

US Army Decisionmaking: Past, Present and Future

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After tracing the history of Army decisionmaking doctrine, the author proposes wide-ranging examination of our procedures, organizations and culture. In the end, the military decisionmaking process emerges as a valuable tool for coordinating intuition with analysis, task with purpose, plans with operations, and the present with the future.

RUDIMENTARY military staff organization and procedures have developed since 2000 B.C., beginning probably with the armies of early Egypt. But, according to James D. Hittle, a historian of the military staff, the modern staff system did not emerge until late in the 19th century, even later for the US Army. Hittle postulates that modern staff systems have certain features:

- A regular education system for training staff officers.
- Delegation of authority from the commander.
- Supervised execution of orders issued by or through the staff.
- A set method of procedure by which each part performs specific duties.¹

Hittle's proposed characteristics would certainly describe the successful formation of the Prussian *Generalstab* (general staff) under General Helmuth von Moltke in the latter 19th century. The *Generalstab* was largely responsible for orchestrating Germany's rapid defeat of France in 1870. During the industrial age, military theory began viewing armies as machines of the nation-state. Detailed algorithms of mobilization, rail schedules and troop

movements became the business of army staffs as keys to decisive victory. In von Moltke's time, the Germans proved that an army that could plan detailed requirements, orchestrate capabilities rapidly and implement them precisely would win large-scale wars of national mobilization.

The *Generalstab*'s power eventually usurped civilian policy because the exhaustive, inflexible military decisionmaking process (MDMP) and planning actually drove political decisions. The best example of this was at the beginning of World War I when Germany executed the Schlieffen plan. Named for Alfred von Schlieffen, head of the *Generalstab* from 1892 to 1906, the Schlieffen plan called for swift victory against France through a flanking attack across neutral Belgium. The greatest flaw in the plan was the *Generalstab*'s assumption that victory would come in six weeks, thereby allowing Germany to respond to the expected sluggish Russian mobilization on a potential eastern front.² The Schlieffen plan case shows that excellence in planning alone will not overcome a flawed military strategy or concept of operations; operations "may fail not only by being unsuccessfully implemented,

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but also by being successfully implemented then proven inadequate.”³

The US form of government makes forming a *Generalstab*-like military staff unlikely, even distasteful. Civil authority over the military is vested in the US Constitution, making the military purposely subservient to civilian decisionmakers and the Constitution itself. Nevertheless, modern nations have adopted ideas from the German staff model.

History of Modern US Army Staff Officers' Doctrine

As the Schlieffen plan was being developed and the world drew closer to World War I, the US Army lacked published staff doctrine. The 1910 publication, *Regulations for Field Maneuvers*, did not include a description of staff processes; a 1914 field service regulation (FSR) mentioned the need for a commander and staff estimating process but did not describe one.⁴

Following World War I, the 1924 version of the FSR included doctrinal formatted orders with required annexes, maps and tables. Still, the FSR stated only that leaders should “first make an estimate of the situation, culminating in a decision upon a definite plan of action.”⁵ No procedural steps were provided to explain this process.

In 1932 the *Staff Officers' Field Manual* compiled “principles, information and data to be used as a guide for the operation of staffs of all units and territorial commands, in peace and war, rather than a set of rules and regulations to be rigidly and blindly followed.”⁶ The manual provided a comprehensive command and staff doctrine on which modern procedures are based. Orders formats were more detailed than in the 1924 FSR, and explanations of staff functions and the commander's estimate were more complete.

In 1940 the Army began expanding to prepare for World War II, growing to more than eight million soldiers by the end of the war. The scale and complexity of military decisionmaking and planning made staff work proportionately more intricate; thus, staff doctrine expanded with the Army. The August

1940 US Army Field Manual (FM) 101-5, *Staff Officers' Field Manual: The Staff and Combat Orders*, increased the scope and depth of staff doctrine beyond the 1932 version.

A new method of using draft staff officers' doctrine emerged after World War II. The US Army Command and General Staff College (CGSC) published draft staff officers' doctrine to update frequently changing terms and procedures. The 1949 CGSC draft, for example, emphasized the planning process rather than the orders format. Later CGSC versions were published as numbered reference books and student texts under various titles and formats.⁷

The July 1950 FM 101-5, *Staff Officers' Field Manual: Staff Organization and Procedures*, the next officially published staff doctrine, added the administrative commander's estimate, focusing on analysis for supporting an operation.⁸ This manual was a logical evolution of the 1949 CGSC draft FM 101-5.

The November 1954 FM 101-5 made the commander's estimate a part of an overall estimate of the situation and added specific staff estimates for personnel, intelligence, operations, logistics, civil affairs, military government and deception. Interestingly, the deception estimate fell out as a stand-alone estimate in the next version and has not reappeared in staff doctrine. The manual adopted the basic five-step analysis associated with the commander's estimate process and added conclusions or recommendations to paragraph five to supplement the decision step. This version also added atomic weapons and chemical, biological and radiological effects as factors of analysis.⁹

In June 1968 more detailed procedures were published while preserving the basic doctrinal concepts. Wiring diagrams and process flowcharts depicted multiple players with plans, orders and estimate processes occurring simultaneously. Estimate procedures were presented as military problem-solving techniques and further shown to be Standardization Agreement (STANAG) 2118; hence, US Army doctrine for staff planning took on an allied flavor for the first time. Additionally, for the first time, procedures differentiated between the operation order (OPORD) and operation plan (OPLAN). Also noteworthy was the introduction of planning assumptions to “fill the gaps in knowledge of what conditions probably will be.”¹⁰

While the July 1972 FM 101-5 contained few substantive changes from the 1968 version, it introduced the administrative staff study to separate the MDMP for administration from combat operations.¹¹ Replacing the administrative commander's estimate, the staff study outlined six steps to administrative problem solving: problem, assumptions,



German stormtroopers in France, circa 1916. The failed Schlieffen plan aimed for a swift victory against France through a flanking attack across neutral Belgium. A contemporary observer stated that when the operation broke down, shell holes became trenches and the trenches eventually became an elaborate defensive system several miles deep.

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facts, discussion, conclusions and action recommended.¹² It also introduced a model showing the sequence of commander and staff actions that more clearly developed the idea of simultaneous and interactive staff and commander’s MDMP actions. The model flowchart separated nine staff and commander’s actions. Actions that involved making synthesized decisions were on the commander’s side of the chart; actions requiring detailed analysis were primarily on the staff’s.¹³

The 1984 version, retitled *Staff Organization and Operations*, implemented no fewer than eight STANAGs, indicating more purposeful NATO interoperability. For the first time, Army staff doctrine discussed the joint planning process and included a more comprehensive discussion of specialized staff roles and organization. MDMP changes included adding rehearsals as a new doctrinal step and expanding the MDMP flowchart to show feedback to the staff estimate, mission analysis and commander’s estimate. The MDMP doctrine now recognized that while supervising decision execution, emergent factors influence changes in mission and commander’s concept—a decision that remains a continuous and interactive process within the MDMP.

Finally, the 1984 edition added a special appendix, “Emerging Staff Techniques and Procedures,” which provided a “forum for brief discussion of Armywide initiatives in staff techniques and procedures developed to enhance the effectiveness of staff operations in the face of emerging doctrine and rapidly changing technology.”¹⁴ This was an official invitation to open discussion and dialogue, especially about up-and-coming information technologies such as the maneuver control system, micro-processor systems, teleconferencing, facsimiles and decision graphics.

After many CGSC student text drafts, FM 101-5 was again updated and published in 1997. It devoted a chapter to staff officer characteristics, reflecting contemporary management influences; it explained the most intricate procedural aspects of MDMP with a complex, 38-step procedure; it contained more detailed examples for completing plans, orders and annexes; it had a separate appendix on information management; it introduced the concept of the commander’s critical information requirements; and it detailed the concepts, duties and responsibilities of liaison officers based on lessons learned from coalition operations in the Gulf War. Also noteworthy was the absence of any link to STANAGs.¹⁵

The 1997 edition introduced commander's intent in Army staff doctrine, a concept that had been experimented with at length at CGSC and in Army operations and training. Commander's intent, along

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Modern MDMP's Multiple Dimensions

Modern MDMP is a multidimensional undertaking with the decisionmaker, environment, organization (vertical and horizontal), planning, learning and procedures its major aspects. Many decisionmaking models (most are procedural) have been developed to assist decisionmakers in other than military organizations. However, researchers studying decisionmaking in civilian organizations have found that decisions appear to be somewhat arbitrary and not necessarily based on the best possible course of action. Hence, one purpose of the Army's doctrinal MDMP is to ensure that defining a problem and choosing the best course of action is not randomly matching variables but a deliberate action.

The decisionmaker is the central MDMP element. Effective military decisionmakers do not necessarily occupy formal leadership positions or have senior rank. Future military operations in a dispersed and noncontiguous battle space will likely distribute authority and decisionmaking. Soldiers operating remote sensing devices, uninhabited vehicles or precision-guided munitions, for example, may operate autonomously and make critical decisions affecting the outcome of military operations.

Good decisionmakers can employ both intuitive and analytic skills. Intuition is an unconscious appreciation of patterns of operations—a synthesis process. It reflects understanding that fosters the ability to achieve workable solutions even when in-

formation for making that decision is inadequate or unavailable. Conversely, analysis is conscious reasoning based on decomposition and manipulation of a situation. It is a methodical process that seeks knowledge in complex environments and involves a step-by-step, systematic procedure.¹⁶ Decisionmakers display sound judgment—a blend of intuition and analysis—when they chose well among options despite uncertainty and ambiguity.¹⁷

Good decisionmakers tend to use heuristics or speculative general rules that aid in problem solving by directing the search or decreasing the amount of information searched.¹⁸ While Army professionals are likely to develop similar heuristics, education, experience, intelligence and personality will affect differences among decisionmakers.¹⁹ Military educational institutions use historical analogies and case studies to foster heuristic decisionmaking, formulate creative stratagems and develop critical thinking skills.²⁰

Visualization, a related concept to heuristics, is a decisionmaker's ability to picture what lies ahead. Good decisionmakers, like good chess players, think downboard to envision second- and third-order effects of decisions and develop branches and sequels to current or planned operations. Often specialized staffs—think tanks or futures groups—assist decisionmakers in the visualization process.²¹

Army decisionmakers rely on learned values that affect decisions and planning:

- Truth (through analysis—the scientific method).
- Power (in being part of a team that creates the national element of power).
- Goodness and virtue (high ethical and moral standards).
- Aesthetics (appreciation for the art of decisionmaking, the satisfaction and beauty of formulating

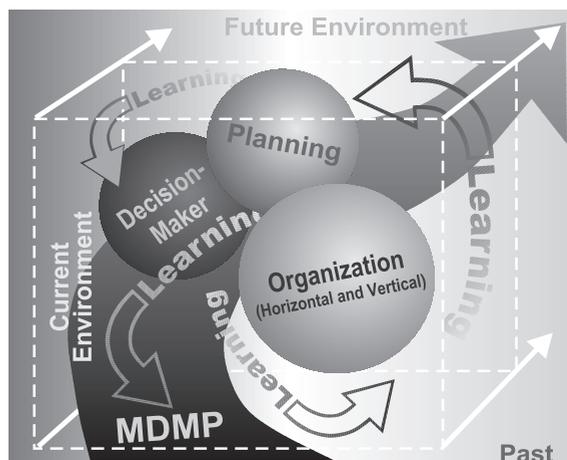


Figure 1. Multiple Dimensions of MDMP

Members of Lockheed's Advanced Development Projects Division, or "Skunk Works," prepare the first F-117 stealth aircraft for an engine test, spring 1981. This team carried the project from concept to design to prototype.

Lockheed Martin Aeronautics Company



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The environment. MDMP addresses three environmental settings—the past, present and future. Future environments exist under varying conditions of certainty, so decisions have varying degrees of flexibility and risk. Flexibility flows from available choices—how much force should remain in reserve and where; how many concept plans for branches and sequels should be developed; what kind of maneuver (attack or defend) should be employed. Risk is the residual variance of rational choice or the decision's stability—whether underlying assumptions about the environment or the effects of the decision on the environment hold true. Risk may be accepted, for example, by some measure of available force readiness or the enemy's known readiness. Less flexibility (stronger commitment to a single choice) and less risk (more stability) are characteristics of decisions made with certainty, while the opposites may be true under conditions of greater uncertainty. The availability and quality of information about the environment—past, present

and future—produce variances in knowledge and understanding of what has happened, what is happening and what will happen.

Vertical aspects of MDMP. Decisionmakers must understand how decisions concerning tactics, operations, strategies or policy nest in higher-level organizations. The same MDMP principle applies to ensuring that subordinates understand the commander's intent. A recent MDMP study demonstrated that successful commanders best impart their intent through a healthy command climate, telling subordinates what and not how (mission-type orders), explaining how they arrived at their decision (their thinking process), good feedback mechanisms (subordinate access to the superior's MDMP) and being familiar with their subordinates (a measure of trust).²³

Status is another aspect of vertical organizational influence on MDMP. Especially under conditions of stress, those with less military rank or on a lower organizational level tend to defer to others of higher rank and organizational level. The result may be overcentralized decisionmaking.²⁴

Horizontal (group) aspects of MDMP. Group military decisionmaking is a corollary to conflict management in various organizations. Conflict is eliminated, often incrementally, through consensus and through loosely coupled decisionmaking



systems when efforts to seek consensus fail.²⁵ In operations involving joint and combined military organizations or other agencies and nongovernment organizations, consensus building and a more loosely coupled MDMP have proven useful.

Loosely coupled processes try to make sense of seemingly random systems using decentralization,

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delegation, vague language, vague expectations, and coaching and educating through talk and action.²⁶ Loosely coupled operations permit greater freedom of action and variation in execution—allowing participants broader latitude without adversely affecting the operation.

Planning aspects of MDMP. In large Army organizations, such as corps and divisions, near-term decisions (current operations) are always nested in long-term decisions (plans). To plan is to design a desired future (ends) and orchestrate effective ways and means of bringing it about. A plan is anticipatory decisionmaking that involves a set of interdependent decisions. The process is continuous and has no conclusion or end point. What separates strategic planning from operational and tactical planning is largely the difficulty of reversing its effects during execution.²⁷

Military planning shifts the decisionmaking load to earlier periods of relative inactivity.²⁸ This was certainly true with the XVIII Airborne Corps during Operation *Desert Shield* where planners focused MDMP on incremental defensive planning during the force buildup phase. That plan changed as more military capability deployed into the maturing theater. In addition, through implementing a viable defense, ample time was assured to plan extensively for the XVIII Airborne Corps' ground offensive against Iraq.²⁹

US Marine Corps Doctrinal Publication 5 (MCDP 5), *Planning*, provides an extensive and valuable discussion of the nature of planning, including planning theory and what makes planning effective. It defines planning as “the art and science of envisioning a desired future and laying out effective ways to bring it about, influencing events before they occur.”³⁰ Categories of Marine planning include force

planning (creating and maintaining military capabilities) and operation planning (what the Army would associate with the MDMP type of planning). MCDP 5 describes a planning continuum from:

- Detailed planning (the lowest level; focuses on “how-to” instructions for control measures and movement tables, for example).
- Functional planning (the medium level; supports plans with discrete functional activities such as logistics, security and intelligence).
- Conceptual planning (the highest level; operational concepts, commander's intent, goals and objectives).³¹

The levels are interactive; concepts will drive functional and detailed planning, and details will influence functional and conceptual planning. This hierarchy may be processed at any level of organization or war. MCDP 5 describes planning modes as another dimension of planning and also along a continuum of risk and time:

- Commitment planning (resources are physically prepared under conditions of greater certainty with a shorter time horizon).
- Contingency planning (resources are programmed for several projected circumstances—but not physically committed—under conditions of moderate uncertainty with an increased time horizon).
- Orientation planning (resources are in rough concept—continually assessing and designing preliminary plans allows response to a broad variety of circumstances over longer periods).³²

Modes generally reflect patterns of military planning and when coupled with the types of planning (detailed, functional and conceptual) give a better picture of the full scope of planning required. The old adage “plan early and plan twice” is based on failure to recognize proper modes of planning required—committing too early rather than formulating contingencies or orienting on the threat or opportunity. Another planning adage, “the truth changes,” applies as well. Over time interpretations of the situation change. While each change may be small and immediate, the cumulative drift can lead to transformation large enough that few will recognize history's relationship to the current situation. Without recognizing patterns, projecting the future situation is difficult if not impossible.

Learning aspects of MDMP. C.S. Forester's historical novel, *The General*, portrays World War I British leaders as simple- and single-minded. In what today's US Army would call an after-action review (AAR), Forester depicts a British army corps commander and his division commanders discussing the battle of Loos, a failed allied offensive.

The September 1915 offensive was based on an allied delusion that “artillery could blast a hole through the opposing wall for infantry and thereby

assure success.⁷³³ British killed in action totaled 60,000 and the breakthrough failed. Forester describes the World War I AAR: “In some ways it was like the debate of a group of savages as to how to extract a screw from a piece of wood. Accustomed only to nails, they had made one effort to pull out the screw by main force, and now that it had failed they were devising methods of applying more force still, of obtaining more efficient pincers, of using levers and fulcrum so that more men could bring their strength to bear. They could hardly be blamed for not guessing that by rotating the screw it would come out after the exertion of far less effort; it would be so different that they would laugh at the man who suggested it.”⁷³⁴

Even in a learning organization that conducts AARs and harvests lessons and observations, approaches can be deadly wrong if they are based on faulty MDMP devoid of creative thinking. Based on such reasoning, British generals later planned an even larger fiasco—the Somme offensive in summer 1916—where again more than 60,000 British soldiers perished. Caught in “paralysis through analysis” they decided through a commander and staff estimate process that they could attain victory by merely improving on the same concept of operations from the previous offensive. This sort of behavior has been called a “competency trap,” which “arises in various forms in many adaptive systems and reflects the ways in which improving capabilities with one rule, technology, strategy or practice interferes with changing that rule, technology, strategy or practice to another that is potentially superior (but with which the decisionmaker has little current competence).”⁷³⁵

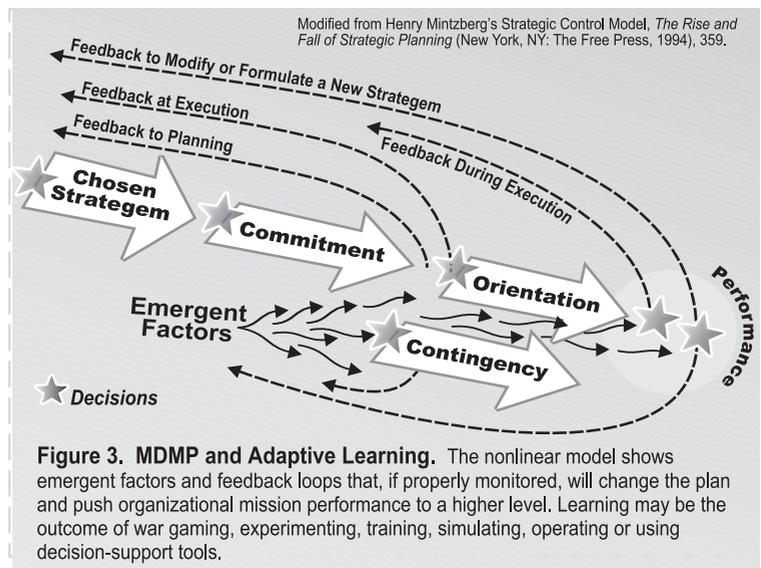
British Field Marshal William Slim’s leadership in Burma during World War II was the antithesis of the competency trap. Learning from his own organizational weaknesses and enemy strengths over more than two years, he turned defeat into victory: “In Burma we fought on a lower scale of transport, supplies, equipment, supporting arms and amenities than was accepted in any other British theatre. Yet, largely because of this lack of material resources, we learned to use those we had in fresh ways to achieve more than what would have been possible had we clung to conventional methods. We . . . in strange conditions evolved our own technique of war, not so much material, as human.”⁷³⁶

Recent emphasis on conceptual

formulation is emerging in MDMP—aspects that involve intuition as well as analysis. The challenge to changing staff organization and operations is clearly cultural. A decisionmaking system that evolves over decades as primarily analytic develops a code for information about the situation. Such a code partitions all possible estimates of the situation into a relatively small number of classes of estimates. Organizational learning relies on changing that partitioning process or at least modifying it to apply to the whole of the new situation.³⁷

The Army Battle Command Training Program was designed to exercise division and corps commanders and staff in the art and science of staff organization and operations. More attention by observers/controllers will be placed on the art of decision-making (creative and intuitive faculties) than the science of control (analytic).³⁸ Additionally, a comprehensive study of tactical commanders at the National Training Center, Fort Irwin, California, revealed that the most successful leaders demonstrate not just analytic skills but the capacity to synthesize using visualization, creativity, initiative and flexibility.³⁹ Making decisions under varying conditions of uncertainty in the full spectrum of Army operations will require more and more intuitive skills.⁴⁰

Stratagems are formulated not through a linear decision process but through a nonlinear MDMP. Nonlinear MDMP is continuous, accounts for processed feedback (learning) and emergent situational factors (such as mission, enemy, terrain, troops, time, civilians) and adjusts stratagems accordingly; hence, MDMP with adaptive learning results. The figure below depicts a nontraditional model of MDMP with large and small arrows indicating a nonlinear performance outcome.



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Army doctrinal MDMP must merge with joint decisionmaking processes. The corps commander and staff serving as a joint task force headquarters will have little or no time to change from Army MDMP and doctrinal orders to the joint operation planning and execution system that produces joint force orders. Until the procedures match, Army theater-level and corps commanders and staff must translate MDMP so it becomes seamless with joint processes.

place.⁴¹ Stratagems are generated through divergent thinking, which involves “expanding the picture of the problem.”⁴² Convergent thinking involves narrowing a problem down to a smaller, more manageable size and casting out alternatives. Commanders must avoid letting MDMP's procedures cause convergent thinking too early.⁴³ Premature closure prevents learning from other possible alternatives. It may be better to continue to orient on the problem than to commit to a solution too early.

Another pitfall similar to premature closure is self-imposed constraint. Preventing or removing unnecessary constraints permits creativity and learning. The MDMP environment contains controllable variables, such as friendly forces, and uncontrollable variables such as weather, terrain and enemy attack. The ideal situation does not constrain how the decisionmaker controls the controllable variables and reduces or removes the effectiveness of the uncontrollable variables.⁴⁴ Mission statements, concepts of operation, commander's intent statements, tasks to subordinate units and similar directives must be carefully formulated to avoid self-imposed constraints.

Army education, mentorship and organizational experience through training and operations should synthesize what has already been learned and extract a holistic view from it so decisionmakers can better convert information and knowledge into understanding. Answers that are expected cannot be creative and therefore may inhibit innovation.⁴⁵ Traditional Army organizational culture can stifle dissent, but wise leaders question the old answers, allow freedom of action and accept professional mistakes when subordinates experiment. Accepting

risk in these areas fosters learning and development among Army decisionmakers.

What Lies Ahead

Army organizations must achieve “decision superiority”—good decisions made faster than an opponent can react or, in a noncombat situation, at a tempo that allows the joint force commander to shape the situation or react quickly to changes and accomplish the mission.⁴⁶ In future MDMP, the goal is to turn estimates of the situation into situational understanding—past, present and, insofar as possible, future. Staff organization and operations will be tailored to enable “enactment planning,” modifying or creating new stratagems to control the future situation while giving the opponent little or no choice. Ultimately, friendly MDMP limits the effectiveness of the decisionmaking process.

To do so, Army doctrinal MDMP must merge with joint decisionmaking processes. The corps commander and staff serving as a joint task force headquarters will have little or no time to change from Army MDMP and doctrinal orders to the joint operation planning and execution system that produces joint force orders. Until the procedures match, Army theater-level and corps commanders and staff must translate MDMP so it becomes seamless with joint processes.

Most studies of Army commanders and staffs have focused on potential MDMP improvements to shorten decision times and conduct more detailed analyses.⁴⁷ Future study must include more emphasis on how to:

- Enhance decisionmakers' intuition through Army training, education, and current and planned operations.
- Transform Army culture from placing value on analytic (procedural) aspects of MDMP to give equal weight to its more multidimensional aspects.
- Revise MDMP to ensure it is seamless with joint decision processes.
- Blend Army Staff organization and operations with Joint Staff organization and operations; allied, coalition or combined staff organization and operations; the interagency process; and nongovernment organizations.
- Increase flexibility and speed in MDMP because Army forces will deploy when there is only an orientation plan available.
- Adapt MDMP for force planning and decisionmaking in the institutional Army.

The history of staff organization and operations is clearly evolutionary, and for almost a century, no major changes were made to the basic steps of estimating the situation or providing analysis for MDMP. The current edition of FM 101-5 introduces

more of the thinking aspects of staff organization and operations to avert conditions that lead to a competency trap.

When continuing current operations become ineffective, innovative thinking can make a difference. Effective new stratagems may not emerge clearly from established doctrine; tactics, techniques and procedures; or past successes and failures. In formulating innovative stratagems, MDMP will require commanders and staffs to suspend traditional thinking and learn by treating:

- Self as a hypothesis.
- Intuition as reality.
- Hypocrisy as transition.
- Memory as an enemy.
- Experience as a theory.⁴⁸

Modern staff organization and procedures recognize the value of innovative thinking and that de-

Traditional Army organizational culture can stifle dissent, but wise leaders question the old answers, allow freedom of action and accept professional mistakes when subordinates experiment. Accepting risk in these areas fosters learning and development among Army decisionmakers.

ciding and planning with a combination of intuition and analysis are important to the success of Army operations. As critical as the commander is, Slim recognized that "There comes a moment in every battle against a stubborn enemy when the result hangs in the balance. Then the general, however skillful and farsighted he may have been, must hand over to his soldiers . . . to complete what he has begun."⁴⁹

NOTES

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