign MCS tasks for execution.
- Assess and track the current battle and monitor the execution of decisions.
- Select and prioritize critical MCS tasks IAW their contributions to the concept and the commander's priorities.
- Quickly disseminate critical information to the commander, staff, and subordinate and supporting HQ.
- Continuously monitor the situation and the progress of the operation.

- Direct adjustments to ensure that operations remain aligned with the commander's intent.
- Coordinate information impacting operations with forward, adjacent, supporting, and supported elements.
- Support the command group's command, control, and coordination of the battle.
- Keep the commander updated by providing concise consolidated updates.
- Communicate with subordinates the commander cannot reach.
- Coordinate additional support from the HHQ.
- Act as net control station (NCS) for the Command Net.
- Plan future operations.
- Execute contingency plans:
 - to be executed based on coordination with the S-2.
 - transition from original tactical plan to execute predetermined contingency plans.
 - clarify decision point(s) (DP) for implementation.
 - monitor developments in situations not foreseen.
 - direct execution based on commander's guidance.
 - issue necessary orders.
 - monitor execution.
- Submit all required operational reports IAW the TACSOP and / or guidance from HHQ.
- Comply with ROE and / or ROI.
- Consider ROE and / or ROI during planning operations.
- Enforce ROE and / or ROI during execution.
- Determine essential elements of friendly information (EEFI) and OPSEC vulnerabilities.
- Evaluate and plan counter-surveillance operations and countermeasures.
- Transfer information and functions of the current operation upon TOC displacement.

Battle Captain

General Tasks:

- Keep Command Group informed.
- Supervise TOC information flow.
- Ensure battle staff collects, processes, and disseminates information.
- Shield commander from non-critical information.
- Get decisions from the commander.
- Line supervision of battle staff shift.

Battle Command Training Center - Leavenworth (BCTC-Lvn)

- Quality control of battle tracking.
- Battle staff coordination.
- Information link to subordinate, higher, supporting, and adjacent units.
- Integration of MDMP activities.
- Battle staff synchronization during mission execution.
- Ensure the TOC can operate continuously while static or mobile.

Specific Tasks with Checklists:

- Evaluates recorded information:
 - ___ Information relevant to mission?
 - ___ Time of message-to-time logged in (timeliness)?
 - ___ Comparison of recorded info to messages received?
 - ___ Radio messages recorded correctly?
- Ensures battle staff coordination of information:
 - ___ Which section(s) are affected?
 - ___ Directs shift information exchange.
 - ___ Verbal reporting, staff huddles?
 - ___ Distribution?
 - ___ Posting?
- Handles operational information:
 - ___ How it impacts mission?
 - ___ Critical to CCIR, DST?
 - ___ Information critical or routine?
- Influences battle staff information gathering:
 - ___ Information “pull” from subordinate, higher, and adjacent units?
 - ___ Employ information “pull” techniques.
 - ___ Monitors all nets.
- Prepares / disseminates FRAGOs:
 - ___ Guidance from commander?
 - ___ IAW TACSOP?
 - ___ Reviewed by commander or XO?
 - ___ Verify receipt?
 - ___ Re-transmit?

- Executes abbreviated MDMP:
 - ___ Affecting commander's DST?
 - ___ Staff huddles to refine COA?
 - ___ Record staff huddle results?
 - ___ Brief XO?
 - ___ Recommendation for commander?

- Ensures commander's situational understanding:
 - ___ Selected via correlation to CCIR?
 - ___ Selected via correlation to DST criteria?
 - ___ Selected via correlation to staff synchronization matrix?
 - ___ Direct preparation of the commander's update?
 - ___ Inform XO?

- Monitors battle staff actions:
 - ___ Which sections affected?
 - ___ Correct actions taken?
 - ___ Direction required?
 - ___ Inform XO of shortfalls?

- Processes relevant information:
 - ___ Placed in commander's situation update?
 - ___ Coordinated with higher, lower, and adjacent HQ?
 - ___ Transmitted per TACSOP?
 - ___ Transmitted via correct channel?
 - ___ Relevancy correlates with staff synchronization matrix?

- Supports transfer of C2 during TOC displacement:
 - ___ Provides notification when prepared to reassume C2?
 - ___ Provides notification of anticipate time of C2 transfer?
 - ___ Verified transfer of functions to assume C2?
 - ___ Provides net call regarding resumption of C2?

- Conducts battle tracking:
 - ___ TOC personnel briefed on responsibility for tracking reports and actions to take?
 - ___ Staff log initiated to record events?

- ___ Operations NCOIC maintaining copy of all current information?
- ___ Periodic updates conducted and attended by key personnel?
- ___ Significant activities chart prepared and updated to brief commander and TOC visitors?
- ___ Staff analysis provided to higher, subordinate, and adjacent units as to synchronize current operations?

S-2

- Requests support and information from HHQ if not available organically.
- Participates in the preparation, coordination, authentication, and distribution of orders and operations plans.
- Develops and provides applicable graphics to subordinate elements.
- Coordinates and supervises military intelligence, counter-intelligence, and security activities.
- Collects, processes, analyzes, and disseminates information.
- Maintains threat situation; maintains maps and charts on current threat situation.
- Briefs threat situation, as necessary.
- Coordinates with the S-3 for processing materials taken from EPWs.
- Synchronizes tactical operations with all staff.
- Assesses and tracks the current battle and monitors the execution of decisions.
- Provides immediate and continuous feedback to the commander when new or updated intelligence is received.
- Identifies and analyzes current and future operations.
- Supervises the S-2 Section and S-2 personnel.
- Provides weather data.
- Updates BDE ISR plans.
- Keeps the commander informed of all critical intelligence developments.
- Provides target information.
- Transfers information and functions of the current operation upon TOC displacement.

CSM

- Advises and counsels NCOs on their TOC responsibilities.
- Selects and retains qualified NCOs for the TOC.
- Monitors TOC operations and NCO participation.

OPS SGM

- Enforces standards in the TOC.
- Ensures proper distribution of reports, messages, information received.
- Maintains operations map and combat power charts.
- Supervises publication of OPLANs, OPORDs, WARNOs, and FRAGOs.
- Ensures that frequencies and call signs are posted and that frequencies and power settings are correct.
- Coordinates with the HQ Commandant for defense of the TOC.
- Supervises operations clerk, vehicle drivers, and RTOs.
- Participates in quartering party to select future TOC site.
- Ensures that S-3 TOC vehicles, radios, and generators are serviced and operational.
- Enforces noise and light discipline.
- Ensures shift change in accordance with TOC SOP.
- Advises and updates Battle Captain, S-3, and XO.

OPS NCO

- Attends meetings with HQ Commandant.
- Acts as night shift NCOIC.
- Supervises internal TOC battle tracking systems.
- Monitors FRAGO control book.

Shift NCO

- Reviews combat power board.
- Reviews execution matrix.
- Ensures all WFF representatives are present.
- Ensures accuracy of status reports.
- Updates mission statement.
- Updates commander's intent
- Updates task organization.
- Updates unit locations.
- Checks communications net status.
- Maintains current challenge and password.

Staff / Section NCO

- Collects, processes, and disseminates information.
- Prepares, reviews, and issues OPLANs and OPORDs.

- Coordinates, synchronizes, and integrates resources.
- Tracks the battle.

RTO

- Maintains communications with all stations as net control station.
- Receives reports and maintains journal from lower and higher units.
- Submits reports to higher and lower units.
- Knows and understands CCIR in order to alert the Battle Captain.
- Posts current frequencies, call signs, challenges, and passwords.
- Briefs the incoming RTO at shift change.

- | |
|--|
| <p>TTP ►</p> <ul style="list-style-type: none">▪ All skills are perishable. Consider this when planning the frequency of TOC personnel training.▪ Include in the TOC SOP who should post maps.▪ Check maps periodically for “as of” time, accuracy, etc.▪ The NCOIC should check TOC journals periodically.▪ Set up maps and RTO near radios.▪ Talk to and monitor forward, rear, and adjacent units.▪ Make sufficient room to work.▪ Non-essential personnel should stay out of the TOC.▪ Identify and develop your tracking tools before an action occurs.▪ Conduct staff huddles at important events or periodically.▪ Do not conduct shift changes during high-intensity battle activities.▪ Ensure thorough briefings and updates during shift changes.▪ Use NCOs; assign responsibilities. |
|--|

Section 3 - Battle Rhythm

General

Battle rhythm is the deliberate daily cycle of command, staff and unit activities intended to synchronize current and future operations. Unit battle rhythm involves the routine tasks done to set the conditions for success. Battle rhythm allows the unit to function at a sustained level of efficiency for extended periods.

Elements of Battle Rhythm

Battle rhythm is a multi-faceted concept that includes the following four elements:

- Processes and SOPs.
- Rest and sleep plans.
- Trained second and third leadership echelons in the TOC.
- Nested time lines.

Battle Rhythm Tenets, Considerations, and Requirements

- The higher unit's battle rhythm drives the battle rhythms of subordinate units.
- Events listed on a published battle rhythm will be incorporated in training.
- As missions change, so will the battle rhythm.
- Publish the unit battle rhythm before deployment and be prepared to update it with mission changes.
- The unit battle rhythm helps synchronize and de-conflict any assets required for mission planning and execution and assists in synchronizing the unit staff.
- Battle rhythm is a guide.
- Units will refer to their battle rhythm to avoid overlooking critical events and to maintain flexibility to take advantage of battlefield opportunities.
- Lay a foundation for battle rhythm before deploying:
 - Ensure the second and third echelons of CP leadership are well trained.
 - Establish processes and SOPs that facilitate making routine actions, routine.
 - Have standard CP SOPs, drills, and briefings.
 - Perform parallel planning, not sequential planning.

- Without an established battle rhythm, units tend to reach a point of diminishing returns between 72 - 96 hours of operation; leader fatigue sets in, information flow is affected, planning procedures are overlooked, and general task execution suffers.
- Symptoms to look for:
 - Disjointed time lines between various levels of command.
 - Leader fatigue.
 - Leaders who are not fully aware of critical DPs.
 - Leaders who are not available at critical DPs.
 - Unnecessary friction.
- Establish time frames for the operation that ensures extended, continuous operations.
- Nesting (integrating and synchronizing) the commander's intent, higher and lower is critical.
- BN / TF rehearsals will not conflict with important company-level activities in their internal time line.
- Units will develop detailed rest plans and enforce them.
- Accomplish contingencies and establish the criteria for leader involvement.

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Sample Battle Rhythm, Stability Operations

Time	Brigade	Battalion	Company	Platoon
0500	Staff Estimates	Staff Estimates	Execution	Execution
0600	Shift Change/BUB	shift change/BUB		
0700	Conference call w/Div			
	Receive guidance			
0800	Conference call w/BN	Conference call w/BDE		
	Issue guidance	Receive guidance		
0900	MDMP/targeting mgt	Conference call w/Co	Conf call w/BN	
		Issue guidance		
1000		Staff huddle		
		Cdr battlefield circulation		
1100	Order prep			
1200	Issue FRAGO	Receive FRAGO	Receive	
	(next 24-36 hrs)	Issue WARNO	WARNO	
1300	Staff huddle	TDMP/Targeting Mgt	Issue	Receive
	Cdr battlefield circulation		WARNO 1	WARNO 1
1400		Order prep	TLP	TLP
1500		Issue FRAGO	Receive	
		(next 12-24 hrs)	FRAGO	
1600	BN Cdr backbrief	Back brief to BDE Cdr	Issue	Receive
		Staff huddle	WARNO 2	WARNO 2
		Initiate recon		
1700	LOGPAC	LOGPAC	LOGPAC	Receive
	Running estimates	Running estimates	Issue FRAGO	FRAGO
1800	Shift change/BUB	Shift change/BUB		
1900		Co Cdr back brief	Back brief to BN Cdr	
2000			Rehearsals	Rehearsals
2100	Staff huddle	Staff huddle	Troop	Troop
	Intel update	Intel update	Movement	movement
2200				
2300			Execution/prep	Execution/prep
2400				
0100				
0200	Staff huddle	Staff huddle		
	Intel update	Intel update		
0300				
0400				
0500	Running estimates	Running estimates		
0600	Shift change/BUB	Shift change/BUB		

CALL Newsletter 97-8

Section 4 - Battle Tracking

General

Managing information within the TOC directly affects a unit's ability to track combat operations.

Battle tracking involves:

- Monitoring locations, activities, and combat power of friendly and threat elements.
- Comparing planned or adjusted activities to reported actions.
- Monitoring the progress of adjacent and supporting units.
- Updating templates.
- Maintaining and monitoring the operations map, adjacent unit activities, and status charts.

- | | |
|-------|--|
| TTP ▶ | <ul style="list-style-type: none">▪ Develop a tracking system . . . then use it; make sure all TOC personnel understand the system and participate.▪ Develop standard tracking charts and overlays.▪ Identify and prioritize items to be tracked.▪ Track friendly <u>and</u> threat units; use color coding.▪ Keep the noise down and restrict TOC access.▪ Do not allow a backlog of messages.▪ Establish and follow procedures for battle tracking during displacement operations.▪ <i>BN Commander's Handbook, USAWC, 1996.</i> |
|-------|--|

- | | |
|-------|---|
| TTP ▶ | <ul style="list-style-type: none">▪ You cannot effectively track the battle unless you can handle basic message traffic, and have an effective means of displaying and recording information.▪ Information display, message handling, and battle tracking are inseparable. |
|-------|---|

Example Tracking Charts

HHQ Mission and Intent Format

MISSION (higher)
COMMANDER'S INTENT (higher)

AS OF: _____

CCIR Format

(By Phase)

PIR
FFIR

AS OF: _____

Combat Power Format

COMBAT POWER				
UNIT	M1_	M2_	EFFECTIVENESS	STATUS
TF ____				
TF ____				
TF ____				
TF ____				
UNIT	M109A6	M2_	EFFECTIVENESS	STATUS
____ FA				
____ FA				

AS OF: _____

Task Organization Format

TASK ORGANIZATION			
____ TF/BN	____ TF/BN	____ TF/BN	____ TF/BN
BRIGADE			

AS OF: _____

Unit Locations Format

UNIT LOCATIONS

___ TF/BN	___ TF/BN	___ TF/BN	___ TF/BN
TOC	TOC	TOC	TOC
___	___	___	___
___	___	___	___
___	___	___	___
___	___	___	___
___	___	___	___
___	___	___	___
___	___	___	___

BDE MAIN	FA BN TOC	DIV MAIN
BDE TAC	Q-36	DIV TAC
BDE REAR	___ BTRY	___
SEN/LEN	___ BTRY	___
RETRAINS	___ BTRY	___

AS OF: _____

Assets Available Format

ASSETS AVAILABLE

AS OF: _____

ASSET	ASSIGNED	FMC	NMC/DESTROYED
M1			
M2			
INF SQD			
MCB/ROLLER			
MORTAR			
SCOUTS			
M109			
STRIKER			
Q-36			
SAPPER SQD			
MICLIC			
AVLB			
ACE			
VOLCANO			
DOZER			
BFSV			
AVENGER			
MANPAD			
LEN/SEN			
GSR			

Light and Weather Data Format

LIGHT DATA		SR	EENT	SS	MR	MS	%ILLUM	AS OF: _____	
DATE	BMNT								

WEATHER		WIND SPEED & DIR	VISIBILITY	PRECIP	CLOUD COVER	HUMIDITY	
DATE	HIGH/LOW TEMP						

Fire Support, Protection, CBRNE Status Format

FIRES	PROTECTION	CBRNE
ESSENTIAL FIRE SUPPORT TASKS	ENEMY AIR ACTIVITY	MOPP LEVEL EFFECTIVE DTG
		DECON
PRIORITY OF FIRES		
CAS		
		AS OF _____

Directed Obstacle Execution Matrix Format

DIRECTED OBSTACLE EXECUTION MATRIX

Belt/Effect* <small>*(Optional)</small>	Priority	Emplacing Unit	Owning Unit	Lane Location Closure Responsibility	Materials/ Assets Allocated	Restrictions	Estimated Requirements/ Time	Special Instructions

AS OF: _____

Situational Obstacle Matrix Format

SITUATIONAL OBSTACLE MATRIX

OBSTACLE NUMBER	PRIORITY	LOCATION	EMPLACING UNIT	RELEASE STATUS	EXECUTION CRITERIA & DECISION PT	DTG FIRED	DTG SELF-DESTRUCT	SCATMINWARN	SCATMINWARN	SPECIAL INSTRUCTIONS

AS OF: _____

Survivability Matrix Format

SURVIVABILITY MATRIX

UNIT/BP:				UNIT/BP:				UNIT/BP:			
START TIME		COMPLETION		START TIME		COMPLETION		START TIME		COMPLETION	
Planned (DTG)		Planned (DTG)		Planned (DTG)		Planned (DTG)		Planned (DTG)		Planned (DTG)	
Actual (DTG)		Actual (DTG)		Actual (DTG)		Actual (DTG)		Actual (DTG)		Actual (DTG)	
# & TYPE POSN	# INT	# 50%	# 100%	# & TYPE POSN	# INT	# 50%	# 100%	# & TYPE POSN	# INT	# 50%	# 100%
REMARKS				REMARKS				REMARKS			

AS OF: _____

Counter-Mobility / Survivability Time Line Format

COUNTERMOBILITY / SURVIVABILITY TIMELINE

TIME													
COUNTERMOBILITY													
SURVIVABILITY													
CLASS IV/V													

AS OF: _____

Route Status Format

ROUTE STATUS

ROUTE	STATUS	LOCATION OF TCP(s)	LOCATION/TYPE OF DAMAGE	ASSIGNED ASSETS FOR REPAIR	ESTIMATED TIME TO REPAIR

AS OF: _____

TTP ▶	<ul style="list-style-type: none">▪ Charts used during the planning process significantly reduce briefing time.▪ Build a box to store and transport charts.▪ Keep a miniature version of all charts in a notebook! Facilitates updating while on the move / offensive.▪ Chart size should coincide with TOC and commander visual needs.▪ Use TOC charts during training to determine effectiveness and need for change.▪ Protect charts with heavy acetate, edged with tape. Velcro strips assist in hanging.▪ Conduct after-action reviews (AAR) on your tracking systems.
--------------	---

Maps

The TOC should maintain current information in the form of easily understood map graphics and charts. Combining situation maps with status charts gives the commander and staff a very necessary “snapshot” during both the planning process and during battle execution.

- | | |
|-------|--|
| TTP ▶ | <ul style="list-style-type: none">▪ 1:50,000 scale military maps are the standard.▪ Use smaller or larger maps as additions, not substitutes.▪ Place the operations map in the center flanked by the intelligence and fire support maps.▪ Create overlays to one standard size. |
|-------|--|

All graphics should be posted on overlays, with operations graphics posted on the Operations / Intelligence (O&I) map and fire support, air defense, and engineer information posted on their appropriate map boards. Information kept at the O&I map should include:

- Task organization.
- SOI data.
- Unit status chain (Situation Report (SITREP) or SLANT Report.)
 - Updated as reported by units.
 - Units report changes only.
 - Color codes for status are used.
 - Charts (should correspond to, and be easily transferred from, the report formats).

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Section 5 - Tactical SOP (TACSOP)

General

Each battle staff member must have mastery of their own functional area and comprehend the related responsibilities of other staff sections in order to integrate and synchronize staff actions. A comprehensive capture of all that a unit must routinely do in preparation for, deployment to, and execution of combat operations in a well designed unit TACSOP is critical.

TTP ► The most helpful tool for any commander is a detailed, workable TACSOP.
BN Commander's Handbook, USAWC, 1996.

TACSOP Design

There are several ways to design / organize a TACSOP. The following are four possible TACSOP designs:

- By WFF.
- By unit mission / METL.
- By OPORD sequence.
- By battle card sequence.

TTP ► A good Administrative SOP solves a lot of problems, but only if it is detailed and ruthlessly enforced. It is also a good tool for ensuring job continuity.
BN Commander's Handbook, USAWC, 1996.

Following are sample table of content pages to illustrate organization.

Design by Warfighting Function

Organizing a unit TACSOP by WFF provides a wide range of flexibility for integrating complex staff activities [e.g., intelligence preparation of the battlefield (IPB)] and staff support of unit METL. Organizing by WFF also provides commanders and staffs the added advantage of “niche” findings, that is, finding a doctrinal location for unique task activities that may not fit elsewhere.

TACSOP Example - WFF

STANDING OPERATING PROCEDURES

(By Warfighting Function)

Table of Contents

I. GENERAL.

A.Purpose: This tactical SOP prescribes standard procedures for use during all combat situations and provides a comprehensive reference for conducting operations in a field environment.

B.Conformity: All assigned, attached and OPCON personnel will read and comply with the provisions of this tactical SOP.

COMMAND AND CONTROL.

A.Command.

1. Organization.

- a.Succession of command.
- b.Cues for assuming command.
- c.Operation of the command post.
- d.(1) Shifts.
- e.(2) Displacement/set-up/tear-down.

2. Troop-leading procedures.

- a.Estimate input (checklist).
- b.Pre-combat inspections.
- c.Back briefs.
- d.Rehearsals.
- e.Combat orders.
 - (1) Formats.
 - (2) Preparation.
 - (3) Reproduction.
 - (4) Dissemination.

Design by Unit Mission

Organizing a TACSOP along unit mission lines provides the advantage of addressing detailed staff synchronization and execution to support a specific mission of the unit’s METL. There are two staff task categories for every mission requirement: *common* and *staff-unique*. Providing a TACSOP that incorporates these categories for each BN / TF mission provides an excellent vehicle for staff efficiency and effectiveness.

TACSOP Example - Mission Format

<p style="text-align: center;">STANDING OPERATING PROCEDURES <i>(By Mission)</i> Table of Contents (REF. ST 3-90.23)</p> <p>I. ORGANIZATION / PREPARATION FOR COMBAT</p> <p>Standard Task Organization / Organization for Combat Standard Field Uniform Individual Equipment Packing List Standard Pre-Combat Checks (PCCs) Standard Vehicle Markings and Recognition Signals Standard Graphical Labeling / Orders, naming convention, and Overlays (PLT) Troop Leading Procedures Vehicle Equipment Kits M1 – Series Load Plan M2 – Series Load Plans M1A2 FBCB2 Initialization Procedures (Tank PLT only) Cross-Attachment Procedures</p> <p>II. COMMAND AND CONTROL</p> <p>Succession of Command and Control Orders Group Connectivity Play Master Net List / Standard Call Signs Emergency Destruction Procedures UTO / UTR Changes VTC Whiteboard Procedures Readiness Levels Liaison Operations</p>
--

Design by OPORD

Because of a staff's habitual understanding of the OPORD, establishing a unit TACSOP along OPORD Annex lines presents a level of staff familiarity that may substantially add to TACSOP understanding and efficient, effective use. When a BN / TF staff has contributed to, and executed from, an OPORD over an extended period, the pieces, parts, detail, and staff integration requirements in an order become second nature. Organizing the unit TACSOP to take advantage of this familiarity makes sense.

TACSOP Example - OPORD Annex Format**STANDING OPERATING PROCEDURES
(By *OPORD Annex*)****Table of Contents****Annex A – Task organization****Annex B – Intelligence**

- Organization**
- Collection management**
- Intelligence production**
- Weather**
- Map requisition**
- Support to targeting**
- Reconnaissance assets**
- Enemy OPs and Symbology**
- Support to IO**
- Enemy POWs**
- Refugees / civilians on the battlefield**
- IEW support**
- MI Co assets**
- Operations checklist**
- Deployment checklist**
- References**

Annex C – Operations

- Command and control**
- Command Post OPs**
- Unit METL**
- Offensive OPs**
- Defensive OPs**
- Transition OPs**
- Stability Support OPs**
- Force protection OPs**
- Sustainment OPs**

Design by Battle Card

Multi-faceted tasks identified as critical to mission accomplishment or just difficult to achieve to standard because of complexity, lend themselves to understanding via focused, “how-to” battle cards. An entire TACSOP can be designed around battle cards or battle cards can be integrated into another TACSOP format. They are useful as stand-alone job aids for use by unit members during mission planning and execution. For every perceived weakness (e.g., mission analysis, wargaming) battle cards can be developed to enhance unit performance. Following is an example of a battle card:

TACSOP Examples - Battle Card Format**Battle Card – C14*****Mission Analysis Briefing Format***

- Introduction, Agenda, Purpose of the Briefing (XO)
- Orientation to the AO and AOI (XO)
- Mission, Commander’s Intent, Concept of the Operation (S-3)
- Review Initial Commander’s Guidance
- Initial IPB (S-2 lead, input by EN, FSO S-4 others as required)
 - Weather/Terrain Effects (MCOO)
 - Threat Situation (SITEMP)
 - Threat COAs
 - Friendly ISR Capabilities/Initial Concept/Essential Tasks
- Facts and Assumptions
- Specified, Implied and Essential Tasks (S-3)
- Constraints on the Operation (S-3)
- Forces/Assets Available and Task Organization (S-3)
- Capabilities, Draft EFETs (FSO)
- By Exception: Capabilities/Constraints (other WFFs)
 - Capabilities/Constraints (EN)
 - Capabilities /Constraints(Sustainment)
 - Capabilities/Constraints (S-6)
- Initial Risk Assessment (S-3)
- Recommended initial CCIR (S-3)
- Recommended Unit Mission Statement and Time Line (XO)
- Review issues and Concerns (XO)
- Review Assumptions
- Receive Commander’s Intent and Guidance

TTP ► When reviewing a TACSOP, use a TACSOP checklist, such as the following, to determine what modifications may be needed.

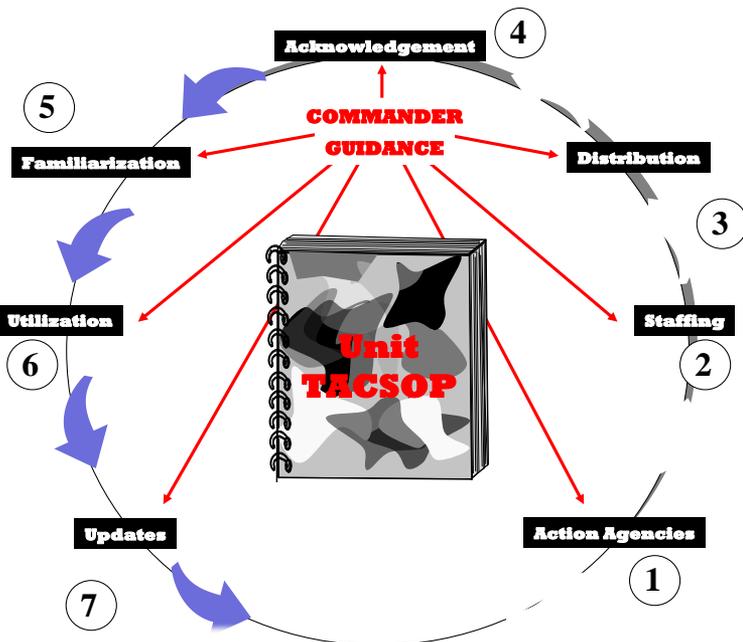
TACSOP Checklist

Question	Yes	No
Do you know what the CDR wants in the TACSOP?		
Does he know the options available?		
Is the unit TACSOP arranged around the tenets of plan, prepare, execute as described in FM 3-0?		
Does the TACSOP adequately address the unit’s assigned METL?		
Does the TACSOP cover higher HQ requirements, e.g., operational, reporting?		
Does the TACSOP address the MDMP?		
Does it address the MDMP well enough to ensure staff integration during the planning process?		
Does the TACSOP detail what each staff officer does during the planning process?		
Are there unit planning, preparing, and execution task weaknesses, which are not covered by guidance in the TACSOP?		
Is each weak task area supported by process “how-to” and staff member duties and responsibilities?		
Does the TACSOP consider priorities of unit tasks?		
Are task priorities identified by plan, prepare, execute?		
Does the TACSOP provide guidance and examples to cover routine unit requirements, e.g., reports, rehearsals, briefings, TOC operations, CP deployments, targeting numbers, ISR, etc.?		
Have staff job aids been prepared to assist with difficult unit tasks and included in the TACSOP?		
Is there an action POC list for each section, annex, etc. in the TACSOP?		
Is there a unit staff member overall responsible for development, maintenance, familiarization/training and implementation of the TACSOP?		
Does the TACSOP include an annex that addresses development, maintenance, familiarization/training and implementation of the TACSOP?		
Is the unit TACSOP signed by the current Commander?		
Is there a distribution list/annex for the unit TACSOP?		
Are sufficient copies available to the unit? Is it approved by higher HQs?		

The TACSOP Life Cycle

The unit TACSOP is a living document, and in that vein, has a life cycle for development and change. A TACSOP management plan is critical to this cycle. The TACSOP life cycle for development and change begins with staff members introducing additions / changes. The cycle continues with information approval / editing via staffing, distribution, acknowledgement of receipt, familiarization training, using what you have learned, and updating the pieces and parts when appropriate. The following graphic depicts the cycle. Refer to it when managing the unit TACSOP. Other than format examples, current doctrine does not address the TACSOP in sufficient detail to assist in the development and change cycle.

TACSOP Life Cycle



TTP ► Use the following checklists (they coincide with the life cycle steps shown on the previous graphic) to establish and maintain a management system for the unit TACSOP.

1. Action Agencies

- The cycle starts here with development and change.
- Decide who is responsible for preparing and changing sections of the TACSOP.
- Identify these staff members and include their position and responsibilities in the TACSOP.
- At a minimum, assign a TACSOP section, page, annex, etc. to a staff position, provide mandatory review / update guidance, and a review and approval sequence after updates are accomplished.
- Establish a TACSOP “sheriff,” the person overall responsible to the commander for the TACSOP. Normally, the XO is a good choice.

2. Staffing

- Enforced by the TACSOP “sheriff.”
- Never assume that TACSOP entries by one staff member do not require review.
- A new entry or change by one staff member may dictate changes to other sections of the TACSOP.
- The TACSOP “sheriff” should look for ripple effects.
- Include a structured staffing sequence in the TACSOP.

3. Distribution

- Include a distribution scheme in the TACSOP.
- If the TACSOP format is along OPORD lines, include an Annex Z, *Distribution*.
- More is better. Distribute to the coordinating and special staff, all WFF elements, subordinate units, and the BDE HQ.
- Provide multiple copies to all.
- Number each copy to ensure changes are made to all.
- Maintain a numbered-copy list in the TACSOP.

4. Acknowledgement

- Never assume a TACSOP distributed is a TACSOP received.

- Ensure recipients sign for each TACSOP. Record the date.
- The TACSOP “sheriff” maintains the acknowledgement file.
- Include acknowledgement procedures in the TACSOP.
- Ensure TACSOP acknowledgement procedures are followed upon initial TACSOP receipt and upon change.

5. Familiarization

- Never assume that any unit member is completely familiar with the TACSOP.
- Always assume that familiarization training is required.
- Conduct familiarization training on a routine, recurring basis.
- Make it an officer / NCO professional development (OPD / NCOPD) class during weekend drills.
- Have individual staff sections present unit instruction on areas of the TACSOP applicable to their WFF responsibilities.
- Add TACSOP familiarization training to the unit training calendar.
- Assign trainers. Train the trainers.
- The TACSOP “sheriff” should routinely check with unit staff on new and emerging doctrine or mission requirements, and determine how they will affect TACSOP changes and training?
- Spot check TACSOP knowledge.

6. Utilization

- Have the TACSOP available and use it for every training activity, no matter the length or formality.
- Employ “subliminal” learning. Place TACSOP pieces and parts (job aids) in Soldier common areas during drills. This technique does not require a dedicated trainer. The knowledge gained comes from constant visual association.
- Have copies everywhere...classrooms, break areas, motor pools, CPs, C2 vehicles, individuals, etc.
- Put the unit TACSOP on a compact disk, and make it “take home” easy.
- Include staff job aids in the TACSOP that will help with critical tasks.

7. Updates

- Execute routine update briefings to the commander regarding unit status of TACSOP development, maintenance, familiarization, and implementation.

- When was the TACSOP developed? Much of it may no longer apply to current requirements.
- Should be signed by current commander.

TTP ► If your unit does not have a TACSOP, consider developing one that is:

- Pocket sized,
- Complete, but concise and brief,
- Effective in reducing the size of OPORDs,
- Consistent with HHQ SOPs,
- Reliable source of procedures for reporting and reacting to reports of sensitive equipment,
- Applicable to all Soldiers in the command,
- Not full of philosophy,
- A reliable source for formats for all reports required of subordinates or HHQ.

BN Commander's Handbook, USAWC, 1996.

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Section 6 - Reports and Combat Records

General

FM 6-99.2, US Army Reports and Message Formats, is the manual for standardized report and message formats. It provides a standard, readily available reference Soldiers can access for report and message templates.

FM 6-99.2 formats are derived from existing Army Battle Command System (ABCS), United States Message Text Formats (USMTF), Allied Procedures Publication-9 (APP-9) formats and numerous unit SOPs.

TTP ► Develop a tracking system for reports and suspenses. It will ease the administrative burden.

BN Commander's Handbook, USAWC, 1996.

Knowledge of the various reports that will be required internal to the BN / TF and external to higher, adjacent, and subordinate elements is critical to mission planning and execution. Commanders and staff officers should establish the report types and formats they require and include in the unit TACSOP. The following lists are not intended to be all inclusive of the reports that may be used, rather as examples of ones the BN / TF may want to use. Many of the following reports are not listed in *FM 6-99.2* and are so noted. These report formats were identified from an extensive BCTC review of numerous unit TACSOPs, and while not doctrinally listed, may be useful. Formats for these reports may be found in the BCTC-produced *Army National Guard Battalion TACSOP Sample / Guide*, dated April 2005.

Reports are often color coded in accordance with standard color coding information as follows:

- Blue = Operations.
- Green = Intelligence.
- Red = Personnel.
- Yellow = Sustainment.

Operations Reports (Blue)

- Operation Report (OPREP).
- SALT Report (Not in *FM 6-99.2*).
- SPOT Report (SPOTREP).
- Accident Report / Serious Incident Report (SIR).
- Contact Report (Not in *FM 6-99.2*).

- Commander's Situation Report (SITREP).
- Situation Report (SITREP) (*Not in FM 6-99.2*).
- Slant Report (SLANTREP).
- Closure Report (CLOSEREP).
- Airspace Control Means Request (ACMREQ).
- Downed / Missing Aircraft Report (*Not in FM 6-99.2*).

NBC Reports (Blue)

- Request for NBC / Smoke Support (*Not in FM 6-99.2*).
- NBC 1 / ROTA Report (NBC 1).
- NBC 2 / ROTA Report (NBC 2).
- NBC 3 / ROTA Report (NBC 3).
- NBC 4 / ROTA Report (NBC 4).
- NBC 5 / ROTA Report (NBC 5).
- NBC 6 / ROTA Report (NBC 6).
- Chemical Warning (CHEMWARN) Report (*Not in FM 6-99.2*).
- Chemical Downwind Message (CDM).
- Effective Downwind Message (EDM).
- NBC Situation Report (NBC SITREP).

Engineer Reports (Blue)

- Scatterable Minefield Warning Report (SCATMINWARN).
- Scatterable Minefield Record (SCATMINREC).
- Obstacle Turnover / Transfer Report (*Not in FM 6-99.2*).
- Report for Bridge, Overpass, Culvert, Underpass or Tunnel (BRIDGEREP) (*Not in FM 6-99.2*).
- Bypass Report (*Not in FM 6-99.2*).
- Report of Ford, Ferry, or Other Crossing Site (CROSSREP) (*Not in FM 6-99.2*).
- Enemy / Friendly / Unit Minefield / Obstacle Report (MINOBREP).
- Obstacle Request, Intent or Status Report (*Not in FM 6-99.2*).
- Route Report (ROUTEREP).
- Closure Report (CLOSEREP).
- Unexploded Ordnance Disposal Support (EODSPT).

Intelligence Reports (Green)

- Sensitive Item Report (SENTREP).
- Battle Damage Assessment Report (BDAREP).
- Detained Civilian Personnel Report (DETAINCIVREP).
- ISR Report (*Not in FM 6-99.2*).

- Weather Forecast (WXFCST).
- Weather Advisory / Watch (WEATHERWATCH).
- Request for Information (RI).
- Response to Request for Information (RRI).
- Intelligence Summary (INTSUM).
- Patrol Report (PATROLREP).
- Enemy / Prisoner of War Report (EPOW).
- SAEDA Report (SAEDAREP).
- SALUTE “A” Report (*Not in FM 6-99.2*).
- Debrief Format (*Not in FM 6-99.2*).

Personnel Reports (Red)

- Personnel Status Report (PERSTAT).
- Personnel SPOT Report (*Not in FM 6-99.2*).
- Casualty Report (CASREP).
- Medical Evacuation Request (MEDEVAC).
- Medical SITREP (MEDSITREP).
- Casualty Feeder Report (*Not in FM 6-99.2*).

Logistics Reports (Yellow)

- Logistics Status Report (LOGSTAT) (*Not in FM 6-99.2*).
- Battle Damage Assessment Report (BDAREP Phase 1).
- Ammunition Status / Request (*Not in FM 6-99.2*).
- Petroleum / Oil / Lubricants (POL) Status / Request (*Not in FM 6-99.2*).

Combat Records**Journals and Journal Files**

Staff sections maintain chronological records of events in a Daily Staff Journal, DA Form 1594. The form normally covers a 24-hour period or a given shift. Entries contain sufficient detail to describe and establish the time and place of important events.

A journal file is a folder that contains entries and materials to support journal entries. These include copies of orders, reports, messages, maps, etc. The journal file is maintained with the journal.

Workbooks

A workbook is an informal, indexed collection of information obtained from a variety of sources, to include written or oral orders, messages, journal entries, etc. It aids the staff officer's efforts to collect information, especially to maintain an updated staff estimate and to prepare plans and orders.

There is no specific format. A workbook is usually tabbed to coincide with the respective staff estimate format or tabbed by subject area.

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PART 4 - SMART CARDS

Julian Date Calendars

Julian Date Calendar (Leap Year)

Julian Date Calendar – Leap Year

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1	32	61	92	122	153	183	214	245	275	306	336
2	2	33	62	93	123	154	184	215	246	276	307	337
3	3	34	63	94	124	155	185	216	247	277	308	338
4	4	35	64	95	125	156	186	217	248	278	309	339
5	5	36	65	96	126	157	187	218	249	279	310	340
6	6	37	66	97	127	158	188	219	250	280	311	341
7	7	38	67	98	128	159	189	220	251	281	312	342
8	8	39	68	99	129	160	190	221	252	282	313	343
9	9	40	69	100	130	161	191	222	253	283	314	344
10	10	41	70	101	131	162	192	223	254	284	315	345
11	11	42	71	102	132	163	193	224	255	285	316	346
12	12	43	72	103	133	164	194	225	256	286	317	347
13	13	44	73	104	134	165	195	226	257	287	318	348
14	14	45	74	105	135	166	196	227	258	288	319	349
15	15	46	75	106	136	167	197	228	259	289	320	350
16	16	47	76	107	137	168	198	229	260	290	321	351
17	17	48	77	108	138	169	199	230	261	291	322	352
18	18	49	78	109	139	170	200	231	262	292	323	353
19	19	50	79	110	140	171	201	232	263	293	324	354
20	20	51	80	111	141	172	202	233	264	294	325	355
21	21	52	81	112	142	173	203	234	265	295	326	356
22	22	53	82	113	143	174	204	235	266	296	327	357
23	23	54	83	114	144	175	205	236	267	297	328	358
24	24	55	84	115	145	176	206	237	268	298	329	359
25	25	56	85	116	146	177	207	238	269	299	330	360
26	26	57	86	117	147	178	208	239	270	300	331	361
27	27	58	87	118	148	179	209	240	271	301	332	362
28	28	59	88	119	149	180	210	241	272	302	333	363
29	29	60	89	120	150	181	211	242	273	303	334	364
30	30		90	121	151	182	212	243	274	304	335	365
31	31		91		152		213	244		305		366

Julian Date Calendar (Non-Leap Year)

Julian Date Calendar – Non-Leap Year

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1	32	60	91	121	152	182	213	244	274	305	335
2	2	33	61	92	122	153	183	214	245	275	306	336
3	3	34	62	93	123	154	184	215	246	276	307	337
4	4	35	63	94	124	155	185	216	247	277	308	338
5	5	36	64	95	125	156	186	217	248	278	309	339
6	6	37	65	96	126	157	187	218	249	279	310	340
7	7	38	66	97	127	158	188	219	250	280	311	341
8	8	39	67	98	128	159	189	220	251	281	312	342
9	9	40	68	99	129	160	190	221	252	282	313	343
10	10	41	69	100	130	161	191	222	253	283	314	344
11	11	42	70	101	131	162	192	223	254	284	315	345
12	12	43	71	102	132	163	193	224	255	285	316	346
13	13	44	72	103	133	164	194	225	256	286	317	347
14	14	45	73	104	134	165	195	226	257	287	318	348
15	15	46	74	105	135	166	196	227	258	288	319	349
16	16	47	75	106	136	167	197	228	259	289	320	350
17	17	48	76	107	137	168	198	229	260	290	321	351
18	18	49	77	108	138	169	199	230	261	291	322	352
19	19	50	78	109	139	170	200	231	262	292	323	353
20	20	51	79	110	140	171	201	232	263	293	324	354
21	21	52	80	111	141	172	202	233	264	294	325	355
22	22	53	81	112	142	173	203	234	265	295	326	356
23	23	54	82	113	143	174	204	235	266	296	327	357
24	24	55	83	114	144	175	205	236	267	297	328	358
25	25	56	84	115	145	176	206	237	268	298	329	359
26	26	57	85	116	146	177	207	238	269	299	330	360
27	27	58	86	117	147	178	208	239	270	300	331	361
28	28	59	87	118	148	179	209	240	271	301	332	362
29	29		88	119	149	180	210	241	272	302	333	363
30	30		89	120	150	181	211	242	273	303	334	364
31	31		90		151		212	243		304		365

Supply Classification

Supply Classes and Definitions

SUPPLY CLASS	DEFINITION / EXAMPLES
I	Subsistence items and gratuitous-issue health and welfare items: MREs, fresh vegetables, and sundry packs.
II	Items of equipment, other than principal items, which are prescribed in authorization / allowance tables: individual equipment, clothing items, tentage, tool sets, administrative, housekeeping supplies.
III	Petroleum, oils, and lubricants (POL): petroleum fuels, hydraulic and insulating oils, chemical products, antifreeze compounds, compressed gases, and coal.
IV	Construction and barrier materials: lumber, sandbags, and barbed wire.
V	Ammunition: small arms ammunition, artillery rounds, hand grenades, explosives, mines, fuzes, detonators, missiles, bombs - includes special ammunition (chemical and nuclear rounds).
VI	Personal demand items; items which would normally be sold through the exchange system: cigarettes, candy, and soap.
VII	Major end items: final combination of items which are ready (assembled) for extended use; vehicles, self-propelled artillery pieces, missile launchers, and major weapons systems (the weapon itself - not including the crew).
VIII	Medical material: medicines, stretchers, surgical instruments, medical equipment, and repair parts.
IX	Repair parts and components, including kits and assemblies, items required for maintenance support of all equipment: batteries, spark plugs, axles.

Conversion Factors

Conversion Factors (Weight)

Unit of Measure	Long tons	Metric tons	Short tons	Kilograms	Pounds
1 long ton =		1.0160	1.1200	1,016.0	2,240.0
1 metric ton =	0.9842		1.1023	1,000.0	2,204.6
1 short ton =	0.8929	0.9072		907.2	2,000.0
1 kilogram =					2.2046

Conversion Factors (Speed)

Unit of Measure	Knots	Statute miles per hour	Kilo- meters per hour
1 knot =		1.1516	1.8532
1 mile per hour =	0.8684		1.6093
1 km per hour =	0.5396	0.6214	

Unit of Measure	Feet per minute	Feet per second	Meters per minute	Meters per second
1 knot =	101.34	1.6890	30.89	0.5148
1 mile per hour =	88.00	1.4667	26.82	0.4470
1 km per hour =	54.68	0.9113	16.67	0.2778

Conversion Factors (Angular Measurements)

Unit of Measure	Radians	Degrees	Mils	Minutes
1 radian =		57.30	1,018.600	
1 degree =	0.17453		17.778	60.000
1 mil =		0.05625		3.375

Conversion Factors (Linear Measurements)

Unit of Measure	Nautical miles	Statute miles	Kilo-meters	Meters	Yards
1 nautical mile =		1.1516	1.8532	1,853.2	2,026.8
1 statute mile =	0.8684		1.6093	1,609.3	1,760.0
1 kilometer =	0.5396	0.6214		1,000	1,093.6
1 cable length =	0.1184	0.1364	0.2195	219.5	240.0
1 fathom =				1.829	2.0
1 meter =					1.0936
1 yard =				0.9144	
1 foot =				0.3048	0.3333
1 inch =					
1 centimeter =					

Conversion Factors (Volume)

Unit of Measure	Cubic feet	Imperial gallons	US gallons	Liters	Quarts
1 cubic foot =		6.229	7.481	28.32	29.92
1 imperial gallon =	0.16054		1.2010	4.546	4.804
1 US gallon =	0.13368	0.8327		3.785	4.000
1 liter =	0.03532	0.2201	0.2642		1.0567
1 measurement ton =	40.0				
1 barrel (petroleum) =	5.61		42.0		

Commander's Smart Card

Commander's Smart Card Side 1

<p>TROOP MOVEMENT:</p> <ul style="list-style-type: none"> Approach March Road March Administrative Movement <p>WEIGHTING WE TECHNIQUES:</p> <ul style="list-style-type: none"> Resource Allocation Functional SPT (prep fires etc.) Positioning (O36 posn, etc) Prioritization 	<p>ACTIONS ON THE OBJ:</p> <ul style="list-style-type: none"> ISOLATE OBJECTIVE FIX/SUPPRESS ENEMY FORCES SELECT OR CREATE VULNERABLE PT BREACH OBSTACLES PENETRATE INITIAL DEF PSNS SUPPRESS ADJACENT ENEMY PSNS UP/SWIFT SUPPORTING FIRES CLEAR OBJECTIVE RECONNAISSANCE REORGANIZE RESUPPLY & EVACUATE CASUALTIES 	<p>DELIVERY EFFECTS</p> <p>TARGETING OBJECTIVES</p> <ul style="list-style-type: none"> Limit Disrupt Delay Destroy Damage <p>IO EFFECTS</p> <ul style="list-style-type: none"> Inform Warn Influence Isolate Co-opt Decide Promote/encourage 	<p>Stability Purposes:</p> <ul style="list-style-type: none"> Provide a Secure Environment Secure Land Areas Meet the Critical Needs of the Populace Develop Local Capacity for Security, Economy, and Rule of Law Gain Support for Host Nation Governance Shape the Environment for Interagency and Host Nation Success
<p>BREACH TENETS:</p> <ul style="list-style-type: none"> Intelligence Breach Fundamentals Breach Organization Mass Synchronization <p>BREACH FUNDAMENTALS:</p> <ul style="list-style-type: none"> Suppress Reduce Assault Secure 	<p>TYPES OF BREACH:</p> <ul style="list-style-type: none"> BDE BN/TF COTM <p>ISR CDR's GUIDANCE:</p> <p>FOCUS:</p> <p>TERRAIN ENEMY RECON PLULL VS PUSH RECON OBJs</p>	<p>COMMON PURPOSES</p> <ul style="list-style-type: none"> Allow Identify Influence Observe Decide Deny Preserve Divert Protect Enable Envebop Find <p>TASKS</p> <p>TASKS: Enemy focused</p> <ul style="list-style-type: none"> Attack by fire Fix Block Isolate Canalize Contain Control Counter recon Defeat Destroy 	<p>ROLE OF THE COMMANDER:</p> <p>UNDERSTAND:</p> <ul style="list-style-type: none"> Envs Conditions Objectives <p>VISUALIZE:</p> <ul style="list-style-type: none"> Offense Defense Stability Civil Support <p>DESCRIBE:</p> <ul style="list-style-type: none"> Decisive Operations Sustaining Operations Shaping Operations <p>DIRECT (Warfighting Functions):</p> <ul style="list-style-type: none"> Movement and Maneuver Intelligence Fires Sustainment Command and Control Protection
<p>5 PLANS FOR AASLT OPS:</p> <ul style="list-style-type: none"> Ground Tactical Plan Landing Plan Air Movement Plan Load Plan Staging Plan <p>PLAN → EXECUTE</p> <p>OFFENSE CRITICAL EVENTS (POTENTIAL):</p> <ul style="list-style-type: none"> ISR IN BATTLE ZONE AND DZ FPOULBHO DEFIAT DISRUPTION ZONE MANUEVER TO OBJECTIVE DEPLOY FOR ACTIONS ON OBJ ASSAULT/ACTIONS ON OBJ ATTACK TO THE LOA OR FWD BDY 	<p>TYPES OF RECON:</p> <ul style="list-style-type: none"> Area Zone Route Recon in force <p>Concept of OPS Subordinate Actions:</p> <ul style="list-style-type: none"> Decisive Operations Shaping Operations Sustaining Operations Maint Effort 	<p>TASKS: Terrain focused</p> <ul style="list-style-type: none"> Disengage Displace Exfiltrate Follow & Assume Follow & Support Overwatch Protect Support by Fire <p>TASKS: Terrain focused</p> <ul style="list-style-type: none"> Disrupt Fix Block Isolate Canalize Control Reduce Suppress Turn 	<p>Primary Stability Tasks:</p> <ul style="list-style-type: none"> Train Security Civil Control Restore Essential Services Support to Governance Support to Economic and Infrastructure Development
<p>8 FORMS OF CONTACT:</p> <ul style="list-style-type: none"> VISUAL DF AIRCRAFT CBRN ELECTRONIC OBSTACLES NON-HOSTILE 			

Commander's Smart Card Side 2

<p>CHARACTERISTICS OF OFFENSIVE OPS:</p> <ul style="list-style-type: none"> • Surprise • Concentration • Tempo • Audacity 	<p>CHARACTERISTICS OF DEFENSIVE OPS:</p> <ul style="list-style-type: none"> • Preparation • Security • Disruption • Massing Effects • Flexibility 	<p>MDMP STEPS:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Receipt Of Mission <input type="checkbox"/> Mission Analysis <input type="checkbox"/> COA Development <input type="checkbox"/> COA Analysis <input type="checkbox"/> COA Comparison <input type="checkbox"/> COA Approval <input type="checkbox"/> Orders Production 	<p>COMMAND AND SUPPORT RELATIONSHIPS:</p> <ul style="list-style-type: none"> Support - Direct Support General Support General Support Reinforcing Reinforcing <p>Command –</p> <ul style="list-style-type: none"> Organic Assigned Attached OPCON TACON 	<p>Sustainment Functions:</p> <ul style="list-style-type: none"> • Supply and Field Services • Maintenance • Financial Management • Transportation • Human Resources Support • Health Service Support • Religious Support • Legal Support • Band Support • General Engineering Support • Army Health System Support
<p>FORMS OF MANUEVER:</p> <ul style="list-style-type: none"> • Envelopment • Turning Movement • Penetration • Frontal Attack 	<p>TYPES OF DEFENSIVE OPERATIONS:</p> <ul style="list-style-type: none"> • Mobile Defense • Area Defense • Retrograde • Withdraw • Delay • Retirement 	<p>MISSION ANALYSIS STEPS:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Analyze Higher Order <input type="checkbox"/> Perform Initial IPB <input type="checkbox"/> Determine Specified, Implied, and Essential <input type="checkbox"/> Review Avail Assets and Identify resource shortfalls <input type="checkbox"/> ID Critical Facts and Assumptions <input type="checkbox"/> Begin composite risk management <input type="checkbox"/> Determine Initial CCR and EEFI <input type="checkbox"/> Develop Initial ISR synchronization plan <input type="checkbox"/> Determine Initial ISR plan <input type="checkbox"/> Update plan for the use of available time <input type="checkbox"/> Develop initial themes and messages <input type="checkbox"/> Develop a proposed Mission Statement <input type="checkbox"/> Present the Mission Analysis Brief <input type="checkbox"/> Develop and Issue Initial Cdr's Intent <input type="checkbox"/> Develop and Issue initial planning guidance <input type="checkbox"/> Develop COA evaluation criteria <input type="checkbox"/> Issue WARNORD 	<p>COA DEVELOPMENT:</p> <ul style="list-style-type: none"> Assess relative combat power Generate options Endstate Decisive point that achieves endstate Key tasks required to support concept Array forces Purpose of each effort Tasks Initial EFSI's Security/reconnaissance Amount of forces for each effort Order of Effort Power (IE First) Develop Broad Concept Shaping/Decisive op. Reserve, security ME/SE task purpose Concept of fires, EN, Sustainment 	<p>PRINCIPLES OF WAR:</p> <ul style="list-style-type: none"> • Objective • Offensive • Economy of force • Maneuver • Security • Unity of Command • Surprise • Simplicity <p>ADDITIONAL PRINCIPLES OF JOINT OPERATIONS</p> <ul style="list-style-type: none"> • Perseverance • Legitimacy • Restraint
<p>TYPES OF OFFENSIVE OPS:</p> <ul style="list-style-type: none"> • Movement to contact • Search and attack • Meeting engagement • Attack • Hasty • Deliberate • Special purpose • Spooling • Counter attack • Raid • Rush • Feint • Demonstration • Exploitation • Pursuit 	<p>SECURITY OPERATIONS:</p> <ul style="list-style-type: none"> • Screen • Guard • Cover 	<p>BASIC SERVICES</p> <p>Sewage, Water, Electricity, Academics, Trash, Medical, Safety, Other Consideration</p>	<p>Assign Headquarters</p> <p>Prepare COA statements/sketches</p>	<p>AREAS OF OPERATION</p> <ul style="list-style-type: none"> • Contiguous • Non-Contiguous • Unassigned Areas of Operation
<p>OPERATIONAL VARIABLES (PMESII-PT)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Political <input type="checkbox"/> Military <input type="checkbox"/> Economic <input type="checkbox"/> Social <input type="checkbox"/> Information <input type="checkbox"/> Infrastructure <input type="checkbox"/> Physical Environment <input type="checkbox"/> Time 	<p>COA Screening Criteria:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Feasible <input type="checkbox"/> Acceptable <input type="checkbox"/> Desirable <input type="checkbox"/> Distinguishable <input type="checkbox"/> Complete 	<p>WARGAMING STEPS:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Gather tools <input type="checkbox"/> List all friendly forces <input type="checkbox"/> List assumptions <input type="checkbox"/> List critical events and decision points <input type="checkbox"/> Select wargaming method <input type="checkbox"/> Select technique to record and display results <input type="checkbox"/> Wargame operation and assess results <input type="checkbox"/> Conduct a war-game briefing (optional) 	<p>WARFIGHTING FUNCTIONS:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Intelligence <input type="checkbox"/> Movement & Maneuver <input type="checkbox"/> Fire Support <input type="checkbox"/> Protection <input type="checkbox"/> Sustainment <input type="checkbox"/> Command & Control 	<p>ADDITIONAL PRINCIPLES OF JOINT OPERATIONS</p> <ul style="list-style-type: none"> • Perseverance • Legitimacy • Restraint

PART 5 - SOURCES, ACRONYMS AND ABBREVIATIONS

Sources

Army Field Manuals (FM)

FM 1-02, Operational Terms and Graphics

FM 1-04, Legal Support to the Operational Army

FM 3-0, Operations

FM 3-07, Stability Operations

FM 3-13, Information Operations: Doctrine, Tactics, Techniques, and Procedures

FM 3-20.96, Reconnaissance Squadron

FM 3-90, Tactics

FM 5-0, The Operations Process

FM 4-01.30, Movement Control

FM 4-01.45, Multi-Service Tactics, Techniques, and Procedures for Tactical Convoy Operations

FM 4-30.3, Maintenance Operations and Procedures

FM 6-0, Mission Command: Command and Control of Army Forces

FM 6-20-10, Tactics, Techniques, and Procedures for the Targeting Process

FM 7-0, Training for Full Spectrum Operations

FMI 2-01, ISR Synchronization

FM 2-01.3, Intelligence Preparation of the Battlefield

FM 6-99.2, U. S. Army Reports and Message Formats

FM 3-09.21, TTPs for the FA Battalion

FM 3-90.6, The Brigade Combat Team

Joint Publications (JP)

JP 1-02, DoD Dictionary of Military and Associated Terms

Miscellaneous Sources

Army Regulation (AR) 25-50, Information Management, Preparing and Managing Correspondence

Army National Guard Battalion TACSOP Sample / Guide, Battle Command Training Center, April 2005

Battle Command Training Program, C-Team Workshops

Commander's Battle Staff Handbook, ARI Research Product, 1996

RB 101-999, Staff Officer's Handbook, 1983

Selected Unit Tactical Standing Operating Procedures

ST 3-90.23, Mechanized Infantry and Armor Battalion Task Force Tactical SOP

The Army Staff Officer's Guide, 1975

Warfighters Command Post Handbook, 2009

Battle Staff Training Team workshops and tools

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Acronyms and Abbreviations

A

A / S-3 - assistant operations officer (S-3)
A2C2 - Army airspace command and control
AA - avenue(s) of approach
AA - assembly area
AAR - after-action review
ABCS - Army Battle Command System
ABF - attack by fire
AC2 - airspace command and control
ACM - airspace coordination measure(s)
AD - air defense
ADA - air defense artillery
ADAM - area denial artillery munitions
ADO - air defense officer
AFATDS - Advanced Field Artillery Tactical Data System (ABCS)
AGM - attack guidance matrix
AKO - Army Knowledge OnLine
ALO - air liaison officer
ALOC - administrative and logistics (admin-log) operations center
AM - amplitude modulation
AMD - air and missile defense
AMDCOORD - air and missile defense coordinator
AO - area of operations
AOI - area of interest
AOIR - area(s) of intelligence responsibility
AOR - area of responsibility
AR - Army regulation
ARNG - Army National Guard
ARTEP - Army Training and Evaluation Program
ASAP - as soon as possible
ASAS - All Source Analysis System (ABCS)
ASAS-L - All Source Analysis System-Light (ABCS)
ASL - authorized stockage list
AVN - aviation
AXP - ambulance exchange point

B

BAE - brigade aviation element
BAS - battalion aid station
BCS3 - Battalion Command Sustainment Support System

BCT - brigade combat team
BCTC - Battle Command Training Center
BCTC-Lvn - Battle Command Training Center - Leavenworth
BCTP - Battle Command Training Program
BDA - battle damage assessment
BDAR - battle damage assessment and repair
BDE - brigade
BFT - Blue Force Tracker (ABCS)
BFV - Bradley fighting vehicle
BICC - battlefield information coordination (or control) center
BLUF - bottom line up front
BMNT - begin morning nautical twilight
BMSC - brigade medical support company
BMSO - brigade medical support office
BN - battalion
BOLT - Brigade Operations Law Team
BP - battle position
BSA - brigade support area
BSB - brigade support battalion
BSTT - Battle Staff Training Team
BUB - battle update briefing

C

C2 - command and control
C2PC - Command and Control Personal Computer
C2W - command and control warfare
C3 - command, control, and communications
C4 - command, control, communications, and computers
C4I - command, control, and communications, computers, and intelligence
CA - civil affairs
CA - combat assessment
CAB - combined arms battalion
CAC - Combined Arms Center (Leavenworth)
CAO - civil affairs operations
CAR - combined arms rehearsal
CARVER - criticality, accessibility, recuperability, vulnerability, effect, recognizability
CAS - close air support
CASEVAC - casualty evacuation
CBRNE - chemical, biological, radioactive, nuclear and high yield explosives
CCIR - commander's critical intelligence requirements
CD - compact disk

Battle Command Training Center - Leavenworth (BCTC-Lvn)

C-E - communications-electronics
CEOI - communications-electronics operating instructions
CFFZ - call for fire zone
CFS - call for support
CFZ - critical friendly zone
CHEMO - chemical officer
CHS - combat health support
CI - counter-intelligence
CIMP - command information management plan
CL - class(es) of supply
CLS - combat life saver
CMO - civil-military operations
CND - computer network defense
CNR - combat net radio
COA - course(s) of action
COB - civilians on the battlefield
COE - contemporary operating environment
COMSEC - communications security
COO - combined obstacle overlay
COP - common operational picture
CP - command post
CSM - command sergeant major
CSR - controlled supply rate
CTCP - combat trains command post

D

DA - Department of the Army
DCGS-A - Distributed Common Ground System - Army
DIMHRS - Defense Integrated Military Human Resource System
DIV - division
DOS - Department of State
DP - decision point
DPICM - dual-purpose improved conventional munitions
DS - direct support
DST - decision support template
DTG - date-time group
DZ - drop zone

E

EA - engagement area(s)
EAB - echelons above brigade
EBC - embedded battle command
ECOA - enemy (threat) course(s) of action

EDC - External Database Coordinator (ABCS)
EEFI - essential element(s) of friendly information
EENT - ending evening nautical twilight
EFST - essential fire support task(s)
ELINT - electromagnetic intelligence
ENCOORD - engineer coordinator
EO - explosive ordnance
EOD - explosive ordnance disposal
EPB - electronic preparation of the battlefield
EPLRS - Enhanced Position Location Reporting System
EPW - enemy prisoner of war
ETM-I - electronic technical manual - interface
EVENTEMP - event template
EW - electronic warfare
EWO - electronic warfare officer
EWTL - electronic warfare target list

F

FA - field artillery
FAARP - forward area arming and refueling point
FAC - forward air controller
FADS-C - feasible, acceptable, distinguishable, suitable, complete
FASCAM - family of scatterable mines
FBCB2 - Force XXI Battle Command Brigade and Below (ABCS)
FDC - fire direction center
FEBA - forward edge of the battle area
FFIR - friendly forces information requirement(s)
FHP - force health protection
FIST - fire support team
FLOT - forward line of troops
FM - field manual
FM - frequency modulation (radios)
FMT - field maintenance teams
FO - forward observer
FPF - final protective fires
FPOL - forward passage of lines
FRAGO - fragmentary order
FS - fire support
FSC - forward support company
FSCM - fire support coordination measure(s)
FSE - fire support element
FSEM - fire support execution matrix
FSMT - forward support medical team

FSO - fire support officer
FSP - forward supply point
FST - fire support tasks
FY - fiscal year

G

GCSS-A - Global Command Support System - Army
GCM - graphic control measure(s)
GIG - global information grid
GLOC - ground line of communication
GKO - Guard Knowledge OnLine
GPS - Global Positioning System
GS - general support
GSR - general support reinforcing

H

HBCT - heavy brigade combat team
HC - hydrogen chloride (smoke munitions)
HCP - health care package
HE - high explosive
HEMTT - heavy expanded mobility tactical truck
HF - high frequency
HHC - headquarters and headquarters company
HHQ - higher headquarters
HN - host nation
HPT - high-payoff target
HPTL - high-payoff target list
HQ - headquarters
HR - human resources
HRS - human resources support
HSS - health service support
HUMINT - human intelligence
HVT - high -value target
HVTL - high-value target list

I

IA - information assurance
IAW - in accordance with
IBCT - infantry brigade combat team
ICL - intelligence coordination line
ICM - improved conventional munitions
ICW - in coordination with
ID - identification

IE- information engagement
IED - improvised explosive device
IGO - international governmental agency
IM - information management
IMINT - imagery intelligence
INFOSYS - information system
INTSUM - intelligence summary
IO - information operations
IPB - intelligence preparation of the battlefield
IR - information requirement(s)
I/R - internment and resettlement
IRE - intelligence running estimate
ISR - intelligence, surveillance, and reconnaissance
ITAPDB - Integrated Total Army Personnel Database
IVL - intervisibility lines

J

J-SEAD - joint suppression of enemy air defenses
JAG - judge advocate general
JCDB - Joint Common Database
JIM - joint, international, multi-national
JMTK - Joint Mapping Tool Kit
JNN - joint network node
JSTARS - Joint Surveillance Target Attack Radar System
JVMF - joint variable message format

K

KC - knowledge center
KIA - killed in action
KISS - keep it simple, Soldier (or substitute your own)
KM - kilometer

L

LAN - local access network
LC - line of contact
LCMR - lightweight counter-mortar radar (Q48)
LCOP - logistics common operational picture
LD - line of departure
LHS - load handling system
LNO - liaison officer
LOC - line(s) of communications
LOGPAC - logistic package (s)
LOGSITREP - logistics situation report

Battle Command Training Center - Leavenworth (BCTC-Lvn)

LOS - line of sight
LMTV - light-weight, military-type vehicle
LRP - logistics release point
LRS - long-range surveillance
LRU - line replacement unit
LTIOV - latest time information is of value
LZ - landing zone

M

MA - mortuary affairs
MASCAL - mass casualty evacuation
MCO - movement control officer
MCOO - modified combined obstacle overlay
MCS - mobility, counter-mobility, and survivability
MCS - Maneuver Control System (ABCS)
MCS-L - Maneuver Control System - Light (ABCS)
MDMP - military decision making process
MEA - munitions effects assessment
MEDCAP - medical capability
MEDCO - medical officer
MEDEVAC - medical evacuation
MEDLOG - medical logistics
MES - medical equipment sets
METL - mission essential task list
METT-TC - mission, enemy, terrain, time available, troops available, and civilians
MI - military intelligence
MIA - missing in action
MISO - military information support operations
MLMC - Medical Logistics Management Center
MLO - medical logistics officer
MLRS - multiple launch rocket system
MNF - multi-national force
MOE - measures of effectiveness
MOPP - mission-oriented protective posture
MP - military police
MSE - mobile subscriber equipment
MSR - main supply route
MTOE - modified table of equipment
MTP - mission training plan
MTS - Movement Tracking System
MWR - morale, welfare and recreation

N

NAI - named area(s) of interest
NBC - nuclear, biological and chemical
NBCWRS - Nuclear, Biological, Chemical Warning and Reporting System
NCO - non-commissioned officer
NCOIC - non-commissioned officer in charge
NCOPD - non-commissioned officer professional development
NCS - net control station
NETOPS - network operations
NFA - no fire area
NGLO - Naval gunfire liaison officer
NGO - non-governmental organization
NIMA - National Imagery and Mapping Agency
NM - network management

O

O&I - operations and intelligence
O/C - observer / controller
OAKOC - observation and fields of fire, avenues of approach, key terrain, obstacles, and cover and concealment
OB - order of battle
OBJ - objective
OBSTINTEL - obstacle intelligence
OE - operational environment
OEW - offensive electronic warfare
OGA - other governmental organizations
OIC - officer in charge
OP - observation post
OPCON - operational control
OPD - officer's professional development
OPFOR - opposing force(s)
OPLAN - operations plan
OPORD - operations order
OPSEC - operational security
OPSKEDS - operation schedules
OPTEMPO - operational tempo

P

PAC - Personnel and Administration Center
PACE - primary, alternate, contingency, emergency
PARRTS - Patient Accountability and Reports Real-time Tracking System
PASBA - patient administration system and biostatistics activity
PBO - property book office(r)

PERSITREP - personnel situation report
PIR - priority intelligence requirement(s)
PLL - prescribed load list
PLT - platoon
PM - Provost Marshal
PMCS - preventive maintenance checks and services
POC - point of contact
POL - petroleum, oil, and lubricants
PSYOP - psychological operations (replaced by MISO)

R

R - reinforcing
RAAMS - remote anti-armor mine system
RAP - rocket assisted projectile
RCP - relative combat power
REC - radio electronic combat
RF - radio frequency
RFI - request(s) for information
RI - relevant information
RISTA - reconnaissance, intelligence, surveillance, and target acquisition
ROE - rules of engagement
ROI - rule(s) of interaction
ROM - refuel-on-the-move
RSR - restricted supply rate
RSTA - reconnaissance, surveillance, target acquisition
RTO - radio-telephone operator
RWS - Remote Work Station (ABCS)

S

S-1 - Assistant Chief of Staff, Personnel (personnel officer)
S-2 - Assistant Chief of Staff, Intelligence (intelligence officer)
S-3 - Assistant Chief of Staff, Operations (operations officer)
S-4 - Assistant Chief of Staff, Logistics (logistics officer)
S-5 - Assistant Chief of Staff, Civil-Military Operations (CMO officer)
S-6 - Assistant Chief of Staff, C4 Operations (C4 operations officer)
S-7 - Assistant Chief of Staff, Information Operations (IO officer)
SA - situational awareness
SAMS - Standard Army Maintenance System
SARSS - Standard Army Retail Supply System
SATCOM - satellite communications
SBCT - Stryker brigade combat team
SBF - support by fire
SCL - strategic loads

SEAD - suppression of enemy air defenses
SGM - sergeant major
SGS - secretary of the general staff
SHORAD - short-range air defense
SIGINT - signals intelligence
SIGSEC - signal security
SIR - specific information requirement(s)
SIR - serious incident report
SITREP - situation report
SITTEMP - situation template
SO - stability operations
SOI - signal operating instructions
SOP - standing operating procedure(s)
SOSR - smoke, obscure, suppress, reduce
SOSRA - suppress, obscure, secure, reduce, assault
SOTA - SIGINT operational tasking authority
SPF - special-purpose forces
SPLL - self-propelled loader-launcher
SPO - support operations officer
SQL - structured query language
SO - stability operations
SSA - supply support agency
STAMIS - Standard Army Management Information System
STP - Soldier training publication
SU - situational understanding
SWO - staff weather officer

T

TAA - tactical assembly area(s)
TAC - tactical
TACON - tactical control
TAC CP - tactical command post
TACP - tactical air control party
TACROE - tactical rules of engagement
TACSOP - tactical standing operating procedures (see also **TSOP**)
TAI - targeted area(s) of interest
TAMMS - The Army Maintenance Management System
TC - training circular
TEWT - tactical exercise without troops
TF - task force
TI - tactical internet
TIC - toxic industrial chemicals
TIM - toxic industrial materials

TLP - troop-leading procedure(s)
TO - task organization
TOC - Tactical Operations Center
TPED - tasking, processing, exploitation, and dissemination
TPL - time phase line(s)
TPS - tactical personnel system
TPU - tank pump unit
TRP - target reference point(s)
TSM - target synchronization matrix
TSOP - tactical standing operating procedures
TSS - target selection standards
TTP - tips (or tactics), techniques, and procedures
TVA - target value analysis

U

UAS - unmanned aerial system
UGR-A(B) - Unitized Group Ration A (B)
UHF - ultra-high frequency
ULLS - unit level logistics system
UMCP - unit maintenance collection point
UMT - unit ministry team
USMTF - United States Message Text Format

V

VIP - very important person
VT - variable time

W

WAN - wide area network
WARNO - warning order
WFF - warfighting function
WIA - wounded in action
WMD - weapon(s) of mass destruction
WP - white phosphorus
WSRO - weapon system replacement operations

X

XO - executive officer

PART 6 - GLOSSARY

General

This glossary is a compilation of often-used terms when executing the MDMP. These definitions were taken from numerous FMs including *FM 1-02, Operational Terms and Graphics*, and updated definitions from the 27 February 2008 edition of *FM 3-0, Operations*. They are only a small part of the number that may be applicable. It is unlikely that any commander or staff member will have perfect recall of the myriad terms that are used in operational planning. This selection will help in that regard. Like the TTP contained in this battle book, the glossary is intended to save the executive officer time.

-A-

Analysis (intelligence) - The process by which collected information is evaluated and integrated with existing information to produce intelligence that describes the current, and predicts the future, impact of the threat and / or environment on operations. *FM 34-3*

Area of Influence - A geographical area wherein a commander is directly capable of influencing operations by maneuver and fire support systems normally under the commander's command or control. *JP 1-02*

Area of Interest (AOI) - That area of concern to the commander, including the area of influence, areas adjacent thereto, and extending into threat territory to the objectives of current or planned operations. This area also includes areas occupied by threat forces who could jeopardize the accomplishment of the mission. *JP 2-03*

Area of Operations (AO) - An operational area defined by the joint force commander for land and naval forces. Areas of operations do not typically encompass the entire operational area of the joint force commander, but should be large enough for component commanders to accomplish their missions and protect their forces. *JP 3-0*

Area of Responsibility (AOR) - The geographical area associated with a combatant command within which a combatant commander has authority to plan and conduct operations. *FM 1-02*

Area Reconnaissance - A form of reconnaissance operations that is a directed effort to obtain detailed information concerning the terrain or threat activity within a prescribed area. *FM 3-90*

Area Security - A form of security operations conducted to protect friendly forces, installation routes, and actions within a specific area. *FM 3-90*

Assessment - (Army) The continuous monitoring and evaluation of the current situation, particularly the threat, and progress of an operation. *FM 3-0.*

Avenue of Approach (AA) - An air or ground route of an attacking force of a given size leading to its objective or to key terrain in its path. *FM 3-90*

-B-

Battle Captain - The shift officer in charge within a command post, associated by position and not rank. The battle captain is located in the operations section of a command post and oversees the conduct of command post operations during his shift. The battle captain ensures that relevant information is given to decisionmakers and works closely with all members of the command group and staff. *FM 1-02*

Battle Command - The art and science of understanding, visualizing, describing, directing, leading, and assessing forces to impose the commander's will on a hostile, thinking, and adaptive enemy. Battle command applies leadership to translate decisions into actions—by synchronizing forces and warfighting functions in time, space, and purpose—to accomplish missions. *FM 3-0*

Battle Drill - Standardized actions made in response to common battlefield occurrences. They are designed for rapid reaction situations. *FM 7-10*

Be-prepared (BP) Mission - A mission assigned to a unit that might be executed. It is generally a contingency mission which will be executed because something planned has or has not been successful. In planning priorities, it is planned after any on-order missions. *FM 1-02*

Branch - The contingency options built into the base plan. A branch is used for changing the mission, orientation, or direction of movement of a force to aid success of the operation based on anticipated events, opportunities, or disruptions caused by enemy actions and reactions. *JP 5-0*

Battle Command Training Center - Leavenworth (BCTC-Lvn)

-C-

Calculated Risk - An exposure to chance of injury or loss when the commander can visualize the outcome in terms of mission accomplishment or damage to the force, and judges the outcome as worth the cost. *FM 6-0*

Center(s) of Gravity (COG) - The source of power that provides moral or physical strength, freedom of action, or will to act. *JP 3-0*

Civil Considerations - The influence of manmade infrastructure, civilian institutions, and attitudes and activities of the civilian leaders, populations, and organizations within an area of operations on the conduct of military operations. *FM 6-0*

Civil-Military Operations (CMO) - The activities of a commander that establish, maintain, influence, or exploit relations between military forces, governmental and nongovernmental civilian organizations and authorities, and the civilian populace in a friendly, neutral, or hostile operational area in order to facilitate military operations, to consolidate and achieve US objectives. *FM 41-10*

COA Statement - The COA statement clearly portrays how the unit will accomplish the mission and explains the concept of operations. *FM 5-0*

COA Sketch - The COA sketch provides a picture of the maneuver aspects of the concept of operations. *FM 5-0*

Collaborative Planning - The real-time interaction among commanders and staffs at two or more echelons developing plans for a particular operation. *FM 1-02*

Collateral Damage - Unintentional or incidental injury or damage to persons or objects that would not be lawful military targets in the circumstances ruling at the time. Such damage is not unlawful so long as it is not excessive in light of the overall military advantage anticipated from the attack. *FM 6-30*

Collection Plan - A plan for collecting information from all available sources to meet intelligence requirements and for transforming those requirements into orders and requests to appropriate agencies. *FM 34-1*

Combat Intelligence - That knowledge of the threat, weather, and geographical features required by a commander in the planning and conduct of combat operations. *FM 34-1*.

Combat Power - (Army) The total means of destructive, constructive, and information capabilities that a military unit/formation can apply at a given time. Army forces generate combat power by converting potential into effective action. *FM 3-0*

Command and Control (C2) - The exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of a mission. Commanders perform command and control functions through a command and control system. *FM 6-0*

Commander's Critical Information Requirements (CCIR) - (joint) An information requirement identified by the commander as being critical to facilitating timely decision-making. The two key elements are friendly force information requirements and priority intelligence requirements. *JP 3-0*

Commander's Intent - A clear, concise statement of what the force must do and the conditions the force must meet to succeed with respect to the threat, terrain, and desired end state. *FM 3-0*

Commander's Planning Guidance - Commanders develop planning guidance from their visualization. Planning guidance may be broad or detailed, as circumstances require. However, it must convey to the staff the essence of the commander's visualization. *FM 5-0*

Commander's Visualization - The mental process of developing situational understanding, determining a desired end state, and envisioning the broad sequence of events by which the force will achieve that end state. *FM 3-0*

Common Operational Picture (COP) - (Army) A single display of relevant information within a commander's area of interest tailored to the user's requirements and based on common data and information shared by more than one command. *FM 3-0*

Confirmation Brief - A briefing subordinate leaders give to the higher commander immediately after the operation order is given. It is their understanding of his intent, their specific tasks, and the relationship between their mission and the other units in the operation. *FM 5-0*

Concept of Operations - (Army) A statement that directs the manner in which subordinate units cooperate to accomplish the mission and establishes the sequence of actions the force will use to achieve the end state. It is normally expressed in terms of decisive, shaping, and sustaining operations.

FM 3-0

Constraint - A restriction placed on the command by a higher command. A constraint dictates an action or inaction, thus restricting the freedom of action a subordinate commander has for planning. **FM 1-02**

Control Measure - A means of regulating forces or warfighting functions.

FM 3-0

Counterintelligence (CI) - Information gathered and activities conducted to protect against espionage, other intelligence activities, sabotage, or assassinations conducted by or on behalf of foreign governments or elements thereof, foreign organizations, or foreign persons, or international terrorist activities. **FM 3-13.**

Culminating Point - (Army) That point in time and space at which a force no longer possesses the capability to continue its current form of operations.

FM 3-0

Course of Action (COA) - 1. Any sequence of activities that an individual or a unit may follow. 2. A possible plan open to an individual or a commander that would accomplish or is related to the accomplishment of a mission. 3. The scheme adopted to accomplish a job or mission. **FM 5-0.**

Criteria of Success - Information requirements developed during the operations process that measure the degree of success in accomplishing the unit's mission. They are normally expressed as either an explicit evaluation of the present situation or forecast of the degree of mission accomplishment.

FM 6-0

-D-

Deception - Those measures designed to mislead the threat by manipulation, distortion, or falsification of evidence to induce the threat to react in a manner prejudicial to his interests. **FM 3-13**

Decision Support Matrix (DSM) - An aid used by the commander and staff to make battlefield decisions. It is a staff product of the wargaming process, which lists the decision point, location of the decision point, the criteria to be evaluated at the point of decision, the action or operations to occur at the decision point, and the unit or element that is to act and has responsibility to observe and report the information affecting the criteria for the decision. **FM 1-02**

Decision Support Template (DST) - A graphic record of wargaming. The decision support template depicts decision points, time lines associated with the movement of forces and the flow of the operation, and other key items of information required to execute a specific friendly course of action. A staff product initially used in the wargaming process which graphically represents the decision points and projected situations and indicates when, where, and under what conditions a decision is most likely to be required to initiate a specific activity (such as a branch or sequel) or event (such as lifting or shifting of fires). **FM 1-02**

Decisive Operation - The operation that directly accomplishes the mission. It determines the outcome of a major operation, battle, or engagement. The decisive operation is the focal point around which commanders design the entire operation. **FM 3-0**

Decisive Point (DP) - (joint) A geographic place, specific key event, critical factor, or function that, when acted upon, allows commanders to gain a marked advantage over an adversary or contribute materially to achieving success. **JP 3-0** (Note: In this context, adversary also refers to threats.)

Doctrinal Template - A model based on known or postulated adversary doctrine. Doctrinal templates illustrate the disposition and activity of adversary forces and assets conducting a particular operation unconstrained by the effects of the battlespace. They represent the application of adversary doctrine under ideal conditions. Ideally, doctrinal templates depict the threat's normal organization for combat, frontages, depths, boundaries and other control measures, assets available from other commands, objective depths, engagement areas, battle positions, and so forth. **FM 2-01.3**

-E-

End State - (joint) The set of required conditions that defines achievement of the commander's objectives. **JP 3-0**

Essential Element of Friendly Information (EEFI) - (Army) A critical aspect of a friendly operation that, if known by the threat, would subsequently compromise, lead to failure, or limit success of the operation, and therefore should be protected from threat detection. *FM 3-0*

Essential Task - A task that must be executed to accomplish the mission. *FM 1-02*

Event Template (EVENTEMP) - A model against which threat activity can be recorded and compared. It represents a sequential projection of events that relate to space and time on the battlefield and indicate the threat's ability to adopt a particular course of action. The event template is a guide for collection and reconnaissance and surveillance planning. *FMI 2-01*

Execution Matrix - A visual and sequential representation of the critical tasks and responsible organizations by time or for a tactical operation used as a staff tool. *FM 5-0*

-F-

Fire Support Task (FST) - A task for fire support to accomplish that is required to support a combined arms operation. Failure to achieve may cause the commander to alter his operational plan. Fire Support White Paper

Fragmentary Order (FRAGO) - An abbreviated form of an operation order (verbal, written, or digital) usually issued on a day-to-day basis that eliminates the need for restating information contained in a basic operation order. It may be issued in sections. It is issued after an operation order to change or modify that order or to execute a branch or sequel to that order. *FM 1-02*

Friendly Force Information Requirement (FFIR) - (joint) Information the commander and staff need to understand the status of friendly force and supporting capabilities. *JP 3-0*

Full Spectrum Operations - The Army's operational concept: Army forces combine offensive, defensive, and stability or civil support operations simultaneously as part of an interdependent joint force to seize, retain, and exploit the initiative, accepting prudent risk to create opportunities to achieve decisive results. They employ synchronized action—lethal and nonlethal—proportional to the mission and informed by a thorough understanding of all variables of the operational environment. Mission command that conveys intent and an appreciation of all aspects of the situation guides the adaptive use of Army forces. *FM 3-0*

-G-

Graphic Control Measure (GCM) - A symbol used on maps and displays to regulate forces and warfighting functions. *FM 3-0*

-H-

Hazard - A condition with the potential to cause injury, illness, or death of personnel; damage to or loss of equipment or property; or mission degradation. *FM 5-19*

High-Payoff Target (HPT) - A target whose loss to the threat will significantly contribute to the success of the friendly course of action. High-payoff targets are those high-value targets that must be acquired and successfully attacked for the success of the friendly commander's mission. *FM 6-20-10*

High-Value Target (HVT) - A target the threat commander requires for the successful completion of the mission. The loss of high-value targets would be expected to seriously degrade important threat functions throughout the friendly commander's area of interest. *FM 6-20-10*

-I-

Implied Task - A task that must be performed to accomplish the mission, but is not stated in the higher headquarters order. *FM 1-02*

Influence - In the context of stability mechanisms, to alter the opinions and attitudes of a civilian population through information engagement, presence, and conduct. *FM 3-0*

Information Management (IM) - The integrated employment of public affairs to inform US and friendly audiences; psychological operations, combat camera, US Government strategic communication and defense support to public diplomacy, and other means necessary to influence foreign audiences; and, leader and Soldier engagements to support both efforts.

FM 3-0

Information Operations (IO) - (joint) The integrated employment of the core capabilities of electronic warfare, computer network operations, military information support operations, military deception, and operations security, in concert with specified supporting and related capabilities, to influence, disrupt, corrupt, or usurp adversarial human and automated decision-making while protecting our own. **JP 3-13**

Information Requirement(s) (IR) - All information elements the commander and staff require to successfully conduct operations, that is, all elements necessary to address the factors of METT-TC. **FM 6-0**

Information System (INFOSYS) - (Army) Equipment and facilities that collect, process, store, display, and disseminate information. This includes computers—hardware and software—and communications, as well as policies and procedures for their use. **FM 3-0**

Intelligence (joint) - The product resulting from the collection, processing, integration, evaluation, analysis, and interpretation of available information concerning foreign nations, hostile or potentially hostile forces or elements, or areas of actual or potential operations. The term is also applied to the activity which results in the product and to the organizations engaged in such activity. **JP 2-0**

Intelligence Preparation of the Battlefield (IPB) - IPB is the staff planning activity undertaken by the entire staff to define and understand the AO and the options it presents to friendly and threat forces. It includes input from the whole staff. IPB is a systematic process of analyzing and visualizing the threat and AO in a specific geographic area for a specific mission or in anticipation of a specific mission. **FM 2-0**

Intelligence, Surveillance, and Reconnaissance (ISR) - An activity that synchronizes and integrates the planning and operation of sensors, assets, and processing, exploitation, and dissemination systems in direct support of current and future operations. This is an integrated intelligence and operations function. For Army forces, this activity is a combined arms operation that focuses on priority intelligence requirements while answering the commander's critical information requirements. *FM 3-0*

Intelligence, Surveillance, and Reconnaissance Assets - Those organizations, systems, sensors, personnel, and equipment dedicated to or directed toward the collection of information in response to the commander's critical intelligence requirements. *FM 1-02*

Intelligence, Surveillance, and Reconnaissance Plan - An integrated plan for collection of information from all available sources that is driven by the commander's critical information requirements. The plan tasks ISR assets to collect critical information within a required time line. The plan is revised and updated as the commander's information requirements change. *FM 1-02*

Intelligence Synchronization Matrix - A graphic representation that ties the collection plan to an operation and the commander's intelligence needs. *FM 1-02*

Intelligence, Surveillance, and Reconnaissance Integration -The task of assigning and controlling a unit's intelligence, surveillance, and reconnaissance assets (in terms of space, time, and purpose) to collect and report information as a concerted and integrated portion of operation plans and orders. *FM 1-02*

Intelligence, Surveillance, and Reconnaissance Synchronization - The task that accomplishes the following: analyzes information requirements and intelligence gaps; evaluates available assets internal and external to the organization; determines gaps in the use of those assets; recommends intelligence, surveillance, and reconnaissance assets controlled by the organization to collect on the commander's critical information requirements; and submits requests for information for adjacent and higher collection support. *FM 3-0*

Intelligence Warfighting Function - The related tasks and systems that facilitate understanding of the operational environment, threat, terrain, and civil considerations. *FM 3-0*

-L-

Latest Time Intelligence is of Value (LTIOV) - The time by which information must be delivered to the requestor in order to provide decision-makers with timely intelligence. *FM 2-01.3*

Levels of Risk - Utilizing the risk assessment matrix, the point where the severity row and probability column intersect defines the level of risk. There are four levels of risk: extremely high risk (E), high risk (H), moderate risk (M), and low risk (L). *FM 5-19*

Line of Effort - A line that links multiple tasks and missions using the logic of purpose—cause and effect—to focus efforts toward establishing operational and strategic conditions. *FM 3-0*

Line of Operations - (Army) A line that defines the directional orientation of a force in time and space in relation to the threat and links the force with its base of operations and objectives. *FM 3-0*

-M-

Mission Command - The conduct of military operations through decentralized execution based on mission orders. Successful mission command demands that subordinate leaders at all echelons exercise disciplined initiative, acting aggressively and independently to accomplish the mission within the commander's intent. *FM 3-0*

Mission-Essential Task - A collective task in which an organization must be proficient to accomplish an appropriate portion of its wartime mission(s). *FM 7-0*

Mission-Essential Task List (METL) - A compilation of collective mission-essential tasks that an organization must perform successfully to accomplish its wartime mission(s). *FM 7-0*

Mission Orders - A technique for developing orders that emphasizes to subordinates the results to be attained, not how they are to achieve them. It provides maximum freedom of action in determining how to best accomplish assigned missions. *FM 3-0*

Movement and Maneuver Warfighting Function - The related tasks and systems that move forces to achieve a position of advantage in relation to the enemy. Direct fire is inherent in maneuver, as is close combat. *FM 3-0*

Mission Statement - The task with the purpose that clearly indicates the action to be taken and the reason thereof. *JP 1-02*

-N-

Named Area of Interest (NAI) - The geographical area where information that will satisfy a specific information requirement can be collected. Named areas of interest are usually selected to capture indications of adversary courses of action, but also may be related to conditions of the AO. *FM 2-01.3*

Nested Concept - The means to achieve unity of purpose whereby each succeeding echelon's concept is included in the other. *FM 1-02*

-O-

On-Order (O/O) Mission - A mission to be executed at an unspecified time in the future. A unit with an on-order mission is a committed force. The commander envisions task execution in the concept of operations; however, he may not know the exact time or place of execution. Subordinate commanders develop plans and orders and allocate resources, task-organize, and position forces for execution. *FM 1-02*

Operational Approach - The manner in which a commander contends with a center of gravity. *FM 3-0*

Operational Control (OPCON) - (joint) Command authority that may be exercised by commanders at any echelon at or below the level of combatant command. Operational control is inherent in combatant command (command authority) and may be delegated within the command. Operational control is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission. Operational control includes authoritative direction over all aspects of military operations and joint training necessary to accomplish missions assigned to the command. Operational control should be exercised through the commanders of subordinate organizations.

Normally this authority is exercised through subordinate Joint Force Commanders and Service and / or functional component commanders. Operational control normally provides full authority to organize commands and forces and to employ those forces as the commander in operational control considers necessary to accomplish assigned missions; it does not, in and of itself, include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training. **JP 1**

Operational Environment (joint) - A composite of the conditions, circumstances, and influences that affect the employment of capabilities and bear on the decisions of the commander. **JP 3-0**

Operational Theme - The character of the dominant major operation being conducted at any time within a land force commander's area of operations. The operational theme helps convey the nature of the major operation to the force to facilitate common understanding of how the commander broadly intends to operate. **FM 3-0**

Operations Process - The major command and control activities performed during operations: planning, preparing, executing, and continuously assessing the operation. The commander drives the operations process. **FM 3-0**

Orders Group - A group assembled to receive a commander's orders. The basic composition of this group is normally prescribed in the standing operating procedures of the unit or formation concerned. **FM 1-02**

Overlay Order - A technique used to issue an order (normally a fragmentary order) that has abbreviated instructions written on an overlay. **FM 1-02**

-P-

Parallel Planning - Two or more echelons planning for an operation nearly simultaneously. **FM 1-02**

Phase - A planning and execution tool used to divide an operation in duration or activity. A change in phase usually involves a change of mission, task organization, or rules of engagement. Phasing helps in planning and controlling and may be indicated by time, distance, terrain, or an event. **FM 3-0**

Plan - A design for a future or anticipated operation. *FM 5-0*

Planning - The process by which commanders (and the staff, if available) translate the commander's visualization into a specific course of action for preparation and execution, focusing on the expected results. *FM 3-0*

Preparation - Activities performed by units to improve their ability to execute an operation. Preparation includes, but is not limited to, plan refinement; rehearsals; intelligence, surveillance, and reconnaissance; coordination; inspections; and movement. *FM 3-0*

Priority Intelligence Requirement (PIR) - (joint) An intelligence requirement, stated as a priority for intelligence support, that the commander and staff need to understand the adversary or the operational environment. *JP 2-0* [Note: In this context, adversary also refers to enemies.]

Protection Warfighting Function - The related tasks and systems that preserve the force so the commander can apply maximum combat power. *FM 3-0*

Probability - In risk analysis, the likelihood that an event will occur. There are five degrees of probability: frequent (A), likely (B), occasional (C), seldom (D), and unlikely (E). *FM 5-19*

-R-

Reach back - The process of obtaining products, services, and applications, or forces, or equipment, or material from organizations that are not forward deployed. *FM 1-02*

Reconnaissance - A mission undertaken to obtain, by visual observation or other detection methods, information about the activities and resources of an enemy or potential enemy, or to secure data concerning the meteorological, hydrographic, or geographic characteristics of a particular area. *FM 1-02*

Reconnaissance Pull - Reconnaissance that determines which routes are suitable for maneuver, where the enemy is strong and weak, and where gaps exist, thus pulling the main body toward and along the path of least resistance. This facilitates the commander's initiative and agility. *FM 3-20.96*

Reconnaissance Push - Reconnaissance that refines the common operational picture, enabling the commander to finalize the plan and support shaping and decisive operations. It is normally used once the commander is committed to a scheme of maneuver or course of action. *FM 3-20.96*

Relevant Information - All information of importance to commanders and staffs in the exercise of command and control. *FM 3-0*

Requirements Management - In intelligence, the development, integration, and management of the intelligence, surveillance, and reconnaissance plan, which sets out how the information needed to meet priority intelligence requirements (PIR) and information requirements is to be collected and how and where it is to be processed into intelligence to answer PIR. *FMI 2-01*

Restated Mission - Immediately after the mission analysis briefing, the commander approves a restated mission. This can be the staff's recommended mission statement, a modified version of the staff's recommendation, or one that the commander has developed personally. Once approved, the restated mission becomes the unit mission. *FM 5-0*

Restraint - Something which is prohibited that limits freedom of action. (Marine Corps) *FM 1-02*

Risk Management - Risk management is the process of identifying, assessing, and controlling risks arising from operational factors, and making decisions that balance risk cost with mission benefits. Risk management consists of five steps that are performed throughout the operations process. *FM 5-19*

Risk Assessment - The identification and assessment of hazards (first two steps of risk management process). *FM 5-19*

Risk Assessment Matrix - A tool that can be used to determine levels of risk. Leaders and staffs enter the estimated degree of severity and probability for each identified hazard from the severity row and probability column respectively. *FM 5-19*

Rules of Engagement (ROE) - (joint) Directives issued to guide United States forces on the use of force during various operations. These directives may take the form of execute orders, deployment orders, memoranda of agreement, or plans. *JP 1-02*

Running Estimate - A staff section's continuous assessment of current and future operations to determine if the current operation is proceeding according to the commander's intent and if future operations are supportable. *FM 3-0*

-S-

Sequel - (joint) In a campaign, a major operation that follows the current major operation. In a single major operation, a sequel is the next phase. Plans for a sequel are based on the possible outcomes (success, stalemate, or defeat) associated with the current operation. *JP 5-0*

Shaping Operation - An operation at any echelon that creates and preserves conditions for the success of the decisive operation. *FM 3-0*

Specific Information Requirement(s) (SIR) - SIR describe the information required to answer all or part of an intelligence requirement. *FMI 2-01*

Specific Orders and Requests (SOR) - The order or request that generates planning and execution of a collection mission or analysis of data base information. *FMI 2-01*

Sustaining Operation - Sustaining operations are operations at any echelon that enable shaping and decisive operations by providing combat service support, rear area and base security, movement control, terrain management, and infrastructure development. *FM 3-0*

Situational Awareness (SA) - Immediate knowledge of the conditions of the operation, constrained geographically and in time. *FM 3-0*

Situational Understanding (SU) - The product of applying analysis and judgment to relevant information to determine the relationships among the mission variables to facilitate decision making. *FM 3-0*

Situation Template - A series of projections that portray, based on enemy doctrine, the most probable disposition and location of enemy forces within constraints imposed by weather and terrain. *FM 2-01.3*

Specified Task - A task specifically assigned to a unit by its higher headquarters. *FM 1-02*

Battle Command Training Center - Leavenworth (BCTC-Lvn)

Sustaining Operation - An operation at any echelon that enables the decisive operation or shaping operations by generating and maintaining combat power. *FM 3-0*

Sustainment Warfighting Function - The related tasks and systems that provide support and services to ensure freedom of action, extend operational reach, and prolong endurance. *FM 3-0*

Synchronization - (joint) The arrangement of military actions in time, space, and purpose to produce maximum relative combat power at a decisive place and time. *JP 2-0*

Synchronization Matrix - A format for the staff to record the results of wargaming and synchronize the course of action across time, space, and purpose in relation to an enemy course of action. *FM 1-02*

-T-

Targeted Area of Interest (TAI) - The geographical area or point along a mobility corridor where successful interdiction will cause the threat to abandon a particular course of action or require him to use specialized engineer support to continue. It is where he can be acquired and engaged by friendly forces. Also called **TAI**. *FM 3-90*

Task Organization - A temporary grouping of forces designed to accomplish a particular mission. *FM 3-0*

Task Organizing - (Army) The act of designing an operating force, support staff, or logistic package of specific size and composition to meet a unique task or mission. Characteristics to examine when task organizing the force include, but are not limited to: training, experience, equipment, sustainability, operating environment, enemy threat, and mobility. For Army forces, it includes allocating available assets to subordinate commanders and establishing their command and support relationships. *FM 3-0*

Terrain Analysis - The collection, analysis, evaluation, and interpretation of geographic information on the natural and manmade features of the terrain, combined with other relevant factors, to predict the effect of the terrain on military operations. *FM 2-01.3*.

-W-

Warfighting Function (WFF) - A group of tasks and systems (people, organizations, information, and processes) united by a common purpose that commanders use to accomplish missions and training objectives. *FM 3-0*
Note: replaced BOS

Wargaming - A step-by-step process of action, reaction, and counteraction for visualizing the execution of each friendly course of action (COA) in relation to enemy COAs and reactions. It explores the possible branches and sequels to the primary plan resulting in a final plan and decision points for critical actions. *FM 1-02*

Warning Order (WARNO) - A planning directive that describes the situation, allocates forces and resources, establishes command relationships, provides other initial planning guidance, and initiates subordinate unit mission planning. *FM 1-02*

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