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Legitimate Information Dominance: A Case for the Operational Planner

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Executive Summary

Title: Legitimate Information Dominance: A Case for the Operational Planner

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Thesis: *The increasing complexity of future military operations necessitates a key staff officer focused on reconciling the dilemma between the volume of available information from the general staff with that required to support the commander's decision-making.*

Discussion: The complexity of the future battlefield continues to evolve. The opportunities for decisive action require the commander to rapidly grasp disparate pieces of information about the environment, his adversary, and his own force in sufficient detail to issue specific guidance. Enhancing the commander's ability to make decisions is highly dependent on his capacity to rapidly gather and process large amounts of information. The staff's historical role remains unchanged – it exists to satisfy the commander's information demands. However, a dilemma has evolved. The staff can provide far more information than the commander can reasonably process necessitating the issuance of explicit guidance to focus the efforts of the staff. Synthesizing the staff's efforts results in a tangible form of "information dominance." A skilled operational planner emerges as the key asset for assisting the commander in creating this synthesis. He organizes, articulates, and succinctly presents powerfully concentrated information to increase the commander's decision-making tempo.

Conclusion: Commanders will continue to receive increasingly detailed information from staff specialists in expanding indigestible volumes. An intellectually dexterous operational planner, trained to consider problems from the commander's viewpoint, will prove essential in synthesizing multi-faceted problems and deconflicting the highly technical capabilities under the commanders control. It is the operational planner that offers the commander the greatest opportunity to achieve "information dominance."

Legitimate Information Dominance: A Case for the Operational Planner

"The appointment of general officers is important, but those of the general staff is all important." *General George Washington*[1]

INTRODUCTION

The complicated nature of hostilities since the opening of the third millennium provides ample evidence that the historical models of conflict supply only a vague foundational template for effectively employing military forces. Vague though they may be, it is these historical models that form the foundation for a commander's decision-making. It is a case of being the product of collective experiences that produce a schema by which problems are cognitively addressed. This is the root of a couple of problems that the commander must overcome. First, a corps level commander is prone to a schema reflective of his professional background. Hence, he is prone to focus on decision-making information that reinforces this schema. In large measure, overcoming this challenge is simply a matter of recognizing that this propensity exists. The second challenge is much greater and has no projected solution. It is the commander's inability to process all the information available from the staff that is organized to support his decision-making.

The historical evolution of the general staff has paralleled the commander's growing appetite for information. The corps-level staff of the American Civil War has grown from around a dozen to the present staff that exceeds two hundred personnel. Increasingly technical capabilities necessitated the organization of functional and special staff officers that were able to advise the commander and, in turn, convey his directives. Technology continues to provide the commander's force with increased capabilities and still greater amounts of detailed information. Available information must be processed, organized and communicated to the commander.

Further, it must be synthesized between staff functional areas. The staff exists to satisfy the commander's information requirements. Often though, the larger challenge becomes identifying these information requirements.

The dilemma is two-fold; identifying precise information requirements necessary to support decision-making and synthesizing the presentation of information into a readily digestible format. The challenge for the commander lies in executing decision-making in an environment where situations are increasingly complicated, adversaries are more nebulous, and the commander's own forces are progressively more capable. The typical answer to this dilemma revolves around the fashionable term of "information dominance." Neither fashionable terms nor expensive decision support systems are a legitimate solution. *The increasing complexity of future military operations necessitates a key staff officer focused on reconciling the dilemma between the volume of available information from the general staff with that required to support the commander's decision-making.*

WISDOM = KNOWLEDGE + EXPERIENCE

The employment of corps level forces in warfare has sufficiently grown in complexity to the point that the present staff system less than adequately supports the commander. Corps level staffs exceed 200 personnel and JTF staffs can exceed 500 personnel. The size of these staffs is indicative of the volume of information that they are managing in the planning and execution of operations. This large volume of information must be distilled into a reasonable amount that allows the commander to comprehend key pieces of information on the situation, the enemy forces, and his own forces. With this comprehension, the commander provides guidance on the formulation and execution of plans.

At present, the primary staff officers filter the information that is presented to the commander. The primary staff officers are experts in their field, often having a greater understanding of the particular functional area than the commander possesses. However, their understanding of the adjacent staff functional areas is likely not any greater than that of the commander's. Hence, the information presented by the primary staff officers to the commander is filtered through several lenses. First, it is based upon what the commander requests. The requested information is limited by the commander's understanding of what he thinks he needs to know in a particular situation based on his experience. Second, additional information provided to the commander, beyond the information he was directed to provide, is filtered by the belief of what the staff officer thinks the commander needs to know. This information may be based on the staff officer's individual perspective, particular biases, and coordination, or lack thereof, with other staff sections. Lastly, other staff officers may request that specific information, under the purview of another staff section, be provided to the commander. Thus, the commander will almost always receive more information than he requested, but is it the right information at the right time?

This question is the foundation of the quest for perfect information. Clausewitz, and the most junior lieutenant, could explain in short order that friction and chance in warfare prevent the possibility of realizing this goal. However, the only established arbiter of whether a satisfactory quantity of information is being supplied is the commander. The commander normally possesses the greatest wisdom in the command based, for the most part, on his superior experience. It is this wisdom that helps him in determining his information requirements. In warfare, there is not an adequate replacement for experience. The commander's staff has continued to increase in size over time to assist the commander in managing greater amounts of information. Thus, the

commander of today and the future is dealing with a battlefield of growing complexity while being supported by a staff system that is far larger than anytime in history yet, in an important way, somewhat less supportive. Unlike his predecessors, the commander of this era is provided so much information that it often hinders decision-making. Information bombardment is one of the commander's greatest adversaries.

Wisdom is defined as the ability to discern inner qualities and relationships. Decision-making for the commander requires discerning the relationship between available information, perceiving information variance, communicating specific information shortfalls, and using this combination to decide faster than an adversary. The challenge of the present staff organization is that it remains focused on sorting ever-increasing volumes of information while failing to assist the commander in determining his information requirements that support his decision-making. There is a unique requirement for staff officers that can appreciate the complexity of problems faced by corps-level commanders. Specifically, a need exists for a staff officer that is trained to think at the "three-star level" to assist the commander.

Creating a staff officer with the wisdom equivalent to a three-star commander is difficult. The staff officer will naturally lack the experience of the commander, thus he must gain equivalent wisdom by increasing knowledge through in depth study under a program centered on complex problem solving at the operational level of war. In this manner, a staff officer with a level of wisdom approaching that of the commander is achieved rendering implicit communication more likely. Given this staff officer's educational focus, an appropriate title is "operational planner."

The operational planner has three major roles that support the commander. First, during problem identification and analysis, he assists the commander in determining the information

necessary to make a timely decision. In this role, he is, in essence, an extra set of eyes focused on the problem at hand. The planner attempts to view the problem from the commander's level and not through the lens of a specific staff functional area. The second role that the planner fulfills occurs when developing and implementing solutions. The planner, having been educated to view things from a commander's perspective, is able to rapidly grasp the explicit guidance provided while ascertaining the embedded implicit guidance. A key task that he performs is the synchronization of capabilities during force employment. In this role, the planner serves as an advocate to deconflict specific capabilities on the complex battlefield; especially those that cross staff functional areas. Finally, during the execution of high tempo operations, the operational planner assists the commander in analyzing and responding, under a time constrained decision-making template, to the spontaneous actions of an adversary. An operational planner increases the time that a commander has available to exercise control of his force by providing time saving assistance during complex problem solving evolutions.

IMPLICIT COMMUNICATION

A critical element in supporting the commander is communication. If staff members universally understood the commander's information requirements for a given problem, then their time and energy could be focused on satisfying this obligation. However, rarely do two people view a problem through identical paradigms, thus the commander is compelled to gather the staff and provide explicit guidance. Often, this takes the form of overt and precise communication of his information needs. In communicating his desires, the explanation that accompanies the guidance may provide the staff officer with the specific insight to refine the tasking. The commander's information requirements, however, often overlap the specific functional areas that delineate the present general staff organization. In these cases, the

commander, his deputy, or the chief of staff must arbitrate levels of input and presentation responsibilities. Explicit communication is an absolute necessity for the commander. It focuses the staff and allows the commander to visually grasp the level of success in communicating his guidance to individual staff members. Although this form of communication is essential, it consumes vast amounts of the commander's most precious asset – time.

Saving time is achieved through implicit communication. This form of communication is used in conjunction with explicit communication. It requires a degree of common wisdom applied to a particular problem. This logical judgment is developed through one of three ways: common experience, focused education, or a long-term relationship. Finding a staff officer with experience comparable to the commander would be extraordinary and staff turnover often limits the cultivation of relationships to less than eighteen months. Hence, a focused education is a viable path toward the goal of enhancing implicit communication. Understanding of the essence of a problem, from the commander's viewpoint, crosses all the staff functional areas. This necessitates an education that is not constrained by a functional area paradigm. In developing a commander's perspective, the curriculum requires study and analysis of operational level of war problems from a commander's perspective. Although no substitute for experience, an education goes a long way toward enhancing the prospect of successful implicit communication.

Transmission of requirements from the commander to the staff is often less than half of the necessary communication. More often, it is the communication of the information that the staff has gathered to support the commander that presents the greater challenge. Arranging the information in a manner that supports the commander's decision-making is the critical aim. In most cases, there exists no shortage of information to supply to the commander, thus it must be carefully chosen and then purposefully arranged. Volumes of vital information incongruously

presented can mask the critical information needed to render an appropriate solution to a given problem. Additionally, recognizing a viable solution to a problem is often far easier than generating the solution itself. Organizing detailed information into a format that communicates a solution to a problem is an objective that clearly supports the commander's decision-making. Rapidly communicating synthesized essential information is a critical skill set. This skill set reverses the explicit and implicit communication path to relate the staff's information back to the commander.

The operational planner is educated to achieve the aforementioned communication objectives. The professional relationship between the commander and the operational planner makes him valuable to the primary staff officers in terms of clarifying the commander's explicit information requirements and anticipating emerging needs. During deliberate and crisis action planning the commander relies extensively on the operational planner for exercising appropriate judgment and coordinating requirements between the primary staff officers. The operational planner facilitates staff work by either sensibly answering or judiciously vetting requests for the commander's intervention. Anticipating information needs and coordinating information requirements highlight the criticality and benefits of implicit communication. It is these communication skills that facilitate information flow, thereby protecting the commander's time.

RECOGNIZING AND REMOVING CONFLICTS

In nearly every conflict one can read of incidents where forces are operating at cross-purposes. Often, a simple failure to coordinate has the consequence of canceling the benefits of one or more capabilities, or in the worst cases, has catastrophic effects on friendly personnel and equipment. On the complex battlefield of the future, capabilities must be employed in a manner that achieves tactical and operational goals in the minimum amount of time, with least risk to

friendly forces. To achieve this, capabilities must be harnessed to exploit their greatest benefit while simultaneously shielding their limitations.

A few examples where capabilities contradict one another will assist in emphasizing the point. The first example involves a scenario where a ground force is using combined arms to maneuver against an opponent. In this specific case, an armored force opposes a mechanized force. The armored force is suppressed with artillery controlled by the mechanized force while waiting for air to arrive on station to apply an asymmetric advantage that will complete the destruction of the enemy. Once the air arrives on station, complete with its complement of laser-guided bombs, the ground force attempts to provide laser designation on the target without success. The dust raised by the artillery suppression obstructs the illumination of the target. The proximity of the friendly forces to the enemy precludes allowing the pilot to independently engage the enemy. The aircraft is substantially limited in the manner by which the engagement is successfully concluded.

In another scenario, the commander has directed that attached psychological operations forces communicate a specific message to the civilian populace immediately preceding offensive operations in their village by a helicopter borne force. To protect the assault forces on the helicopters, both attack helicopters and fixed wing coverage is provided. The fighter aircraft, in turn, coordinated for electronic warfare aircraft to shield them during ingress to the target area. Although operating across a narrow frequency spectrum, the electronic attack aircraft successfully provided coverage for the fighter aircraft while simultaneously blocking the transmission prepared by the psychological operations force.

In a final example, the corps-level is a service component of a joint task force (JTF). The commander has directed that specific conditions be met prior to movement to the assault phase

of the operation. To meet these conditions, a detailed program of fires is designed that utilizes the commander's artillery and aviation assets, along with those of the functional supporting commander, the Joint Force Air Component Commander (JFACC). To eliminate one of the more robust point targets, the JFACC chooses a Tactical Land Attack Missile (TLAM). The TLAM flight path is synchronized on the Air Tasking Order (ATO) to ensure airspace deconfliction during its employment. However, the weapon aborts its attack and self-destructs prior to striking the intended target. The problem, in this case, was that destruction of several targets along the missile's flight path did not allow the weapon's terrain mapping system to recognize the programmed land features.

The preceding examples provide three distinct scenarios that are seemingly easy to deconflict in hindsight. Recognizing the issues that potentially reduce the maximum effect of a particular capability prior to employment is a key challenge. Deconflicting capabilities on the future battlefield is not a linear problem as depicted by these simple scenarios. Often, it requires synchronizing the employment of myriad capabilities available to the corps-level commander, thus transforming the challenge in geometric proportions. Both internal and external coordination is required to synchronize the commander's plan. It is a matter of prevailing over the "law of unintended consequences." The capabilities available to a corps-level commander today far outpace the capabilities available a mere few decades in the past. The future battlefield portends increasing complexity.

AUTOMATION AND DECISION SUPPORT SYSTEMS

Warfare continues to grow in complexity with rapidly developed plans becoming critical for synchronizing the deployment of globally based forces. The projected funding guidelines in the 2001 Defense Authorization Bill, as provided to the Senate Armed Services Committee,

recommends that $246.3 M is necessary to speed development of unmanned combat systems. Included in this are the following goals: within 10 years: 1/3 of all deep strike aircraft unmanned; within 15 years: 1/3 ground combat vehicles unmanned.[2] We are poised on the edge of a transformation where highly survivable, unmanned systems are finding greater tactical use on an increasingly lethal and widely dispersed battlefield. It is an environment with progressively more expensive precision weapons and few, if any, large formations on either side of the conflict. This environment is characterized by rapid tempo and fleeting opportunity where the limits of human reaction times can be a deterrent to achieving battlefield dominance. The emergence of systems that execute complex decision making algorithms, absent of human intervention, are anticipated.

A multitude of authors paint a picture that recommends development of systems that bypass the human, arguably claimed as the weakest link in the system, in favor of more responsive, autonomous decision-making. In certain aspects of warfare, this opportunity may prove highly beneficial, however, the man is never truly removed from the decision making cycle, even in cases involving autonomous systems. Man creates the algorithms for even the most complicated self-directing systems. The human remains the master planner – he develops, manufactures, programs, and employs these autonomous systems. Greater still, he synchronizes their role with all other aspects of campaign design. The competition is not one of man and machine, but, rather, the challenge of the future is fully leveraging the capabilities resident in the emerging technologies to support the commander.

In this environment, the operational planner presently fills a critical requirement, one that will continue to grow in the future. The technical panacea referred to often as the “system of systems” that provides the coordinating interface to synchronize the emerging technologies and

simplify the commander's decision making has failed to advance beyond the conceptual horizon. Complex problems with unscientific variables are difficult to solve with present decision support technologies. The mere fact that a continual effort is being made to develop this type of system bolsters the case for an operational planner to assist the commander. The ultimate software patch for these disparate systems remains a well-trained human mind.

CAMPAIGN PLAN SYNCHRONIZATION

Synchronizing the employment of a corps-level force into a campaign is a multi-dimensional challenge. Depending on the nature of the conflict and the assigned mission, a requirement may exist to purposefully integrate the corps at all levels of war: strategic, operational and tactical. At the strategic level, this translates into developing insight into the interrelationship of the diplomatic, informational, military, and economic instruments of power. Subsequently, the campaign design will seek to capitalize on these relationships. At the operational level of war, the employment scheme integrates more than the kinetic capabilities of the land, sea, and air components. It seeks detailed synchronization and integration of the force's capabilities with all others operating within the battlespace. Similarly, at the tactical level of war, attention must be given to the employment of the force to ensure it does not disturb the overall campaign objectives. Technology has increased the capabilities and lethality of military forces to a point where even small tactical forces can purposefully or inadvertently have a strategic impact.

Synchronizing the planning, command and control, intelligence, logistics, and deployment support systems on the battlefield of the future is complicated. Combine a robust, highly deployable and far ranging force, equipped with state of the art weaponry, networked into a resilient communications web that allows for an extensive span of control and the challenge grows exponentially. Employ this force against an adversary that freely operates across the

spectrum of conflict and the complexity continues to balloon. A corps level commander operating on the complex battlefield of the future will be challenged in attempts to sort through the volume of information that allows him to comprehend with confidence the detailed interrelationships of situation, enemy and friendly forces. The increased complexity of the future battlefield amplifies the demand for an operational planner within the staff.

THE ROLE OF THE OPERATIONAL PLANNER

The role of the operational planner is to assist the commander in solving complex problems. Often these complex problems manifest themselves in the form of integrated employment schemes during deliberate and crisis action planning. In analyzing problems, the planner's efforts result in a concise and useful arrangement of information that facilitates the commander's decision. In merging an understanding of complex problem solving, time management, doctrine, and group dynamics, the planner provides the commander with a unique perspective for the coordinated application of the military instrument of power. "By making possible a faster, clearer reading of the situation and a more effective distribution of resources, a superior command system may serve as a force multiplier and compensate for weaknesses in other fields, such as numerical inferiority or the politically induced need to leave the initiative to the enemy."[3]

Operational planners remain a low-density, high-demand, unregulated commodity. Future battlefield complexity necessitates a programmatic approach for the long-term recapitalization of the planner's educational investment.

LONG TERM UTILIZATION OF THE OPERATIONAL PLANNER

The selection and designation of an operational planner would be a long-term investment for the Marine Corps. The designation of officers as operational planners places them in a unique

pipeline geared toward specific coded billets. The planner's first staff assignment is on the staff of either a Marine Expeditionary Force or a Marine Corps service component. This tour serves to leaven operational theory, planning processes, doctrine, and historical study with experience. Next, the planner serves in a battalion-level command billet appropriate to his primary Military Occupational Specialty. The planner does not compete for command; he is simply slated. Between the promotion board, and the screening process for acceptance into an advanced warfighting curriculum, a thorough evaluation of professional competence has occurred.

The remainder of the operational planner's career rotates between coded operational planner billets, school, and command. The operational planner billets are spread throughout the Marine Corps at MEF level and higher staffs and across the joint community. Exact assignments on the staff vary depending on rank and time in service, but generally are in the G-3/J-3 and G-5/J-5. Similarly, assignments to joint service officer billets are carefully selected to perform three functions: first, to professionally develop the planner through intense joint service exposure; second, to provide the joint community with a highly qualified planner that understands Marine Corps operational capabilities and doctrine; and third, to prepare the planner for subsequent service in the Marine Corps' operating forces.

CONCLUSION

The single battlespace – single commander concept remains valid for the increasingly complex battlefield that often defies conventional measurement. Also valid is the concept of a commander executing independent and integrated decision–making against a thinking enemy. Commensurate with the requirement for decision-making is the notion that the commander will continue to receive increasingly detailed information in indigestible volumes. The idea that decision support systems and autonomous weapon systems will create an environment that

enhances the commander's ability to make plans and execute operations is not well supported. Although the man, in the form of a commander, remains preeminent, he is increasingly unable to independently process the voluminous information required to organize, plan, and execute warfare on this scale. To command effectively, he must harness the abilities of his functional staff to assist in synthesizing data for rapid decision-making. The operational planner assists in bridging the widening gap between the commander and the increasingly specialized functional staff areas. In this manner the commander can truly achieve "information dominance." The operational effectiveness of the Marine Corps is greatly enhanced by increasing the tempo of human decision-making through cultivation of capabilities that support this requirement. The greatest promise for thriving, not merely operating, on the complex future battlefield resides in harnessing the intellectually adaptable professional officer that can approach problems in a manner marginally similar to that of the commander.

Endnotes

[1] Hittle, J. D. BGen, USMC (Ret.) *The Military Staff* (Harrisburg, PA: The Stackpole Company, 1944), 183.

[2] Adams, Thomas K. "Future Warfare and the Decline of Human Decisionmaking," *Parameters* (Vol. XXXI, No. 4, Winter 2001-02), 58.

[3] Van Creveld, Martin. Command in War (Cambridge, MA: Harvard University Press, 1985) 4.

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