

ACCELERATED DECISION MAKING AT TASK FORCE LEVEL

A Thesis presented to the Faculty of the U.S. Army
Command and General Staff College in partial
fulfillment of the requirements for the
degree

MASTER OF MILITARY ART AND SCIENCE

by

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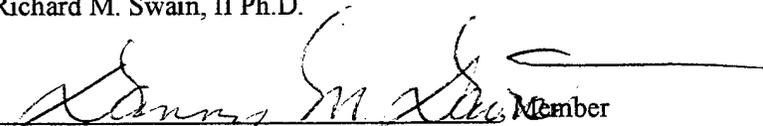
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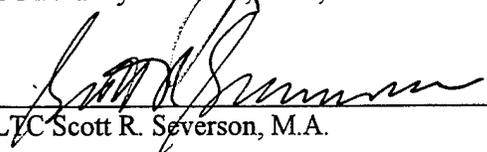
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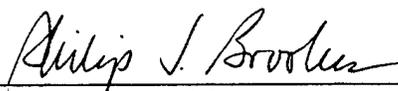
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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study include the following statement.)

ABSTRACT

ACCELERATED DECISION MAKING AT THE TASK FORCE LEVEL, by Major Henry A. Kievenaar III, U.S. Army, 87 pages.

This study challenges the military decision-making process as both ineffective and inefficient for use in decision making at the task force level. FM 101-5 (final draft), Staff Organization and Operations, 1966, currently prescribes the MDMP as the only accepted process for decision making. This process is applicable to all echelons. This researcher suggests that the decision-making process is different at task force level and makes recommendations to improve the decision-making process when applied to the resource constrained environment characteristic of task force level operations. The MDMP is a systematic, analytical approach to decision making that generates multiple courses of action for the purpose of allowing the commander to select the optimum COA. This study explored the existing theories of naturalistic or recognition primed decision making for the purpose of determining a single option rapidly. The MDMP is by its own description a staff and time intensive process. The requirement to develop the best possible solution instead of one workable solution results in a significant increase in time used in the conduct of the planning process with no applicable difference in the results. The research examined the MDMP against the environment characteristics of task force level operations for efficiency and effectiveness. The study concluded that the MDMP is neither an efficient nor effective planning process when applied to task force level. The study provides recommended improvements for the MDMP to streamline the process and make it a more efficient and effective process for task force level planning. Key to the discussion is the idea of returning to a more commander involved mental process versus the present staff driven, product oriented process of FM 101-5.

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DEDICATION

This thesis is dedicated to my wife Carolyn and my children A.J. and Caitlin who have sacrificed much to allow me to pursue this degree. Their encouragement and support were critical during the long winter months, enabling me to complete my research and this project on time.

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LIST OF ACRONYMS

AAR	After Action Report
AFLOAT	A Float
ARI	Army Research Institute
BCL	Battle Command Lab
BICC	Battlefield Intelligence Collection Center
BOS	Battlefield Operating Systems
BSA	Brigade Support Area
CALL	Center for Army Lessons Learned
COA	Course of Action
CSS	Combat Service Support
CTC	Combat Training Center
DDMP	Deliberate Decision Making Process
FM	Field Manual
FSB	Forward Support Battalion
HHC	Headquarters and Headquarters Company
IDA	Institute for Defense Analysis
IPB	Intelligence Preparation of the Battlefield
JRTC	Joint Readiness Training Center
MDMP	Military Decision Making Process
METT-T	Mission, Equipment, Terrain, Troops-Time

MP	Military Police
NBC	Nuclear, Biological, and Chemical
NCO	Noncommissioned Officer
NTC	National Training Center
OOTW	Operations Other Than War
OPORD	Operations Order
PREPO	Preposition Equipment
SOP	Standard Operating Procedures
ST	Student Text
TAC	Tactical Assault Center
TDMP	Tactical Decision Making Process
TOC	Tactical Operations Center
TOE	Table of Organization and Equipment
TRADOC	U.S. Army Training and Doctrine Command
TTP	Tactics, Techniques, and Procedures
US	United States

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CHAPTER 1

INTRODUCTION

Background

The estimate process originated from the Prussian Army's attempts to develop a scientific approach to military decision making.

The Prussians felt a documented, systematic procedure was required "to develop by training a high average of ability in leadership" as the death of Frederick the Great and subsequent Prussian defeats had made them realize how dependent they were upon the rare chance existence of true tactical genius.¹

The estimate of the situation has been the accepted means of tactical decision making within the US Army for nearly a century.² The procedures that the US Army uses are outlined in Field Manual (FM) 101-5, Command and Control for Commanders and Staff. This manual is the primary tool used to train commanders and their staffs in the conduct of military decision making.

Since 1932, the Army has published nine versions of FM 101-5, Command and Control for Commanders and Staff.³ The tenth edition is currently in a second draft. It describes only one decision-making process the military decision-making process, for all staffs.⁴ For the purposes of the thesis, the terms Military Decision-Making Process (MDMP) and the Deliberate Decision-Making Process (DDMP) are the same. The new draft manual of FM 101-5, dated August 1996, renames the DDMP the MDMP. In previous editions the MDMP described the methodology and the DDMP the applied process. That distinction has been dropped. Due to the limited distribution of the new draft and the wider acceptance of the term DDMP, this thesis will use the term DDMP when referring to the planning process.

The DDMP, as currently designed, is most effective when used by division or higher level staffs. The application of the DDMP to both brigade and task force level staffs has not resulted in an efficient and effective process for producing adequate orders in a timely manner. The Combat Training Center's (CTC's) take-home packages and after-action review (AAR) comments continue to outline how inefficient and ineffective military orders processes are at brigade and task force level. This inability to produce an adequate order in a timely manner greatly inhibits troop-leading procedures and preparation for combat at the subordinate levels. Often the end result is a poorly understood and executed plan, which results in the commander and staff's failing to accomplish assigned missions. That the senior leadership of the Army still feels the process is ineffective at brigade and task force level is evident by its inclusion in the US Army Training and Doctrine Command (TRADOC) commander's top ten trend reversal program.⁵ The reversal program was established by the TRADOC commander a year ago to correct negative trends that occur at the CTCs. The negative trend in regard to the planning process was the repeated failure of task force level staffs to produce adequate orders in a reasonable amount of time.

The Center for Army Lessons Learned (CALL) felt compelled to publish two books on the planning process, The Battalion and Brigade Staff, in July 1993, and more recently, Tactical Decision Making: Abbreviated Planning, in December 1995. These were attempts to standardize an abbreviated process that the new draft manual states "will be the exception."⁶ Doctrine recognizes that sometimes units will need to accelerate the process but only on a limited basis.⁷ Experience in the field demonstrates that at brigade and lower levels an abbreviate process is used almost exclusively. These books were intended to help standardize an abbreviated process and provide tactics, techniques, and procedures to increase the effectiveness and efficiency of the decision process at brigade and task force level. These publications basically outline the existing DDMP and instruct the staffs just to do the steps faster.

Unit performance at the CTCs shows that almost all units perform some version of an accelerated decision-making process for all orders, but their processes have failed to yield an adequate order in a reasonable amount of time. According to a Rand report:

The plans were generally doable (87 percent of the battles surveyed) but were only adequate 35 percent of time. Doable plans can work against a weak enemy, but adequate plans are needed to enhance a TF's chances of success against a skilled enemy such as the OPFOR. The plans are usually understood by the company commanders (72 percent), but the plan details (adequate 20 percent) and accompanying graphics (adequate 30 percent) are usually not adequate, which can potentially result in poor company-level plans.⁸

Timeline charts used during task force AARs continually show that staffs consume more than the "one-third/two-thirds rule" to develop and issue their orders. The result is that usually no platoon level orders are issued, and neither platoon level orders are issued nor rehearsals conducted prior to mission execution.⁹

There continues to be plenty of research and discussion conducted on the topic of decision making in the Army. As already outlined, a lot of effort is now being expended at many different levels in the Army to correct and accelerate a formal decision-making process. It is hard to understand why the Army's doctrine continually fails to recognize the needs of the staffs in the field and provide them with a new doctrinal solution. Denying or ignoring the problem does not resolve the dilemma.

The research conducted to date has failed to establish why the process of decision making is different at the task force level. The DDMP is an effective method for decision making in an unconstrained environment. Higher level staffs possess the resources in manpower and time to offset any constraints. This allows the DDMP to be used effectively by senior level staffs in a combat environment. Resources at lower level staffs are not so unconstrained. As a result, the same constraints overcome by higher staffs are a hindrance to the effectiveness and efficiency of the DDMP process and, at some point, prevent the DDMP from functioning. Determining what those constraints are and their effects on the DDMP at task force level, determines the feasibility and applicability of the DDMP at the battalion and task force level. This thesis will examine the doctrinal decision-making

process within the context of its efficiency and effectiveness to determine its applicability for use in a constrained environment characterized by task force level operations.

Problem Statement and Research Question

The primary question to be answered by this research project is: Is the deliberate decision-making process an efficient and effective process for task force level planning? To answer this question requires the following questions to be answered as well:

- a. What is a task force?
 1. What does a task force do?
 2. What does a task force level staff look like?
 3. What does a task force staff do?
- b. What are the conditions in normal combat operations?
 1. What are the competing demands?
 2. What are the effects on the staffs?
 3. Are the effects different on different level staffs, why?
- c. What is the prescribed planning process?
 1. What is the deliberate decision making process?
 2. What does doctrine say?
 3. What is the level of detail required at task force level?
 4. What process do task force staffs currently use, why?
 5. What is the desired outcome of TF level planning?
 - (a) Is it a decision?
 - (b) Is it a plan?
 - (c) Is time a factor?
- d. What is effectiveness in task force level planning?

1. How effectiveness defined in terms of desired outcomes?
 2. Is the current practice of the current procedure effective? Why or why not?
- e. What is efficiency in task force level planning?
1. Efficiency is defined as the capacity to produce desired results with a minimum expenditure of energy, time, or resources.
 2. Timeliness is defined in terms of facilitating troop-leading procedures at subordinate levels.
 3. Is the current practice of the current procedure efficient? Why or why not?
- f. What are the conclusions?

Assumptions

1. A formal (doctrinal) decision making process involving a commander and his staff is required.
2. CTCs simulate as closely as possible the actual battlefield conditions, especially in regards to tempo, that the Army expects for any future combat operations.
3. DDMP and the MDMP are identical processes.

Definitions of Key Terms

Resources. People, time, equipment, experience and training.

Deliberate Decision Making Process (DDMP).

Combat Training Centers (CTCs).

Adequacy. Providing a clear task and purpose to all subordinate elements. The detail required is sufficient to permit synchronization of the effects of the unit's combat power.

Reasonable time. Providing sufficient time for troop-leading procedures down to the lowest level compared to total time available. Minimum is 1/3, 2/3 rule.

Efficiency. The capacity to produce desired results with a minimum expenditure of energy, time, or resources.

Effectiveness. Producing or able to produce a desired effect.

Scope

The purpose of this thesis is to identify the factors that inhibit execution of the DDMP and to determine if the DDMP is an efficient and effective planning process. Based on the analysis indicated, this paper will determine the effect external factors have on the efficiency and effectiveness on the DDMP at the task force level. This is critical for two reasons. The negative trend in tactical decision making cannot be reversed until the Army understands why it occurs. The staffs will not understand how to conduct decision making properly in resource-constrained environments, and the Army will not train the staffs how to abbreviate the DDMP, until the process is standardized through doctrine with specific steps, end states, and techniques. This research project intends not only to demonstrate that the decision-making process is different at task force level, but to suggest what an improved process should look like. Within the scope of this project is the development of a purpose and end state for each step in the decision-making process. The development of tactics, techniques, and procedures for accelerating this process in constrained environments, to include specific tasks to be performed by each BOS element and the products to be produced for each step, will be discussed. A comprehensive time line for the duration of the process with milestones will be developed. Parallel planning, which is a significant requirement in accelerate decision making, will be discussed to include requirements for warning orders, products, and issue times.

Importance

The Army has a significant problem in producing adequate plans in a reasonable amount of time. The CTC observations continue to discuss this inability to produce adequate plans, resulting in

defeats and unnecessary loss of soldiers' lives due to a persistent inability to synchronize combat power at the decisive point on the battlefield. The currently proposed doctrine FM 101-5, fails to identify the causes and, more importantly, to provide solutions as to how to fix this problem at brigade level and lower. This manual also fails to incorporate the recommendations and procedures offered in brigade and task force level manuals (FM 71-2, 71-3, 71-123, 7-20) as solutions for this problem. Staffs will continue to struggle without an adequate framework to train and obtain the required proficiency. Staffs currently use an abbreviated version of the DDMP at the CTCs. This abbreviated version eliminates steps instead of streamlining the process to compensate for limited resources. It seems to be inadequate when doctrine fails to provide a solution or a standard for what the force is currently executing, then doctrine ceases to be effective and useful. This thesis could greatly assist in reversing the trend of inadequate orders issued in an untimely manner by developing and standardizing in doctrine a decision-making process designed for a constrained resource environment.

¹Rex R. Michel, ARI Research Report 1577. Historical Development of the Estimate of the Situation. (Alexandria, VA: U. S. Army Research Institute for the Behavioral and Social Sciences, 1990), 3.

²Ibid.

³Ibid., 1.

⁴U.S. Army, FM 101-5 (draft), "Command and Control for Commanders and Staff" (Washington, DC: Department of the Army, 1996), 5-46.

⁵U.S. Army Training and Doctrine Command, "Current Trend Reversal Issues" (TRADOC Regulation 11-13: TRADOC Remedial Action Programs, 1996), CALL.

⁶U.S. Army, FM 101-5 (draft), "Command and Control for Commanders and Staff" (Washington, DC: Department of the Army, 1996), 5-50.

⁷Ibid.

⁸Jon Grossman, "Battalion Level Command and Control at the National Training Center." (Santa Monica, CA: RAND Corporation, 1994), 9.

⁹National Training Center, "After Action Review Packets" (in author's possession).

CHAPTER 2

REVIEW OF LITERATURE

There are few publications on accelerated decision making, but there are numerous publications on decision making per se. A review of the publications on deliberate decision making must be conducted to address the adequacy and application of doctrine to accelerated decision making. The primary sources of information will come from the following categories of publications:

1. Current doctrinal manuals. These manuals refer to all decision-making at the different levels of command.
2. Current tactics, techniques and procedures. This category refers to handouts from CTCs, Student Texts, TOE unit SOPs and publications from the Center for Army Lessons Learned (CALL).
3. Observations. This refers to the information obtained from CTCs in the form of take-home packet; professional articles; Master of Military Art and Science (MMAS) thesis; and studies by Army Research Institute (ARI), Institute for Defense Analysis (IDA), Army Battle Command Lab (BCL), and the Rand Corporation.

Current Doctrinal Manuals

The most important review will be of the new draft of FM 101-5, Command and Control for Commanders and Staff, released in August 96. This manual is the capstone publication for the Army in regards to decision-making. It prescribes the basic doctrine for staff organization, responsibilities, functions, and operations. It delineates the staff officer's characteristics and describes the commander-staff relationship and their interaction in the decision-making process.

Chapter 5, "Decision Making," describes the military decision-making process as the only decision-making process to be used by commanders and staffs at all levels.¹ This naturally gives rise to the question of the effectiveness and efficiency of a process that is applied to different levels of warfare and different size of staffs. FM 101-5 states,

the focus of any planning process should be to quickly develop a flexible, tactically sound and fully integrated and synchronized plan that increases the likelihood of mission success with the fewest casualties possible.²

The doctrine focuses on accelerated decision making occurring after the initial plan is developed using the full deliberate decision making process. The doctrine does acknowledge the difficulty of executing the DDMP under constraints of time:

While difficult, all staffs must be capable of producing a simple, flexible, tactically sound plan in a time-constrained environment. Any mission, equipment, terrain, troops-time (METT-T) factor, but especially limited time, may make it difficult to follow the entire MDMP. An inflexible process used in all situations will not work. The MDMP is a sound and proven process that must be modified with slightly different techniques to be effective when time is limited. However, there is only one process and omitting steps of the MDMP is not the solution. Anticipation, organization, and prior preparation are the keys to success in a time-constrained environment.³

FM 101-5 does provide some techniques to help reduce the number of briefings to the commander and limiting the number of options for the staff to consider. It does not discuss in any detail the times, content, or products to be disseminated in warning orders from higher headquarters to subordinate staffs to facilitate the anticipation, organization, and prior preparation that the doctrine outlines as the keys to success in a time-constrained environment.

The doctrine describes a framework for conducting the military decision-making process but the majority of the manual is focused on the conduct of the process in an unconstrained environment. The manual lacks any real specifics for conducting decision making in a constrained environment. The lack of a clearly defined method to accelerate decision making at lower level staffs has contributed to the current inability of task force level staffs to produce adequate orders in a timely manner.

FM 101-5 does provide a list of factors that affect staff organizations. Among these are: (1) Size and diversity of responsibilities; (2) Political requirements; (3) Local (unique) requirements; (4) Changes in the amount of work the section must routinely perform; (5) The amount of information dissemination the section routinely conducts; (6) The availability, qualifications, and performance of personnel; (7) Requirements the organizations and locations of command post and headquarters impose; (8) A sections mobility requirements; (9) Requirements for 24-hour operations; (10) Requirements for 24-hour local security; (11) Ability to group related activities; (12) Desired span of control; (13) Demand for prompt dissemination of essential information; and (14) Commander's and chief of staff's preferences.⁴

Some of these factors also have an effect on the staff's ability to perform any of its assigned missions. These factors will be examined indepth in chapter four of this thesis to determine their effect on the efficiency and effectiveness of the decision-making process at the task force level.

FM 71-2, The Tank and Mechanized Infantry Battalion Task Force, defines a battalion task force as a battalion level force organized by a higher level commander from elements of complementary units, normally infantry and armor, proportioned according to the factors of METT-T. FM 71-2, states that task force command and control process--

involves planning, coordinating, and executing combat operations. While higher level headquarters give broad missions and allocate assets to fight the close and deep battle, task forces directly control and synchronize the actions of company teams, supporting fires and obstacles on the ground and against the enemy.⁵

The manual states that task force level planning must be rapid and continuous. It must be rapid "to give adequate time for preparation, coordination, and planning."⁶ It is continuous to permit updating and refinement, "but complete change is avoided especially if it negates subordinate planning and preparation."⁷ The task force commander uses troop-leading procedures as the method to manage time in the decision-making process. FM 71-2 outlines the military decision-making process as a subset of the troop-leading procedures under step three, make a tentative plan. The significance of this incorporation of the decision-making process into troop-leading procedures is a recognition that the staff's responsibility does not end upon the issuance of the order. The staff still has the responsibility to supervise subordinates' preparation and to continue to refine the plan based on the developing intelligence picture and the most current assessments in the task force's preparation for combat.

The manual acknowledges the effect time has on task force level planning. While the manual discusses the rapid pace of planning required at task force level, it does not present a method to accelerate the military decision-making process, except to say that SOPs will make the process shorter. One of the key command and control considerations for a task force commander is to make maximum use of time. This requires an efficient and effective process, yet the manual only references the military decision-making process as outlined in FM 101-5.

FM 71-3, Armored and Mechanized Infantry Brigades, is the Army's field manual for how a heavy brigade conducts operations. The manual focuses on the brigade's fundamentals of operation, combat support, and combat service support. The manual also discusses special employment consideration during joint and multinational operations, light and special operations, operations other than war, preparation equipment afloat (PREPO AFLOAT), fratricide prevention, and decision-making.

Appendix I of FM 71-3, "Decision Making," does discuss an accelerated decision making process run by the commander. The accelerated process is only shortened by the commander's involvement and his expertise. The appendix lacks any concrete methods to shorten the process, and to improve the efficiency of the staff or the effectiveness of its products. While the manual leaves the how-to of abbreviating the process up to the commander, it recommends that wargaming and risk assessment always be included. The purpose of wargaming is to synchronize the battlefield operating systems (BOS) elements of the plan. The risk assessment is to ensure consideration of risk in the selecting of a course of action (COA) and in the implementation of reduction measures to protect the force.⁸

FM 71-123, Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion Task Force, and Company Team, was written in an attempt to supplement existing doctrine and bridge the how-to void.⁹

The section of this manual concerning this thesis is section two, "The Planning Process," of chapter one, "Command, Control, and Communication." It describes the military decision-making process as a systematic approach that combines troop-leading procedures, the estimate of the situation, METT-T, and intelligence preparation of the battlefield (IPB) into a process to formulate tactical plans. The manual defines the one-third/two-thirds rule. "Planning time for a given headquarters should not exceed one-third of the total planning time available. This one-third lasts from receipt of the order from higher headquarters through briefbacks from subordinates immediately following issuance of the OPORD."¹⁰

The manual depicts the military decision-making process as a part of troop-leading procedures providing numerous tactics, techniques, and procedures to help make the decision making process more efficient and effective. This manual attempts to provide the how-to for each step in the process and even has an alternative method for the course of action development. This method is similar to those described in FM 7-20, The Infantry Battalion.

The manual provides plenty of detail for executing the military decision-making process in an unconstrained environment, but lacks the same detail when it comes to accelerating the process in a constrained environment.

If planning time is short, the commander may abbreviate the decision making process only in the amount of time required for each step. All steps should be completed, in the proper order, as outlined.¹¹

The outline that is referenced is the standard military decision-making process discussed in FM 101-5. The tactics techniques and procedures that are discussed to accelerate the process are basically the same as those outlined in FM 101-5. The commander's involvement in the process will serve to reduce the options the staff must consider, reduce the need for briefings, and focus the staff on the desired output.

The next manual considered is FM 7-20, The Infantry Battalion. The purpose of this manual is to provide a doctrinal base for leaders of all types of infantry battalions: light, air assault, airborne, and ranger. The military decision-making process described in FM 7-20 is similar to the process described in FM 101-5. The process described a similar interrelationship between troop-leading procedures and the MDMP as described in FM 71-2, FM 71-123, and FM 71-3. The other significant variation is in COA development. The procedure calls for developing a COA by first determining the decisive point, the supporting effort, purposes, essential tasks, and task organization, establishing control measures, and preparing a course of action statement and sketch. This process has a more logical flow for developing a COA. This process is the same as the one adopted by FM 71-123 as an alternative method for COA development.

The final manual considered is FM 34-130, Intelligence Preparation of the Battlefield. The purpose of this manual is to describe the fundamentals of the intelligence preparation of the battlefield (IPB) and in performing and integrating IPB into the decision-making process. The IPB is defined as:

a continuous process of analyzing the threat and environment in a specific geographic area. It is designed to support staff estimates and military decision making. Applying the IPB process helps the commander selectively apply and maximize his combat power at critical points in time and space on the battlefield. The IPB process is continuous. You conduct IPB prior to and during the command's initial planning for an operation, but you also continue to perform IPB during the conduct of the operation.¹²

The IPB is integrated throughout the military decision-making process. The products produced by the IPB process enable the staff and commanders to visualize the enemy during planning, develop a plan to see the enemy during execution and contribute to the development of tools to assist the commander in making decisions on the battlefield. The manual does provide a discussion on abbreviating the IPB process. While it provides some techniques on abbreviating the IPB process, the most effective method is to complete as much of the IPB process as possible ahead of time.¹³ This requires parallel planning facilitated by the use of warning orders. The manual does not address warning orders or the products available during the planning process of a higher headquarters.

Current Tactics, Techniques, and Procedures

Significant to the literature review in the second category are Student Text (ST) 101-5, three Master of Military Art and Science theses, and two CALL publications on abbreviating the DDMP.

ST 101-5, Command and Staff Decision Processes, is a student text used at the US Army Command and General Staff College to instruct the students in the most current doctrine for decision making. It is designed to reflect the most current or emerging doctrine in the area of the military's decision-making process. The text book includes input from many manuals, such as FM 6-20-10, Tactics, Techniques and Procedures for the Targeting Process, FM 34-4, Intelligence Analysis; and ST 101-6, G1/G4 Battle Book. The manual does not differ from FM 101-5 except in its acceptance of three methods of implementing the military decision-making process.

The manual recognizes the following three methods for executing decision making: the deliberate decision-making process, the combat decision-making process, and the quick decision-making process.¹⁴ The differences of each of these process are discussed in terms of the commander's and staff's involvement in relation to time available. The answer to how much involvement the commander takes and the amount the staff participates is left vague. These three process are the MDMP only done faster. Unfortunately, the methods to streamline the decision-making processes are not specified.

Three MMAS theses have been devoted to the planning process at brigade and task force level. Each of the theses concluded that the doctrine was inadequate for task force level planning.

Major Donald Farris wrote, "Defining a Combat Decision Making Process at the Tactical Level of War and Operations Other Than War." In his thesis, he examined the adequacy of the current decision-making process and explored possible alternatives. The results of Major Farris' study concluded that the current doctrine itself acknowledges that the DDMP was not easily used in a rapid, crisis situation where time is critical and that the doctrine was inadequate.¹⁵ His research indicated that

doctrine needed to add a "combat decision-making process" to enable staffs to make decisions in time-constrained environments.¹⁶ Major Farris recommended a combat decision-making process, but the model he developed still lacks the actual "how to" techniques for the staff.

Major Jacob A. Garcia wrote an MMAS thesis on, "The Requirement for an Abbreviated Military Decision-Making Process in Doctrine." He focused his evaluation on the last accepted FM 101-5, dated May 1984, with the primary question: Should Army doctrine for command and control (FM 101-5, Staff Organization and Operations) develop and prescribe an abbreviated military decision-making process for battalion and brigades?¹⁷ The results of Major Garcia's study concluded that, command and control doctrine needs to provide an abbreviated decision-making process in greater detail than that provided in FM 101-5, that commanders and their staffs currently abbreviate the military decision-making process in time critical situations by eliminating steps of the doctrinal process, and to prevent this, doctrine must provide through standardization an abbreviated version of the process that does not skip steps but rather provides techniques on how to shorten the steps. Finally, he concluded that the doctrinal military decision-making process is a suitable model to make decisions rapidly as long as recommendations one and two are adopted.¹⁸

The last MMAS thesis written on this subject was by Captain C. William Robinson entitled "Rapid Planning and Quick Decision Making During Tactical Operations." The focus of this study was on the suitability, feasibility, and completeness of the first of three coordinating drafts of FM 101-5 dated July 1992. He defined suitability as having an "observable means of accomplishing the mission."¹⁹ Feasibility was analyzed based on the battlefield environment and its effect on command and control system.²⁰ Completeness was based on a modeling of the system and processes.²¹

Robinson's study concluded that doctrine must provide specific measures for supporting commander's visualization of the situation in time and space to be suitable. The thesis concluded that doctrine must address the effects of the environment on the human part of the system to be feasible.

The analysis showed that doctrine must address all major decision types and all elements of the command and control structure to be complete. Based on these conclusions, Robinson concluded that the draft of FM 101-5 dated July 1992 was not sound enough for effective use.²² CPT Robinson's conclusions were in line with both Majors Farris' and Garcia's recommendations. None of the results from these studies appear to have been adopted in the latest draft of FM 101-5.

The Army tries to incorporate tactics, techniques, and procedures (TTPs) to answer the field Army's requirements through publications produced by the CALL. The Center for Army Lessons Learned (CALL) published two newsletters on abbreviating the deliberate decision-making process, CALL Newsletter number 93-3, "The Battalion and Brigade Battle Staff," and Newsletter 95-12, "Tactical Decision Making: Abbreviated Planning." Both newsletters were published in an attempt to standardize an abbreviated planning process and help reverse the trend of inefficient and ineffective planning at the task force and brigade level.

"The Battalion and Brigade Battle Staff" newsletter was CALL's first attempt to help streamline the decision-making process. This newsletter was published in March of 1993 in response to CTC observations that commanders and their staffs were not using the MDMP in the field. The newsletter recognized that it was often necessary to abbreviate the decision-making process to make quick decisions and that current doctrine did not provide an effective abbreviated method. The concern from CALL's perspective was that commanders and staffs in the field were abbreviating the process by eliminating steps rather than reducing the time allocated for each step and as a result the plans produced were not complete, integrated, or synchronized.²³ The newsletter was a collection of tactics, techniques, and procedures to reduce the time required to conduct the MDMP but to still maintain the effectiveness of the process.

This was the first publication that attempted to discuss what should be in a warning order to subordinates and when it should be issued. The second significant discussion addressed staff

estimates in the planning process and how they are facilitated by parallel planning with higher headquarters.²⁴ The discussion of parallel planning is critical for conserving time in the planning process for subordinate commands, but this newsletter did not offer any techniques to streamline the decision-making process to make it more efficient or effective. The bottom line of the newsletter is that effective time management will make the MDMP happen faster.

Before the release of the latest draft of FM 101-5, CALL released Newsletter 95-12, "Tactical Decision Making: Abbreviated Planning," in December 1995. The purpose of this newsletter was to provide techniques and procedures to alleviate some of the common problems associated with the MDMP. It discussed the problem facing today's units as follows:

Historically, success at the CTCs is directly related to the unit's ability to execute the Tactical Decision Making Process (TDMP). With today's technology and vast number of different systems involved, integration and synchronization are critical. Operations Other Than War (OOTW) only complicate the issue. Without a well-developed, integrated, and synchronized plan, the likelihood of a unit being successful is significantly degraded. Producing such a plan that is simple and flexible is very difficult in a time-constrained environment.²⁵

This newsletter was published approximately two years after "The Battalion and Brigade Battle Staff" Newsletter, still trying to assist the units in the field with the problem of decision making. The doctrine or at least its application was still proving to be inefficient and ineffective at task force and brigade level.²⁶

This newsletter discusses the TDMP as a methodology that is applied to decision making through the application of the deliberate, combat, or the quick decision-making process that is described in ST 101-5. These processes are no longer recognized as applicable by the new draft manual of FM 101-5. The idea that the TDMP is a mental methodology to arrive at a decision is not new. The way to best organize the staff and apply it to a given situation is what most staffs find unclear. This newsletter provides some tactics, techniques, and procedures for reducing the process, but most of the techniques are designed around improved staff training. The end result of this newsletter is do all the steps in the decision-making process just do them faster.

Both newsletters produced by CALL discuss shortcomings in the Army doctrine in regards, to decision making. The recent trends at the CTCs still demonstrate that the decision-making process or its application is still ineffective and inefficient. The newest draft of FM 101-5 states that there is only one process applicable to all levels, the MDMP. The question is why? This thesis will attempt to examine the MDMP applicability in a time-constrained environment.

Observations and Professional Studies

Two important Army Research Institute (ARI) works Historical Development of the Estimate of the Situation, and Effects of Expertise and Cognitive Style on Information Use in Tactical Decision Making, contribute an insight into the original nature of the military decision-making process from both a historical and behavioral science approach. The studies describe how a process that initially was conducted mentally turned into a heavy product-producing process. Significant to this thesis is a historical review of the estimate of the situation. Rex Michel's conducted such a review for ARI in 1990. His study was titled Historical Development of the Estimate of the Situation.

The study is a comprehensive review of the MDMP from its conception by the Prussian Empire, as an attempt to assist commanders by developing a systematic and analytical approach to military decision making to its present day form in the United States Army's doctrine.²⁷ This understanding of how the Army's military decision-making process evolved will enable this thesis to determine why a mental decision-making process for the commander has become a written and product intensive staff process.

Michel and Riedel (1988) conducted an investigation to determine Effects of Expertise and Cognitive Style on Information Use in Tactical Decision Making at Command and General Staff College. The purpose of the experiment was "to investigate the effects of expertise, cognitive style, and mission on what information military officers used in tactical decision making processes."²⁸ The significance of this study is the determination of the effect experience has on decision making and how

it may apply to decision making at task force level. The test was performed with two groups: (1) eight instructors who were lieutenant colonels and (2) eight majors who were students at CGSC. The experiment was designed to measure the amount and type of information that each group used in conducting the decision-making process.

The important implication to be gained from this research is that while more senior officers in terms of experience seem to be more conservative and less likely to stray from doctrine, their experience produces a significant effect in the amount and type of information they use in the decision-making process to arrive at solutions.²⁹ The information is more of a summary nature and is arrived at earlier than their less-experienced counterparts. The impact for this thesis is to determine the impact experience has on the decision-making process at task force level and whether the MDMP is an efficient application of this process.

Summary

The literature review has focused on the publications in the area of decision making to explain the environment of task force operations; examine the historical development of the process, the prescribed planning process that doctrine states should be used; and outline some of the perceived factors that affect decision-making and the conditions that characterize the planning process at task force level. Most of the research conducted points to task force decision making being conducted in a very constrained environment in which only an extremely efficient and effective process will enable a commander to produce a reasonable order in a timely manner. The doctrine as currently outlined in the new draft of FM 101-5, by its own admission, seems to lack the flexibility to function in this environment.

The research on the effects of experience on decision making demonstrates why the original process was a mental process by the commander verses a written, product-producing process of today's doctrine. The original purpose of the decision-making process was as an analytical tool to

discuss classroom tactical decision making. This tool then became a process by which the commander and staff should produce a plan. The question is whether or not this process when applied to a constrained environment is the most efficient and effective process given the constraints. The next two chapters of this thesis will explore this question in more detail.

¹U.S. Army, FM 101-5 (draft), "Command and Control for Commanders and Staff" (Washington, DC: Department of the Army, 1996), 5-46.

²Ibid.

³Ibid.

⁴Ibid., 2-2.

⁵U.S. Army, FM 71-2, The Tank and Mechanized Infantry Battalion Task Force. (Washington, DC: Department of the Army, 1988), 2-10.

⁶Ibid.

⁷Ibid., 2-11.

⁸U.S. Army, FM 71-3, The Armored and Mechanized Infantry Brigade (Washington, DC: Department of the Army, 1996), 1-1.

⁹U.S. Army, FM 71-123, Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion Task Force, and Company Team (Washington, DC: Department of the Army, 1992), iii.

¹⁰Ibid., 1-11.

¹¹Ibid., 1-40.

¹²U.S. Army, FM 34-130 Intelligence Preparation of the Battlefield (Washington, DC: Department of the Army, 1994), 1-1.

¹³Ibid., 2-53.

¹⁴U.S. Army, ST 101-5, Command and Staff Decision Processes (Fort Leavenworth, KS: Command and General Staff College, February 1996), 1-2.

¹⁵B. Don Farris, Defining a Combat Decision-Making Process at the Tactical Level of War and Operations Other Than War (Fort Leavenworth, KS: MMAS, 1995), 104.

¹⁶Ibid., 107.

¹⁷Jacob A. Garcia, "The Requirement for an Abbreviated Military Decision-Making Process in Doctrine" (MMAS thesis, U.S. Army Command and General Staff College, Fort Leavenworth, KS: MMAS, 1993),5.

¹⁸Ibid., 79.

¹⁹C. William Robinson, "Rapid Planning and Quick Decision Making During Tactical Operations" (MMAS thesis, U.S. Army Command and General Staff College, Fort Leavenworth, KS: MMAS, 1993), iii.

²⁰Ibid.

²¹Ibid.

²²Ibid.

²³U.S. Army, Center for Army Lessons Learned, Newsletter No. 93-3. The Battalion and Brigade Battle Staff. Fort Leavenworth, KS: U.S. Army Training and Doctrine Command, 1993, iv.

²⁴Ibid., 2.

²⁵U.S. Army, Center for Army Lessons Learned Newsletter No. 95-12. Tactical Decision Making: "Abbreviated Planning." Fort Leavenworth, KS: U.S. Army Training and Doctrine Command, 1995, preface.

²⁶Ibid.

²⁷Rex R. Michel, Historical Development of the Estimate of the Situation. (ARI Research Report 1577) Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences, 1990), 3.

²⁸Rex R. Michel and Sharon L. Riedel, Effects of Expertise and Cognitive Style on Information Use in Tactical Decision Making (Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences, 1988), vii.

²⁹Ibid., 28.

CHAPTER 3

METHODOLOGY

The research methodology for this thesis will be an associative analysis of the Army's military decision-making doctrine in the new draft of FM 101-5, as applied by task force level headquarters, against the accepted terms for efficiency and effectiveness as defined in FM 100-5 and Webster's dictionary. The research will be conducted in three phases. Phase I will consist of three tasks: defining the problem, literature review, and research. Phase II consists of three tasks: collecting the evidence, defining the evaluation criteria to be used to determine the effectiveness and efficiency of the current doctrine, and answering secondary and third order questions. The final phase will consist of answering the primary research question and discussing recommended solutions to decision making at task force level.

The problem under examination is of adequacy of Army doctrine addressing decision making to produce an adequate task force order in a reasonable amount of time during combat operations. This study will examine whether Army doctrine in terms of military decision making is efficient and effective at task force level. To define the problem, phase I of this thesis will discuss the magnitude of the decision-making problem at task force level, the current level of doctrinal solutions, and their impacts on the decision-making process.

The focus of the literature review, also part of phase I, is on the existing research in the area of decision making. A secondary purpose is to develop a broader understanding of the human dimensions involved in decision making. The literature review provides a doctrinal framework to facilitate the analysis of the efficiency and effectiveness of the prescribed process. Areas of specific

focus are: the historical development of the MDMP, determination of the prescribed doctrinal process to be used, and the environmental characteristics of task force level operations. A historical review of the decision-making process is required in order to understand the impetus for its development, to determine the nature of and reasons for changes in the process, and to lay the foundation for analysis as to whether the current prescribed process is still applicable.

The literature review and subsequent research will develop a common understanding for task force level operations, capabilities, missions, and limitations. This understanding will be essential in considering the applicability of a decision-making process that doctrine states is applicable at all echelons of operations. The environment of task force level operations is unique because it is the lowest echelon at which the elements of firepower, maneuver, intelligence, and support are combined under a single commander.¹ It is also the lowest level at which a commander has a full-time staff to assist him in his decision-making process. This organization also has some unique challenges in regards to decision making. A review of all the pertinent manuals addressing decision making must be conducted to determine the prescribed process at task force level. The steps involved in the execution must then be understood to allow for an examination of the efficiency of the prescribed process.

When evaluating any system for efficiency and effectiveness, external factors that influence the system must be considered. The research process will explore the doctrine to determine if it has considered or recognized the existence of these external factors. The results from this investigation will be considered in determining the effectiveness of the decision-making process. Research will focus on doctrine, student texts, theses, related professional studies, CTC take-home packages, and the CALL database, to determine the existing processes and provide the basis for the analysis of the effectiveness and efficiency of the stated processes. The comments from the CTCs in the unit's take-home packages will assist in determining what steps of the decision-making process are being conducted and how

efficiently they are executed. It will also provide information on possible factors that affect the decision making process.

Phase II will consist of gathering evidence to enable identification of all the resource constraints that affect each staff level from task force through division. The tentative factors that will be considered are: personnel, both in experience and numbers, time available, training, and competing missions. The in-processing surveys from the National Training Center (NTC) rotations for the last two years will be used to develop standard data for brigade and task force staffs, in the areas of experience, training, and time in position, both as a staff and as individuals. Comparisons of brigade and battalion TOE will provide the data for the number of personnel available, to include any disparity. Timeline charts from actual battles will be used to determine the average time available to each staff level to plan the operation. A review of doctrine and the battle rhythm AAR charts used for the last year's rotations at the NTC will provide the needed information to assess the competing demands that are imposed on the staff during its planning cycle. This research will determine the factors and their effects on the planning process. This will allow the project to focus on possible solutions to minimize the effects of the above-mentioned factor.

Using the doctrinal framework developed during the literature review, this research project will evaluate the military decision-making process for both efficiency and effectiveness. "Efficiency is defined as the capacity to produce desired results with a minimum expenditure of energy, time, or resources."² Each step in the prescribed doctrinal process will be examined against this definition to determine the processes efficiency. An example of inefficiency would be a requirement to repeat a step in the process. The process will then be examined for its present effectiveness. "Effectiveness is defined as producing or able to produce a desired effect."³ The desired effect is an adequate order in a reasonable amount of time. The effectiveness of the process will be measured by its ability to minimize the effects of outside factors on the decision-making process. The outside factors to be considered are:

personnel, training, concurrent operational requirements, and time. An example of an ineffective process would be an inability to produce an adequate order and issue it to subordinate commanders inside one-third of the time available before execution of the mission.

The combination of conducting the literature review, collecting evidence, and defining the evaluation criteria will allow this thesis to answer the second- and third-order questions. The answering of these questions are necessary to validate the framework and assumptions used in developing the evaluation criteria. Answering the second- and third-order questions during phase II of the methodology allows for phase III to focus on answering the primary research question.

Phase III of the research, then, will examine the emerging doctrine to determine whether or not it is an effective and efficient process as defined in phase II. An analysis will also examine any abbreviated process against the same criteria to determine its applicability for task force level operations. If the conclusion of this research is that the military decision-making process is not an efficient and effective process for task force decision making, then this thesis will provide suggested solutions to reduce the effect of outside factors on the MDMP as well as streamline the planning process to be applicable to the planning environment of task force level operations.

¹U.S. Army, FM1-2, The Tank and Mechanized Infantry Battalion Task Force (Washington, DC: Department of the Army, 1988), 1-6.

²Microsoft Encarta 1994, Microsoft Corporation, Redmond, Washington., 1994.

³Ibid.

CHAPTER 4

ANALYSIS

The commanders, for the most part, find the doctrinal staff estimate and decision making process to be of limited applicability at battalion level.¹

J. W. Lussier and D. J. Litavec
Battalion Commanders Survey: Tactical Commanders Development Course Feedback

What is a Task Force

FM 71-2 defines a task force as a battalion level force that has been task organized by the higher level commander. He task organizes his battalions based on his estimate of the situation by cross-attaching companies between different type of units to increase capabilities. The task force operations are defined as “the lowest echelon at which firepower, maneuver, intelligence, and support are combined under a single commander. Battalions normally fight enemy forces they can see and engage--this defines an area of operations extending from less than 100 meters in the forests, urban areas, or close terrain, out to about 5 to 6 kilometers from the battalion’s direct and indirect fire weapon systems.”²

The capabilities of a task force are defined in FM 71-2 as an ability to apply the attributes of mobility, firepower, and shock effect in the conduct of offensive, defensive, and security operations. Task forces are also capable of accomplishing rapid movements and limited penetrations and exploiting success while conducting sustained combat operations in all environments. This occurs because the battalion task force is the lowest level to combine the necessary command and control and support capabilities to employ combined arms formations.³

The missions of an infantry or armor battalion are defined in this manual as follows:

1. The mission of the mechanized infantry battalion is to close with the enemy by means of fire and maneuver in order to destroy or capture him, or repel his assault by fire, close combat, and counterattack.

2. The mission of the tank battalion is to close with and destroy enemy forces using fire, maneuver, and shock effect, or to repel his assault by fire and counterattack.⁴

A task force blends the capabilities of both types of units. The missions at task force level will always be conducted as part of a higher headquarters operation. Task force level warfare is classified as maneuver warfare, "using a part of the force to find, then fix or contain the enemy, while the remainder of the force attacks his weakest point - usually a flank or the rear."⁵

There are limitations in the employment of mechanized battalion task forces due to their high density of track vehicles. Mobility and firepower are effected significantly by terrain, weather and obstacles. Strategic mobility is impacted by the substantial quantities of heavy equipment and its high supply consumption rates. The most significant limitation on the conduct of task force level operations is the requirement to augment heavy task forces with engineer, fire support, air defense, intelligence and CSS capabilities.⁶ These augmentations are always needed but are usually limited in availability. Their presence or absence significantly impact the scope of the task forces' mission. The limited availability of these assets, forces higher headquarters to prioritize their use and usually results in task forces receiving a single mission, to accomplish one task and purpose, inside a higher headquarters operation.

Since task force level missions are always conducted as part of a higher headquarters operation and are defined as maneuver warfare, the question to be considered is the complexity or level of detail required from the task force planning process to achieve success.

A task force is the lowest tactical echelon with a staff. Though small, task force staffs are responsible for assisting "the commander in doing all those things necessary to coordinate the battle and to ensure adequate combat and combat service support to allow for continuous operations."⁷

These staff actions allow the commander to be free to concentrate on the mission at hand. The staff performs most of its business according to standard operating procedures (SOPs) to ensure continuous support to the company teams. This allows the company teams to focus on the fight.⁸

The staff at task force level consists of the personnel displayed in table 1.

Table 1
Task Force Staff

Job	Rank	Mil Ed
Bn XO	MAJ	MEL 4
CSM	CSM	SGM ACD.
S1	CPT/ILT	OAC
S2	CPT/ILT	IOAC
S3	MAJ/CPT	MEL 4
S4	CPT/ILT	OAC
BMO	CPT/ILT	OAC
S3 AIR	CPT/ILT	OAC
ASST S3	LT	BOC
BICC	LT	BOC
LNO	LT/SFC	BOC
BSO	LT	BOC
SURG	CPT	BOC
CHAP	CPT	BOC
FSO	CPT	OAC
FAC	CPT	OAC
ADAO	LT	BOC
ENG	LT	BOC

The study: Tactical Proficiency of Battle Staff Officers was recently concluded. It highlighted the inexperience of battle staff officers at task force level. The study also examined the impact this lack of experience had on the executive officer's (XO) ability to coordinate the staff's actions throughout the MDMP. The report found:

The lack of experienced staff officers on the brigade and battalion staffs often result in the XO spending an inordinate amount of time in a particular staff area to ensure that those missions were accomplished. The most prevalent area in which this occurred was the S4 staff section. These staff sections are often managed by a junior officer or a captain waiting for command. Because of the lack of experience and/or personnel turnover, the staff section never became proficient in its operations; and the XO, as a trouble shooter, essentially was forced to take over.⁹

The significance of this study is the fact that these results were compared against Ranger units, which, unlike mechanized forces, slot experienced officers into battle staff jobs (see table 2). The result in Ranger units was a more proficient staff and higher quality operations orders developed in a shorter amount of time.¹⁰

Table 2
Battle Captain Biographical Data

Forces	Light	Ranger	NTC
Number of Respondents	25	4	6
Captains	22	4	4
Lieutenants	3	0	3
Advance Course	18	4	
CAS3	2	3	0
Company Commander	1	4	0
Months Company Commander	13	20.5	0
Months as Battalion Captain	7.88	13	8.67

Source: JRTC Tactical Proficiency of Battle Officers.

The key considerations about task force level operations as outlined in FM 71-2 are that the operations are characterized as continuous with very little planning time. At the same time, operations tend to be of limited scope and duration. The staff is small and the least experienced of all the different level staffs. Their missions are always conducted as part of a higher headquarters operation and are maneuver based. The staff has many competing missions to accomplish to allow the commander to command his unit. This all means that operations at task force level must be highly efficient and effective to allow the task force to achieve success.

What are the Conditions in Normal Combat

The conditions under which a task force level staff must operate during normal combat operations affects significantly the amount of time that can be allocated for planning future missions. The impact of competing demands of current, future, and sustainment operations must be examined to determine the effect it has on an austere staff that is authorized at task force level.

The task force staff's mission is to assist the commander in his ability to command and control the battalion by operating the task force command and control node, known as the tactical command post (TOC). It functions as stated in FM 71-2 are--

to monitor and assist in command and control by maintaining contact and coordination with higher and adjacent units, continuously updating the enemy situation, planning operations, analyzing and disseminating tactical information, maintaining situational maps, and requesting and synchronizing additional CS and CSS for the battle.¹¹

The TOC provides the commander situational awareness in the battle command terms of seeing the enemy, seeing the terrain, and seeing his own force status, to allow him to make informed decisions on the battlefield. The staff is able to provide this information to the commander by closely monitoring the battle and both enemy and friendly forces in their specific areas of responsibility, then providing recommendations to the commander on how to best use their assets to accomplish his mission.

Current operations for the purpose of this thesis are defined as the execution of a current mission: tactical, sustainment, reconstitution, or preparation for combat. In all these actions, the staff must conduct battle tracking continuously to help the commander and the task force maintain situational awareness, prioritize limited assets, and allocate scarce resources. These actions fall under the staff requirement to supervise, step eight of troop leading procedures.¹² These staff actions require 24-hour operations.

Future operations are defined as making and maintaining staff estimates, making recommendations, assisting the commander in the decision-making process, and preparing and disseminating plans and orders. These staff actions are performed concurrently by executing the MDMP. The execution of the MDMP requires the participation and integration of all primary staff representatives. These actions require an expenditure of time relative to that allowed subordinate units, decided upon by the commander, not to exceed the 1/3 - 2/3 rule. CALL estimates the time needed at the task force level to conduct the MDMP is approximately 16 to 24 hours.¹³

Sustainment operations are defined as operations specific to the TOC's own ability to function. These tasks are supplying, manning, and providing security. These tasks are critical to sustaining 24-hour operations.

Supplying the TOC encompasses the feeding of personnel and the fueling and maintaining of equipment. The task of performing maintenance on the assigned equipment has a significant impact on the TOC's manpower requirements. Maintenance of the equipment requires time and personnel and detracts from the TOC's performance of its primary missions.

Manning of the TOC requires an organization of the staff to perform 24-hour operations. The staff assigned can be organized into two shifts to facilitate continuous operations, but, due to the austere TOE organization, the staff does not possess enough personnel to allocate them to the other mission requirements without assuming a risk in operational capabilities. At task force level the TOC

is comprised of four primary cells: operations, intelligence, fire support, and engineers. Other staff sections and special staff officers have representation on an as-needed basis. The operations cell is comprised by TOE of an S3, S3 air officer, chemical officer, liaison officer, two operations sergeants, an assistant operations sergeant, nuclear, biological, and chemical (NBC) noncommissioned officer (NCO), a clerk typist, two vehicle drivers, three operations assistants, and a radio-telephone operator. The intelligence cell is comprised of the S2, Battlefield Intelligence Collection Center (BICC), an intelligence sergeant, and two intelligence analysts. The fire support cell is organized typically with a fire support officer, fire support NCO, and two radio telephone operators. The engineer cell is comprised of an engineer officer, operations sergeant, radio telephone operator and a driver.

Providing security for the TOC is a 24-hour requirement. Task force level staffs face a unique problem in dealing with TOC security. All higher level staffs receive Military Police (MP) to assist in providing TOC security. The task force TOC does not usually receive MPs and must therefore allocate personnel from the staff to perform those duties, or collocate with subordinate elements for protection. This again draws personnel from the pool of available manpower to help man the TOC cells.

The small staff that is illustrated in table 1, is augmented by only a few junior NCOs and enlisted personnel who are the vehicle commanders and drivers for the TOC vehicles. These personnel must be organized to provide both security and continuous operations on a 24-hour-a-day basis.¹⁴ Due to the small size of the staff and the many competing requirements, a well-developed and enforced sleep plan is a must. The criticality of the sleep plan was even highlighted in FM 71-2 by the following statement, "A sleep plan must be enforced to preserve the ability of the main CP personnel to perform continuous operations."¹⁵ The austere nature of a task force level staff allows an ability to organize only two shifts of personnel to run the TOC without providing personnel for security or planning. The staff in almost every battlefield operating system is only one person deep in an ability to plan

operations and make the execution decisions required in their area of expertise. This lack of depth has a dramatic impact on the TOC's capabilities to conduct current operations and future operations (planning) at the same time. This multiplies the effect that sleep deprivation, incurred by the staff during a long-planning process, has on the function of the TOC. The effect that these competing demands has on a staff is best illustrated in table 3.

Table 3 illustrates the competing demands on the task force staff's personnel. A very delicate balance is required to accomplish all these missions. The effect planning has on this balance is to disrupt the sleep cycle. The personnel involved in conducting task force level planning also perform critical daily operations in the TOC. Their participation in planning is external to their primary task of manning and running the TOC. Task force level planning that takes more than 6 hours results in the whole staff being awake for more than 24 hours. The impact on the whole staff is sleep deprivation and reduced efficiency.

CALL stated that if a task force had 16 to 24 hours from receipt of the brigade order to issuance of the task force order then it should use the DDMP.¹⁶ The reason that a majority of the task forces do not use the DDMP is the impact it has on the TOC's ability to maintain continuous 24-hour operations. During continuous operations executing the MDMP has a significant impact on the staff's ability to track the battle and keep the commander informed. Current trends from both Joint Readiness Training Center (JRTC) and NTC continue to highlight that "critical supervisory and follow-up tasks are rarely tracked,"¹⁷ and battle tracking and predictive analysis is poor.¹⁸ This is a direct result of the lack of depth in the BOS areas addressed earlier and the resulting impact of sleep deprivation brought on by extended planning processes. These are some of the effects that executing the MDMP have on task force level staffs during normal combat operations.

The effects of continuous operations lessen at each higher level staff due to three differences in organization. The authorization of a planning cell, the allocation of military police for security,

Table 3

TOC Personnel and Responsibilities

Personnel	Rank	Operations		Planning	Security
		Day	Night		
Bn CDR	05	*	*	Plan	
Bn XO	04	*	*	Plan	
Bn S3	04	*	*	Plan	
Bn CSM	E9	*	*	Plan	
			TOC STAFF		
S3 Air	03	Day OIC		Plan	
SGM	E9	Day NCOIC			Security
Chemo	02		Nigh OIC	Plan	
LNO	02	Loc at Bde	Loc at Bde	Plan	
Two Ops SGTs	E7	OPS CellNCOIC	OPS CellNCOIC	Reproduction	
Ast Ops SGT	E6		Night	Reproduction	Security
NBC NCO	E7	Day			Security
Clerk Typist	E4	Day		Reproduction	Security
Two Vehicle Drivers	E4	LNO/S3 Drivers			Sec (when there)
Three Ops Asst	E5	Two Day	One Night	Reproduction	Security
RTO	E4		Night		Security
S2	03	Dai OIC Intel		Plan	
BICC	02		Night OIC Intel	Plan	
Intel SGT	E8				Security NCOIC
Two Intel Analyst	E5/E4	One Day	One Night	Plan	Security
FSO	03	Day OIC Eng		Plan	
FSNCO	E7		Night OIC FS		
Two RTO's	E5/E4	One Day	One Night		Security
Eng XO	02	Day OIC Eng		Plan	
OPS SGT	E6		Night NCOIC Eng	Plan	
RTO	E5		Night		Security
Driver	E4	Day			Security
BSO	02	Day		Plan	
Driver	E4	Day			Security
S1	03			Plan	
S4	03			Plan	

and the function of the headquarters and headquarters company, enable these higher level staffs to minimize some of the impacts associated with conducting the MDMP on 24-hour operations.

Staffs at brigade level and above are all authorized personnel on their Table of Organizations and Equipment (TO&E) for planning. This allocation of dedicated personnel for planning allows the staff to focus on more than one mission at a time. These personnel are not involved in the day-to-day battle tracking of units. This allows the staff to devote time to the development of branches, sequels, and refinements of an original base plan. The allocation of additional personnel also provides more depth to the staff in each of the BOS areas lessening the effects an extended planning process has on the TOC's ability to conduct 24-hour operations.

Military Police are habitually task organized down to brigade level. While they have many missions to perform, their primary mission is to provide security to the TOC. The addition of the military Police reduces the burden on the staff for security significantly.

The headquarters and headquarters companies (HHC) at brigade level and higher level headquarters have a different mission than that of a task force level HHC. The HHC commander at task force level is concerned about combat service support (CSS) provided to the whole task force in his job as the task force CSS coordinator. He is the direct liaison with the Forward Support Battalion (FSB) commander and is the commander of the support, maintenance, medical, mortar, scout, communications, and mess facilities platoons. He performs his job from the field, trains part of the brigade support area (BSA).¹⁹ The HHC commander at brigade and higher is concerned about the main and Tactical Assault Center (TAC) command posts only. Everything he does is in support of these two command posts. He is organized to take the administrative, maintenance, and security issues off the hands of the staff sections. He is located with the main command post.²⁰ The staffs at brigade level and higher echelons are given resources through task organization, doctrine, and TO&E to help offset

the external factors of continuous combat conditions that hinder the task force staff's ability to perform the MDMP.

The Prescribed Planning Process

The Army's capstone manual for staff organization and operations at corps level and below is FM 101-5. FM 101-5 is the doctrinal source for the military decision-making process.²¹ The MDMP is an adaptation of the Army's analytical approach to problem solving.²² The manual states that the MDMP is a sound and proven process that must be modified slightly to be effective when time is limited. However, there is only one process and omitting steps of the MDMP is not a solution.²³ FM 101-5 defines the MDMP as a seven-step process (see table 4). "Each step of the process begins with certain inputs and builds on the previous steps. Each step, in turns, has its own output that drives the remaining steps."²⁴

Table 4

The Steps in the MDMP

<u>Step</u>	<u>Action</u>
1.	Receive the mission
2.	Analyze the mission
3.	Develop the course of action
4.	Analyze the course of action
5.	Compare the course of action
6.	Approve the course of action
7.	Produce the Orders

Source: FM 101-5.

Step sixteen of mission analysis is the issue of the commander's guidance. This step is a transition step for the staff from mission analysis to course-of-action development. The commander's guidance is essential to focus the staff to develop COAs that meet the commander's intent.

The first step in the process is to receive the mission. This step has no distinctive steps. This step is characterized by either receipt or deduction of a new mission. The end state of this process is the development and distribution of the first warning order to subordinates. The commander may also provide initial guidance on the type of planning to be conducted, time allocation, initial reconnaissance, and authorized movement.²⁵

Mission analysis is the second step in the MDMP. This step has eighteen substeps. (See table 5). The purpose of mission analysis is to gain a shared visualization of the battlefield, between the commander and staff, in terms of the mission assigned, the enemy, terrain, and friendly forces. The end state is the staff's assessment of the operation in time and space by BOS communicated to the commander. The end products produced out of the mission analysis are listed in table 6. These products should be the basis for the second warning order to subordinate.

The third step in the MDMP is the course of action development. This is a six-step process. (See table 7.) designed to generate multiple courses of action to answer a military problem. This process is designed to enable the commander to pick an optimum COA. The purpose of COA development is to develop multiple friendly COAs focused on accomplishing the assigned mission to allow the commander to optimize his decision. Each COA that is developed must meet the criteria of suitability, feasibility, acceptability, distinguishability, and completeness.²⁶

The end products of COA development are a set of course of action statements and sketches. The statement should be written to address the battlefield framework of deep, close, and rear. The COA's as developed should integrate all the BOS elements.

Table 5
The Steps in Mission Analysis

1. Review the higher headquarters order
2. Conduct initial intelligence preparation of the battlefield (IPB)
3. Determine specified, implied, and essential tasks
4. Determine the area of interest
5. Review available assets
6. Determine constraints
7. Identify critical facts and assumptions
8. Conduct risk assessment
9. Determine initial commander's critical information requirements
10. Determine the initial reconnaissance plan
11. Plan use of available time
12. Write restated mission
13. Conduct a mission analysis briefing
14. Approve the restated mission
15. Develop the commander's intent
16. Issue the commander's guidance
17. Issue a warning order
18. Review facts and assumptions

Source: FM101-5.

Table 6
End Products of Mission Analysis

1. MCOO (Maneuver Control Obstacle Overlay)
2. Enemy timelines
3. SITTEMP (Enemy Situational
4. CCIR (Commander's Critical Information Requirements)
5. Specified and implied tasks
6. Facts, assumptions, and limitations for all BOS's
7. Friendly timeline
8. Restated mission
9. Commander's planning guidance

Table 7

The Six Steps in COA Development

1. Analyze relative combat power
2. Generate options 3. Array initial forces
4. Develop a scheme of maneuver
5. Determine C2 means
6. Prepare COA statements and sketches

Source: Field Manual 101-5.

COA briefing, which is optional, is the transition between COA development and COA analysis. The briefing permits the commander to ensure the COAs being developed are in accordance with his intent. The commander's approval of one or more COAs allows the course of action analysis to begin.

The fourth step in the process is course of action analysis. This is an eight-step process (see table 8). The purpose of COA analysis is to allow the commander and staff to visualize the battlefield in time and space. The end state of COA analysis is for the staff to develop detailed plans while determining strengths and weaknesses for each COA.

The fifth step is to compare the course of actions. The purpose of this step is for the staff to identify which COA accomplishes the mission with the least amount of casualties and best postures the force to retain the initiative for future operations.²⁷ Each staff officer analyzes the advantages and disadvantages of each COA from their perspective. These findings are then presented to the staff as a whole for their consideration. The staff, using the evaluation criteria developed earlier, then compares each COA to determine the COA the staff feels has the highest probability of success.

Table 8

The Eight Steps of Wargaming

1. Gather the tools.
2. List all friendly forces
3. List assumptions.
4. List known critical events and decision points.
5. Determine evaluation criteria.
6. Select the war-game method.
7. Select a method to record and display results.
8. War-game the battle and assess the results.

Source: Field Manual 101-5.

The sixth step is to approve the course of action. This occurs during the commander's decision brief. The staffs present the advantages and disadvantages of each COA. The staff then recommends a COA based on the results from their analysis of each COA against the selected evaluation criteria. The evaluation criteria is developed to allow the staff to optimize battlefield success. The commander then makes a decision to pick one, parts of each, or none of the courses of action. If the commander picks parts of each or none of the COAs then the staff goes back to the third step of the process. If the commander selects a course of action, the process then moves to the final step of producing the order.

The end products produced are listed in table 9. These products should form the basis for the third warning order.

The final step is to produce the orders. The staff refines the COA (rewargames for synchronization), completes the plan, and prepares to issue the order. The purpose of this step is to portray the commander's vision of the fight both graphically and verbally. The end state is to provide

Table 9

End Products of COA Approval

1. Enemy SITTEMP both most likely and most dangerous
2. Event template
3. Refined CCIR
4. Task organization
5. Mission statement
6. Task and purpose for subordinate commands
7. Operations graphics
8. DST/DSM (Decision Support Template/Matrix)
9. Synchronization matrix
10. Identified branches and sequels
11. Scheme of fires
12. Concept of support
13. BOS element plans

subordinate leaders with a clear understanding of their task and purpose and its relationship to the higher headquarters fight.

The doctrinal manuals for task force level operations are FM 71-2 and 71-123. Both manuals characterize task force level planning as rapid, in order to provide adequate time for subordinates to conduct their planning, coordination and preparation, for combat tasks. FM 71-2 describes the decision-making process at task force level as being as “detailed or as simple as time allows.”²⁸ The manual further describes the planning process:

The commander’s decisions are based on his analysis of the factor’s of METT-T, staff inputs, information gained through reconnaissance, analysis and comparisons of feasible courses of action, wargaming and personnel judgement. The decision-making process must be able to accommodate rapid changes on the battlefield. A detailed explanation of the formal decision-making process is in FM 101-5.²⁹

The doctrinal processes for decision making at task force level is the MDMP as outlined in FM 101-5. The process actually being used by the task forces in the field are varied and do not follow the formal MDMP. Table 10 displays some of the most common deficiencies and the agency or research studies that cited them.

Table 10

Common Deficiencies in MDMP Execution

Observation	Agency
1. Failure to follow procedures	NTC, JRTC
2. Not IPB driven	ARI (Fallesen), JRTC, NTC
3. Develop only one COA	ARI (Fallesen), JRTC, NTC
4. Skips or eliminates steps	ARI (Fallesen), JRTC, NTC
a. No mission analysis	JRTC, NTC
b. No wargame	JRTC, NTC

A review of all available literature has failed to yield a definitive example of the decision-making process designed for use at task force level. Based on three years as an observer controller at the NTC and, more importantly, eighteen months as a task force TOC trainer, the author felt qualified to define the practiced decision-making process used by task forces in a combat environment. This model is shown in table 11.

The steps in the process are similar to those of the MDMP. The first and second steps in table 11 are identical to the first two prescribed steps in the MDMP. COA development is used to develop only one specific COA. Due to the development of only one COA, there is no reason for the staff to conduct a COA analysis or comparison. The choice to only develop one COA versus multiple COAs is a significant shift from trying to find an optimal solution, to developing a solution that satisfies

Table 11

Actual Decision Making Model

1. Receive the mission.
2. Analyze the mission.
3. Course of action development (one COA only).
4. Wargame (for synchronization).
5. Produce the orders.

mission requirements. The wargame step is conducted for the purposes of synchronizing the plan. The last step is then to produce the order. The problem with this abbreviated approach is staffs fail to develop and standardize this process before deploying to the field to use it. As a result, the staff's ability to train, practice, and execute the process is greatly degraded.

Effectiveness of the Planning Process

In order to examine the effectiveness of executing the MDMP at task force level, the term effectiveness must be defined. Effectiveness is defined as producing or being able to produce a desired outcome. The outcome desired of the MDMP is an adequate operations order produced in a reasonable amount of time. An adequate order is defined as an order providing a clear task and purpose to all subordinate elements. The detail required is sufficient to facilitate synchronization of the units' combat power. Reasonable time is defined as time compared to total time available that provides sufficient time for troop-leading procedures down to the lowest level. The minimum is adherence to the 1/3 to 2/3 rule.

The effectiveness of the MDMP process at task force level will be examined across four areas: the adequacy of the operations order produced, the detail provided for subordinates, the timeliness of the process, and the effectiveness of developing multiple COAs. As an additional requirement of the

process, it must be consistent with the staff's ability to maintain 24-hour continuous operations for reasons outlined above. The process will be determined ineffective if it does not enable the current task force staffs to execute this process under combat conditions and achieve the desired end state described above.

Adequacy of Operations Orders

The adequacy of the operations orders produced at task force level has been a topic of much discussion, but other than personal observations no real analysis has been done. Jon Grossman conducted a study for the Rand corporation on "Battalion Level Command and Control at the National Training Center" that examined the adequacy of the operations orders produced and the adequacy of the plans' details to facilitate subordinate level planning. The significance of this study is the time frame during which it was conducted. The study covered task force level battles through the 1994 fiscal year. This is important because the NTC transitioned to full-time brigade operations beginning in the 1995 fiscal year. Task force level operations ensured that each battalion received the same standard baseline of information from its higher headquarters. Brigade operations have added the brigade staff between this standardized baseline of information and the task force staff. This intermediate staff could possibly skew the analysis of task force data in the future.

Grossman examined 46 force-on-force battles during the 1993-1994 time frame to determine the task force staff's capabilities to produce adequate orders. His analysis determined that only 35 percent of the orders developed were adequate.³⁰ He defined adequate as follows:

Doable plans can work against a weak enemy, but adequate plans are needed to enhance a TF's chances of success against a skilled enemy such as the OPFOR. The plans are usually understood by the company commanders (72 percent), but the plan details (adequate 20 percent) and accompanying graphics (adequate 30 percent) are usually not adequate, which can potentially result in poor company-level plans.³¹

The quantitative data for this study was gathered through the use of a focused survey and analyzing unit take-home packets. Both methods utilized the observations of observer controllers (O/C) at the NTC covering these units. While the data represents the opinion of the O/Cs, Grossman felt that:

An O/C opinion legitimately carries weight: The O/C is selected based on demonstrated expertise in the position he is evaluating. He then goes through training and completes a structured study program to become a subject matter expert in a given BOS. Tying the O/C comments to doctrine also reduces the subjectivity inherent in this type of reporting.³²

The statistical data developed from this survey may have some institutional bias in terms of empirical data, but the observations are relevant in terms of analyzing the objective nature of military decision making. The O/Cs are picked and trained specifically to analyze military operations against doctrinally accepted norms and then provide that analysis back to the unit to help it improve. The O/Cs are picked and trained to be the Army experts in their area of expertise.

Detail Provided for Subordinates

While 65 percent of the plans developed were viewed as inadequate for the task assigned, this answers only part of this research's requirement. The end product, the operations order, must also be examined in terms of the sufficiency of the details produced. The survey determined that only 20 percent of the task force level operation orders and 30 percent of the graphics developed possessed sufficient detail to facilitate subordinate level planning.³³

Reviewing the current trends at the CTCs will allow this research to infer two observations: first, whether or not the task force level orders still are inadequate and, second, does the inadequacy of these orders affect company/team level plans.

The JRTC continued to cite the tactical decision-making process as a negative trend during fiscal year 1996. Specifically cited problems and results are in table 12.³⁴

Table 12

JRTC TDMP Problems

<p><u>Problems</u></p> <ol style="list-style-type: none">1. Lack of detailed planning.2. Lack of subordinate leader planning time. -Failure to apply the 1/3-2/3 rule.3. Weaknesses in the conduct of troop leading procedures.4. Few subordinate leaders clearly understand the mission and the commander's intent. <p><u>Results</u></p> <ol style="list-style-type: none">1. Decentralized, unsynchronized planning.2. Mission failure.
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Source: CALL, JRTC Priority Trends at 1996.

The trends at JRTC continue to highlight a lack of detailed planning. The lack of detail continues to manifest itself with few subordinate leaders clearly understanding their mission or the commander's intent. The result of these problems were mission failures.

The NTC also cited numerous negative trends in the conduct of the MDMP. The negative trends during fiscal years 1995-1996 and the results of these shortcomings are depicted in table 13.³⁵

The trends at the NTC indicate that detailed planning and understanding of the commander's intent continues to be poor. The impact at the company team level is a poor understanding of its own task and purpose and especially how it fits within the framework of higher unit's fight. The resulting plans therefore lack detail and integration, leaving little chance for success.

The review of these most current trends at the CTCs allows this research project to infer that the MDMP at task force level still fails to produce adequate plans. The plans that are produced lack the necessary details required to facilitate troop-leading procedures at subordinate levels and more

Table 13

Negative Fiscal Year Trends During 1995-1996

<p>Problem:</p> <ol style="list-style-type: none">1. Units lack a disciplined process to produce timely, complete OPORDs and FRAGOs.2. The commander's intent is frequently not reflected or embraced in subordinate unit's plans and orders.<ul style="list-style-type: none">- Subordinate commanders do not understand the commander's intent.- No system to exists ensure subordinates build concepts and plans that will accomplish the mission inside the higher commander's intent.3. Company/teams do not produce operations orders (OPORDs) in a sufficient detail to allow them to accomplish their mission.<ul style="list-style-type: none">- Commander's are weak in articulating how they envision the battle.- Poor understanding of task force/brigade scheme of maneuver.- Often scheme of movement and not a scheme of fire and maneuver to kill the enemy.- Task forces give unclear task and purposes to company/teams. <p>Results:</p> <ol style="list-style-type: none">1. Plans lack detail, are not well integrated and therefore have little chance of success.2. Higher commander's intent is not accomplished and he is unable to change subordinates plans in time.3. Confusion on how the company/team fits into the task force's scheme of maneuver.
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Source: CALL, NTC Priority Trends, October 1996.

importantly, that the lack of detail in task force orders does adversely affect company/team level plans. The effectiveness of the MDMP at task force level to produce an adequate plan must be characterized as ineffective.

Timeliness of the Process

The timeliness of using the MDMP at task force level must now be examined against the definition of a reasonable amount of time. The one-third to two thirds rule is a guideline that states of all the time available, a higher headquarters should use no more than one-third of the total time available for its own purposes and provide two-thirds of that time available to subordinates for the conduct of their troop leading procedures. The critical troop-leading procedures that must be accomplished at subordinate levels are issuance of an order and the conduct of a rehearsal. The

impacts of exceeding the one-third to two-thirds rule can result in poor operations orders, failure to issue operations orders, and/or failure to conduct rehearsals.

The CTC's continue to observe task force level units that were not able to properly manage their time. The NTC observed that despite unit commanders and staffs understanding the need to manage their time effectively and the importance of adhering to the one-third to two-thirds rule, the majority of the units failed to do so.³⁶ JRTC observations were even more specific. The lack of subordinate leader planning time was directly attributed to a failure of the task force staff to adhere to the 1/3 to 2/3 rule. The result of this problem was mission failure.³⁷ The effect of time management problems on subordinate troop leading procedures is illustrated in table 14.

The information contained in tables 14 and 15 was collected by the author in the performance of his duties as the TOC trainer and the command and control BOS representative on the armor task force training team at the NTC. Four key definitions are needed in understanding the information contained in this chart. Time available is the total time available to the task force. The time starts upon the issuance of the operations order from higher headquarters and concludes at mission execution time. Time used is defined as the time utilized by the staff in performing the MDMP. The time starts upon issuance of the operations order from higher headquarters and ends when the task force issues its order to its subordinates. The number 1 in columns four through eight means the event occurred, and 0 means it did not occur. The standard 50 percent of the subordinate units required to perform the observed event was used to determine a 1 or 0 in company and platoon level performance.

The database while small can contribute some observations and lead to some initial conclusions in regard to time available and used by task force staffs in the conduct of the MDMP, the resulting impact on subordinate unit's ability to conduct troop leading procedures. This research acknowledges that poor time management at the task force level is not the only factor that may prevent

Table 14
Timeline for 23 Force on Force Battles in 1996

TF Mission	Time Available	Time Used	1/3-2/3 Rule	Co Order Done	Co Reh. Done	Plt Order Done	Plt Reh. Done
DATK	73hrs	24hrs	1	1	1	1	1
DIS	37hrs	14hrs	0	0	0	0	0
MTC	42hrs	18hrs	0	1	1	0	0
DIS	41hrs	18hrs	0	1	0	0	0
DATK	40hrs	17hrs	0	1	1	1	0
DATK	39.5hrs	18hrs	0	1	0	0	0
DATK	46hrs	6.5hrs	1	1	1	1	1
DIS	39hrs	11hrs	1	1	1	0	0
MTC	39hrs	16.5hrs	0	1	0	0	0
DIS	39hrs	16hrs	0	1	0	0	0
DATK	48hrs	15hrs	1	1	0	0	0
DATK	37hrs	13hrs	0	0	0	0	0
DIS	82hrs	42hrs	0	1	0	0	0
DATK	18hrs	3hrs	1	1	0	0	0
MTC	34hrs	12hrs	0	1	1	0	0
DIS	41.5hrs	22hrs	0	1	0	0	0
DATK	41hrs	19hrs	0	1	1	1	0
DATK	26.5hrs	4.5hrs	1	1	1	0	0
DATK	91hrs	25.5hrs	1	1	1	1	1
DIS	35hrs	11.5hrs	1	1	1	0	0
DATK	66.5hrs	18.5hrs	1	1	0	0	0
DIS	37.5hrs	14.5hrs	0	1	0	0	0
MTC	39hrs	16.5hrs	0	1	1	1	0
Totals	1032.5/23	376/23	9/23	21/23	11/23	6/23	3/23
Avg.	44.8hrs	16.3	39%	91%	48%	26%	13%

Table 15

Company Timelines for 23 Force-on-Force Missions in 1996

Company	Mission 1	Mission 2	Mission 3	Mission 4	Mission 5	Mission 6
Company A	9hrs	10hrs	3.5hrs	7hrs	4hrs	4hrs
Company B	15hrs	11hrs	3.5hrs	13hrs	4hrs	4hrs
Company C	hrs	hrs	7.5hrs	6hrs	5hrs	4hrs
Company D	7hrs	12hrs	5.5hrs	7hrs	4hrs	4hrs
Company A	25hrs	hrs	12hrs	5.5hrs	5.5hrs	n/a
Company B	25hrs	hrs	14hrs	4hrs	4.5hrs	n/a
Company C	19hrs	12hrs	13hrs	hrs	7.5hrs	n/a
Company D	26hrs	12hrs	14hrs	12hrs	8hrs	n/a
Company A	16.5hrs	12hrs	7hrs	5hrs	12hrs	7hrs
Company B	17.5hrs	11hrs	hrs	7hrs	11hrs	none issued
Company C	6hrs	11hrs	8.5hrs	5hrs	hrs	none issued
Company D	5hrs	12hrs	7hrs	6hrs	12hrs	none issued
Company A	22hrs	none issued	8hrs	7.5hrs	8hrs	5.5hrs
Company B	22hrs	8hrs	hrs	7hrs	4hrs	5.5hrs
Company C	19hrs	none issued	4.5hrs	7hrs	4hrs	6.5hrs
Company D	8hrs	8.5hrs	7hrs	none issued	5hrs	6hrs
Total	795.5/86	= 9.25hrs average				

execution of subordinate troop-leading procedures, but as highlighted by the review of CTC trends, it is a major factor.

An analysis of the data contained in table 14 leads to some observations about the pace of task force operations and the duration of time that actual task force staffs are using. The average total time available to a task force during these 23 battles was 44.8 hrs. The average time used by the task

force staff for planning was 16.3 hours. The one-third to two-thirds rule would have required these staffs to use as an average only 14.9 hours. The CALL defined the time required to conduct the DDMP at task force level as 16 to 24 hours.³⁸ This would suggest that task force level staffs would normally conduct some form of abbreviated planning. Task force level staffs were only able to abide by the one-third to two-thirds rule in nine cases, or 39 percent of the time.

The impact on company level orders was not significant when viewed from a perspective of issuing an order. The company team commanders issued operations orders in 21 of the 23 missions. The impact was in the quality of those orders. The company level orders lacked significant details as outlined earlier in the CTC observations and contributed significantly to the poor performance level of platoon level orders (26 percent of the time) and rehearsals (13 percent of the time).

The impact of poor time management at the task force level is not obviously clear in the chart except for the fact that the only times that all of the subordinate troop-leading procedures were accomplished was when the Task force staff adhered to the one-third to two-thirds rule. During the analysis of this data, an interesting observation of company level time management was also considered. Table 14 highlights the time used by company level leaders to conduct their planning. Company team commanders used an average of 9.25 hours to develop and issue the operations orders. This can be attributed to the lack of detail, specifically task and purpose, and the poor understanding of the enemy, that the CTCs observed were lacking in task force level operations orders.

Based of the CTC observations and the data collected on time management discussed in this chapter, the timeliness of the currently executed process at task force level is not effective at producing an order in a reasonable amount of time to facilitate subordinate troop leading procedures.

Effectiveness of Developing Multiple COAs

The MDMP requires that the staff develop multiple friendly COAs during the course of action development. These friendly COAs are developed against multiple enemy COAs. The intent is to develop multiple friendly COAs that are flexible, feasible, suitable, acceptable, and distinguishable and that allow the commander to select one or elements of each COA to determine the best solution.³⁹ This optimization of the selected COA is a sound analytical approach to be executed in an unconstrained environment that allows time to generate, consider, and analyze multiple friendly and enemy COAs to determine the optimal solution to the military problem.

When examining the timeliness of the MDMP at task force level, the analysis of the available data showed that the average time available for planning was 14.9 hours. The allotted 14.9 hours would mean a task force would be in an accelerated planning process based on the time frame outlines expressed by CALL. The doctrine FM 101-5, for accelerating the MDMP states that, “the greatest savings in time for the entire process comes from the commander directing the staff to develop only a few COAs instead of many.”⁴⁰ This statement suggests that the task force only consider a few friendly COAs not all the possible friendly COAs that could be developed. The doctrine also suggests limiting the number of enemy COAs considered. The end result of this accelerated process is an acceptable solution (satisfying).

The doctrine cautions numerous times against limiting the number of COAs developed: “Limiting the number of COAs developed carries with it the risk of overlooking a significantly better COA. Developing only one COA is the most risky approach and provides the staff with the least flexibility to apply their creativity and explore options.”⁴¹ Given the problems task forces are having in developing adequate orders using the MDMP, is it more effective to select the COA by optimizing (best solution selected from multiple COAs) or satisfying (acceptable, one developed COA)? The data and doctrine would suggest that significant time could be saved by the staff receiving a directed COA

from the commander. Instead of developing multiple COA's for the commander, the staff would spend its time fully developing this COA. Theoretically, the directed COA would have more detail in a shorter amount of time. The argument of optimizing versus satisfying is answered by the end state of COA development. The purpose for developing multiple friendly COA is to determine the optimal solution. If the numbers of COAs to be developed are going to be artificially limited, then the end state of COA development may well not be the optimal solution but is a solution to the problem. This research would suggest that the old adage of a 70 percent plan early is better than a 100 percent plan late applies to the planning environment of task force level operations. The task force needs a workable plan, not the best plan. This would imply that the MDMP COA development is not an effective process for selecting a COA at task force level.

Effect on 24-Hour Continuous Operations

The current execution of the MDMP at task force level has a significant impact on the staff's ability to maintain 24-hour continuous operations and conduct its primary staff function of supervision of the preparation and execution of the commander's orders. The task force staff, as previously noted, is very austere and barely has the personnel to man the TOC for 24-hour operations. Those same personnel are also active participants in the decision-making process. While the staff primaries usually have an NCO, they are only one person deep, with the ability to participate in planning and execution of that plan, in most BOS areas. The average time current task force staffs are taking to conduct the MDMP is 16.3 hours. That time, combined with the normal shift time and the lack of depth in the staff, results in the whole staff being awake for 28.3 hours by the time the order is issued. This cycle is continually repeated during CTC rotations and has a cumulative effect. The impact of sleep deprivation on a staff continues to compound and extend the time required for the planning process. This never-ending cycle of sleep deprivation continues to affect all staff functions and does not allow

a staff to recover from its effects during continuous operations. The JRTC observations on this specific problem are in table 16.

Table 16

JRTC Effects of Sleep Deprivation

Problems:

1. Units frequently experience degraded effectiveness of command and control during continuous combat operations due to fatigue.

-The battalion XO does not consistently check or focus staff effort.

-Staffs do not follow up or supervise the resolution of issues and problems discovered by the battalion commander.

-Staffs rarely keep pace with the battalion commander throughout all operations.

2. Rest periods are not planned into the time schedule.

-Extremely long planning processes and frequent changes to plans keep leaders from resting.

-Efforts to organize TOC's into shifts rarely include key leaders.

-Key leaders tend to "go down" at the same time

Results:

1. No senior leadership in the TOC for extended periods of time.

2. Lack of quality control on staff products and timeliness.

3. Critical tasks are not performed and checked routinely.

Source: CALL JRTC Priority Trends.

The one-third to two-thirds rule for planning still would not alleviate this problem. The average time allocated under the one-third to two-thirds rule for planning based on the data in table 13 was 14.9 hours. This would still impact the task force staff sleep plan to the same degree. The current organization of a task force staff can not support a decision-making process that is more than 6 hours in length during 24-hour continuous operations that characterize combat operations. This six hours

would result in the whole staff operating for 18 hours without sleep versus the current trend of 26 to 36 hours with out sleep for key leaders.

The current execution of the MDMP severely impacts on the task force staff's ability to supervise the preparation and execution of the task force commander's orders as well as disrupts its ability to maintain 24 hour operations. Therefore the MDMP is not an effective process that enables the staff to execute to maintain continuous operations.

Summary

The effectiveness of the MDMP process at task force level has been examined in four areas: the adequacy of the operations order produced, the detail provided for subordinates, the timeliness of the process, and the effectiveness of developing multiple COAs. An additional requirement of the process, that it must be consistent with the staff ability to maintain 24-hour continuous operations for reasons outlined above, was also examined. In each of the areas the MDMP was found to be ineffective in providing the desired outcome. The desired outcome of an adequate order produced in a reasonable amount of time was not achieved by current task force level staffs utilizing the MDMP described in FM 101-5.

Efficiency of the Planning Process

This section is focused on determining the efficiency of the MDMP as a process. Efficiency is defined in Webster's dictionary as the capacity to produce desired results with a minimum expenditure of energy, time or resources. This research will examine each step in the MDMP as described in the draft FM 101-5, to determine if it is indeed efficient. Any steps that are repeated, require more time between steps to develop the proper tools/products to continue the decision -making process, or develops products that are only used during one step in the process will be determined to be inefficient.

The seven steps in the MDMP to be examined are displayed in a previous table. While the MDMP is advertised as a seven-step process, when the substeps of each step are added in there are at least 35 steps. Thirty-five step process on the surface does not seem to be as fast or efficient as a seven- step process. The first step in the process is to receive the mission. This step has no distinctive subordinate steps to be conducted. This step is initiated by either the receipt of or the deduction of a new mission. Using the stated definition for efficiency, no actions in this step were determined to require an increase in time, energy or resources.

The second step in the process is to analyze the mission. This step is composed of eighteen steps that are illustrated in table 5. The purpose of mission analysis, as outlined earlier, is to gain a shared visualization of the battlefield between the commander and staff in terms of the mission assigned, the enemy, terrain and friendly forces. The end state is the staff's assessment by BOS of the operation in time and space communicated to the commander. A review of all the steps associated with mission analysis, leads to the conclusion that it is an efficient process as long as the end state specified is achieved by the staff and that the products produced are issued to subordinates in warning order number two.

The third step in the MDMP is course of action development. This in itself is a six-step process that is outlined in table 7. This process is designed to produce multiple COAs from which the commander then chooses the optimum solution. Each COA that is developed must meet the criteria of suitability, feasibility, acceptability, distinguishability, and completeness.⁴² The concerns when applying the term of efficiency to this step of the MDMP is the requirement to develop multiple COAs and the value of the end products produced (COA statement and sketch).

The requirement to develop multiple COAs is not efficient because the time used in developing multiple COAs is not offset in execution by enabling the commander to select the optimum solution from multiple feasible COAs. The commander's selection of a COA is not an objective process, rather

it is a subjective process based on the commander's preference. Observations from numerous CTC rotations characterize the development of multiple COAs as "the best, the look alike, and the throw away."⁴³ During a CALL-focused NTC rotation it was observed that two COA's were developed for consideration during each of the first two missions and that only one COA was considered for the third mission. In each case of the multiple COAs being developed, only one of the COAs developed was feasible. The second was a throw away COA.⁴⁴ The purpose for developing multiple COAs is to allow the commander an ability to pick the best COA for execution. If the staff does not develop multiple COAs that are all capable of mission accomplishment, then development of multiple COAs is an inefficient use of time because it will not allow the commander to compare and then select the best COA.

In the report Overview of Army Tactical Planning Performance Research, Jon Fallesen stated that today's modern battlefield will rarely provide enough time to fully develop multiple course of action. Planning and preparation time can be easily wasted by spending too much time on throw away options, at the risk of acting too late and losing the initiative.⁴⁵ The report found that generation of multiple courses of action are often not conducted and that if options are developed they are not always unique. The report's findings stated that generating and evaluating a single course of action is a more natural process and in most situations is preferred. When staffs do generate multiple options, the perception is that the staffs do not believe that producing multiple options is beneficial. The staff's feel the time and effort expended in developing multiple COAs that are never seriously considered is wasted and compounds the problem of completing the MDMP on time.⁴⁶ The effect of the current COA development methodology was examined in terms of the end product by F. D. Castro in a report entitled, ACCES Application 91-02: ACCES Assessment of Command and Control During a Division Level CPX, Summer 1992. He found that nearly 40 percent of the COAs developed were incompletely

specified. Consideration of mission accomplishment and enemy reaction were the elements most frequently missed.⁴⁷

Current studies in the area of COA development have suggested that the use of a naturalistic or sufficing model might allow the staff to develop a plan more quickly that is both effective and robust for the given mission requirements. The naturalistic or recognition-primed decision making (RPD) is defined as follows:

This work identified instances where a decision maker specifies a single option rapidly. The initial option comes from experience and is evaluated to see if it satisfies minimal criteria. If there is not one solution that readily meets criteria, then a process of “progressive deepening” is used to construct a feasible option. RPD is in contrast to a formal, analytical process where multiple options are generated, each evaluated, and then compared to select the best option.⁴⁸

Based on the current execution of the MDMP’s COA development, the development of multiple COAs is found to be inefficient for three reasons: (1) it consumes time with no perceived added benefit, (2) the development of multiple COA’s does not appear to provide the commander with an ability to select from multiple, feasible COA’s, and (3) the lack of this optimizing capability means a satisfying strategy of developing a feasible COA would be more efficient especially as it relates to time.

Next, this research examined the end products of COA development and determined that these products were inefficient. The end products developed were not in sufficient detail to allow the staff to transition to COA analysis. The end products produced from COA development are a course of action statement and sketch for each COA. The COA statement and sketch is characterized by :

The COA statement must clearly portray how the unit will accomplish the mission and explain the scheme of maneuver. The sketch provides a picture of the maneuver aspects of the COA. Together, the statement and sketch cover who (generic task organization), what (tasks), when, where, how, and why (purpose) for each subordinate unit and any significant risks and where they occur for the force as a whole.⁴⁹

The COA statement and sketch are conceptual in nature and as such lack significant detail. These COAs are developed with a poor appreciation of the enemy, especially in relationship to the terrain, time, and space. The impact of the terrain is not considered from either perspective, friendly

or enemy. The COA sketch is a scheme of movement but not an integrated scheme of maneuver. The BOS elements are not incorporated into the sketch. No BOS plans are developed at this point. The sketch is usually a drawing not done to scale, not a set of operational graphics. The result is that in order to conduct an analysis of these COAs the staff must now complete each of the COAs by integrating all the BOS elements and developing the required graphics, that are related to the actual terrain and enemy, before the wargame can be conducted. The end products specified for COA development are therefore inefficient because they fail to allow the staff to rapidly transition to the next step in the planning process.

The MDMP is found to be inefficient for the step of COA development due to the time required to develop multiple COAs with no perceived benefit, that multiple COA development in execution does not lead to an ability for the commander to select the optimal solution, and that the end products of COA development are not sufficient in detail to allow for a timely transition to COA analysis.

There is an intermediate step between COA development (step 3) and COA comparison (step 4), the COA brief. This briefing even in a well trained staff requires thirty minutes. The intent of the briefing is to update the commander on the COAs being considered by the staff. This briefing consumes time with no obvious benefit. The commander can eliminate the need for this briefing by either participating in the process or directing that only one COA be developed. This step is inefficient because of the time it consumes during the process that could be better allocated elsewhere.

The fourth step in the process is to analyze the courses of action. This is an eight-step process that is illustrated in table 8. The purpose of COA analysis is to allow the commander and staff to visualize the battlefield in time and space with regard to each COA developed in step three. The end state of COA analysis is for the staff to develop detailed plans while determining strengths and weaknesses for each COA.

The staff war games each COA to further develop each one and to determine the relative strengths and weaknesses of each. This step is inefficient for two reasons: (1) the manifestation of inefficiency caused by developing multiple COAs results in more time spent wargaming multiple COAs that are not part of the final solution, and (2) the doctrinal requirement to conduct two wargames of the selected COA due to the incomplete end products of COA development. This requirement to conduct the second wargame of a selected COA is addressed as refinement of the COA to complete the plan under the orders production step. FM 101-5 states that:

Based on the commander's decision and final guidance, the staff refines the COA and completes the plan, and prepares to issue the order. The staff prepares the order or plan to implement the selected COA by turning it into a clear, concise, concept of operation, a scheme of maneuver, and the required fire support.⁵⁰

ST 101-5 defines this requirement to continue to war game the selected COA by stating, "even after the commander chooses what he considers the best course of action, war gaming does not end. His decision triggers the preparation and issuance of the order."⁵¹

FM 101-5 suggests that this step of the MDMP should be allocated more time than any other step in the process.⁵² The investment of time is required due to the staff-intensive actions that must occur to develop a detailed COA focused on the enemy, and terrain and within the commander's intent. The initial problem is the lack of detailed planning that results from COA development. This lack of detail, which includes no initial BOS integration, prevents this process from being timely and does not allow for the synchronization of the task force's combat power. This results in the staff conducting a second war game for the purposes of synchronization.

The lack of initial BOS plans combined with poor integration of the enemy and terrain prevents the staff from streamlining the war game process by allowing them to focus only on the critical events. The lack of a complete plan forces the staff to start from the assembly area and war game through the end state just to develop the requisite graphics and tasks to write the operations

order. The second issue facing the staff is trying to synchronize a plan at the same time the staff is writing the plan. The war game is designed to allow the staff to visualize the battlefield and their plan. This fails to be accomplished the plan is being written as the war game occurs. The war game is designed to validate or refine the plan, not write it.

An example of the significance of this issue can be illustrated by discussing an attempt to synchronize the effect of indirect fires with maneuver using the current end products of COA development. The end products of COA development are a COA statement and sketch for each COA. There are no fire support plan, observer plan, intelligence collection plan, and no in-depth appreciation for the terrain (line of sight) conducted. The staff was told by the commander to use indirect fires to suppress the enemy on the objective as the task force moves up to the obstacle, breeches, and then assaults the objective. The fire support officer needs to first determine where the enemy is located to shoot. The S2 must assign a named area of interest (NAI) to the area he thinks the enemy will be located at. Then the S2 must decide the asset that he is going to use to collect information on that NAI, from what time to what time. The fire support officer then determines the target based on the enemy's location and the intended effects. The FSO also determines that he needs ten minutes from first rounds impacting for the smoke to build properly. With this action complete, is this event synchronized? The answer is no. The reconnaissance asset and their location to the NAI has not been determined. The time it will take to get in position to confirm or deny the enemy location was not determined, the resulting problem is that the information may be received too late to effect the plan. The observer location, line of sight, and the time required to move and establish his position, prior to adjusting the rounds to ensure the establishment of the desired effects before the arrival of the task force, was not discussed. The actual positioning of the artillery in range, priority, and movement plans to ensure the target will be serviced was not discussed. The trigger to start shooting the target, to lift and shift targets and to all the important redundant observer locations still need to

be determined. This is not all of the events that must be considered in the synchronization of this one event, but it illustrates the point of how difficult it is to gain an appreciation of these events in time and space without having already developed the initial plans.

Most staffs try to war game each COA by critical events. The result may assist the staff in determining strengths and weaknesses between COAs, but falls short of the detail necessary to write a complete plan or to consider that the combat power is synchronized in time and space. This results in the need to war game the selected COA again, to complete and synchronize the plan. The doctrine suggests that this refinement of the plan occurs after the COA decision brief. This step is therefore inefficient due to the need to conduct two war games of the selected COA. Fallesen concluded some similar observations in his review of the MDMP:

Depending on the procedures used, time available, and certainty, the plan may or may not be well defined when a decision for a course of action is made. In either case more detailed planning usually continues, including synchronization of forces in time and space and the eventual dissemination of orders.⁵³

The war game is very time intensive. The result of performing this multiple times for the purposes of determining the optimum COA is an inefficient use of time. The time used to war game the unselected COAs could have been more efficiently used to completely develop and synchronize one feasible COA.

The fifth step is the COA comparison. This step unto itself is not inefficient. The step is inefficient in terms of time used to conduct a formal but subjective assessment by the staff as to the best COA. Each COA developed is feasible, suitable, acceptable, and supportable or the COA would have been discarded. The staffs subjective opinion has a minimal bearing on the COA selected by the commander. The staff briefs the commander on the strengths and weakness of each COA and then provides him their subjective recommendation. The commander is not constrained by their recommendations and therefore makes his own subjective decision as to the best COA. The

commander by doctrine is required to visualize the battle before he issues his planning guidance and intent. This implies that he already knows the course of action that he wants prior to the analysis by the staff and that he has already compared and eliminate alternatives himself. The time used by the staff in determining their subjective recommendation for the commander could be better utilized in the development of a more detailed plan. The need for a COA comparison is eliminated if there is only one COA developed or if the commander was an active participant in the process.

The sixth step is to approve the COA. The end result of this step is that the commander will make a subjective decision as to which COA to select. He can select one COA, parts of each COA, or none (in which case the staff starts the COA development process all over). The extensive investment of time in steps three and four are required due to the staff intensive actions that must occur to develop a detailed COA focused on the enemy and terrain and within the commander's intent. The inefficiency of the MDMP process in step six is the ability of the commander to allow this time intensive process to occur and then not to select a COA. The selection of parts from each COA requires even more work and time from the staff (COA refinement, war game and war game brief) before the staff can write the order. The selection of none of the COAs results in the staff starting the MDMP over at step three, COA development. The outcome of either of these decisions is inefficient when applied to this thesis's definition of efficiency. The commanders participation throughout this process could prevent these two possible outcomes from occurring.

The final step, step seven, is produce the orders. This step is not inefficient. The requirements to produce and brief the order is a necessity. The time used can be shortened by effective parallel planning with the higher headquarters, good use of warning orders to subordinates, and effective standard operating procedures.

An examination of the MDMP against the definition of efficiency as defined in Webster's dictionary has determined that the MDMP is inefficient. A step-by-step review has demonstrated that

the execution of the MDMP is time intensive, repetitive, and, depending on the commander's involvement, unfocused. The requirement to develop the best possible solution instead of one workable solution results in a significant increase in time used in the conduct of the planning process with no appreciable difference in the result. A review of the 1992 BCTP lessons learned highlighted that even at division and corps level staffs the efficiency of the process is questionable, 64 percent of the plans were unsatisfactory. However, 76 percent of the staffs did not develop viable plans. Poor plans were caused by incomplete consideration of BOS, poor use of combat power, and inadequate synchronization.⁵⁴ The focus of the Army's planning process should be on developing and demonstrating an ability to produce one viable plan before it concerns itself with developing the best solution. The efficiency gained by only developing one viable COA completely might enable the Army to reverse this negative trend in planning.

¹J. W. Lussier and D. J. Litavec, Battalion Commanders Survey: Tactical Commanders Development Course Feedback (Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences, 1992), 36-37.

²U.S. Army, FM 71-2, The Tank and Mechanized Infantry Battalion Task Force. (Washington, DC: Department of the Army, 1988), 1-6.

³Ibid., 1-2.

⁴Ibid.

⁵Ibid., 1-3.

⁶Ibid.

⁷Ibid., 1-8.

⁸Ibid.

⁹J.R.T.C., Tactical Proficiency of Battle Staff Officers (Fort Polk, LA: BDM Management Service Company, August 1996), 9-10.

¹⁰Ibid., 8.

¹¹U.S. Army, FM 71-2, The Tank and Mechanized Infantry Battalion Task Force (Washington, DC: Department of the Army, 1988), 2-8.

¹²Ibid, 2-16.

¹³CALL Newsletter No. 95-12, 1-5.

¹⁴Ibid.

¹⁵Ibid.

¹⁶CALL Newsletter No. 95-12, 1-5.

¹⁷CALL, JRTC Priority Trends. (Fort Leavenworth, KS: Center for Army Lessons Learned, October 1996), N-87.

¹⁸CALL, NTC Priority Trends. (Fort Leavenworth, KS: Center for Army Lessons Learned, October 1996), N-50.

¹⁹U.S. Army, FM 71-2, The Tank and Mechanized Infantry Battalion Task Force (Washington, DC: Department of the Army, 1988), 2-6.

²⁰U.S. Army, FM 71-3, The Armored and Mechanized Infantry Brigade (Washington, DC: Department of the Army, 1996), 3-9.

²¹U.S. Army, FM 101-5 (draft), "Command and Control for Commanders and Staff," (Washington, DC: Department of the Army, 1996), xii.

²²Ibid., 5-1.

²³Ibid., 5-46.

²⁴Ibid., 5-4.

²⁵Ibid., 5-9.

²⁶Ibid., 5-19.

²⁷Ibid., 5-26.

²⁸U.S. Army, FM 71-2, The Tank and Mechanized Infantry Battalion Task Force (Washington, DC: Department of the Army, 1988), 2-14.

²⁹Ibid.

³⁰Jon Grossman, Battalion Level Command and Control at the National Training Center Santa Monica CA: Rand Corporation, 1994, 9.

³¹Ibid.

³²Ibid., 3-4.

³³Ibid., 9.

³⁴CALL, JRTC Priority Trends (Fort Leavenworth, KS: Center for Army Lessons Learned, October 1996), N-75.

³⁵CALL, NTC Priority Trends (Fort Leavenworth, KS: Center for Army Lessons Learned, October 1996), N-54-55.

³⁶Ibid., N-57.

³⁷CALL, JRTC Priority Trends (Fort Leavenworth, KS: Center for Army Lessons Learned, October 1996), N-75.

³⁸CALL Newsletter No. 95-12, (Fort Leavenworth, KS: Center for Army Lessons Learned, December 1995), 1-5.

³⁹U.S. Army, FM 101-5 (draft), "Command and Control for Commanders and Staff" (Washington, DC: Department of the Army, 1996), 5-3.

⁴⁰Ibid., xii.

⁴¹Ibid., 5-52.

⁴²Ibid., 5-9.

⁴³Ibid., 24.

⁴⁴Ibid., 25.

⁴⁵Jon J. Fallesen, James W. Lussier, Rex R. Michel, ARI Research Product 92-06, Tactical Command and Control Process. Alexandria, VA: Army Research Institute for the Behavioral and Social Sciences, 1992, 8.

⁴⁶Jon J. Fallesen, Overview of the Army Tactical Planning Performance Research. (ARI Technical Report 984). Alexandria, VA: Army Research Institute for the Behavioral and Social Sciences, 1993, 25.

⁴⁷Ibid.

⁴⁸Ibid., 3.

⁴⁹U.S. Army, FM 101-5 (draft), Command and Control for Commanders and Staff (Washington, DC: Department of the Army, 1996), 5-25.

⁵⁰U.S. Army, ST 101-5, Command and Staff Decision Processes. (Fort Leavenworth, KS: US Army Command and General Staff College, 1996), 4-30.

⁵¹U.S. Army, FM 101-5 (draft), Command and Control for Commanders and Staff (Washington, DC: Department of the Army, 1996), 5-27.

⁵²Ibid., 5-27.

⁵³Jon J. Fallesen, ARI Technical Report 984, Overview of the Army Tactical Planning Performance Research. Alexandria, VA: Army Research Institute for the Behavioral and Social Sciences, 1993, 33.

⁵⁴Ibid., 34.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

The primary research question for this thesis is, Is the deliberate decision-making process an efficient and effective process for task force level planning? The answer is no. To answer this question the research focused on the following five areas: determining what a task force was, the conditions it operated in, the prescribed planning process, the effectiveness of that process, and finally the efficiency of that process.

Research of all the applicable doctrinal manuals and TOEs determined that a task force is a battalion level force that has been task organized by a higher level commander. The task force is the lowest echelon at which the elements of firepower, maneuver, intelligence, and support are combined under the control of one commander. The key considerations about task force level operations as outlined in FM 71-2 are that the operations are characterized as continuous with very little planning time. At the same time, operations tend to be of limited scope and duration. The staff is small and the least experienced of all the different level staffs. The staffs planning and execution capabilities in the BOS areas are only one person deep. Their missions are always conducted as part of a higher headquarters operations and are maneuver based. The staff has many competing missions to accomplish to allow the commander to command his unit. This all means that operations at task force level must be highly efficient and effective to allow the task force to achieve success.

The conditions under which a task force level staff is required to operate during normal combat operations affects significantly the amount of time that can be allocated for planning future missions.

The impact that competing demands from current, future, and sustainment operations have on the very austere staff present at task force level is significant. There is a very delicate balance that must be maintained for the staff to continue to perform its continuous 24-hour operations. This delicate balance is the result of the austere nature and lack of depth in the BOS personnel at task force level. The disruption of this balance, by extended planning sessions, causes the task forces command and control capabilities of the TOC to crumble. The task force staff is also responsible for its own security and sustainment that on higher level staffs is the primary responsibility of other attached or assigned personnel.

The prescribed process for decision making at task force level is the MDMP as described in FM 101-5. The manual clearly delineates that there is only one decision-making process applicable at all levels. The manual goes on to state that the MDMP is a sound and proven process that must be modified slightly to be effective when time is limited. However, there is only one process, and omitting steps of the MDMP is not a solution.¹ FM 101-5 defines the MDMP as a seven-step process (see table 4). The manual was not clear on how much time is required to perform the MDMP. CALL defined the time required to perform the MDMP at task force level as 16 to 24 hours of planning time.² The process currently used by task force staffs is illustrated in table 11. The steps in the process are similar to those of the MDMP except only one COA is developed and the war game is for the purposes of synchronization only. The problem with this abbreviated approach is that staffs fail to develop and standardize this process before deploying to the field to use it as a result, the staff's ability to train, practice, and execute the process is greatly degraded. The MDMP, by the doctrine's admission, is "a detailed, deliberate, sequential, and time consuming process to be used when adequate planning time and sufficient staff support are available."³ These are characteristics that are not commonly associated with task force level operations.

The effectiveness of the MDMP process at task force level was examined in four areas: the adequacy of the operations order produced, the detail provided for subordinates, the timeliness of the process, and the effectiveness of developing multiple COAs. An additional requirement of the process, that it must be consistent with the staff ability to maintain 24-hour continuous operations for the reasons outlined earlier was also examined. In each of the areas the MDMP was found to be ineffective in providing the desired outcome. The desired outcome of an adequate order produced in a reasonable amount of time was not achieved by current task force level staffs utilizing the MDMP described in FM 101-5. The process was found to be very time intensive and disruptive to the task force staff's ability to maintain 24-hour operations of the TOC. The orders produced lack significant details, especially in the area of task and purposes to subordinate units. On average, the planning process at task force level exceeded the one-third to two-thirds rule 61 percent of the time thereby hindering troop leading procedures at the lower level. The practice of developing multiple friendly COAs to enable the commander to subjectively choose the best COA was determined, in actual execution, to be unfeasible. Staffs fail to develop multiple COAs that are viable. Thus the doctrines intent to choose the best COA available in practice is to develop a single workable solution.

An examination of the MDMP against the definition of efficiency as defined in Webster's dictionary determined that the MDMP is inefficient. A step-by-step review has demonstrated that the execution of the MDMP is a time-intensive, repetitive, and depending on the commanders involvement, unfocused process. The requirement to develop the best possible solution instead of one workable solution results in a significant increase in time used in the conduct of the planning process with no appreciable difference in the result. A review of the 1992 BCTP lessons learned highlighted that even at division and Corps level staffs the efficiency of the process is questionable. Sixty-four percent of the plans were unsatisfactory. Seventy-six percent of the staffs did not develop viable plans. Poor plans were caused by incomplete consideration of battlefield operating systems, poor use of combat power,

and inadequate synchronization.⁴ The focus of the Army's planning process should be on developing and demonstrating an ability to produce one viable plan before it concerns itself with developing the best solution. The efficiency gained by only developing one viable COA completely might enable the Army to reverse this negative trend in planning.

The MDMP was determined to be an ineffective planning process at task force level due to its demonstrated failure to consistently yield an adequate plan in a reasonable amount of time. The MDMP was also determined to be inefficient when applied to task force level operations because the process failed to minimize the expenditure of the staff's time, energy, and resources. The combination of the analysis conducted on the MDMP from these two distinct viewpoints allows this research to conclude that the MDMP formerly known as the DDMP is not an efficient nor effective process for task force level planning.

Recommendations

Recommend that the doctrine incorporate the following five changes. One, recognize that the decision-making process at task force level is different and clearly state the commanders involvement in that planning process. Two, adopt a purpose and end state for each step in the MDMP. Three, adopt a more directive COA development process focused on actions at the decisive point. Four, clearly specify when warning orders should be issued and what they should contain. Finally five, war game for the purposes of synchronization only.

Accelerated Decision-Making Model

The MDMP has been shown to be ineffective and inefficient when applied to the environment characteristic of task force level planning. Recommend that doctrine accept that the decision-making process at the task force is different based on the size and capabilities of its staff, time available to conduct planning, and the many competing demands placed on an austere staff and adopt a decision-

making process that can be accomplished in six hours. This decision-making process would be the responsibility of the commander to execute with the assistance of his staff. The commander would be responsible for providing one COA for the staff to fully develop. The staff would conduct a wargame for the purposes of synchronization only. The commander would be involved throughout each step of the process, thereby eliminating the need for three different briefings. An example of this process is as follows:

1. Mission Analysis
- Understand how the enemy will fight
- Understand the framework for the fight
2. COA Development
- Initial concept of how to kill the enemy
- Integration of all BOS plans
3. Wargame
- Synchronization, not analyze COA
- Critical events only
4. Orders Issue
5. Refinement

This process is a five-step process designed around the commander, who must focus and drive the process due to his experience and desires. This process is designed to use only six hours from receipt of the mission to issuance of the order. This process is able to be accomplished in six hours based on the commander directing the COA to be developed, the development of one complete COA to enable the staff to wargame the COA using critical events, and that the purpose of the war game is

for synchronization only. The keys to this process being successful are a clear understanding by the staff of the process and the effective use of parallel planning products from the higher headquarters.

Purpose and End State for the Steps of the MDMP

Doctrine has always stated that the commander can tailor the MDMP to suit his needs, but should never eliminate steps. The problem in understanding how to tailor the process is directly related to the doctrines failure to adequately state the purpose and end state of each step in the process. If the commander or staff clearly understood the purpose and the desired endstate of each step in the process, they would be better equipped to streamline the process to fit a time sensitive situation. The staff with a clear understanding of the end state for each step of the process can, as their training level improves develop tactics, techniques, and procedures that will allow the staff as a whole to reach the desired end state of each step quicker and thus reduce the time involved. The thesis proposes the purposes and end states in table 18 for inclusion into doctrine.

COA Development

The area were the most time is wasted in the current execution of the MDMP is in COA development. The time used to develop, analyze, and compare COAs is better spent on developing one complete COA. The argument of developing multiple COAs versus a COA was discussed previously. The analysis showed that at task force level based on the time available, the staff's experience, and current trends that a directed COA from the commander is the best solution. The current COA development steps are not designed to help the commander arrive at a completed COA.

Course of action development occurs immediately following the staff receiving the commander's guidance. The commander and his staff develop the friendly COA together. When using the ADMP, the task force normally analyzes a single concept, evaluated against a limited number of, or a single most probable, enemy COA. Although not restricted to one COA, the commander's continuous involvement

Table 18

Purposes and End States for the Steps of the MDMP

Mission Analysis

Purpose: Allow the commander and his staff to see the terrain, see the enemy, see ourselves, within the context of the HHQ fight.

Endstate: Shared visualization between the commander and his staff in time and space.

Commander's Guidance

Purpose: To implant his vision of the operation into the minds of his staff.

Endstate: Enable the staff to plan an operation that is consistent with their commander's intent and the intents of commander's two echelons above.

COA Development

Purpose: Develop a plan to accomplish assigned purpose with a focus on killing the enemy and protecting the force.

Endstate: A plan that integrates all BOS.

Wargaming

Purpose: Refine and synchronize the plan in time and space.

Endstate: An adequate plan.

Orders and Preparation/Reproduction

Purpose: To graphically and verbally portray the task force fight.

Endstate: Subordinate leaders have a clear understanding of the BDE and TF fight and their task and purpose in support of that fight.

Refinement

Purpose: Continuous refinement of the plan based on CCIR and further development of branches and sequels.

Endstate: A flexible plan designed to accomplish assigned purpose with a focus on killing the enemy and protecting the force.

in the ADMP supports the development of one friendly and enemy COA to be analyzed with branch and/or sequel option development to the one COA standard practice. The commander personally drives the ADMP through to execution. His experience and expertise are critical as he continuously

conducts his personal assessment, formulates concepts, and makes decisions, using the staff to support his efforts. Eighty percent of the time allocated to COA development should focus at the decisive point with the rest of the time devoted to movement to the decisive point and accomplishing the assigned tasks beyond the decisive point.

The purpose of COA development is to develop a plan to accomplish the assigned purpose with a focus on killing the enemy and protecting the force. The end state is a plan that integrates all BOS. A staff that fails to develop a complete COA to include initial BOS plans reverts back to COA development during the war game and fails to synchronize their plan.

There are four basic steps to develop a COA:

Step 1. Gather Tools

Step 2. Determine Decisive Point

Step 3. Develop Scheme of Maneuver

Step 4. Complete COA Statement & Graphics

The first step is to gather the tools. The staff needs the products specified below that were produced during Mission Analysis:

1. Standard map or sketch that identifies key pieces of terrain, enemy decision points, locations templated and known (SITTEMP), most likely/most dangerous COA.

2. MCOO.

3. Division/Brigade maneuver graphics to include target and A2C2 overlay and /or a sketch map with the enemy overlaid.

4. Task Organization and current and anticipated locations of units.

5. Friendly (TF)/Enemy timeline.

6. Assets available chart.

7. Specified, implied and essential task list.

8. Initial R & S plan and graphics.
9. Higher's scheme for all the BOS elements.
10. Clear piece of acetate on top of map board for the commander to develop the COA on.

The second step is to determine the decisive point. The battalion main effort, which could be to gain or retain terrain, destroy enemy forces, or secure friendly forces, focuses on the decisive point during the decisive phase of the battle. A point is potentially decisive if the essential tasks and purpose of the mission, determined through mission analysis, could be achieved there. The commander does this mentally and uses this decisive point to focus both himself and the staff's COA development.

During the entire COA development process the staff must continually analyze relative force ratios to determine if it has the combat power to be successful in its mission and if they have allocated enough combat power to subordinate units to allow them to be successful. The commander does this mentally, but everyone on the staff needs to understand the force ratios that must be achieved.

The third step is to develop the scheme of maneuver. The scheme of maneuver is a graphic description of how the forces arrayed will accomplish the commander's intent. First, the commander must identify critical friendly events and phases for the operation. During this process, the events and phases need to be prioritized. The second requirement is to determine the main effort's purpose and task. The commander determines the main effort's purpose, which is directly related to the task force's purpose. He then determines the main effort's essential tasks.

The third requirement is to determine the supporting effort's purpose and task. The commander determines what supporting efforts are needed by answering the following question, What else must be done to allow the main effort to succeed? He then links the supporting effort's purposes directly to the main effort's purpose for each supporting effort. Having determined the supporting effort's purpose the commander determines the supporting effort's essential tasks. The fourth requirement is to

determine where and when to accept risk. The fifth requirement is to determine the reserve's purpose and task. The commander links the reserve effort's purpose directly to the main effort's for each purpose. Next he determines the reserve effort's essential tasks. The sixth requirement is absolutely critical to determine essential BOS tasks. The commander must determine the essential tasks for all BOS elements. The clear understanding of the task and purpose will enable the staff to better integrate and synchronize the efforts of each BOS element.

The seventh requirement is to array an initial force to calculate the amount of forces necessary to accomplish the mission. The array of ground force is done two echelons down. Array forces at the expected decisive point to accomplish each task (initial battlefield calculus). This is done to determine the amount of forces required to accomplish this mission. If the amount of forces available is less than the amount required, plan for the shortfall and the use of combat multipliers. If the amount of forces available exceeds the amount required, use the excess to weight the main effort or as the reserve. The eighth requirement is to task organize. The commander develops a generic task organization based upon the number of available company headquarters. Some important reminders for him to consider as he develops the task organization are: task organization allows the achievement of common purpose, weight main effort, and ensure risk is taken in areas away from main effort (economy of force). Do not consider assets such as CAS or FASCAM because they may not be available during the TF's execution. The ninth requirement is to develop graphic control measures for the decisive point. The commander establishes control measures that clarify responsibilities and integrate the efforts of subordinates to support the possible main effort. Add graphic control measures to control the operation, achieve integration of all BOS elements, and minimize the force exposure to fratricide. The commander either leads the staff or completes the tentative plan ensuring all BOS elements are integrated and initial plans are complete.

Step 4 of the COA development process is to complete the course of action statement and graphics. The course of action statement addresses what, when, where, how, why, and who.

The statement explains the COA from the beginning of the operation to the completion of the mission (this is paragraph 3A concept of the operation). The staff continues to develop the COA together to integrate all BOS for all activities up to the decisive point and beyond the decisive point to higher headquarters stated end state. The staff ensures the COA is complete, meets the commander's intent, supports the higher headquarter's fight, and provides for flexibility to deal with an uncooperative enemy. The COA development is complete when the staff has an integrated and complete COA. This COA must be complete enough to allow the staff to "fight the fight" during the war game. The plan must have enough graphics to support each friendly action against an enemy's critical event, this includes all BOS elements and for all forms of contact. The commander may have already conducted most of the actions in step 4 mentally as the COA was being developed. This will allow a quicker transition into the war game. The important points of COA development are as follows: One, develop a COA that accomplishes our assigned task and purpose from higher headquarters. Two, the COA is focused on killing the enemy. This is done by focusing the COA development on the determined enemy COA by using the IPB products in the process. Three, that a complete and integrated COA is developed to enable the staff to properly synchronize the plan through the war game by actually fighting the fight. This is accomplished by developing a COA that has adequate graphics to conduct an action for all the enemy's critical events. When war gaming the staff should not need to develop graphics to initially kill the enemy at the decisive point. Graphic refinement should only occur in dealing with the enemy's counteraction to the action. Finally, that at the task force level this process is led or accomplished by the task force commander. The end products of COA development are listed in table 19.

Table 19

End Products of COA Development

COA OPs Graphics/overlay
Friendly Critical Events List
Enemy SITTEMP (all COA's)
Target Overlay (initial)
Obstacle Overlay (initial)
ADA Plan (initial)
Decon Plan (initial)
CSS Plan (initial)
COA Statement (paragraph 3A)
CDR's Intent
Event Temp
CAS Plan (initial)
ENG Plan (initial)
C2 Plan (initial)
Smoke Plan (Initial)

Warning Orders

Parallel planning is one of the keys to success of the planning process at task force level. The doctrine states that the warning orders should be issued, but nothing about what should be contained in these warning orders. This thesis suggests that there should be four warning orders issued from the higher level staff, and the task force should in turn duplicate these same warning orders during their planning process. The four warning orders should be issued after the following events. Warning order number one should be issued immediately upon receiving a warning order from the higher headquarters that there is the possibility of a new mission. Warning order number two should be issued immediately after the conduct of the mission analysis. Warning order number three should be issued after COA development. The final warning order, number four should be issued before the orders brief as the read ahead copy of the order. This should be in the hands of the subordinate

commanders a minimum of one-half hour prior to the issuance of the order. Parallel planning is a process of providing information to subordinate units in order to push information as it becomes available. This allows the subordinate unit to initiate its own troop leading procedures. Liaison officers (LNOs) can be especially effective conduit for this information. Parallel planning is a must for the entire staff but is especially critical for the S2 because 80 percent of his products are needed for COA development. Early reconassance and survalance planning is vital to the scouts and is expedited by the S2's ability to parallel plan. The contents of each warning order is listed in table 20.

Wargaming for Synchronization

The final recommendation is to conduct the war game process only once, on one COA for the purposes of synchronization. During the war gaming the developed COA is synchronized specifically to refine the plan in time and space so that an adequate plan is developed. This is accomplished by visualizing the flow of battle or operation using the step- by-step process of action-reaction-counteraction. The COA is refined as necessary to ensure the success of the mission. The commander's direct participation in the process helps the staff get responsive and definitive answers to the many questions that occur during the war game. Finally, it is important to have a completed COA prior to beginning the war gaming process. If the COA is not complete, the staff loses sight of synchronization, and war gaming becomes a continuation of COA development. If, for example, while war gaming, the plan requires graphics to be developed to support initial contact with the enemy then it is likely that the COA is not sufficiently developed. War gaming is a conscious attempt to visualize the flow of a battle, given friendly dispositions, strengths, and weaknesses; enemy assets and probable counteraction. The COA is refined as necessary to ensure the success of the mission. The commander's direct participation in the process helps the staff get responsive and definitive answers to the many questions that occur during the war game. Finally, it is important to have a completed COA prior to beginning the war gaming process. If the COA is not complete, the staff loses sight of

Table 20

Warning Orders

Warning Order #1: Issued after receipt of a Change of Mission	Warning Order #2: Issued After Bde/TF Mission Analysis
Task	Changes to Task Org. (Only)
1. Situation	1. Situation (SITREP)
-Enemy (COA 's Big Picture)	Enemy Most Likely/Most Dangerous COA
-Friendly (Big Picture)	Enemy Timeline
2. Purposed Mission Statement	Approve CCIR
3. Area of Operation	2. Mission Statement
	3. Proposed CDR Intent
	4. Initial Coordinating Instructions
	5. Issue Initial R&S Plan
Warning Order # 3: Issued after Bde/TF COA Decision Brief	Warning Order # 4: Issued After the Bde/TF Wargame
1. Situation (Changes Only)	Receipt of a Read Ahead Copy of the Order
2. Mission	Issue Frago to Initial R&S Plan
3. CDR's Intent	
Scheme of Maneuver (Draft)	
Task/Purpose of Subordinates (Draft)	
4. Coordinating Instructions	

synchronization, and war gaming becomes a continuation of COA development. If, for example, while war gaming, the plan requires graphics to be developed to support initial contact with the enemy then it is likely that the COA is not sufficiently developed. War gaming is a conscious attempt to visualize the flow of a battle, given friendly dispositions, strengths, and weaknesses; enemy assets and probable

COA; and the area of operations. The process allows the staff to analyze each selected event by identifying the components (subevents or tasks) the force must accomplish. Identifying the COA's strengths and weaknesses allows the commander and the staff to make the necessary adjustments. The end result is an adequate plan that provides clear task and purpose to subordinate elements, allowing them to synchronize the effects of the combat power they control.

Recommendations for Further Research

During the conduct of this research, some interesting concepts and ideas surfaced in the area of decision making. The environment in which the planning process is executed varies from mission to mission. The more intellectual energy that is focused on understanding the environment and the required products that are needed from the staff to facilitate mission accomplishment, the more efficient and flexible the Army's decision-making process can become. The following recommendations for future research are provided:

1. How does the experience level of current task force level staff officer's effect the execution of the MDMP?
2. What is the average stabilization period of a task force level staff?
3. Does the development of multiple friendly COA lead to the selection of the best COA?
4. Can a staff become proficient in the conduct of the MDMP given current operational tempo and force stabilization?
5. What is the currently executed decision-making process at Brigade level?
6. Are staff estimates an efficient tool for planning and are they actually used?

¹U.S. Army, FM 101-5 (draft), Command and Control for Commanders and Staff (Washington, DC: Department of the Army, 1996), 5-46.

²CALL Newsletter No. 95-12, (Fort Leavenworth, KS: Center for Army Lessons Learned, December 1995), 1-5.

³U.S. Army, FM 101-5 (draft), Command and Control for Commanders and Staff (Washington, DC: Department of the Army, 1996), 5-1.

⁴Ibid., 34.

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