Revising the MDMP for Mission Command

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War is a complex endeavor against a living and thinking enemy. This enemy, who has its own plans and desires to win, adds to the complexity of combat operations and gives credence to Helmuth von Moltke the Elder's assertion that "No plan survives contact with the enemy."[1] The complexity of war is an enduring aspect of its nature. Today we try to use technology (Joint Capabilities Release, Command Post of the Future, Joint Battle Command - Platform, etc.). However, experience has shown that no matter how much technology we develop to lift the "fog of war," Carl von Clausewitz's friction will continue to exist.[2] In order to mitigate the fog of war's impact, we need to change how we plan and invest in our commanders, staffs, and future commanders.

Today commanders at the battalion level and higher use the military decision-making process (MDMP) to plan training and combat operations. The MDMP consists of seven well-defined steps with clear inputs and outputs for each step (see Figure 1).

This highly structured nature makes it easy to teach, learn, and use. According to Field Manual (FM) 6-0, *Commander and Staff Organization and Operations*, the MDMP is designed for handling well-structured problems, but it can

Key inputs	Steps	Key outputs
• Higher headquarters' plan or order or a new mission anticipated by the commander	Step 1: Receipt of Mission	• Commander's initial guidance • Initial allocation of time
		Warning order
• Commander's initial guidance • Higher headquarters' plan or order • Higher headquarters' knowledge and intelligence products • Knowledge products from other organizations • Army design methodology products	Step 2: Mission Analysis	• Problem statement • Mission statement • Initial commander's intent • Initial planning guidance • Initial CCIRs and EEFIs • Updated IPB and running estimates • Assumptions • Evaluation criteria for COAs
		Warning order

• Mission statement
• Initial commander's intent, planning guidance, CCIRs, and EEFIs
• Updated IPB and running estimates
• Assumptions
• Evaluation criteria for COAs
	Step 3: Course of Action (COA) Development	• COA statements and sketches
		  - Tentative task organization
		  - Broad concept of operations
		• Revised planning guidance
		• Updated assumptions

• Updated running estimates • Revised planning guidance • COA statements and sketches • Updated assumptions	Step 4: COA Analysis (War Game)	• Refined COAs • Potential decision points • War-game results • Initial assessment measures • Updated assumptions
• Updated running estimates • Refined COAs • Evaluation criteria • War-game results • Updated assumptions	Step 5: COA Comparison	• Evaluated COAs • Recommended COAs • Updated running estimates • Updated assumptions
• Updated running estimates • Evaluated COAs • Recommended COAs • Updated assumptions	Step 6: COA Approval	• Commander approved COA and any modifications • Refined commander's intent, CCIRs, and EEFIs • Updated assumptions
		Warning order
• Commander approved COA and any modifications • Refined commander's intent, CCIRs, and EEFIs • Updated assumptions	Step 7: Orders Production, Dissemination, and Transition	• Approved operation plan or order • Subordinates understand the plan or order
CCIR commander's critical information requirement COA course of action		EEFI essential element of friendly information IPB intelligence preparation of the battlefield

Figure 1 — Key Inputs and Outputs of the Military Decision-Making Process
(FM 6-0, *Commander and Staff Organization and Operations*)

be used for medium-structured problems, if iterated.[3] The FM also states, "Performing all steps of the MDMP is detailed, deliberate, and time-consuming."[4] To add to the time-consuming nature of the MDMP, users have a tendency to become hyper focused on finding the unattainable perfect plan over the one that will work, moving away from General Patton's maxim that "A good solution applied with vigor now is better than a perfect solution applied 10 minutes later."[5] We must move away from a process that is designed for well-structured problems in a linear and time-consuming system when warfighting is complex in nature — making it therefore a potentially ill-structured problem.

The MDMP, founded on a classic/analytical decision-making model, is ill-suited for a complex environment such as warfighting and should be replaced with a heuristic-based model such as the Recognition Primed Decision Model.[6] A heuristic-based model is usually more effective in a complex system and easier to implement than a highly structured model like the current manifestation of the MDMP.[7] In order to improve our ability to improve tactical planning above the company level, I propose a two-pronged approach focusing on decision making and the planning process. These are the backbone of the MDMP: the commander making a decision on a course of action (COA) and then planning it with the staff. A complete overhaul of the process is necessary in order to provide our commanders and staff with doctrine that enables rapid decision making which is better suited to a fast-paced environment. We cannot produce a flexible plan capable of adapting to the situation on the ground if the decision-making process is slow, clunky, and ill-suited for 21st century warfare.

Decision Making

The flaw in the decision-making aspect of the MDMP lies with its basis on a linear model. Linear systems only work if there are no unknown variables, such as operating a machine or purchasing food at a grocery store. However, this is never the case in a complex system such as a combat environment, an environment with many interconnected known and unknown variables. In order to improve the Army's approach to decision making, we must address the gaps in its professional military education (PME) and the doctrinal decision-making model.

The first step to change is how to educate our officers and prepare them for making decisions in combat. Officers need to be comfortable with uncertainty. Incorporating Complexity Theory into the PME curriculum at the Captains Career Course level has the potential to improve a leader's grasp of a combat environment.[8] This field of study focuses on understanding how complex systems (such as a combat environment, business, etc.) evolve, act, and perform.[9] Complexity Theory is vital in our PME to enable future battalion and brigade staffs and company commanders to make more informed decisions based on real-time information. The understanding of and comfort with uncertainty helps staff and commanders make more informed decisions about how to interpret and act within a combat environment.[10] Ultimately this will lead to commanders and staffs accepting that they cannot fully understand a complex system and that in order to win on today's battlefields, decentralized decision making is indispensable.[11]

The second task is to improve the model upon which we make decisions. Under current MDMP doctrine, the Army uses classic/analytical decision making.[12] Utilizing this model, an individual analyzes a problem and arrives at a decision through several sequential steps. This model demands linear thinking, disregarding the need for an understanding of the environment as a whole.[13] It produces a single answer that is applicable only to a single, well-defined problem (for example, buying a car). A model like this is ill-suited for making decisions in complex environments like combat.

A more promising decision-making model is the Recognition Primed Decision Model which MAJ Wilson Shoffner explored in his 1999 School of Advanced Military Studies (SAMS) monograph (see Figure 2).[14]

This model is reliant on heuristics that the decision maker has developed over time through his or her experiences.[15] While heuristics are not guaranteed to produce the correct decision, they are significantly less time consuming than the current decision-making methodology. In a test of the Recognition Primed Decision Model, more than 85 percent of the decisions made were made in less than one minute.[16] The current form of the MDMP takes hours if not days to complete. Within this time frame, how much could change in an operating environment that voids our assumptions and drastically changes our understanding of our situation? The reduction in time required to make a decision is the result of a decision maker's experience, resulting in a leader's cultural bias being the limiting factor rather than the time lost and subsequent variable changes during said time.
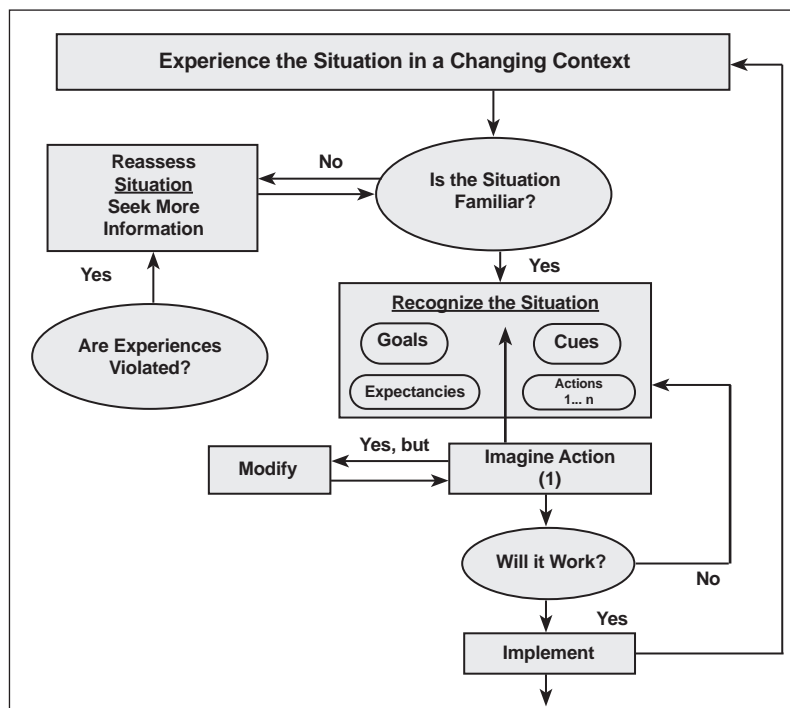
Figure 2 — Recognition Primed Decision Model (MAJ Wilson A. Shoffner, "The Military Decision Making Process: Time for a Change")

Ultimately, using the Recognition Primed Decision Model allows us to have a faster OODA (observe-orient-decide-act) Loop by producing a good plan now instead of the possibility of a better plan later. If leaders are abhorrently inexperienced and naïve, they may not have built their own heuristics to aid in problem solving. However, this can be mitigated by revamping tactics education and continuing to select officers for command positions after serving in select key developmental (KD) positions at the previous grade. Field grade commanders should have developed some heuristics from their experiences as a field grade and company grade commander and staff officer.

In order to overcome this drawback, the Army can use PME to give leaders experience they might otherwise only gain through holding a position. One option for this is to rely heavily upon war gaming, such as tactical decision exercises (TDEs), as a means to solve problems and build experience. TDEs offer students the ability to tackle a problem in a time-constrained environment and then defend their chosen COA against peer and instructor scrutiny. TDEs and war gaming offer leaders the ability to make bold decisions and see the results in a low-risk environment. While war games are not a perfect analog for a combat environment, they enable decision makers to start building their heuristics and can encourage our leaders to take bold actions in a safe situation instead of settling for a safe and uninspiring plan.

Planning

One of the main problems with how the MDMP is implemented is that it produces one, and only one, COA for detailed planning. This plan is inherently fragile because it is designed in a linear system but is to be applied in a complex combat environment. A plan produced in this manner is rigid and does not account for the enemy's vote, significantly decreasing the plan's value over time and especially after first contact.[17] In addition to a fragile plan, the process utilized to arrive at the plan is time intensive, which limits the amount of time for subordinate units to prepare while also providing the enemy ample time to render the plan less effective.

In order to make the Army's planning process better suited for complex systems, the MDMP's replacement must produce a plan that gives maximum flexibility to subordinates with optionality for the senior commander; optionality is the ability to choose a new COA but not being required to.[18] This will make the resulting plan more resilient in the complex combat environment.

For our commanders to issue highly flexible plans we need to change the development process. Our planning doctrine is based on the science of control and driven from the top down with some bottom-up refinement.
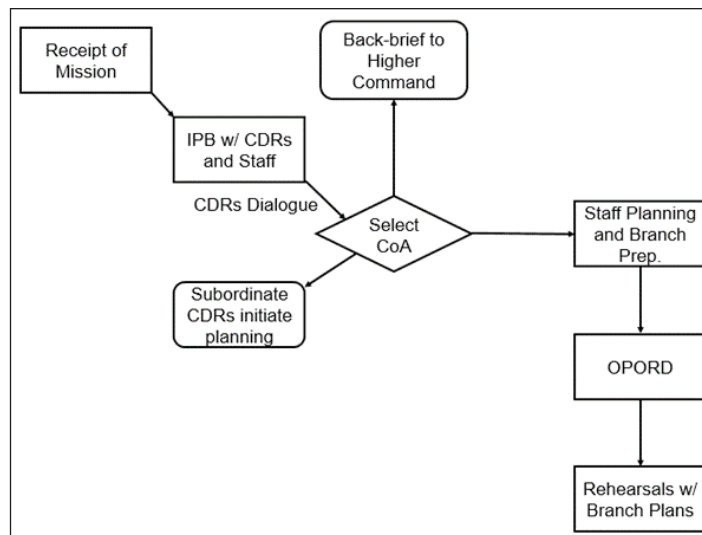
**Figure 3 — New Planning Method Incorporating
Decision Point Tactics**

We need to change course and flip the emphasis to bottom-up refinement. This would be accomplished by the processes seen above in Figure 3:

1. Intelligence Preparation of the Battlefield (IPB)

All commanders and staff in the organization would participate in IPB, allowing all stakeholders to have a thorough understanding of the situation. This must be a full reverse warfighting function IPB, with every warfighting function represented. In order to facilitate shared understanding of the situation, this step should be allocated as much time as possible.

2. Commander's Dialogue

After gaining an understanding of the situation, the senior commander uses the Recognition Primed Decision Model to lead a dialogue with his subordinate commanders. The purpose of this dialogue is to identify possible enemy and friendly COAs and leverage all of the participants' heuristics, gained from their experiences, in order to decide on a COA quickly. This dialogue lays the groundwork for branch plans, allowing the organization to rapidly react to the complex environment it is operating in. Staff members must be present for this dialogue so they know potential branch plans and understand how the commander visualizes the battlefield.

3. COA Selection

The senior commander selects a COA and provides the staff and subordinate commanders with the unit's mission/ objective, intent, tasks, and purposes. The subordinates then develop their concept and report back to the senior commander. During the back brief, the senior commander makes the modifications necessary to ensure the shaping operations support the decisive operation and that the unit's mission will be accomplished (see Figure 4). This is similar to how Germany's Bundeswehr creates tactical plans and is well nested within the principles of mission command.[19]

4. Staff Planning and Branch Preparations

The commander's staff then takes the subordinate plans and uses decision point tactics (DPT) to achieve optionality for the commander. The DPT method of planning was developed at the National Training Center (NTC) in response to the inadequacies identified in the MDMP.[20] The resulting plan from DPT is highly flexible because it is a base COA, which the commander has already approved, with multiple "decision points" for the commander based off conditions on the ground. At these decision points, the commander can re-allocate resources, change the task and purpose of subordinates, or change nothing as the conditions dictate. By having a loose plan with multiple options to exploit opportunities as they present themselves, the commander gains a position of relative advantage over the enemy.

A side effect of optionality is that it offers the commander the opportunity to create a "Black Swan" event. A Black Swan event is an unpredictable event, which completely disrupts a system.[21] Black Swan events tend to be bold
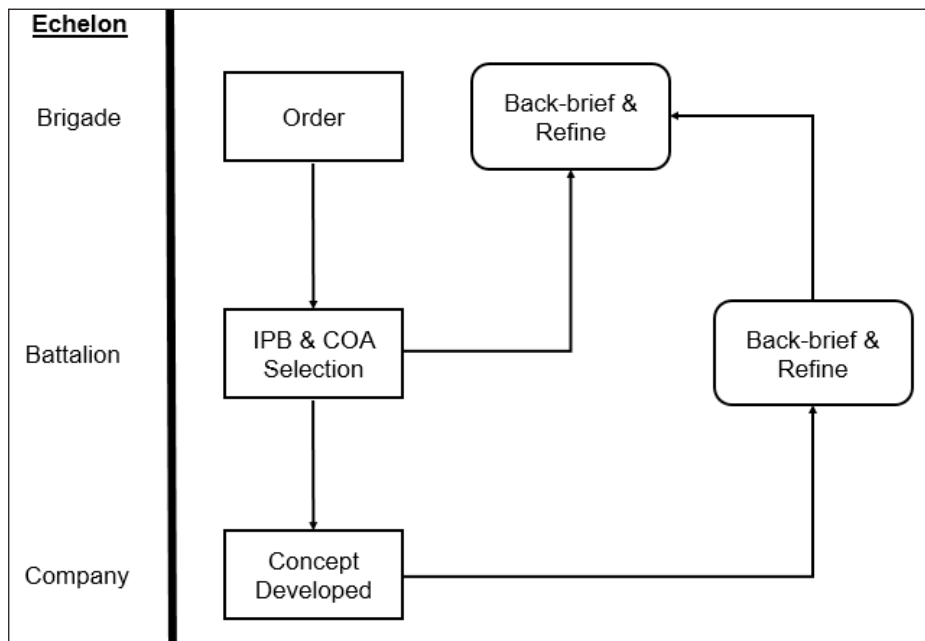
Figure 4 — COA Selection and Refinement at Echelon

actions taken when the enemy presents exploitable opportunities. Historic examples of Black Swans are: World War I, 9/11, economic bubbles, and whoever is number one on the *New York Times'* best seller list. These Black Swan events have the potential to significantly disrupt the enemy and force them to react to our plan.

As with any decision, there are risks associated with revising the MDMP. Under this framework, there is the risk that fewer details will be fully worked out and not all coordinations (vertically and laterally) will have been made. Additionally, the proposed changes would require significantly more communication up, down, and laterally to ensure shared understanding, although this could be mitigated with additional standing operating procedures and familiarity with the senior commander's heuristics. Finally, depending on how long the IPB, commander's dialogue, and COA selection take, subordinate commanders could be pulled away from their formations for an extended period of time.

Conclusion

The current operating environment is fast paced — too fast and complex for our current MDMP doctrine. In its current manifestation, the MDMP is too slow and top-down driven to enable our commanders to fight and win in a complex world. Our classic/analytical decision-making model is ill-suited for combat, a complex environment, and should be replaced with a heuristic-based model such as the Recognition Primed Decision Model. Once the commander has decided how to approach the mission/objective, planning needs to be driven from the bottom up, with refinement from the top. This method of planning will create a more flexible plan and ensure that subordinates have bought in to the mission/objective. The commander's staff can then use DPT to help the commander determine decisions that may need to be made as the battle develops.

These changes will be difficult to implement at first; we will be undoing how we have approached planning since 1968.[22] That is three full generations that we will need to overcome. However, war is not a static environment; the situation at hand does not remain unchanged for long, so why does our decision-making process not reflect the dynamics of the modern battlefield?

Notes

[1] Daniel J. Hughes, *Moltke on the Art of War: Selected Writings* (NY: Presidio, 2009), 92.

[2] Donald Vandergriff and Stephen Webber, ed., *Mission Command II: The Who, What, Where, When, and Why, an Anthology, Volume II* (CreateSpace: Independent, 2018), 124-128.

[3] FM 6-0, *Commander and Staff Organization and Operations* (2016), 4-1.

[4] Ibid, 9-4.

[5] Charles M. Province, *The Unknown Patton* (NY: Random House, 1983), 165.

[6] MAJ Wilson A. Shoffner, "The Military Decision Making Process: Time for a Change" (monograph, School of Advanced Military Studies, 1999).

[7] Nassim Taleb, *Anti-Fragile* (NY: Random House, 2012), 11.

[8] COL Thomas X. Hammes, *The Sling and The Stone: On War in the 21st Century* (Minneapolis: Zenith Press, 2006), 287.

[9] Jun Park, "An Introduction to Complexity Theory," *Medium*, 8 October 2017, https://medium.com/@junp01/an-introduction-to-complexity-theory-3c20695725f8 (accessed 10 September 2019).

[10] Hammes, *The Sling and The Stone,* 285.

[11] Ibid, 285.

[12] Shoffner, "The Military Decision Making Process," 18.

[13] Ibid, 19.

[14] Ibid, 23.

[15] Ibid, 23.

[16] Ibid, 25.

[17] Taleb, *Anti-Fragile*, 11.

[18] Ibid, 174.

[19] Vandergriff and Webber, *Mission Command II.*

[20] LTC Peter Palmer and CPT Jim Crider, "Decision-Point Tactics," *CTC Quarterly Bulletin*, no. 97-4 (January 1997): 1.

[21] Nassim Taleb, *The Black Swan* (NY: Random House, 2010), xxii.

[22] Shoffner, 6.

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