

PLANNING FOR A COMPLEX ENVIRONMENT: THE EVOLUTION OF
DECISION POINT TACTICS INSIDE OF US ARMY DOCTRINE

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General Studies

by

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ABSTRACT

PLANNING FOR A COMPLEX ENVIRONMENT: THE EVOLUTION OF DECISION POINT TACTICS INSIDE OF US ARMY DOCTRINE, by Major Joshua W. Linvill, 79 pages.

In a complex environment commanders and planners cannot know all of the possible enemy courses of action. Commanders and planners for tactical operations must build flexible plans to account for unknown or changing enemy courses of action. Decision Point Tactics (DPT) is a term that is not defined within US Army doctrine, but the concepts that make up DPT are found inside of US Army doctrine. This thesis expands on previous research about how the concept of DPT exists inside doctrine. This thesis then shows how doctrine has evolved in how it represents the concepts that make up DPT and evaluates how well doctrine explains the concepts. Finally, this thesis recommends how doctrine can be improved to help leaders and planners build more flexible and efficient tactical plans.

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ACRONYMS

ADRP	Army Doctrine Reference Publication
ATP	Army Techniques Publication
ATTP	Army Tactics, Techniques, and Procedures
COA	Course of Action
CTC	Combat Training Center
DP	Decision Point
DPT	Decision Point Tactics
DSM	Decision Support Matrix
DST	Decision Support Template
FM	Field Manual
IC	Information Collection
IPB	Intelligence Preparation of the Battlefield
MDMP	Military Decision-Making Process
MIBN	Mechanized Infantry Battalion
NAI	Named Area of Interest
NTC	National Training Center
OPFOR	Opposing Force
TDMP	Tactical Decision-Making Process
TF	Task Force

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CHAPTER 1

INTRODUCTION

The Global War on Terrorism produced a generation of company and field grade officers experienced in conducting low intensity conflict and stability operations. As the Army transitions from almost two decades of low intensity conflict to large-scale combat operations, it must update its doctrine to meet the requirements of a new operational concept. The new doctrine developed during this transformation will be critical in educating current and future tactical leaders. Critical to the effectiveness of a tactical leader is his or her ability to make decisions in a complex and ambiguous environment. Planning and preparation are critical for tactical leaders to ensure they can make decisions quickly and effectively. New doctrine must teach tactical leaders and their staffs how to establish systems that allow them to anticipate and decide in a complex environment against a near peer and thinking enemy. New doctrine must also teach tactical leaders how to avoid common mistakes that lead to fighting a plan developed in an ambiguous situation against an enemy capable of reacting. Fortunately for the Army and tactical leaders the topic of tactical decision making is not a new one.

Prior to the September 11, 2001 attacks some US Army leaders published multiple articles and thesis on the topic of decision-making at the tactical level. One of the published works came from the Commander of the 2nd Squadron, 11th Armored Cavalry Regiment at the National Training Center (NTC). As a Commander of the opposing force (OPFOR), Lieutenant Colonel Pete Palmer was the Army's representation of the thinking enemy commander. Palmer and Captain Jim Crider, a Troop Commander in Palmer's Squadron, wrote "Decision Point Tactics (Fight the Enemy, Not the Plan)" in

1997. In “Decision Point Tactics” Palmer outlines how the OPFOR used decision point tactics (DPT) to be successful on the NTC battlefield. In the introduction of his article Palmer explained that although Army doctrine did not use the term DPT, the basic concepts and techniques of DPT were in Army doctrine (CALL 1997, 22). In 2000 Major Carl Alex used his Master of Military Art and Science thesis to demonstrate how DPT fit into Army doctrine, specifically, the tactical decision-making process (TDMP). This thesis builds on Alex’s work by answering the research question; does the Army need to update its decision-making process doctrine to better prepare for large-scale combat operations?

To answer the research question, this thesis answers four secondary questions:

- (1) what are DPT? (2) what did US Army doctrine say regarding the concept DPT? (3) what does US Army doctrine say now regarding the concept of DPT? and (4) has US Army doctrine evolved regarding the concept of DPT?

Background

Palmer and Crider introduced DPT as a term in the *Combat Training Center (CTC) Quarterly Bulletin*, No. 97-4, January 1997. Palmer and Crider defined DPT as “the art and science of employing available means at a specific point in space and or time where the commander anticipates making a decision concerning a specific friendly course of action. This decision is directly associated with threat force activity (action reaction) and or the battlefield environment” (CALL 1997, 1). Although Army doctrine has never defined the term DPT, the use of decision points (DPs) in tactics and their mention in doctrine precedes Palmer and Crider’s writing. In 1990, Field Manual (FM) 34-3, *Intelligence Analysis*, defines DPs and incorporates DPs into a decision support template

(DST) and synchronization matrix. Alex explored the link between DPT, as outlined by Palmer and Crider, and US doctrine in his Master of Military Art and Science thesis. In his 2000 thesis “Process and Procedure: The Tactical Decision-Making Process and Decision Point Tactics,” Alex described DPT as a term to capture the interactions and integration of decision aids to the TDMP. According to Alex, decision aids consist of DPs, the DST, and the decision support matrix (DSM). This thesis uses Alex’s concept of how DPT relate to US doctrine as a baseline for examining the evolution of US doctrine. It is important to clarify that Alex used the term TDMP to broaden the decision-making process used by tactical leaders beyond what is specifically outlined in US doctrine. The decision-making process outlined in FM 101-5, cited by Alex, is essentially the same military decision-making process (MDMP) used in current doctrine. This thesis uses the term MDMP to maintain continuity with US doctrine, unless quoting Alex directly. To determine if the Army needs to incorporate DPT into future large-scale combat operations doctrine it is important to first look at how US doctrine before and during the global war on terror discussed MDMP and decision aids.

The frequent use of the terms discussed above as well as others relating to DPT found in Army and joint doctrine must be defined up front to create a common frame of reference throughout this thesis.

Definitions

Branch: The contingency options built into the base plan used for changing the mission, orientation, or direction of movement of a force to aid success of the operation based on anticipated events, opportunities, or disruptions caused by enemy actions and reactions (Department of Defense 2017b, GL-6).

Commander's Critical Information Requirement: An information requirement identified by the commander as being critical to facilitating timely decision making (Department of Defense 2017b, V-14).

Decision Point (DP): A point in space and time when the commander or staff anticipates making a key decision concerning a specific course of action (COA) (Department of Defense 2017b, GL-8).

Decision Point Tactics (DPT): The art and science of employing available means at a specific point in space and or time where the commander anticipates making a decision concerning a specific friendly COA. This decision is directly associated with threat force activity (action–reaction) and or the battlefield environment (CALL 1997, 1).

Decision Support Matrix (DSM): A written record of a war-gamed COA that describes DPs and associated actions at those DPs (Department of Defense 2017b, VI-17).

Decision Support Template (DST): A combined intelligence and operations graphic based on the results of wargaming that depicts DPs, timelines associated with movement of forces and the flow of the operation, and other key items of information required to execute a specific friendly course of action (Department of Defense 2014, GL-5).

Event Matrix: A cross-referenced description of the indicators and activity expected to occur in each named area of interest (NAI) (Department of Defense 2014, GL-6).

Event Template: A guide for collection planning that depicts the named areas of interest where activity, or its lack of activity, will indicate which COA the adversary has adopted (Department of Defense 2014, GL-6).

Friendly Force Information Requirement: Information the commander and staff need to understand the status of friendly and supporting capabilities (Department of Defense 2017a, GL-10).

Named Area of Interest (NAI): A geospatial area or systems node or link against which information that will satisfy a specific information requirement can be collected. Named areas of interest are usually selected to capture indications of adversary courses of action, but also may be related to conditions of the operational environment (Department of Defense 2014, GL-7).

Sequel: The subsequent major operation or phase based on the possible outcomes (success, stalemate, or defeat) of the current major operation or phase (Department of Defense 2017b, GL-14).

Targeted Area of Interest: The geographical area where high-value targets can be acquired and engaged by friendly forces (Department of Defense 2014, GL-7).

Scope

This thesis focuses on the tactical level of warfare. The research in this thesis focuses on US Army doctrine beginning in 1990 with the Air-Land Battle operational concept until present day but incorporates joint doctrine to enhance the concepts discussed. Analyzing the decision-making process at the strategic and operational level of war would change the nature of the research question this thesis answers. Including doctrine from before the Air-Land Battle operational concept would be redundant to the

research question because this thesis answers if DPT have been incorporated into Army doctrine since the publication of the *CTC Quarterly Bulletin* 97-4 and Alex's Master of Military Art and Science, both coming after the introduction of Air-Land Battle as the Army's doctrine.

Significance of the Study

The significance of this study on DPT is related to the planning processes used by tactical level units. This thesis demonstrates how commanders and staffs can improve their units planning process in a complex environment against a near peer threat by applying the concept of DPT found in current doctrine. This thesis also recommends how future doctrine, as part of the Army operating concept, can improve readers' understanding of the planning processes with regards to developing their units TDMP. The goal of this thesis is to familiarize brigade and battalion operations and intelligence officers with DPT and to change or refine the paradigm for planning tactical operations using DPT.

Conclusion

This thesis addresses whether the Army needs to update its doctrine to better prepare for large-scale combat operations. This question is answered over the course of five chapters. This first chapter, the introduction, introduced and defined DPT and the supporting terms related to making decisions in the military. The introduction also introduced Alex's own definition of DPT and his idea of how DPT connect to the TDMP.

In the second chapter, the literature review, this thesis takes a detailed look at the literature supporting DPT and US doctrine that discusses decision support tools. The

literature review focuses on what are DPT and how is the concept of DPT related to doctrine.

Chapter 3, the research methodology, is a key-word-in-text content analysis of the US Army doctrine related to decision support aids. Chapter 3 outlines evaluation criteria for doctrine to lay the foundation to answer the primary research question of this thesis. Chapter 3 uses a simple table to show how decision support products can span multiple FMs, Army Doctrine Reference Publications (ADRs), and Army Techniques Publications (ATP). Chapter 3 also identifies threats to the validity of this thesis.

Chapter 4, findings and analysis, summarizes the literature review and findings of the key-word-in-text content analysis of US doctrine. Chapter 4 uses the information from the literature review and research methodology to apply evaluation criteria to doctrine. The results of the evaluation complete the tables introduced in chapter 3. The completed tables answer the subsidiary research questions. Once each sub research question is answered the primary research question of this thesis is answered.

The fifth and final chapter, conclusions and recommendations, gives recommendations to decision makers and future researchers on the topic of DPT. Chapter 5 recommends how to incorporate the findings and analysis from chapter 4 into future doctrine related to decision support products. Chapter 5 also recommends future research by reviewing the limitations and delimitations of this thesis.

CHAPTER 2

LITERATURE REVIEW

To answer the question of does the Army need to update its decision-making process doctrine to better prepare for large-scale combat operations, this thesis first answers four subsidiary research questions from the introduction chapter. The subsidiary research questions are: (1) what are DPT, (2) what did US Army doctrine say about the concept of DPT, (3) what does US Army doctrine say about DPT now, and (4) how has US Army doctrine evolved regarding the concept of DPT? This chapter reviews two types of literature to answer the primary and secondary research questions. The first type of literature is non-doctrinal. This literature included books, articles, thesis, and vignettes that discuss the concept of DPT or decision-making. The second type of literature is doctrine. This research focused on US Army doctrine but incorporates joint doctrine to support the concepts found in Army doctrine or identify variances. This study categorized doctrine by subject for clarity and to provide organization when discussing publications with a similar theme. For example, FM 2-0, *Intelligence* and ATP 2-0.3, *Intelligence Preparation of the Battlefield* is categorized in the intelligence doctrinal category.

Non-Doctrinal Literature

The term DPT does exist in current or past doctrine. Therefore, it is important to first review non-doctrinal literature that defines, explains, and connects DPT to terms and concepts that exist in doctrine. The following sections review military decision-making literature to identify common trends in their explanation of DPT.

CTC Quarterly Bulletin: Decision-Point Tactics

In the *CTC Quarterly Bulletin* from first quarter 1997, LTC Palmer and CPT Crider define DPT as “the art and science of employing available means at a specific point in space and/or time where the commander anticipates making a decision concerning a specific friendly course of action. This decision is directly associated with threat force activity (action reaction) and/or the battlefield environment” (CALL 1997, 4). Palmer and Crider expand on their definition by explaining four key imperatives required to successfully employ DPT. The first imperative of DPT is battlefield vision. Palmer stresses the importance of a shared vision of the battlefield between the commander, his staff, and subordinate commanders. All the other imperatives rely on a shared vision of the battlefield within the unit. In order to achieve a vision of the battlefield a unit uses the deliberate decision-making process (CALL 1997, 5). Palmer only mentions the wargaming step of deliberate decision-making process by name and stresses wargaming as the most important step of deliberate decision-making process (CALL 1997, 8). The second imperative of DPT is successful reconnaissance and counter-reconnaissance operations. Palmer describes six techniques used by the OPFOR to enable successful reconnaissance and counter-reconnaissance operations. The first technique is to follow the standard Army doctrinal planning techniques to produce a sound reconnaissance collection and counter-reconnaissance plan. The additional five techniques are very similar and focus on including scouts in the planning process as much as possible and empowering them to recommend changes to the decision process when necessary (CALL 1997, 11). The third imperative to ensure successful employment of DPT is having well-trained crews who understand the commander’s intent, report

accurately, and react quickly. Palmer's fourth imperative is effective deception operations that reinforces what the enemy believes will be the OPFORs most likely COA. By acting, in the form of a deception plan the OPFOR attempt to convince the enemy to commit to their own COA.

Palmer and Crider provide an example of applying DPT on the offense, during a meeting engagement, and in the defense. Reviewing only one situation for the use of DPT is enough to understand the concept of DPT. Therefore, only the application of DPT in the offense is reviewed. The offensive example the OPFOR commander develops five courses of action, depicted on figure 2. Figure 1 is provided to orient the reader on the terrain referenced by Palmer.

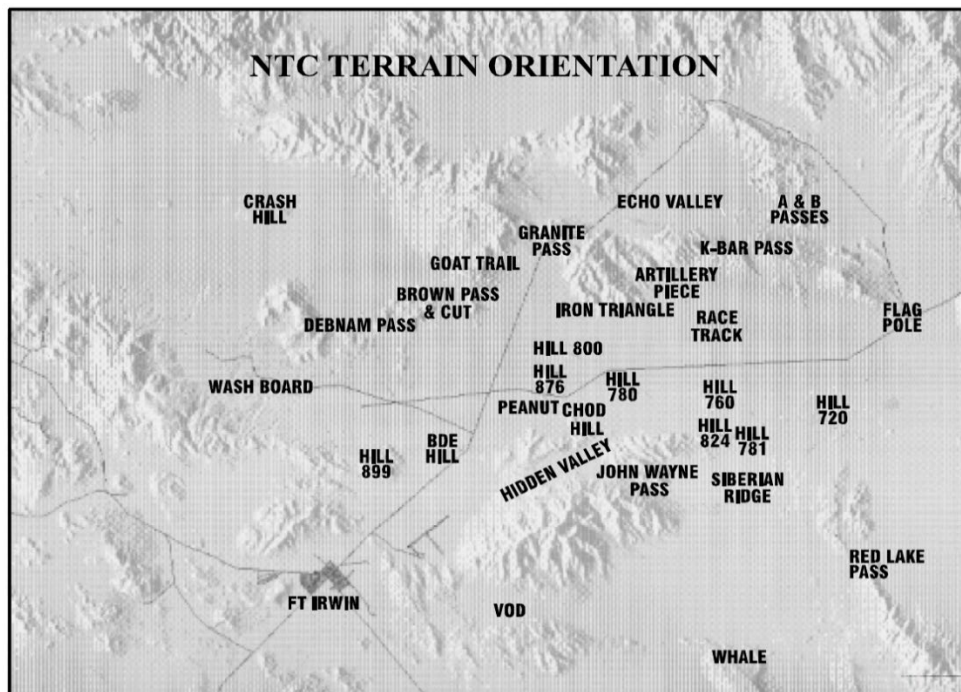


Figure 1. National Training Center Terrain Orientation

Source: Center for Army Lessons Learned, "Decision Point Tactics," *CTC Quarterly Bulletin*, no. 97-4 (1st Quarter January 1997): 23.

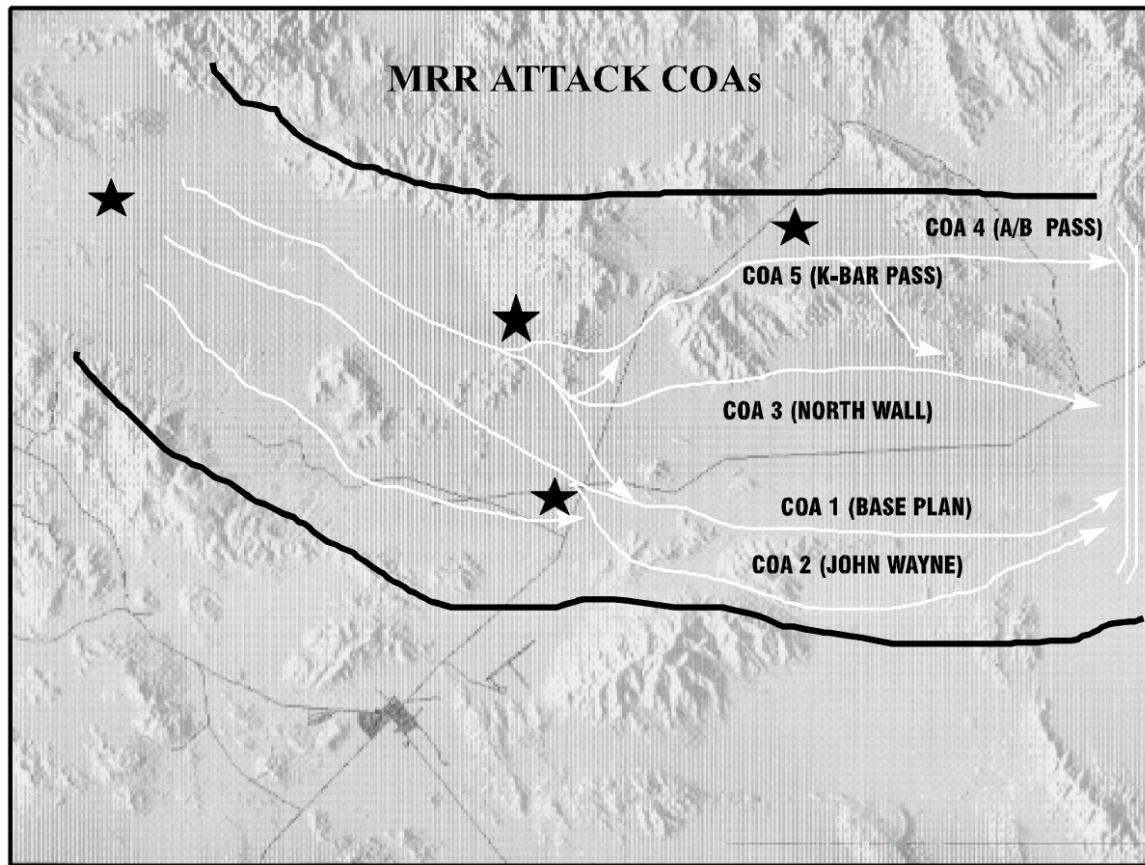


Figure 2. OPFOR Attack COAs

Source: Center for Army Lessons Learned, “Decision Point Tactics,” *CTC Quarterly Bulletin*, no. 97-4 (1st Quarter January 1997): 15.

In Palmer’s example the OPFOR commander organized his unit into four maneuver elements: (1) Task Force (TF) Destroyer, (2) TF Angel, (3) the Advanced Guard, and (4) the Main Body. Each maneuver element has its own scheme of maneuver within each COA. Some units may execute the same scheme of maneuver in multiple COAs. For example, in COA 1 (base plan) and COA 2 (John Wayne), TF Angel conducts an air assault with a landing zone vicinity John Wayne Foothills then seizes Hill 824 and establishes a support by fire position oriented on Hill 760 (CALL 1997, 16). Each COA

has a set of enemy conditions associated with it as well. Palmer uses the term “enemy” as the OPFOR commander describing the US rotational training unit. Palmer describes the enemy conditions for each COA as DP conditions to execute. For example, the DP conditions to execute COA 1 are; no more than three company teams arrayed on the south wall of the central corridor, John Wayne Pass held or blocked by enemy forces, more than one company team that can influence Alpha and Bravo Passes in the northern corridor (CALL 1997, 16). Palmer uses a series of simple maps to explain how the OPFOR commander can use DPT to achieve victory at the NTC. Prior to the departure of any main body forces, OPFOR reconnaissance identifies obstacles in John Wayne Pass with an infantry battalion preparing defensive positions. Reconnaissance also identifies approximately four company teams defending along the south wall of the central corridor. These two indicators allow the commander to eliminate COA 2, shown in figure 3, which had a decision-point condition to execute as “John Wayne Pass clear of enemy forces and obstacles” (CALL 1997, 16).

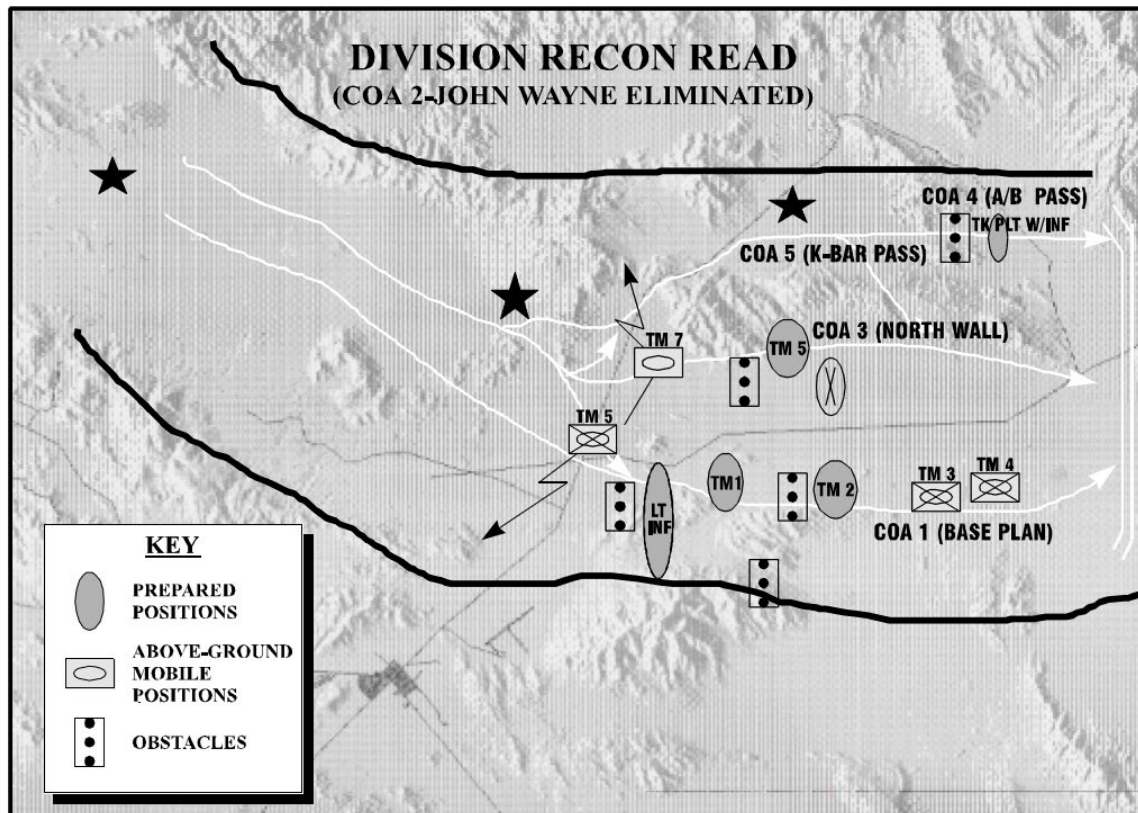


Figure 3. OPFOR COA 2 Eliminated

Source: Center for Army Lessons Learned, "Decision Point Tactics," *CTC Quarterly Bulletin*, no. 97-4 (1st Quarter January 1997): 19.

COA 1 has a decision-point execution decision condition of "no more than three company teams arrayed along the south wall of the central corridor" (CALL 1997, 16). COA 1 is not completely ruled out because the enemy's reaction to the OPFOR's actions may cause one or more of the company teams along the south wall to move. The Commander decides to eliminate COA 1, depicted in figure 4, and divert TF Angel to its alternate landing zone to Warm Hole pass, just north of Artillary Piece and TF Destroyer to secure granite pass.

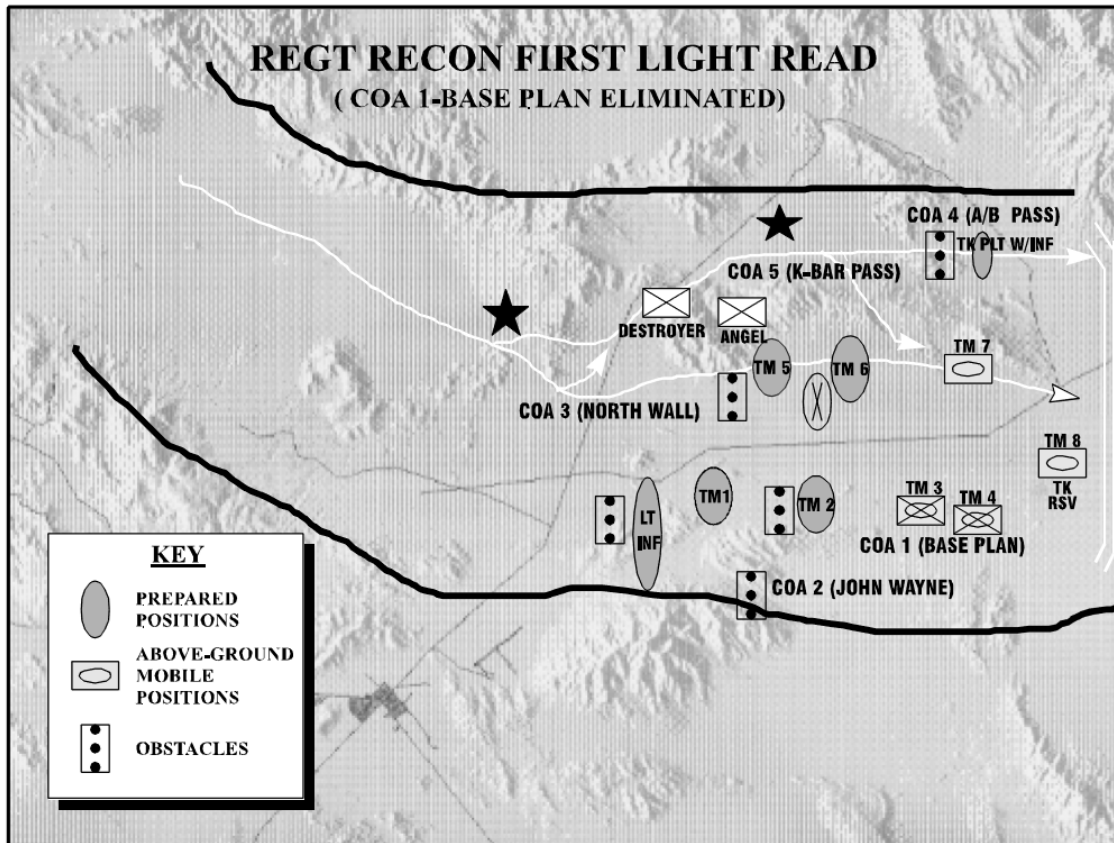


Figure 4. OPFOR COA1 Eliminated

Source: Center for Army Lessons Learned, “Decision Point Tactics,” *CTC Quarterly Bulletin*, no. 97-4 (1st Quarter January 1997): 20.

As the main body moves, reconnaissance reports a company team repositioned from the south wall of the central corridor to the Race Track. This move by the enemy triggered one of the decision-point conditions, “no more than one company team at Iron Triangle/Artillery Piece” (CALL 1997, 17) for COA 3. The enemy action allows the commander to eliminate COA 3, shown in figure 5, as an option and execute COA 4 with a final DP condition to execute COA 5 still available.

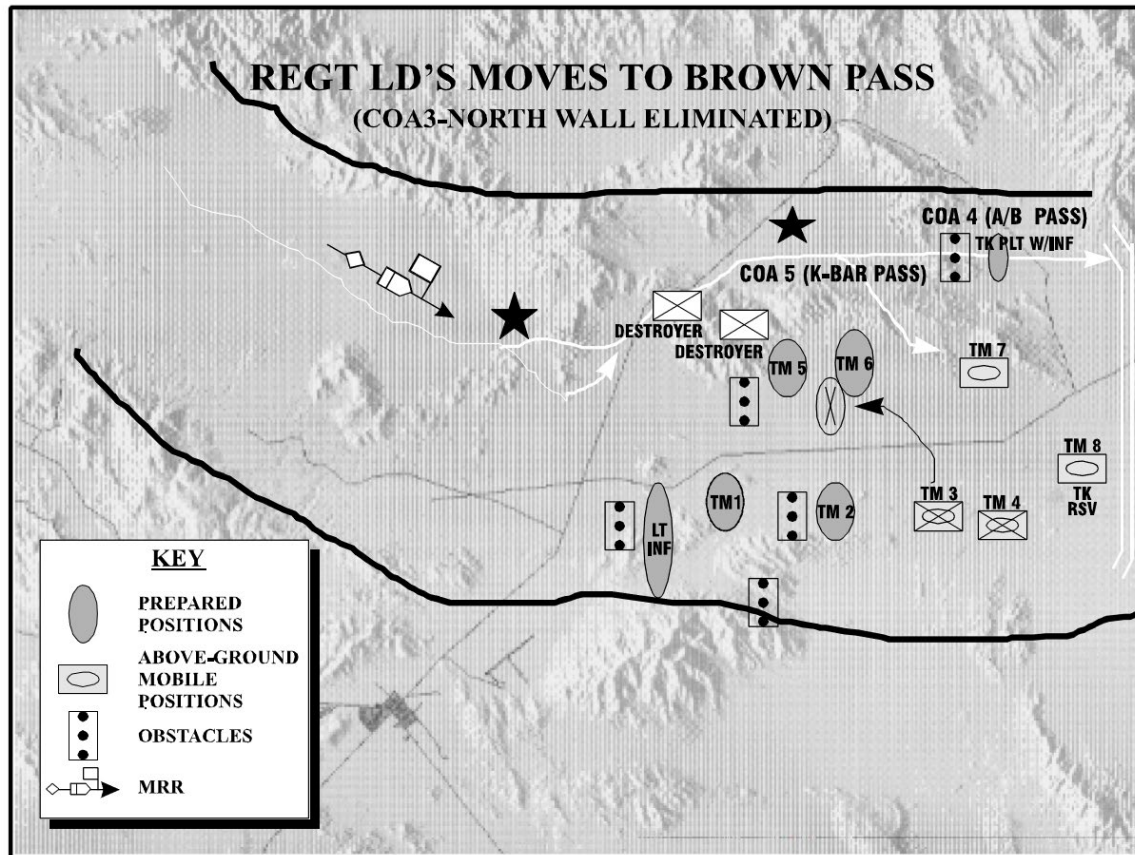


Figure 5. OPFOR COA 3 Eliminated

Source: Center for Army Lessons Learned, "Decision Point Tactics," *CTC Quarterly Bulletin*, no. 97-4 (1st Quarter January 1997): 21.

As Palmer explained, "the main body committed through Granite Pass. In an apparent reaction to this maneuver, TMs [Teams] 4 and 8 were seen repositioning toward Alpha Pass. . . . At this point the commander made the final decision to execute COA No. 5" (CALL 1997, 22). These decisions are depicted in figures 6 and 7.

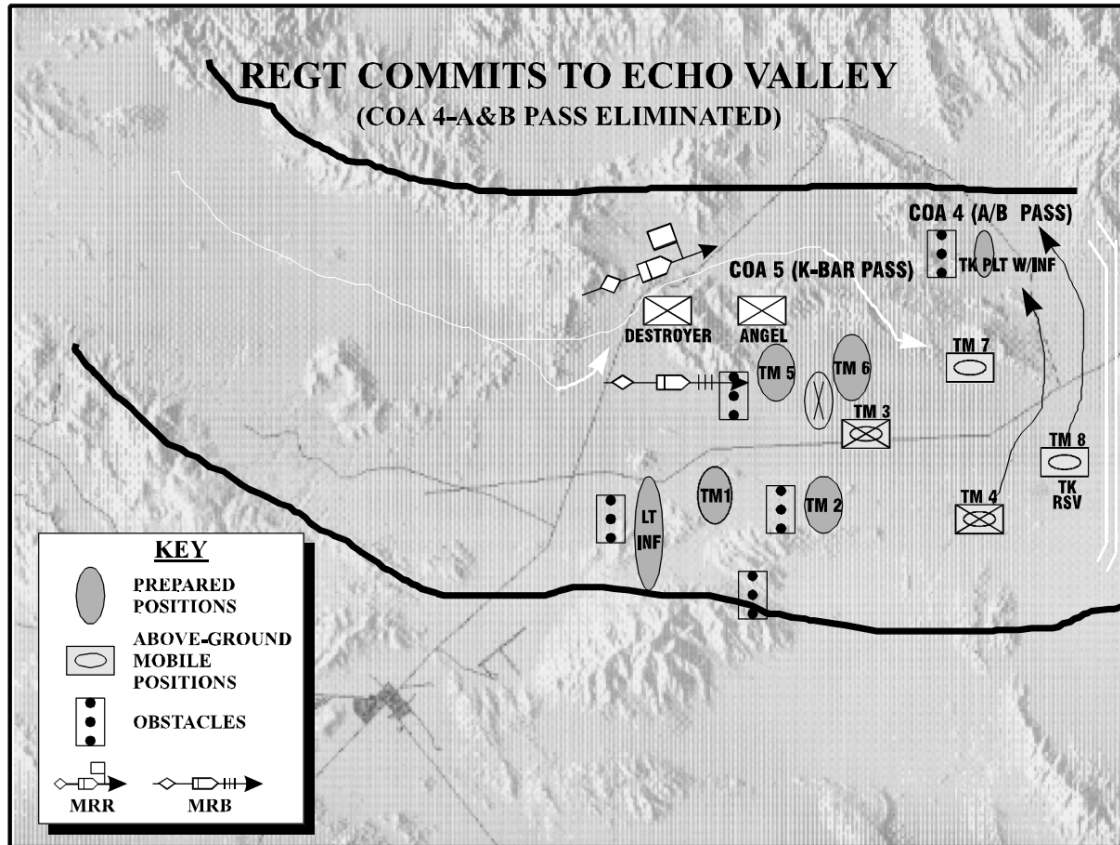


Figure 6. OPFOR COA 4 Eliminated

Source: Center for Army Lessons Learned, "Decision Point Tactics," *CTC Quarterly Bulletin*, no. 97-4 (1st Quarter January 1997): 22.

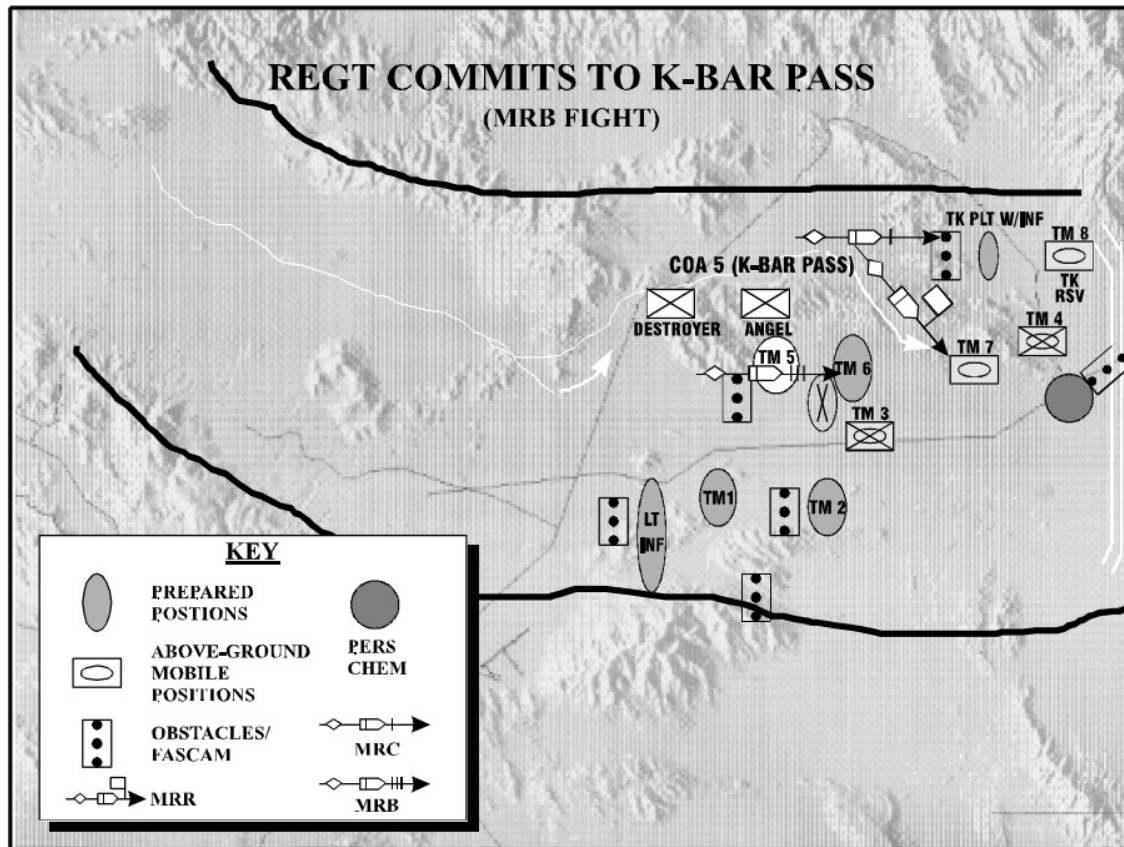


Figure 7. OPFOR Commit to a COA

Source: Center for Army Lessons Learned, "Decision Point Tactics," *CTC Quarterly Bulletin*, no. 97-4 (1st Quarter January 1997): 23.

Palmer and Crider admit their explanation of DPT is not a unique or new concept, but it is critical to success on a complex battlefield where enemy actions and reactions require a flexible plan (CALL 1997, 23). Palmer and Crider's concept of DPT has inspired Army officers to analyze and build on their ideas since the publication of the *CTC Quarterly Bulletin* in 1997.

Processes and Procedure: The Tactical Decision-Making
Process and Decision Point Tactics

In 2000 Major Carl A. Alex wrote a thesis addressing how the use of DPT has a doctrinal basis in military decision-making doctrine. Alex's thesis is important because it outlines how the use of DPT is not a separate planning process from the MDMP, but a technique of employing existing doctrinal decision aids. Alex established there is a doctrinal foundation for decision aids and that decision aids are embedded into the decision-making processes. Alex argued that the purpose of the decision aids provided during the doctrinal decision-making process equate to DPT. Alex writes,

DPT is based on the idea that mission execution is governed by a series of decisions. The commander is better prepared and able to react faster when the decision criteria and subsequent options are identified prior to mission execution. DPT captures the collective interactions and integration of decision aids within the TDMP. (Alex 2000, 72)

Alex used the acronym TDMP in place of MDMP throughout his thesis. Alex explained that TDMP is MDMP performed in tactical environments and condenses the seven steps of MDMP into four steps.

Alex clarified the decision aids from doctrine that equate to DPT. In his own modification of the definition of DPT Alex specified that DPs, the DST, and DSM are the required decision aids to employ DPT. Alex's modification to Palmer's definition of DPT is the addition of the line, DPT is a term "used to capture the collective interactions, integration, and end products of DPs, the decision support template (DST), the DSM, and the TDMP" (Alex 2000, 13). Alex graphically depicted how the decision aids that equate to DPT nest within TDMP. Alex's figure, figure 8, includes the event template and event matrix in the decision aid output column but does not include those terms as equating to DPT.

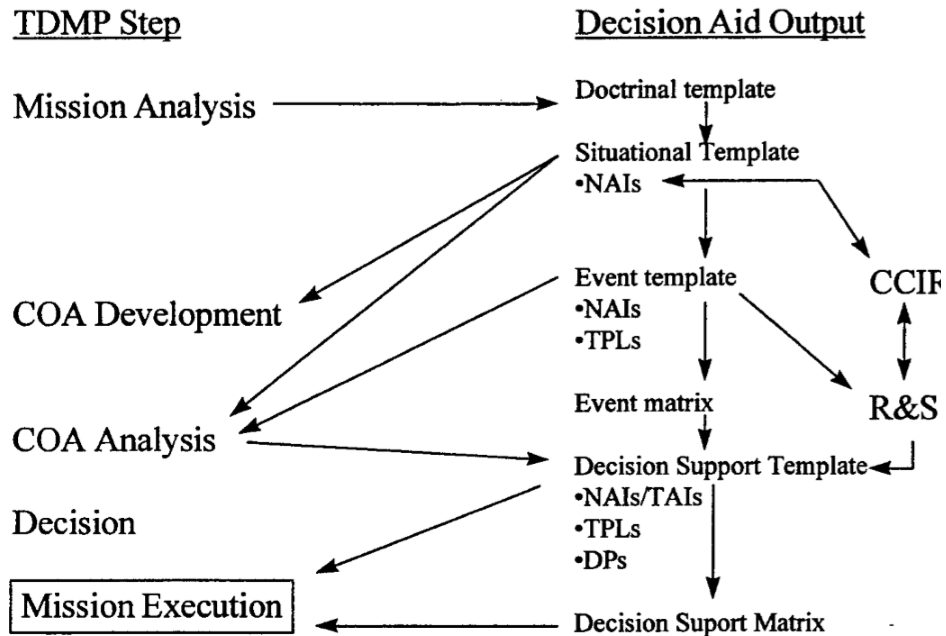


Figure 8. Nesting and Development of Decision Aids Within TDMP

Source: MAJ Carl A. Alex, “Process and Procedure: The Tactical Decision-Making Process and Decision Point Tactics” (Master’s Thesis, Command and General Staff College, Fort Leavenworth, KS, 2000), 55.

In addition to concluding that DPT is an integral part of the TDMP using decision support aids, Alex concluded there is a systematic shortfall in US Army doctrine. Alex wrote the shortfall in doctrine addresses decision support aids in the planning methodology (Alex 2000, 76). The shortfall stems from not adequately dealing with enemy uncertainties. Alex argued the focus in doctrine on the most likely and most dangerous enemy COA leads to planners not accounting for all possible enemy COAs when formulating the friendly COA. Alex concluded that formulating a plan without accounting for all probably enemy COAs leads to friendly COAs that are inflexible and unsatisfactory. Alex recommended developing decision aids during the mission analysis

step of the TDMP to enable the commander and staff to plan against enemy actions and create a robust sub optimized plan that counters most enemy COAs.

A Vignette on Decision Points in the Offense

Major Alan Hastings, a former Troop Commander in 11th Armored Cavalry Regiment and NTC Observer-Controller, created a tactical vignette in April 2017 based on his experiences as an OPFOR Mechanized Infantry Battalion (MIBN) Commander at NTC employing DPT. Hastings' vignette is based on his experience leading OPFOR during a situational training exercise at NTC. In the vignette Hastings conducts an attack with his MIBN against a Stryker battalion. To gain battlefield vision, Hastings identified five possible courses of action the enemy Stryker battalion can conduct along a ridge line. Like Palmer, Hastings uses the term "enemy" as an OPFOR commander describing a US Army rotational training unit. Hastings eliminates two possible enemy COAs based on available intelligence from higher headquarters as his planning for the attack continues. The three-remaining enemy COAs are graphically depicted in figures 9, 10, and 11. Figures 9, 10, and 11 represent event templating. Although Hastings does not build an event template, he uses the different Stryker battalion COAs to continue his own COA planning.

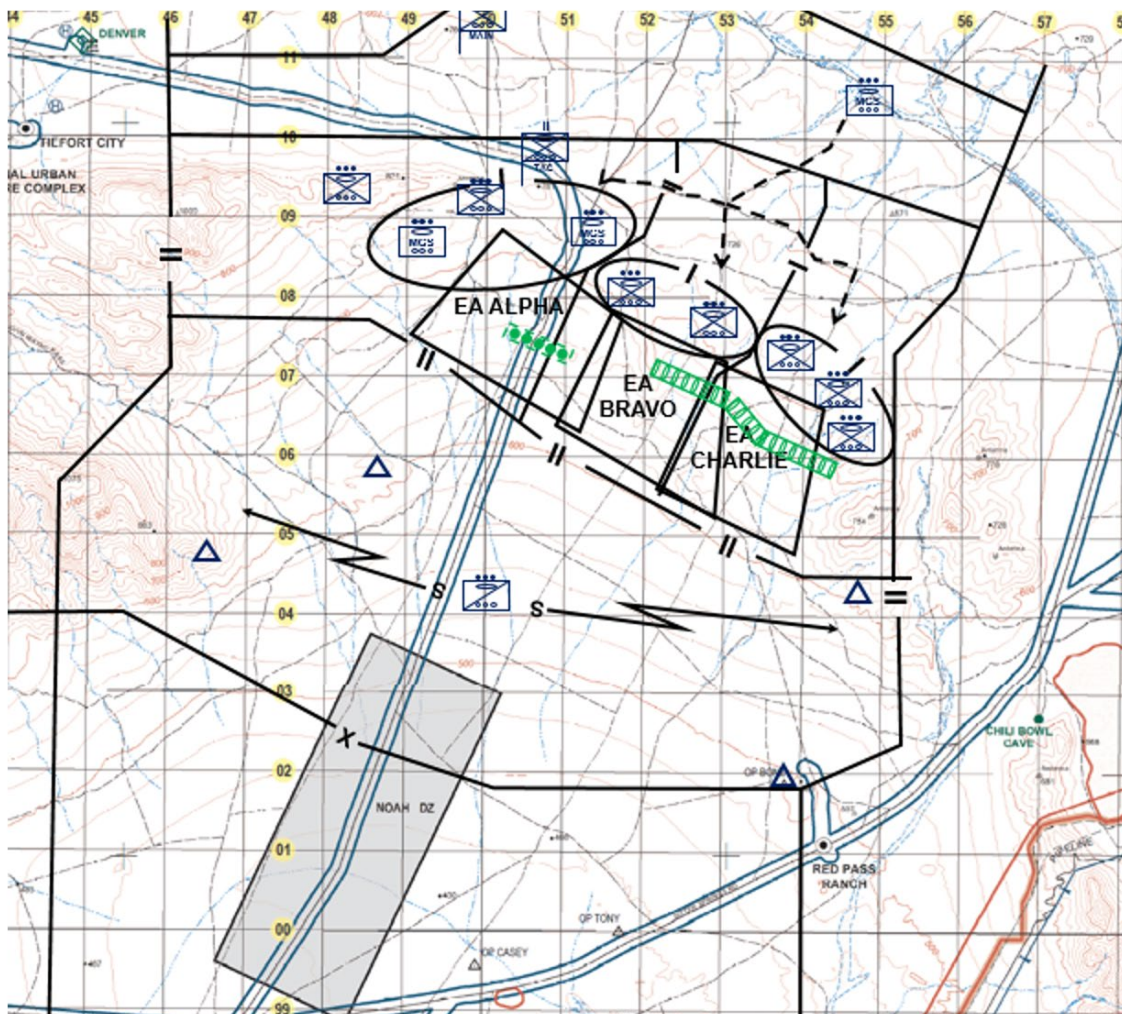


Figure 9. Stryker Battalion COA1

Source: Alan Hastings, "The Donovanian Mechanized Infantry Battalion in the Attack: A Vignette on Decision Points in the Offense," *The Tactical Leader Blog*, April 24, 2017, accessed January 6, 2019, <https://www.thetacticalleader.com/blog/2017/4/24/the-donovian-mechanized-infantry-battalion-in-the-attack>.

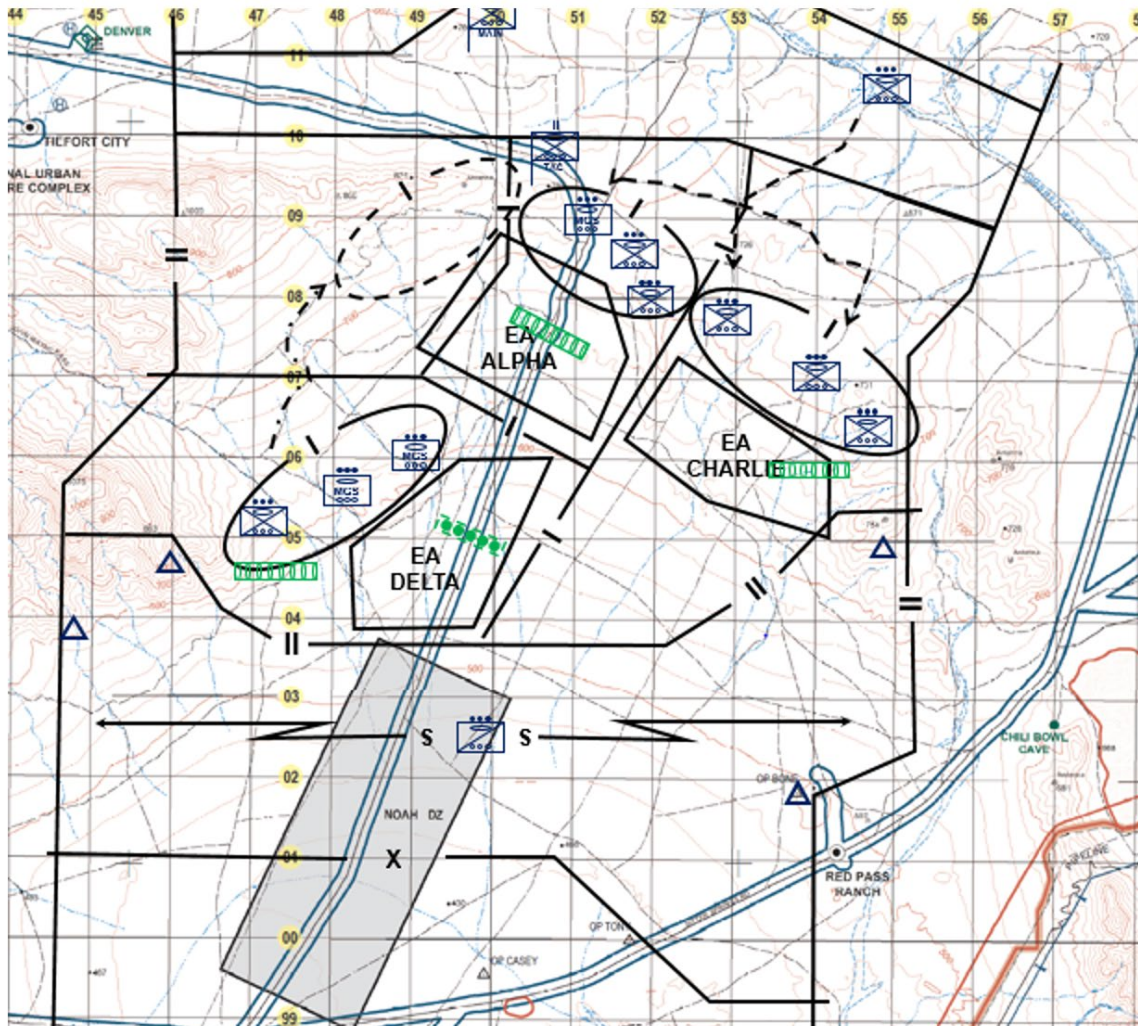


Figure 10. Stryker Battalion COA2

Source: Alan Hastings, "The Donovan Mechanized Infantry Battalion in the Attack: A Vignette on Decision Points in the Offense," *The Tactical Leader Blog*, April 24, 2017, accessed January 6, 2019, <https://www.thetacticalleader.com/blog/2017/4/24/the-donovian-mechanized-infantry-battalion-in-the-attack>.

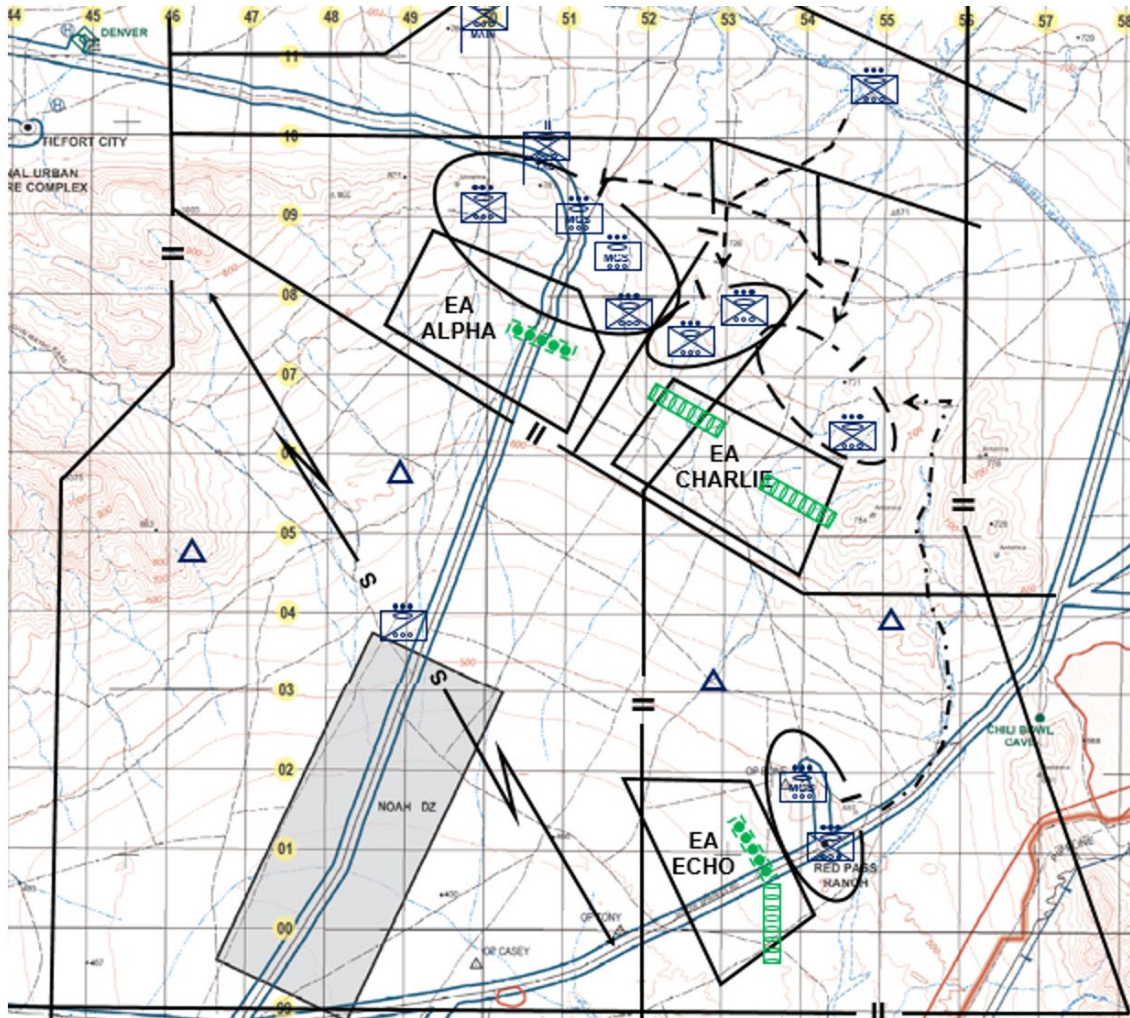


Figure 11. Stryker Battalion COA3

Source: Alan Hastings, “The Donovanian Mechanized Infantry Battalion in the Attack: A Vignette on Decision Points in the Offense,” *The Tactical Leader Blog*, April 24, 2017, accessed January 6, 2019, <https://www.thetacticalleader.com/blog/2017/4/24/the-donovian-mechanized-infantry-battalion-in-the-attack>.

Prior to deploying his combat reconnaissance patrols, Hastings identified NAI based on analysis of enemy disposition between the three remaining possible enemy COAs. Hastings’ information collection (IC) plan, depicted in figure 12, focuses his combat reconnaissance patrols to determine which defensive COA the enemy Stryker

battalion is conducting. The combat reconnaissance patrols' reports provide critical information to help Hastings choose his own COA for the attack.

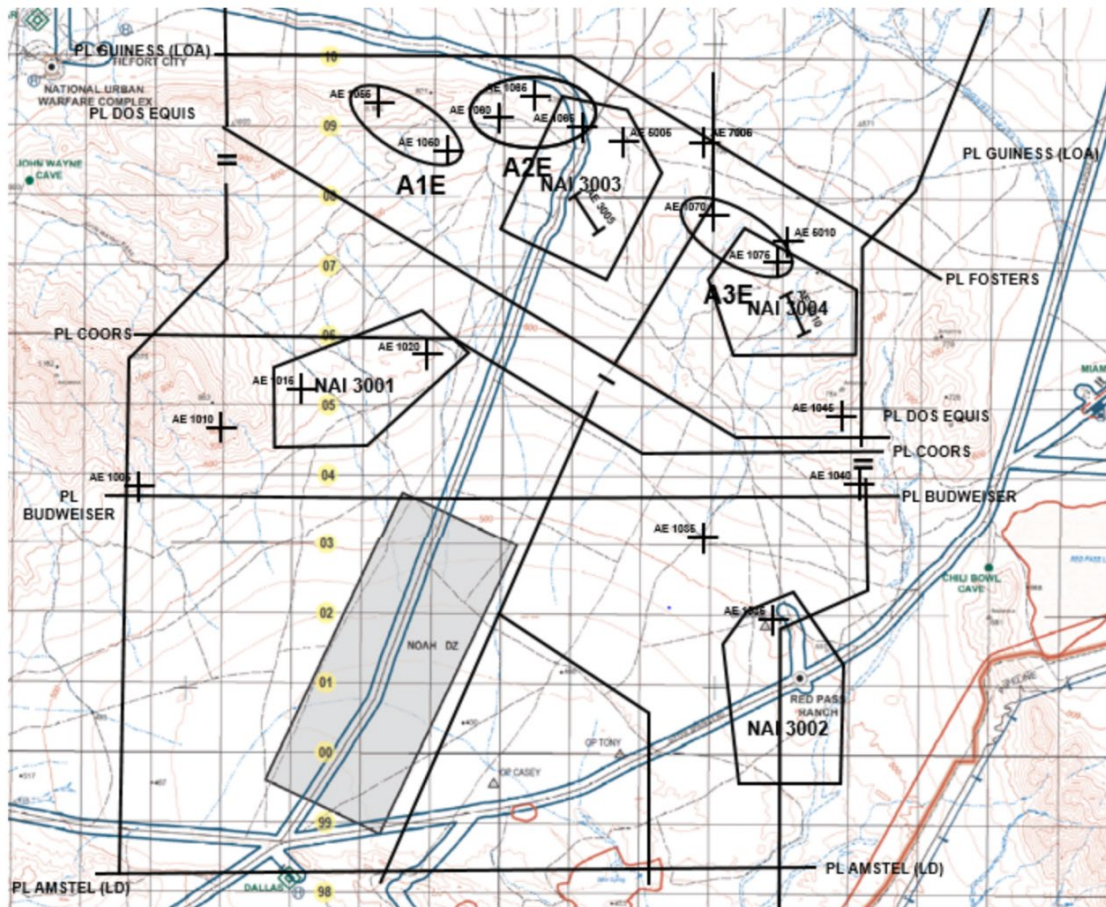


Figure 12. MIBN Information Collection Graphics

Source: Alan Hastings, “The Donovan Mechanized Infantry Battalion in the Attack: A Vignette on Decision Points in the Offense,” *The Tactical Leader Blog*, April 24, 2017, accessed January 6, 2019, <https://www.thetacticalleader.com/blog/2017/4/24/the-donovan-mechanized-infantry-battalion-in-the-attack>.

Hastings created NAIs 3001 and 3002 because those locations are where enemy presence, or the lack of presence confirm or deny the enemy's defensive COA from

Hasting's event template. Hastings also created NAIs 3003 and 3004 because of their potential for breach locations. To share his vision of the battlefield with his subordinate units, Hastings designed his common operation graphics, depicted in figure 13, with two possible friendly COAs. Although figure 13 does not have DPs depicted, it serves as a DST when used in conjunction with Hastings' DSM, depicted in table 1. The MIBN prepared to execute either COA depending on the findings of the combat reconnaissance patrols using the common operating graphics and DSM.

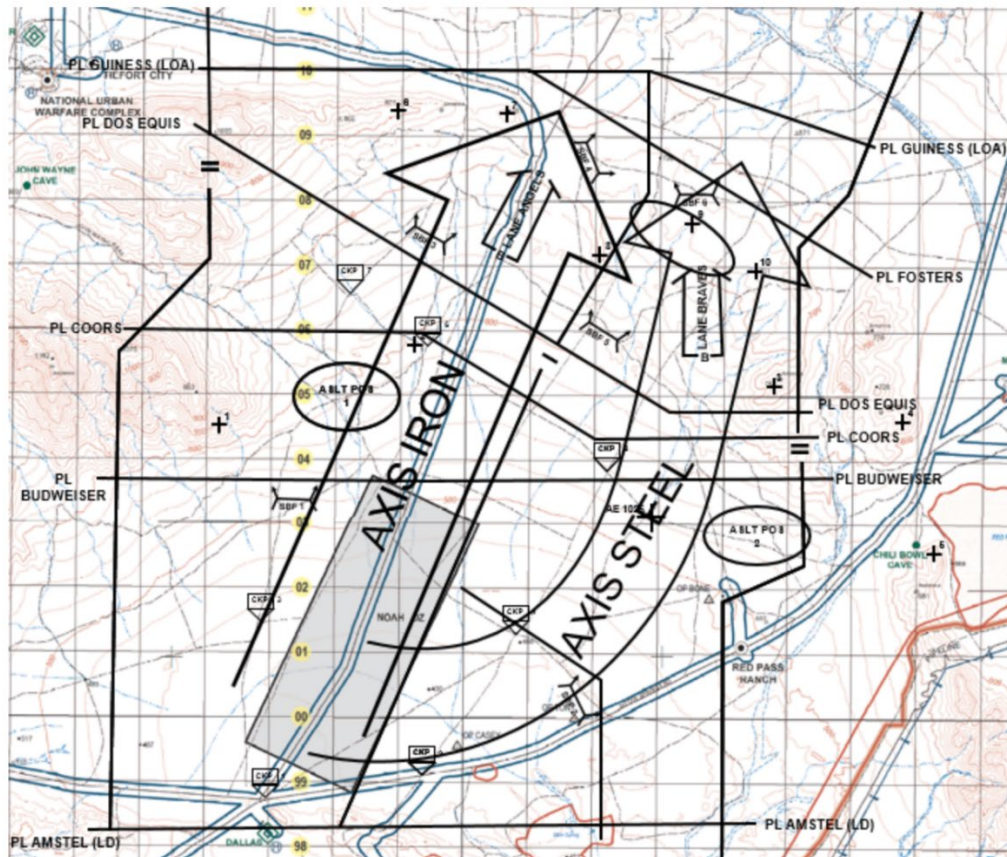


Figure 13. MIBN Common Operating Graphics

Source: Alan Hastings, "The Donovan Mechanized Infantry Battalion in the Attack: A Vignette on Decision Points in the Offense," *The Tactical Leader Blog*, April 24, 2017, accessed January 6, 2019, <https://www.thetacticalleader.com/blog/2017/4/24/the-donovan-mechanized-infantry-battalion-in-the-attack>.

Table 1. MIBN DSM

Decision Point	Decision	PIR (IF)	FFIR (And)	PIR #	Action (Then)
1	Axis of attack for commitment of MIBN DO	Enemy conducts area defense with three companies abreast	3 rd MIC able to fix enemy vic SBF 5	1	Attack along AXIS IRON, breach/bypass vic LANE ANGELS
		Enemy conducts defense in depth, heavy west	3 rd MIC able to fix enemy vic SBF 1	2	Attack along AXIS STEEL, breach/bypass vic LANE BRAVES
		Enemy conducts defense in depth, heavy east	3 rd MIC able to fix enemy vic SBF 2	3	Attack along AXIS IRON, breach/bypass vic LANE ANGELS
2	Commitment of Reserve	Enemy defeats fixing force and threatens flank of MIBN DO	3 rd MIC unable able to fix enemy	4	Reinforce 3 rd MIC, follow and support
		Enemy successfully reinforces battle positions vic breach lane	2 nd MIC unable to establish a breach lane	5	Reinforce 2 nd MIC, follow and support

Source: Alan Hastings, “The Donovanian Mechanized Infantry Battalion in the Attack: A Vignette on Decision Points in the Offense,” *The Tactical Leader Blog*, April 24, 2017, accessed January 6, 2019, <https://www.thetacticalleader.com/blog/2017/4/24/the-donovian-mechanized-infantry-battalion-in-the-attack>.

Additional Non-doctrinal Literature

In an article titled “Thriving in Uncertainty” in *Military Review: The Professional Journal of the US Army* from March-April 2019, Lieutenant Colonel Michael Adamski and Lieutenant Colonel Scott Pence reinforce the pitfalls of planning against a most likely and most dangerous COA. Adamski and Pence argue, “the common practice of specifying ‘most dangerous’ and ‘most likely’ enemy courses of action stifles analytic agility and limits commanders from understanding the full range of potential mission events” (Adamski and Pence 2019, 55). Adamski and Pence conclude, “Intelligence staff officers owe commanders a roadmap of options available to a free-thinking enemy” (Adamski and Pence 2019, 55).

In an article titled “Decision-Support Planning and Tools: Planning to Support Decision-Making” in *Armor: Mounted Maneuver Journal* from April-June 2016, Captain Gary Klein and Captain Alan Hastings discussed the importance of decision support aids during the planning process. Klein and Hastings argue that many commanders and staffs are not using decision support aids properly.¹ Like Alex, Klein and Hastings believe staffs creating decision-support tools during the COA analysis step of a deliberate planning process is too late. By creating decision-support tools hastily the final product becomes a simple synchronization tool instead of anticipating significant transitions or branch plans (Klein and Hastings 2016, 32). Klein and Hastings expanded on Alex’s figure, figure 8, linking decision-support tools to a deliberate planning process, MDMP in their case, by explaining the problem created by developing DPs during COA analysis.

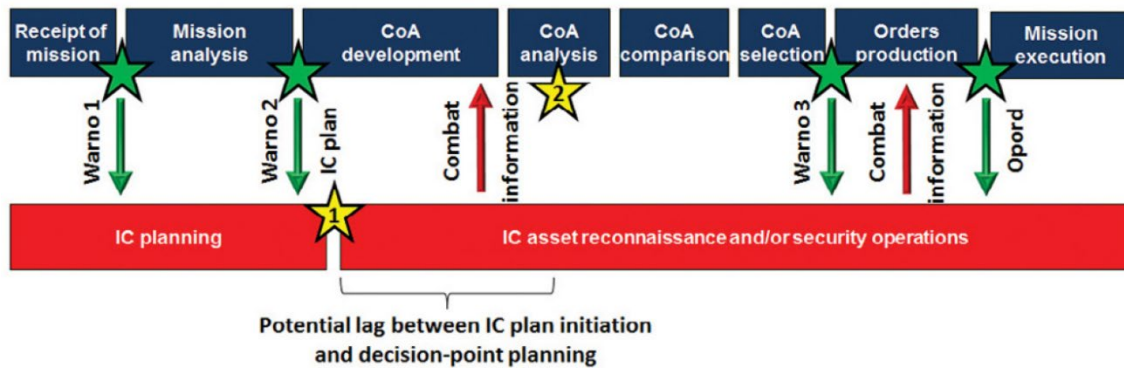


Figure 14. MDMP Planning Timeline with IC Timeline

Source: Captain Gary Klein and Captain Alan Hastings, “Decision-Support Planning and Tools: Planning to Support Decision-Making,” *Armor: Mounted Maneuver Journal* (April-June 2016): 33.

¹ Klein and Hastings base this assertion from their observations as observers, controllers, and trainers at the Joint Readiness Training Center and National Training Center.

Star number one in figure 14 represents the completion of the IC plan. Star number two represents the completion of decision-support planning. Klein and Hastings argue the time between initiating the IC and the development of a decision-support plan creates a disconnect between the two plans (Klein and Hastings 2016, 33). They propose refined outputs to the first four steps of MDMP, depicted in table 2.

Table 2. Refined Outputs to MDMP

	Doctrinal outputs	Proposed outputs
Receipt of mission	Warning order (warno) 1	Warno 1
Mission analysis	Updated IPB IC plan Warno 2	Updated IPB IC plan Potential decision points Warno 2
CoA development	CoA statement and sketch	CoA statement and sketch Initial decision-support tools
CoA analysis	Refined CoAs Potential decision points (and decision-support tools) Wargame results	Refined CoAs Refined decision points and decision-support tools Wargame results

Source: Captain Gary Klein and Captain Alan Hastings, “Decision-Support Planning and Tools: Planning to Support Decision-Making,” *Armor: Mounted Maneuver Journal* (April-June 2016): 37.

Doctrinal Literature

The doctrinal literature reviewed is divided into four categories. Each category consists of multiple publications and different versions of the same publication number and title as changes take place. Some publications have small changes made, such as the removal of a page and a new one added in its place. The Army accounts for new material with a summary of changes on the first page of the publication. In most cases the change,

normally labeled “Change No. 1” or “Change No. 2” by the Army, does not significantly affect the material covered in the publication and is addressed in this study to limit the scope of doctrinal literature reviewed. The four doctrinal categories are intelligence, operations, the operations process, and commander and staff organizations. The term DPT does not exist in US Army doctrine, but the concept of having to make decisions as part of a military operation appears in multiple publications across all four doctrinal categories.

Intelligence Doctrinal Category

FM 34-3, *Intelligence Analysis*, published in 1990 discusses the intelligence preparation of the battlefield (IPB). As part of IPB, FM 34-3 discusses two graphic products an analyst must produce. FM 34-3 states those products are, “a modified combined obstacle overlay (MCOO), a situation template depicting how the enemy looks at the most critical moment on the battlefield, an event template from which to develop the R&S plan, and a DST” (Department of the Army 1990, 4-6). FM 34-3 expanded on the importance of the event template and its importance in distinguishing between multiple enemy courses of action. FM 34-3 explained that there are usually several courses of action the enemy can employ to achieve its objective and an event template must be developed for each possible COA. Although FM 34-3 does not define event template in its glossary, it describes event templating as, “the identification and analysis of significant battlefield events which provide indicators of an enemy course of action” (Department of the Army 1990, 4-28). Published in 2014, ATP 2-01.3, *Intelligence Preparation of the Battlefield*, shows how identifying significant battlefield events for each enemy COA build on each other to create an event template. The 2019 version of

ATP 2-01.3 includes a more detailed examples of event template development, depicted in figures 15 and 16.

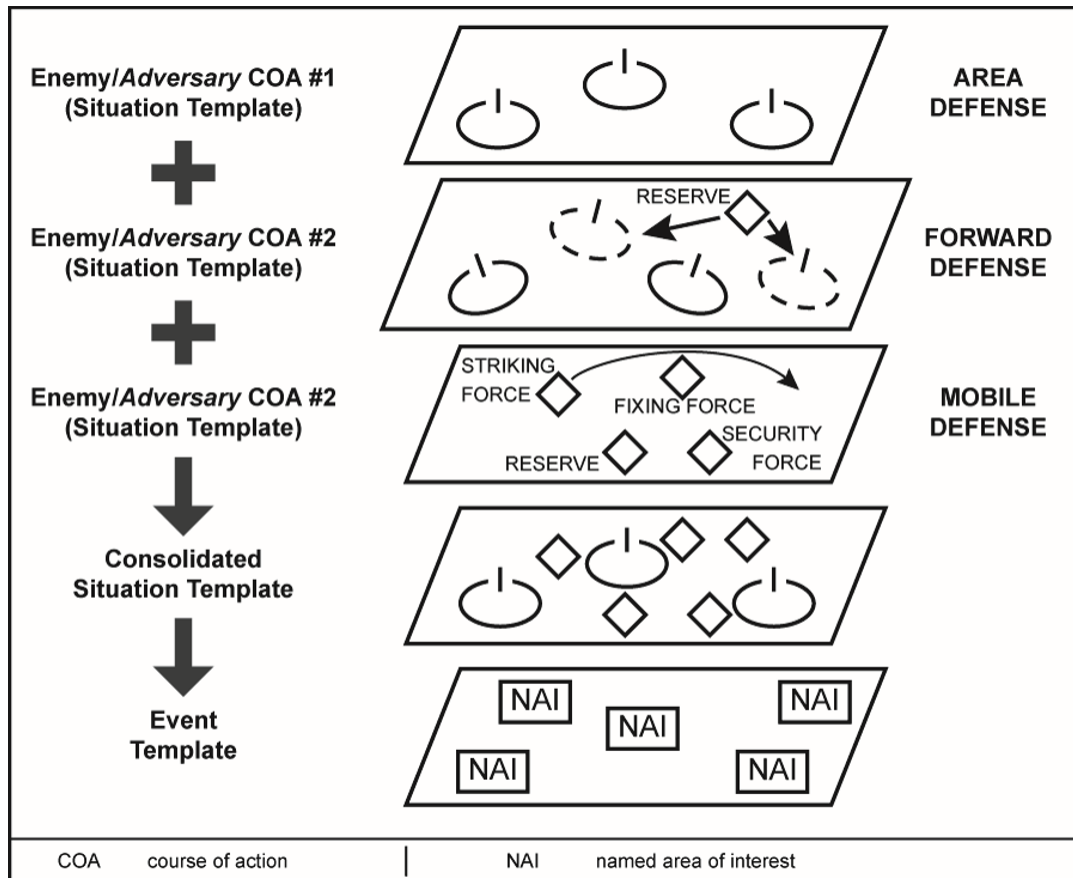


Figure 15. Event Template Development

Source: Department of the Army, Army Techniques Publication (ATP) 2-01.3, *Intelligence Preparation of the Battlefield* (Washington, DC: GPO, 2014), 6-15.

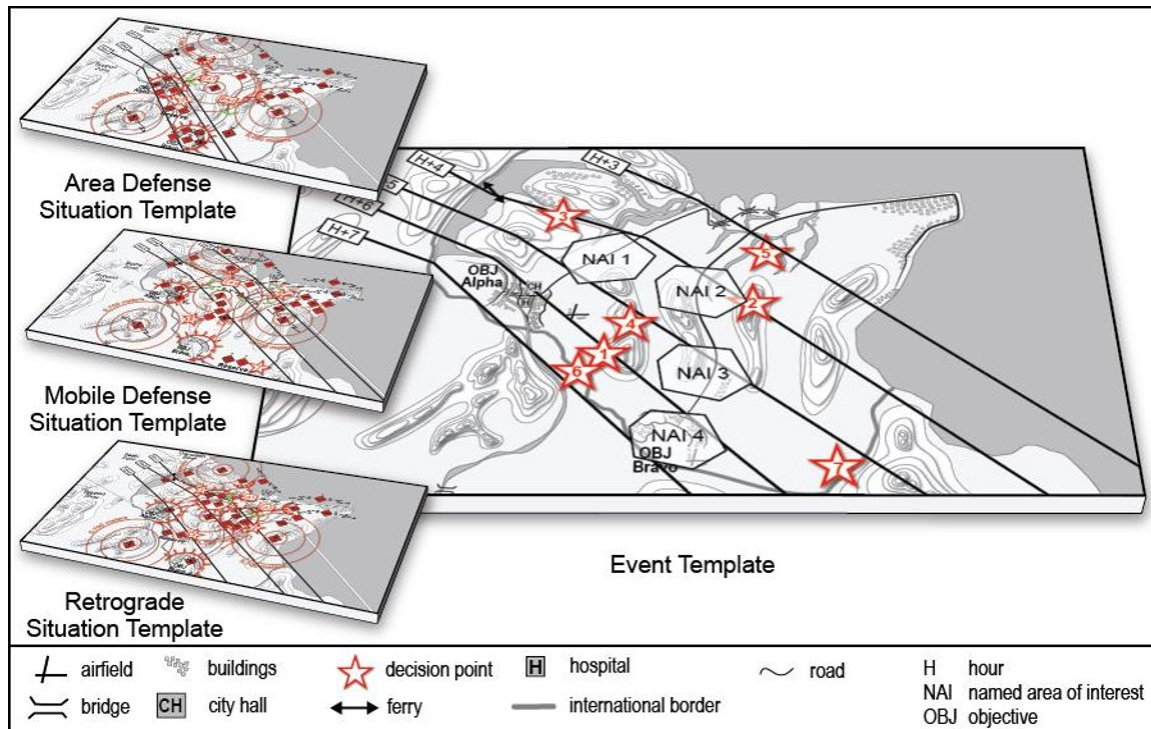


Figure 16. Detailed Event Template Development

Source: Department of the Army, Army Techniques Publication (ATP) 2-01.3, *Intelligence Preparation of the Battlefield* (Washington, DC: GPO, 2014), 6-15.

IPB doctrine includes the term event matrix, or event analysis matrix in FM 34-3, as a supplemental tool to event templates. FM 34-130, *Intelligence Preparation of the Battlefield*, from 1994 states the purpose of an event matrix is to account for indicators associated with NAIs and provide additional information to aid in collection planning. FM 34-130 provides an example event matrix, portrayed in figure 17. As with the event template the newer ATP 2-01.3 provides more detail for the reader. The 2019 version of ATP 2-01.3 connects the event template and matrix, shown in figure 18, to link the information on both decision support tools directly.

NAI	EVENT	TIME		INDICATES COA
		EARLIEST	LATEST	
15 a, b, and c	Withdrawal of MRBs eastward	H + 7	H + 11	COA 4
16	ATK helos	H + 10	H + 14	ATK helos to OBJ 23
17	ATK helos	H + 10	H + 14	ATK helos to OBJ 24
18	ATK helos	H + 10	H + 14	ATK helos to OBJ 25
19				

Figure 17. Event Matrix Example

Source: Department of the Army, Field Manual (FM) 34-130, *Intelligence Preparation of the Battlefield* (Washington, DC: GPO, 1994), 3-37.

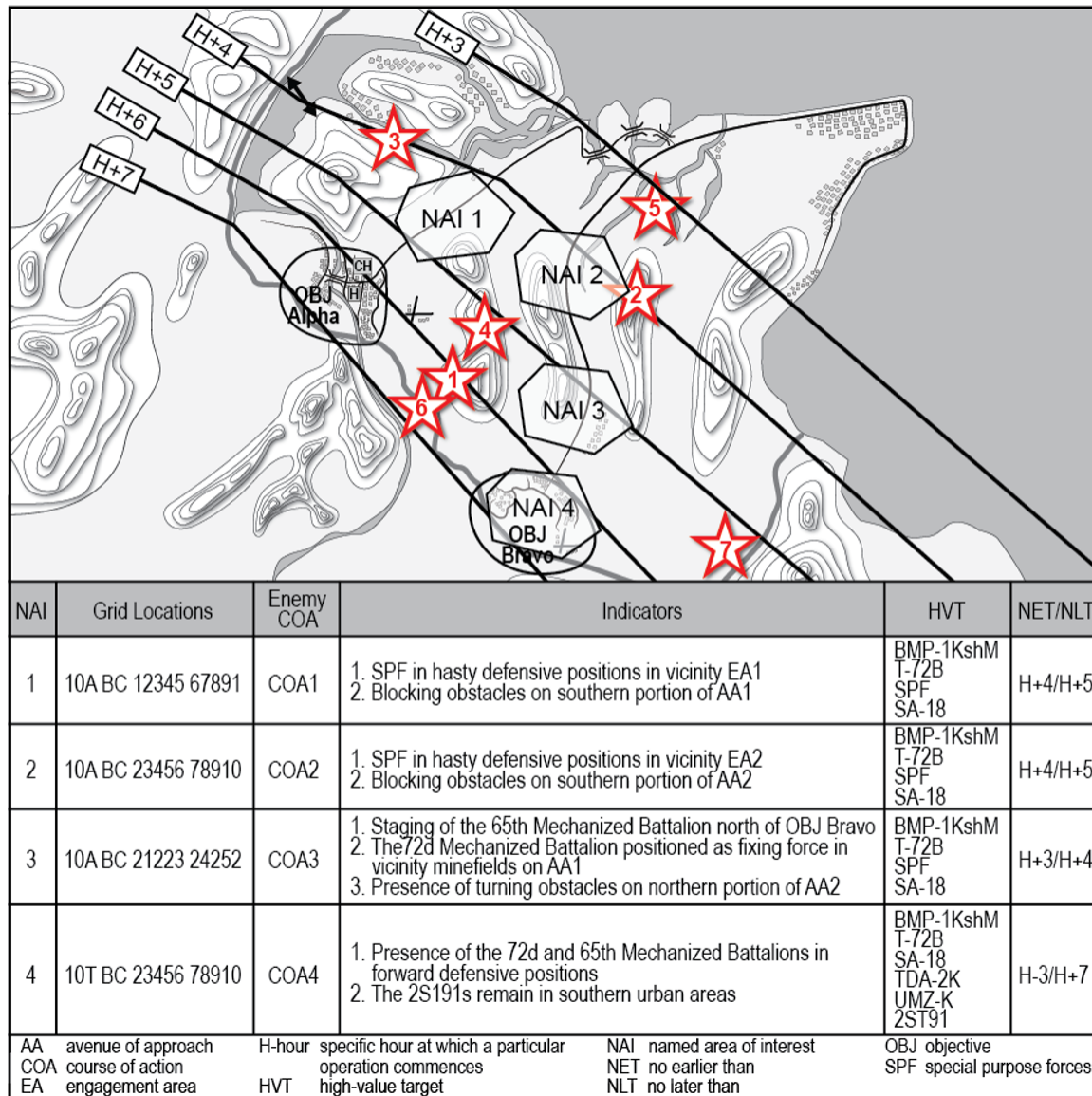


Figure 18. Event Template Combined with Event Matrix

Source: Department of the Army, Army Techniques Publication (ATP) 2-01.3, *Intelligence Preparation of the Battlefield* (Washington, DC: GPO, 2019), 6-22.

To graphically depict critical moments and decisions the enemy commander will have to make in those moments, the event template example in the 2014 and 2019 versions of ATP 2-01.3 include enemy DPs. FM 34-130 defined DPs as, “the point in

space and time where the commander or staff anticipates making a decision concerning a specific friendly COA. DPs are usually associated with threat force activity or the battlefield environment and are therefore associated with one or more NAIs. DPs also may be associated with the friendly force and the status of ongoing operations” (Department of the Army 1994, Glossary-5). Although the other IPB publications do not define DPs in a glossary they do explain how the concept of DPs apply to enemy actions as well as friendly. The 2019 ATP 2-01.3 explains how determining enemy DPs aids in developing a friendly COA. ATP 2-01.3 explains, “predicting threat decision points also facilitates developing COAs that allow friendly forces to drive when and where the threat has to make decisions, thus limiting the threat’s COAs” (Department of the Army 2019, 6-20). The use of DPs for friendly COAs is represented on the DST.

According to the FM 34-3 event templating is important to aid the analysts and staff in developing a (DST). FM 34-3 states, “The DST is a logical extension of event templating; it relates events of the event template to the commander’s decision requirements” (Department of the Army 1990, 4-29). FM 34-3 presents an example of a DST with the associated DSM, shown in figure 19.

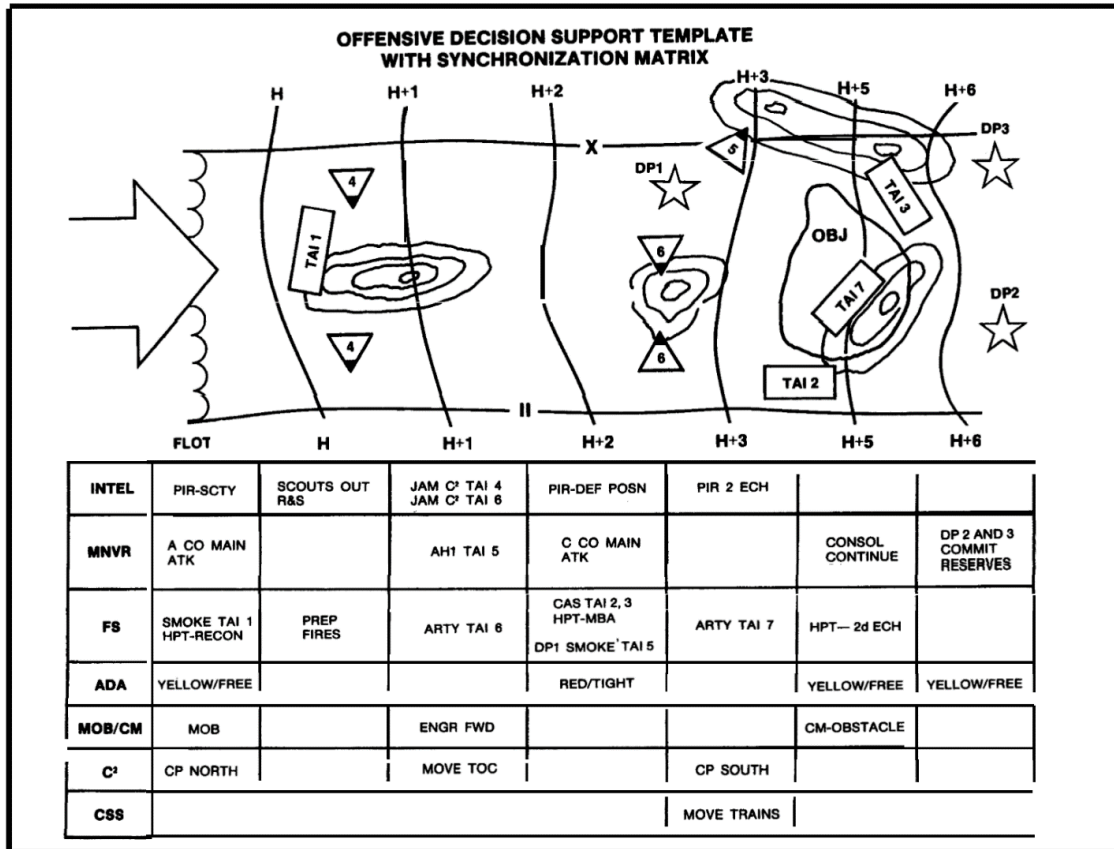


Figure 19. DST with DSM Example

Source: Department of the Army, Field Manual (FM) 34-3, *Intelligence Analysis* (Washington, DC: GPO, 1990), 4-33.

FM 34-130 did not provide an example DST or DSM but did provide a definition in the publication glossary. FM 34-130 defined the DST as, “a graphic record of wargaming. The DST depicts DPs, timelines associated with movement of forces and the flow of the operation, and other key items of information required to execute a specific friendly COA” (Department of the Army 1994, Glossary-5). The 2014 version of ATP 2-01.3 included examples of the DST and DSM, but only in the United States Marine Corps appendix. The 2019 version of ATP 2-01.3 provides a DST and DSM example, shown in

figure 20, that includes the event template graphics. The DST and DSM show different friendly decisions and courses of action. Transitioning to the operations doctrinal category is the logical step to further the review of friendly operations as they relate to DPT.

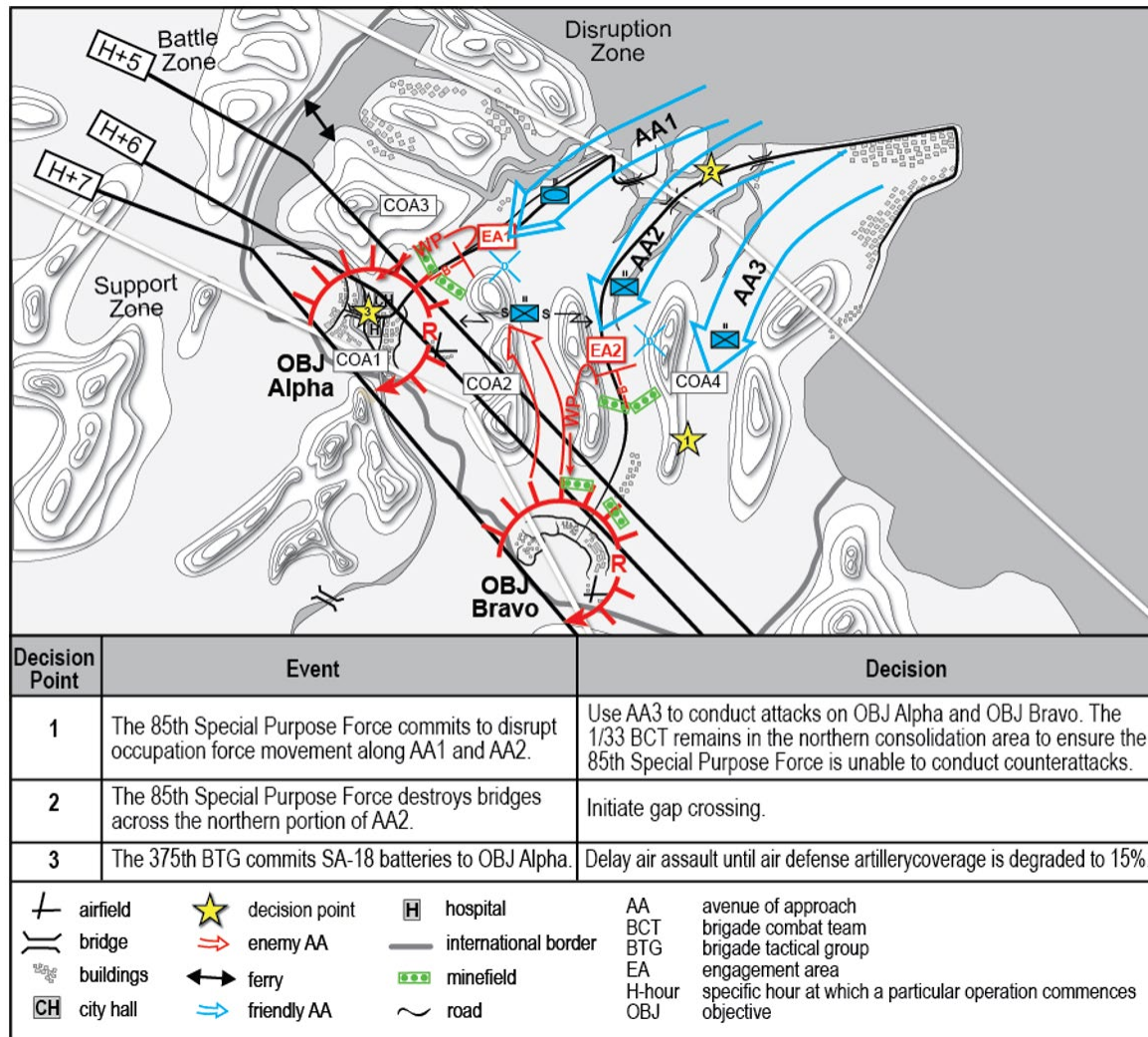


Figure 20. DST with DSM Example that Includes Event Template Graphics

Source: Department of the Army, Army Techniques Publication (ATP) 2-01.3, *Intelligence Preparation of the Battlefield* (Washington, DC: GPO, 2019), 6-23.

Operations Doctrinal Category

FM 3-98, *Reconnaissance and Security Operations*, is the only operations doctrinal category publication of those reviewed for this thesis that defines DP, DST, or DSM. FM 3-98 is also unique because it is the only doctrinal publication that mentions DPT. FM 3-98 does not define DPT and only mentions DPT three times. Under the subtitle *Execute Decision Point Tactics*, FM 3-98 defines DPs, DST, and DSM and emphasizes the importance of a commanders and staffs' ability to anticipate the changing conditions on a battlefield for mission success. FM 3-98 expands on the importance of the DST and DSM explaining how they affect commanders' decisions. FM 3-98 states, "The decision support matrix coupled with the decision support template are results of a commander's and his staff's ability to visualize the battlefield and identify critical points where transitions or decisions must occur" (Department of the Army 2015, 4-21). FM 3-98 does not specify the transitions occurring based on the DST and DSM, but the other publications in the operational doctrine category do.

Every iteration of the publication titled *Operations* since at least 1993 has explained or at least defined in a glossary the words branch and sequel. The 1993 version of Operations, FM 100-5, described branches as "contingency plans—options built into the basic plan—for changing the disposition, orientation, or direction of movement and also for accepting or declining battle" (Department of the Army 1993, 6-9). FM 100-5 described sequels as "subsequent operations based on the possible outcomes of the current operation—victory, defeat, or stalemate" (Department of the Army 1993, 6-9). Fourteen years later FM 3-0, 2017, still uses the same explanation of branches and sequels.

The Operations Process Doctrinal Category

The Operations Process doctrinal category is significantly smaller than the intelligence or operations doctrinal categories. The 2005 version of FM 5-0, *Planning and Orders Production*, used the same explanation of branches as the operation's doctrinal category but with an additional sentence. The 2005 version of FM 5-0 adds, "commanders execute branches to rapidly respond to changing conditions" (Department of the Army 2005, G-4). The 2005 FM 5-0 also defines the event template, unlike any other version of FM 5-0 reviewed as part of this thesis. It states that an event template "represents a sequential projection of events that relate to space and time on the battlefield and indicate the enemy's ability to adopt a particular course of action" (Department of the Army 2005, Glossary-8). This thesis reviewed the 2005, 2010, and 2012 versions of FM 5-0. Each version discusses the DST and DSM and defines them in their glossary. Army Doctrine Publication 5-0 and ADRP 5-0 replaced FM 5-0 in 2012. This study only reviews ADRP 5-0 because it is the more detailed partner publication of Army Doctrine Publication 5-0. ADRP 5-0 removes the detailed explanation of DPs leaving only a definition in its glossary. ADRP 5-0 drops a detailed explanation of branches and sequels and does not provide definitions. While the operations process doctrinal category, or FM 5-0 series, explains how Army units plan, prepare, execute, and assess operations, the FM 6-0 series provides commanders and staffs with tactics and procedures to exercise command during operations.

Commander and Staff Doctrinal Category

The mission command doctrinal category has the most variation in titles of the four doctrinal categories, but each publication focuses on the role of the commander and

staff and how to manage forces. FM 101-5, *Staff Organizations and Operations*, in 1997 used term command and control to describe the “exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission” (Department of the Army 1997, 1-1). FM 6-0 in 2003 continued to use the term command and control. In 2016 FM 6-0 replaces command and control with mission command. The 2016 version of FM 6-0 defines mission command as, “the exercise of authority and direction by the commander using mission orders to enable disciplined initiative within the commander’s intent to empower agile and adaptive leaders in the conduct of unified land operations” (Department of the Army 2016, Glossary-7).

FM 101-5 explained DPs, DSTs, and DSMs. FM 101-5 stated that DPs are, “events or locations on the battlefield where tactical decisions are required during mission execution” (Department of the Army 1997, 5-18). The 2016 version of FM 6-0 also explains DPs and uses the same definition of a DP from JP 5-0; found in the definitions section of chapter 1 of this thesis.

The 2016 version of FM 6-0 supersedes Army Tactics, Techniques, and Procedures (ATTP) 5-0.1 from 2011 and states its intention is to provide “multiple templates and examples of products that commanders and staffs routinely use in the conduct of operation” (Department of the Army 2016, vii). Although the latest version of FM 6-0 does provide templates and examples of orders and their annexes it does not explain or define DSMs or DSTs; which ATTP 5-0.1 also fails to explain. The 2016 version of FM 6-0 does explain branches and sequels which ATTP 5-0.1 does not explain or define. Like DPs the latest version of FM 6-0 uses the JP 5-0 definition as part of its

explanation of branches and sequels. ATP 6-0.5, *Command Post Organizations and Operations*, published in 2017 has an appendix titled “Tools for Synchronization and Making Decisions.” Appendix D, has a figure dedicated to DST development and mentions an event template and DPs as part of the development of a DST. Appendix D does not explain event templating or DPs in detail. Appendix D of ATP 6-0.5 also provides an example DSM.

Conclusion

This literature review greatly expanded on the introduction chapter by reviewing the topic of DPT across non-doctrinal and doctrinal literature. To answer the research question of does the Army need to update its decision-making process doctrine to better prepare for large-scale combat operations, this thesis uses the key-word-in-text content analysis methodology. Chapter 3 of this thesis applies the key-word-in-text content analysis methodology to the literature reviewed in this chapter.

CHAPTER 3

RESEARCH METHODOLOGY

This thesis answers the research question, does the Army need to update its decision-making process doctrine to better prepare for large-scale combat operations? To answer the research question, this thesis focuses on four subsidiary research questions. The subsidiary research questions are: (1) what are DPT, (2) what did US doctrine say regarding the concept DPT, (3) what does doctrine say now regarding the concept of DPT, and (4) how has US doctrine evolved regarding the concept of DPT? Answering the subsidiary research questions requires two important steps. The first is the literature review of existing pertinent literature that relates to DPT. Chapter 2 of this thesis served as the literature review. The second step is outlining the research methodology and techniques applied to the reviewed literature.

Key-Word-In-Text Content Analysis

The research method used in this thesis is content analysis. Content analysis is a form of qualitative analysis. “Content analysis is a research method that uses a set of procedures to make valid inferences from text” (Weber 1990, 9). Specifically, this thesis uses the key-word-in-context approach to content analysis. Key-word-in-context is an approach where the researcher identifies words that appear in a text and seeks to understand the use of the word in the text. Key-word-in-text is the best methodology because DPT do not appear in doctrine, but previous literature, reviewed in chapter 2, has identified themes in the concept of DPT and connected those themes to doctrine. This thesis can show evolutions in doctrine by identifying, categorizing, and comparing key

words doctrine uses to define and explain the themes from the literature review. Key-word-in-text content analysis has weaknesses as a methodology. The most important weakness is the inclusion of the author's bias when selecting key words to analyze. Because doctrine does not mention DPT by name, the author created his own list of key words within doctrine to represent DPT. Even though the key words are based off existing literature on the subject, the author had to make the decision on what to include. Figures 21 and 22 are visual models of the method for analyzing key words used in this thesis.

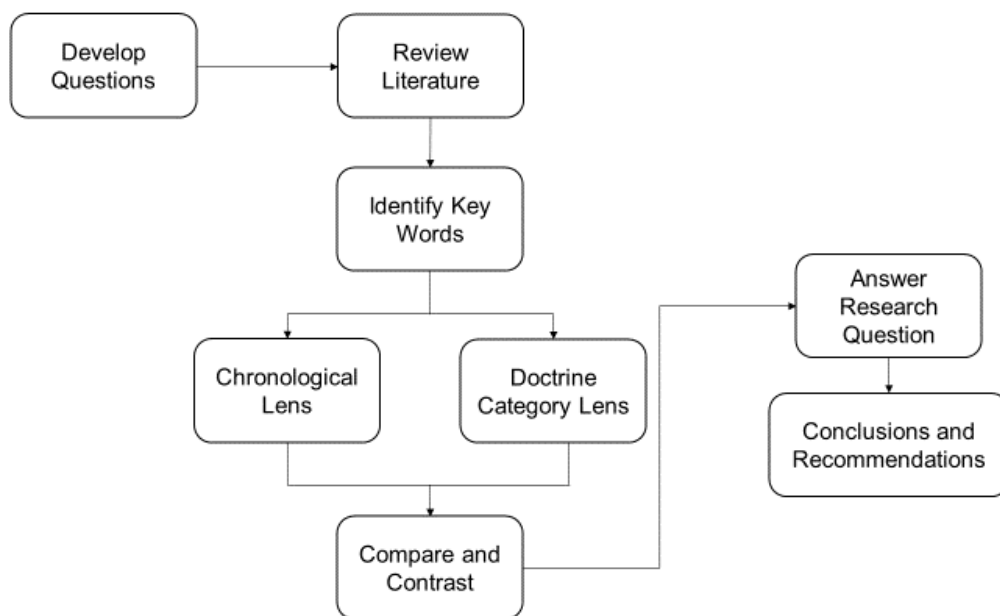


Figure 21. Visual Model using a Key-Word-in-Text Methodology

Source: Created by the author.

Figure 21 shows the process for how the author conducted research for this thesis. The research question and four subsidiary research questions guided the literature review

to DPT, past, and present doctrine. During the literature review trends in concepts and words became apparent to describe the idea of DPT. The words used by authors to define or describe DPT became key words for this research. Concepts identified in the literature review were assigned key words from doctrine where the concept being described by any author matched doctrine but did not use the same language. The key words used by the authors and the key words chosen from the concepts applied to doctrine became the key word list used for the key-word-in-text approach. The development of the key word list creates the focus needed to answer sub research question one, what are DPT. By identifying differences in doctrine this thesis identifies where concepts have changed, disappeared, appeared, or shifted from one publication to another. Applying the key word list through a chronological lens, current and past doctrine, answers sub research questions two, three, and four. Categorizing doctrine by publication series, or subject, lens allows for better management of the substantial process of analyzing large amounts of doctrine. Analyzing doctrine through a categorical lens also enables the author to identify trends in similarities and differences across categories of doctrine that will aid in answering this thesis' research question; does the Army need to update its decision-making process doctrine to better prepare for large-scale combat operations? Table 3 is a blank example of how the key word list will analyze each doctrinal category. This study analyzes five doctrinal categories and requires five tables.

Table 3. Blank Table for Application of Evaluation Criteria

Doctrine Category	Key Word 1	Key Word 2	Key Word 2	Key Word 3	Key Word 4	Key Word 5	Key Word 6
Publication 1							
Publication 2							
Publication 3							
Publication 4							
Publication 5							
Publication 6							

 : explained in paragraph or examples used

 : Defined but no examples

 : mentioned or not present

Source: Created by the author.

Evaluation Criteria

The next step to analyzing the key words for each doctrine category is assigning evaluation criteria for each publication. The evaluation criteria for each key word is defined as either a positive, neutral, or negative.² A positive evaluation is defined by a publication that explains the key word in a paragraph or uses an example, such as a matrix or sketch, or explain the key word to the reader. A publication that receives a positive evaluation in relation to a key word is a publication that a reader who has no understanding of the key word could learn and apply the key word to planning without

² This application and graphic depiction of positive, neutral, and negative evaluation criteria was adapted from small group discussion with Dr. Jack Kem and page 276 of his book; Planning for Action: Campaign Concepts and Tools.

having to read another text. A neutral evaluation is defined by a publication that defines the key word but does not use examples or a paragraph to further explain the key word. A negative evaluation is applied to publications that may mention the key word but do not explain it in anyway. The reader of a publication with a neutral evaluation without any prior understanding of the key word would now understand the key word but would most likely be unable to apply the key word without referencing another publication. A negative evaluation is assigned to publications where a reader who was not aware of the key word would have to seek out a different publication to understand the significance of the key word. A green plus sign symbolizes a positive evaluation. A yellow circle symbolizes a neutral evaluation. A red negative sign symbolizes a negative evaluation.

Methodology Summary

The following is an example of the key-word-in-text analysis with applied evaluation criteria for one key word in one category of doctrine to summarize the methodology used and provide a transition to the data presentation and analysis chapter. The obvious key word for literature discussing DPT is DP. Although the term DPT does not appear in doctrine, DP does appear in numerous doctrinal publications. Figure 22 shows the visual model for the key-word-in-text methodology using DP as the key word.

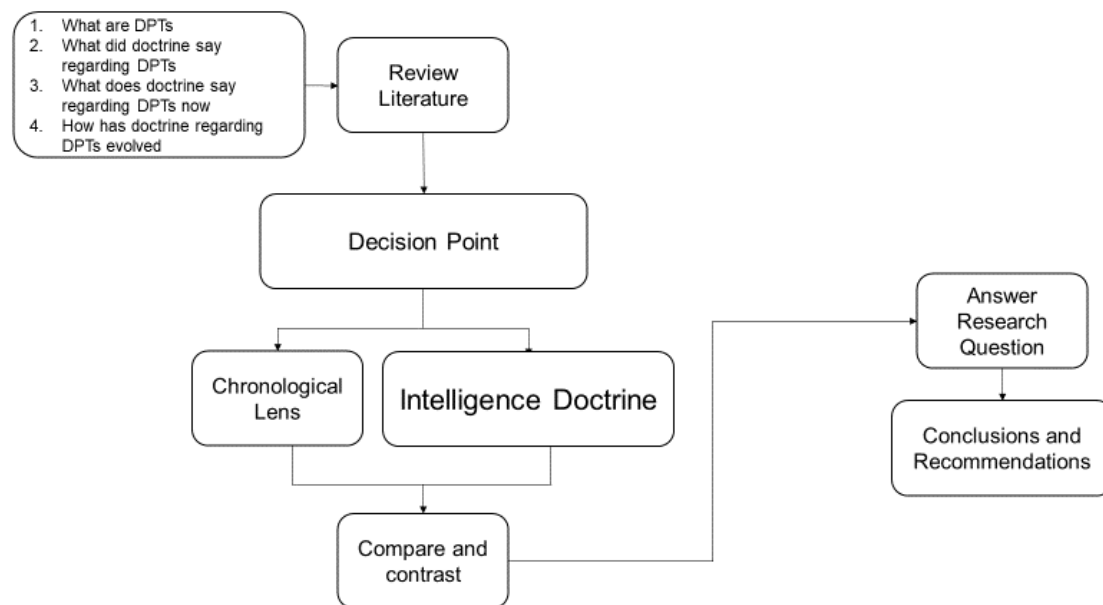


Figure 22. Methodology for the Key Word Decision Point

Source: Created by the author.

For the purpose of this example intelligence related doctrine is the only doctrine category lens applied. Therefore, only one abbreviated table for application and comparison of evaluation criteria is present.

Table 4. Example of Evaluation Criteria Applied to a Key Word in Doctrine

Intelligence Category	Decision Point	Key Word 2	Key Word 2	Key Word 3	Key Word 4	Key Word 5	Key Word 6
FM 34-3 1990 Intel Analysis							
FM 34-130 1994 IPB							
FM 2-0.3 2009 IPB							
ATP 2-01.3 2014 IPB							
JP 2-01.3 2014 Joint Intel Prep of the OE							
FM 2-0 2018 Intelligence							
ATP 2-01.3 2019 IPB							

 : explained in paragraph or examples used

 : Defined but no examples

 : mentioned or not present

Source: Created by the author.

Table 4 is the abbreviated table following analysis of doctrine and the application of the evaluation criteria. It serves as an example of how the key-word-in-text approach to content analysis and the application of evaluation criteria in this thesis identifies how doctrine has changed what subjects have expanded, abbreviated, or dropped entirely since the early 1990s.

CHAPTER 4

ANALYSIS

Introduction

The analysis chapter of this thesis begins in the third box, identify key words, of the flow chart presented in the methodology chapter. Identifying the key words from the reviewed literature establishes the foundation to present, explain, and analyze the results of the doctrinal evaluation. The results of doctrinal evaluation will answer the four subsidiary research questions. The subsidiary research questions are: (1) what are DPT, (2) what did US Army doctrine say about the concept of DPT, (3) what does US Army doctrine say about DPT now, and (4) how US Army doctrine has evolved regarding the concept of DPT? Answering the subsidiary research questions will enable this thesis to answer the research question of does the Army need to update its decision-making process doctrine to better prepare for large scale combat operations?

Identifying Key Words

US doctrine does not define DPT, but the concept of DPT exists within US Army doctrine. Identifying the key words that make up the concept of DPT answers the first subsidiary research question. The first subsidiary research question is, what are DPT? This thesis identified seven concepts from non-doctrinal literature that create the overall concept of DPT. The seven concepts become the key words for the key-word-in-text content analysis outlined in chapter 3 of this thesis. The seven concepts are; (1) event template, (2) event matrix, (3) DP, (4) DST, (5) DSM, (6) branch, and (7) sequel. DPT are the creation of an event template and matrix to identify multiple possible enemy

COAs and develop DPs represented on a DST and DSM to help commanders determine when and where to initiate a branch or sequel. The blank evaluation table, table 5, with the seven concepts or key words added is below.

Table 5. Blank Evaluation Table with Key Words

Doctrine Category	Event Template	Event Matrix	Decision Point	Decision Support Template	Decision Support Matrix	Branch	Sequel
Publication 1							
Publication 2							
Publication 3							
Publication 4							
Publication 5							
Publication 6							

 : explained in paragraph or examples used
  : Defined but no examples
  : mentioned or not present

Source: Created by the author.

Event template and event matrix are key words because they form the foundation of what Palmer calls creating a shared vision of the battlefield, specifically in relation to the enemy. A detailed event template and event matrix outline all the possible enemy COAs a commander and his or her staff may face. In his article Palmer states, “the OPFOR attempts to visualize all possible solutions and subsequent reactions that it will face during an upcoming battle” (CALL 1997, 5). Relying on the most likely and most dangerous courses of action technique to create a shared vision of the battlefield is

problematic. The battlefield is not binary, and physics is the only limitation to the number of COAs the enemy could develop. Although Alex does not mention the event template or event matrix in his definition of DPT, he does show them as decision aids nested within the TDMP, as seen in figure 8. Alex also stated, “the event template is the one product of the IPB process that most influences the DST” (Alex 2000, 28). When Hastings attempted to determine the enemy COA in his tactical vignette he is created separate overlays of different enemy courses of action that could be combined to create an event template of the Stryker battalion defending the ridge line. This study uses both event template and event matrix because both are important decision aides that enhance each other.

Decision Point is an obvious choice for a key word. Not only is DP present in the term DPT, but each of the articles reviewed in chapter 2 mentions DPs. Palmer does not use DP in his definition of DPT, but he does state, “employing available means at a specific point in space and/or time where the commander anticipates making a decision” (CALL 1997, 1). Alex included DPs in his definition of DPT. DPs are present on the event template and in the next key words; the DST and DSM.

DST and DSM are key words because they are decision support aids for commanders to visually depict and organize key points during an operation. Alex includes the DST and DSM in definition of DPT. Palmer does not mention DSTs in his writing but his COA figures, shown in chapter 2, are versions of DSTs. Palmer shows example of DSMs in his article when describing the use of DPT in a security zone. Table 6 is an example of Palmer’s DSM.

Table 6. Palmer DSM Example

SECURITY ZONE DECISION SUPPORT MATRIX (MANEUVER)						
		Zone 1			Zone 2	
INITIAL SET		PASSES/899 BATTLE			876 BATTLE	
Friendly COA		COA 1 Northern L	COA 2 Southern L	COA 3 Withdrawal	COA 1 South	COA 2 North
Enemy COA		1 up/1 back Brn or Deb (COA 1,2)	1 up/1 back 899 (COA 4)	2 abreast or 1 x 1 Colorado (COAs 3,5,6,7)		
Withdrawal Criteria		Less than 4/10 left Dead > 3 Co/TMs If break possible	Less than 4/10 left Dead > 3 Co/TMs If break possible	*Must get 2 MRCs on one TF or withdrawal	NA	NA
1ST MRC T: Delay P: Allow 4 MRBs to prep fwd pos def	3-2 (3/8)	Hide position	Hide position	Hide position	Occupy 3-2 reconstitute the reserve Time: 8 min 30 sec	Occupy 3-2 Time: 8 min 30 sec
2D MRC T: Attrit P: Nothing>5 Co/TMs penetrate R2	3-1 (3/8) 1 TDAM UMZ O/O 4mrc	Move to Fight 4-3A (2/6) 4-3B (1/2) Time: 6 min	Remain in 3-1 W/D set 6-1 Time: 13 min	(1/2) 3-1 Delay (2/6) W/D 6-1 Time: 13 min	Remain 6-1 OO fight G5 or 7-1 Time: 10 min	Occupy 7-1 Reconst the Rsv Time: 10 min
3D MRC T: Delay P: Nothing>5 Co/TMs penetrate R2	3-3 (32/6) 5-3 (1-2) 1 TDAM & MOD	Remain W/D 5-3 to 3-3 W/D set 6-3 Time: 11 min	Move/fight 5-1A W/D set 6-3 Time: 15 min	(1/2) Delay (2/6) W/D 6-3 Time: 16 min	Occupy 7-3 Reconst the Rsv Time: 18 min	Occupy 6-3 Time: 10 min
4TH MRC T: Delay P: Allow 4 MRB to prep fwd pos def	1-1 (3/8)	Hide position	Hide position	Hide position	Occupy 1-1 Time: 8 min	Occupy 1-1 Reconst the Rsv Time: 7 min 30 sec
RESERVE P: Reinforce	R1 (1/2) 2TDAM & MSD	R1	R1	R1	O/O Occupy H2 Time: 11 min	O/O Occupy G1 Time: 4 min
ATS T: Destroy P: Allow 3-1, 3-3 to withdrawal	E2,G3,G6 1 per	E2 Remain G3 Remain G6 move to E6 Time: 7 min	E2 move to 5-1A G3 Remain G6 Remain Time: 6 min	E2 Remain G3 Remain G6 Remain	E2 to 1-1 G3 to 1-1 G6 to north 13 Time: 20 min	E2 to G2 G3 to north 1-1 G6 to H1 Time: 14 min
2445 T: Destroy P: Protect Flank of 3-2	I1 2 systems	I1	I1	I1	One sys I1 One sys H2 Time: 20 min	I1
GOAT INFANTRY T: Block P: Prot Flk of 3-3, 6-3	A9 -30	Remain A9 O/O W/D to I1 Time: 15 min	W/D to I1 Time: 20 min	Remain A9	W/D to I1 Time: 20 min	O/O W/D to I1 Time: 20 min
RAMPAGE T: Block P: Prev envel of 3-2	I1 (70)	I1	I1	I1	Move 60 Inf to 1-1 Time: 30 min	I1
ANGEL T: Disrupt P: Protect flank of 1-1	I2 (30) I3 (70)	I2 I3	I2 I3	I2 I3	I2 I3	Move 60 Inf to G1 Time: 30 min

Source: Center for Army Lessons Learned, “Decision Point Tactics,” *CTC Quarterly Bulletin*, no. 97-4 (1st Quarter January 1997): 53.

Although Palmer does not use the term DSM in his definition of DPT he does use the “if–then” language common to DSMs in use today. Table 7, from the Command and

General Staff Officer Course Department of Army Tactics class on step four of MDMP shows the “if-then” concept on a DSM.

Table 7. Department of Army Tactics DSM Example

Decision Support Matrix (DSM)			Operation/Plan ----- Atropia A321	
DP # 	Decision <i>What decision must be made</i>	Criteria/Conditions <i>The criteria is the condition(s) that when met require the decision to be made. 'IF the ENY does</i>	PIR /NAI <i>What PIR(s) and NAI(s) are linked to the DP</i>	Action <i>The action is the response taken to the criteria once the decision has been made. 'THEN we do.....</i>
 Vicinity of: Disruption Zone	Transition to defense	Ariana conventional forces resume offensive operations into AO STINGRAY, attacking into 1 st BCT's flank from the west and from the south with uncommitted forces greater than a <u>Mnvr</u> BN.	<u>Div NAIs</u> 114, 108, 106, 101 <u>Bde NAIs</u> 208, 209	1-113 CAV – defense protecting flank vic OBJ DAVE (Guard Mission) and along PL BMW 1-133 IN defense along PL BMW
 Vicinity of: OBJ DALLAS	Transition to defense	Greater than a reinforced CO of ENY forces in complex battle positions vicinity OBJ DALLAS	<u>Div NAIs</u> 101, 102	1-113 CAV & 1-133 IN go into hasty defense posture until ATK AVN sets conditions to continue attack. Destroying ENY on OBJ DALLAS to NMT a CO-sized force.
 Vicinity of: OBJ DALLAS	Initiate offensive operations (Decisive Ops) – attack on OBJ DALLAS	ENY defeated in disruption Zone LOC Secure CAV prepared to assume AO north of PL CHEVY 32 nd & 4 th ID lead <u>Mnvr</u> elements south of PL CHEVY	<u>Div NAIs</u> 101, 102, 106 <u>Bde NAIs</u> 208, 209,	1-133 IN attacks south 1-113 CAV – Guard Mission in AO 2-135 IN attacks south to OBJ DALLAS
 Vicinity of: OBJ AUSTIN	Initiate offensive operations (Decisive Ops) – attack south of PL FORD vic OBJ AUSTIN	OBJ DALLAS isolated ENY Reserve disrupted	<u>Div NAIs</u> 101, 102, 107, 105 <u>Bde NAIs</u> 201, 203	1-133 IN attacks south 2-135 IN attacks south

Source: Department of Army Tactics, US Command and General Staff Officers' Course, C420, MDMP, October 22, 2018.

Palmer writes, “the commander anticipates making a decision concerning making a decision concerning a specific friendly course of action. This decision is directly associated with threat force activity (action/reaction)” (CALL 1997, 1). The specifically friendly COA is the “then” and the threat force activity of the DPT definition is the “if.”

The final two key words are branch and sequel. Branches and sequels represent the result of making a tactical decision. Neither Palmer nor Alex mention branches and sequels in their definitions of DPT. Alex uses the word branch 50 times in his essay and the word sequel 24 times to describe how the different aspects of DPT determine actions on the battlefield. Although Palmer does not mention branches or sequels while explaining the use of DPT in the offence, he portrays a branch or sequel in all of the COA sketches for the offense, depicted in chapter 2 of this thesis.

The seven concepts identified in this section of chapter 4 as key words answer the first subsidiary research question. DPT is the development and application of the event template and matrix to identify enemy DPs and develop a friendly DST and DSM to help commanders visualize and decide when a branch or sequel must be executed to defeat an enemy COA.

Applying the Key Words to Evaluate Doctrine

After identifying all the key words this thesis uses to evaluate doctrine this section of chapter 4 will apply the evaluation criteria outlined in chapter 3 to analyze doctrine. This section analyses the doctrine in two ways, by doctrinal category and by time. This section will answer subsidiary research questions two, three, and four. Tables 8, 9, 10, and 11 display the results of applying the evaluation criteria.

Table 8. Intelligence Doctrinal Category Evaluation Table

Intelligence	Event Template	Event Matrix	Decision Point	Decision Support Template	Decision Support Matrix	Branch	Sequel
FM 34-3 1990 Intel Analysis							
FM 34-130 1994 IPB							
FM 2-01.3 2009 IPB							
ATP 2-01.3 2014 IPB				 *	 *		
JP 2-01.3 2014 Joint Intel Prep of the OE							
FM 2-0 2018 Intelligence							
ATP 2-01.3 2019 IPB							

 : explained in paragraph or examples used

 : Defined but no examples

 : mentioned or not present

*Found in the Marine Corp Planning Process Appendix

Source: Created by the author.

Table 9. Operations Doctrinal Category Evaluation Table

Operations	Event Template	Event Matrix	Decision Point	Decision Support Template	Decision Support Matrix	Branch	Sequel
FM 100-5 1993 Operations							
FM 3-0 2001 Operations							
FM 3-0 2008 Operations							
FM 3-98 2015 Reconnaissance and Security							
JP 3-0 2017 Joint Operations							
ADRP 3-0 2017 Operations							
FM 3-0 2017 C1 Operations							

 : explained in paragraph or examples used

 : Defined but no examples

 : mentioned or not present

Source: Created by the author.

Table 10. Operations Process Doctrinal Category Evaluation Table

Operations Process	Event Template	Event Matrix	Decision Point	Decision Support Template	Decision Support Matrix	Branch	Sequel
FM 5-0 2005 Planning and Orders Production							
FM 5-0 2010 Operations Process							
FM 5-0 2011 Operations Process							
ADRP 5-0 2012 Operations Process							
JP 5-0 2017 Joint Planning							

 : explained in paragraph or examples used

 : Defined but no examples

 : mentioned or not present

Source: Created by the author.

Table 11. Commander and Staff Organizations Doctrinal Category Evaluation Table

CDR & Staff Organizations	Event Template	Event Matrix	Decision Point	Decision Support Template	Decision Support Matrix	Branch	Sequel
FM 101-5 1997 Staff Organizations and Operations							
FM 6-0 2003 Command and Control of Army Forces							
FM 6-0 2011 Mission Command							
ATTP 5-0.1 2011 Commander and Staff Officer Guide							
FM 6-0 2016 Commander and Staff Organizations and Operations							
ATP 6-0.5 2017 Command Post Organizations and Operations							

 : explained in paragraph or examples used

 : Defined but no examples

 : mentioned or not present

Source: Created by the author.

Analyzing the Evaluation Tables

Analyzing the above tables by doctrinal category reveals two categories that explain the concept of DPT. The intelligence and operational process categories have significantly more positive evaluations for the key words than the operations and commander and staff organizations categories. The intelligence category has 18 positive evaluations with 4 neutral evaluations. The intelligence category has two additional positive evaluations, but because the examples and explanations of the DST and DSM in the 2014 version of ATP 2-01.3 appear in the United States Marine Corps Appendix of the publication so the ATP receives a negative evaluation for DST and DSM. The intelligence category review consisted of six publications for an average of three positive evaluations per publication. The evaluation tables include a joint publication when available as a point of reference for readers to see how Army doctrine aligns with joint doctrine. The analysis of the evaluation tables does not include the joint publications evaluations. The operations process category has 17 positive evaluations and 2 neutral evaluation. The operations process review consisted of four publications for an average of 4.25 positive evaluations per publication. The operations category has seven positive evaluations and four neutral evaluations. The operations review consisted of six publications for an average of 1.75 positive evaluations per publication. The commander and staff organization category have six positive evaluations and two neutral evaluations. The commander and staff organization category review consisted of five publications for an average of 1.2 positive evaluations per publication. The most current versions of ATP 2-01.3, *Intelligence Preparation of the Battlefield*, and FM 5-0, *The Operations Process*, have the most positive evaluations with five each. FM 34-3, intelligence analysis, from

1990 and each version of FM 5-0 have positive evaluations consistent with the current iteration of the publication.

Overall the consistency of publications over time shows Army doctrine has not evolved significantly since the early 1990s in relation to DPT. The intelligence category is the exception. Between the publication of FM 34-3 in 1990 and the publication of FM 2-01.3 in 2009 there is a reduction in positive DPT key word evaluations. FM 34-3 has five positive evaluations, the next iteration of IPB doctrine has two positive evaluations and four neutral evaluations. FM 2-01.3 only has two positive evaluations with the remainder being negative. This trend changes slightly in the 2014 version of ATP 2-01.3. As mentioned in the prior paragraph the 2014 version of ATP 2-01.3 includes examples of a DST and DSM, but only in the Marine Corps Appendix.

The publications for operations process doctrine have experienced a significant evolution. The replacement of FM 5-0 with Army Doctrine Publication 5-0 and ADRP 5-0 in 2012 increases the number of publications to read but has fewer positive evaluations for DPT concepts. FM 5-0 has five positive evaluations and ADRP 5-0 only has two positive and one neutral.

The evolution of the operations category includes an interesting outlier as well. FM 3-98, *Reconnaissance and Security*, is the only doctrinal publication reviewed to include the term DPT. The 2015 version of FM 3-98 is the first and only version of the publication. Even though FM 3-98 mentions DPT three times it only receives one positive evaluation for DP and two neutral evaluations for DST and DSM.

The application of evaluation criteria outlined in the methodology chapter of this thesis to past and current doctrinal publications answers subsidiary research questions

two, three, and four. Subsidiary research questions two, three, and four are; what did US doctrine say about the concept of DPT, what does US doctrine say about DPT now, and how has US doctrine evolved regarding the concept of DPT? US doctrine from the early 1990s explains and provides examples of all seven concepts that make up DPT. FM 34-3, *Intelligence Analysis*, and FM 100-5, *Operations* split the explanation of the concepts, but not equally. Additionally, there is no overlap between the concepts in the two publications. FM 34-3 explained five of the seven concepts. It explains event templates, event matrices, DPs, DSTs, and DSMs. FM 100-5 only explains branches and sequels.

The introduction of FM 5-0, *Planning and Orders Production*, in 2005 provided an overlap in the explanation of DPT concepts. FM 5-0 defined the event template and explained or provided examples of DPs, DSTs, DSMs, branches, and sequels. Unfortunately, the IPB publication from 2009, FM 2-01.3 created another disconnect in the explanation of DPT concepts. FM 2-01.3 only provided examples or explained event templates and event matrices.

The most recent ATP 2-01.3, published in 2019, achieves the standard of five positive evaluations set by FM 34-3. The increase in presence of DPT concepts across doctrine has not improved with the IPB ATP. The fragmentation of FM 5-0 into the ADP and ADRP format and the shuffle of the FM 6-0 series between commander and staff organizations, command and control, mission command, and back to command and staff organizations have increased the disconnect of DPT concepts within doctrine. Currently ATP 2-01.3 provides examples or explains in detail five of the seven DPT concepts. ATP 2-01.3 explains or provides examples of event templates, events matrixes, DPs, DSTs, and DSMs. The current version of FM 3-0 from 2017 only explains branches and sequels.

ADRP 5-0 from 2012 explains DSTs and DSMs. The current version of FM 6-0, *Commander and Staff Organizations and Operations*, explains in detail DPs, branches and sequels.

By answering the subsidiary research questions this thesis can answer the primary research question of; does the Army need to update its decision-making process doctrine to better prepare for large-scale combat operations? Yes, the Army needs to update its decision-making process doctrine to prepare for large-scale combat operations. If a battalion or brigade commander decided they wanted to execute DPT, as stated in FM 3-98, then a new staff officer would have to read ATP 6-0.5, ATP 2-01.3, FM 3-0, ADRP 5-0, and FM 6-0 to understand what DPT are. The staff officer would have to identify golden threads of information to connect the ideas in one publication to another. Chapter 5 of this thesis provides recommendations for how that staff officer can help his or her commander and staff to plan and execute tactical operations in an ambiguous and complex environment against a near peer or peer threat. Chapter 5 will provide recommendations for how the Army should update its decision-making process doctrine to better prepare for large-scale combat operations.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Introduction

This thesis asked the question of; does the Army need to update its decision-making process doctrine to better prepare for large scale combat operations? It concluded; yes, the Army needs to update its decision-making doctrine. To prepare for complex and ambiguous environments against near peer or peer threats tactical commanders and staffs must create flexible plans. Commanders need to make important decisions on the battlefield and staffs must support the commander's ability to make those decisions. DPT, as stated in Army doctrine, "facilitates the successful execution of flexible military operations" (Department of the Army 2015, 4-7).

Conclusions

To successfully execute DPT commanders and staffs must first fully understand what DPT are. Chapter 4 analyzed literature reviewed in chapter 2 to determine what DPT are. DPT are the creation of an event template and matrix to identify multiple possible enemy COAs and develop DPs represented on a DST and DSM to help commanders determine when and where to initiate a branch or sequel. Chapter 4 determined that although doctrine does not define DPT, the concepts of DPT exist within doctrine. Those concepts are event templates, event matrices, DPs, DSTs, DSMs, branches, and sequels.

The most significant barrier to successfully executing DPT is the distribution of DPT concepts across different doctrinal categories and even different publications within

doctrinal categories. Even if doctrine did define what DPT are there is no centralized publication or section of doctrine to educate leaders how to execute DPT. Doctrine fails leaders by not effectively linking the event template and event matrix to decision support aids and the decisions support aids to branches and sequels. If a commander and staff decided they are going to execute DPT they must reference multiple publications and must follow the unspecified links within the concepts of DPT to have a chance of executing a successful flexible operation. ATP 6-05.1, *Command Post Organizations and Operations*, Appendix D, tools for synchronization and making decisions, exemplifies the issue of decision support products lacking a centralized location in doctrine. Appendix D bulletizes synchronization and decision support tools that could be helpful by warfighting function. The mission command section references six different publications, including ATP 6-05.1 and “army doctrine” in general.

Recommendations

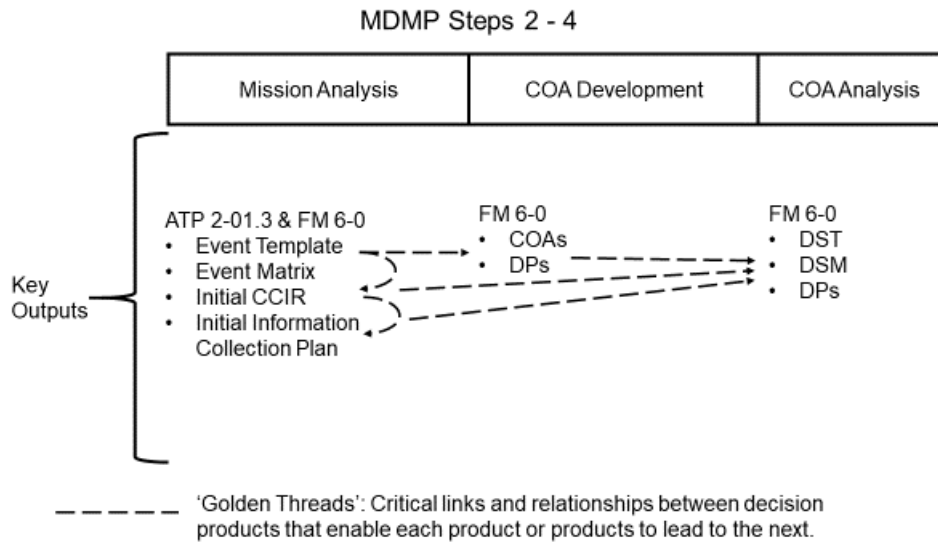
US Army doctrine must define DPT. By defining DPT as the creation of an event template and matrix to identify multiple enemy COAs and develop DPs represented on a DST and DSM to help commanders determine when and where to initiate a branch or sequel. Once doctrine defines DPT, a new ATP should be published to centralize the concepts that make up DPT in one publication. The new publication should be titled: ATP 5-0.2, *Decision Point Tactics*. ATP 5-0.2 would define DPT, explain the individual concepts, provide examples for each template and matrix, and most importantly, explain the links between each one. The evaluation criteria of this thesis applied to ATP 5-0.2 is depicted in table 12.

Table 12. Evaluation of ATP 5-0.2, *Decision Point Tactics*

Operations Process	Event Template	Event Matrix	Decision Point	Decision Support Template	Decision Support Matrix	Branch	Sequel
ATP 5-0.2 2020 Decision Point Tactics							
 : explained in paragraph or examples used  : Defined but no examples  : mentioned or not present							

Source: Created by the author.

These unspecified links, or ‘golden threads’ are important to enable commanders and staffs to effectively and efficiently plan military operations. Figure 23 depicts the ‘golden threads’ as they relate to the DPT concepts and MDMP outputs. Identifying and explaining the ‘golden threads’ is a critical to ATP 5-0.2, *Decision Point Tactics*. If a staff fails to effectively build an event template based on possible enemy COAs than step 2 of MDMP may be completed based on false assumptions or missing information. The false assumptions or missing information may come to light during step 4, course of action analysis. If the staff does identify significant issues during war-gaming than it will have to go back to abbreviated versions of step 2 and 3 to correct their error. If the war game does not reveal the false assumptions or missing information, then the unit will continue to plan and execute an underdeveloped or faulty COA. By using DPT as a framework during MDMP the staff can follow the ‘golden threads’ between decision support products to ensure a flexible plan that allows for successful military operations.



*The 'golden threads' tie to other outputs such as the High Value Target List, High Payoff Target List, and Target Sync Matrix, but those topics are outside the scope of this thesis.

Figure 23. DPT 'Golden Threads' in MDMP

Source: Created by the author.

ATP 5-0.1, *Army Design Methodology* provides an example for how ATP 5-0.2 should be designed. The table of contents of ATP 5-0.1 provides the framework to base the DPT ATP on. After a preface and introduction ATP 5-0.1 has a chapter explaining the fundamentals of Army design methodology. Chapter 2 of ATP 5-0.1 is titled "Getting Started" and explains how to successful employ Army design methodology as an organization. ATP 5-0.1 goes on to have a chapter for each step before providing two appendixes. Appendix A explains challenges an organization will face in critical and creative thinking during Army design methodology. Appendix B provides a vignette to demonstrate Army design methodology being used by a planning team. ATP 5-0.2 could use a similar format. Chapter 1 would cover the fundamentals of DPT. Chapter 2 would discuss how to begin planning to execute DPT; specifically, what areas of MDMP would

need emphasis. The following chapters would explain the development and employment of each decision support aid. Lastly, appendixes would lay out the challenges a unit faces in planning and executing DPT and a vignette on DPT being successfully employed by a unit.

Recommendations for Future Research

DPT rely heavily on the foundation of MDMP, but MDMP does not efficiently support the execution of DPT. Not identifying potential DPs until after step four, COA analysis, of MDMP is too late in the planning process to effectively link a DP to IC requirements and the IC plan developed during step two, mission analysis. A study of how to effectively reorder the key outputs of MDMP to more efficiently support DPT could support commanders and staffs to better execute DPT.

Much of the research around DPT focuses on the intelligence and maneuver warfighting functions. The other warfighting functions must be involved to develop effective COAs. The nature of flexible operations consisting of multiple branches and sequels could become a nightmare for the fires, sustainment, and mission command warfighting functions. Further research into the fires warfighting function could be particularly interesting because targeting decision products like the target synchronization matrix, attack guidance matrix, and high-payoff target list are connected to the event template and decision support template with ‘golden threads.’ Research into the feasibility of executing DPT with current fires, sustainment, and communications constraints would be invaluable to maneuver commanders.

REFERENCE LIST

- Adamski, LTC Michael, and LTC Scott Pence. 2019. "Thriving in Uncertainty." *Military Review* (March-April): 54-63.
- Alex, MAJ Carl A. 2000. "Process and Procedure: The Tactical Decision-Making Process and Decision Point Tactics." Master's Thesis, Command and General Staff College, Fort Leavenworth, KS.
- Center for Army Lessons Learned (CALL). 1997. "Decision Point Tactics." *CTC Quarterly Bulletin*, no. 97-4 Special Edition (1st Quarter January).
- Department of the Army. 2019. Army Techniques Publication (ATP) 2-01.3, *Intelligence Preparation of the Battlefield*. Washington, DC: GPO.
- . 2018. Field Manual (FM) 2-0, *Intelligence*. Washington, DC: GPO.
- . 2017a. Army Doctrine Reference Publication (ADRP) 3-0, *Operations*. Washington, DC: GPO.
- . 2017b. Army Techniques Publication (ATP) 6-0.5, *Command Post Operations and Organizations*. Washington, DC: GPO.
- . 2017c. Field Manual (FM) 3-0, *Operations*. Washington, DC: GPO.
- . 2016. Field Manual (FM) 6-0, *Commander and Staff Organizations and Operations*. Washington, DC: GPO.
- . 2015. Field Manual (FM) 3-98, *Reconnaissance and Security*. Washington, DC: GPO.
- . 2014. Army Techniques Publication (ATP) 2-01.3, *Intelligence Preparation of the Battlefield*. Washington, DC: GPO.
- . 2012. Army Doctrine Reference Publication (ADRP) 5-0, *The Operations Process*. Washington, DC: GPO.
- . 2011a. Army Tactics, Techniques, and Procedures (ATTP) 5-0.1, *Commander and Staff Officer Guide*. Washington, DC: GPO.
- . 2011b. Field Manual (FM) 5-0, *The Operations Process*. Washington, DC: GPO.
- . 2011c. Field Manual (FM) 6-0, *Mission Command*. Washington, DC: GPO.
- . 2010. Field Manual (FM) 5-0, *The Operations Process*. Washington, DC: GPO.

- . 2009. Field Manual (FM) 2-01.3, *Intelligence Preparation of the Battlefield*. Washington, DC: GPO.
- . 2008. Field Manual (FM) 3-0, *Operations*. Washington, DC: GPO.
- . 2005. Field Manual (FM) 5-0, *Planning and Orders Production*. Washington, DC: GPO.
- . 2003. Field Manual (FM) 6-0, *Command and Control of Army Forces*. Washington, DC: GPO.
- . 2001. Field Manual (FM) 3-0, *Operations*. Washington, DC: GPO.
- . 1997. Field Manual (FM) 101-5, *Staff Organizations and Operations*. Washington, DC: GPO.
- . 1994. Field Manual (FM) 34-130, *Intelligence Preparation of the Battlefield*. Washington, DC: GPO.
- . 1993. Field Manual (FM) 100-5, *Operations*. Washington, DC: GPO.
- . 1990. Field Manual (FM) 34-3, *Intelligence Analysis*. Washington, DC: GPO.
- Department of Defense. 2017a. Joint Publication (JP) 3-0, *Joint Operations*. Washington, DC: GPO.
- . 2017b. Joint Publication (JP) 5-0, *Joint Planning*. Washington, DC: GPO.
- . 2014. Joint Publication (JP) 2-01.3, *Joint Intelligence Preparation of the Operating Environment*. Washington, DC: GPO.
- Hastings, Alan. 2017. “The Donovanian Mechanized Infantry Battalion in the Attack: A Vignette on Decision Points in the Offense.” *The Tactical Leader Blog*, April 24. Accessed January 6, 2019. <https://www.thetacticalleader.com/blog/2017/4/24/the-donovian-mechanized-infantry-battalion-in-the-attack>.
- Kem, Jack D. 2012. *Planning for Action: Campaign Concepts and Tools*. Ft. Leavenworth, KS: US Army CGSC.
- Klein, Captain Gary, and Captain Alan Hastings. 2016. “Decision-Support Planning and Tools: Planning to Support Decision-Making.” *Armor: Mounted Maneuver Journal* (April-June): 32-38.
- Turabian, Kate L. 2018. *A Manual for Writers of Term Papers, Theses, and Dissertations*. 9th ed. Revised by Wayne C. Booth, Gregory G. Colomb, Joseph M. Williams, Joseph Bizup, William T. Fitzgerald, and the University of Chicago Press Editorial Staff. Chicago: University of Chicago Press.

US Army Command and General Staff College (CGSC). 2018. Student Text (ST) 20-10, *Master of Military Art and Science (MMAS) Research and Thesis*. Ft. Leavenworth, KS: US Army CGSC, August.

Weber, Robert Philip. 1990. *Basic Content Analysis*. 2nd ed. Publications: Newbury Park, CA: Sage Publications.