Tactical Communications Planning

Using the Marine Corps Planning Process

by Maj Arun Shankar

ommunications planning in the Marine Corps is a complex endeavor that requires patience, experience, and foresight. The breadth and depth of knowledge required to develop a flexible, resilient network architecture is almost impossible to conceive. Dependencies and interactions between nodes across a network cross the traditional boundaries of top-down command structures, requiring a level of cooperation and coordination between units that is not found in any other occupational specialty in our Corps. Such complexity demands a structured method that ensures the development of an accurate, complete, and executable communications plan.

Conveniently, the Marine Corps already has a process that meets this requirement—the Marine Corps Planning Process (MCPP). This methodology is a time-tested military planning process that is similarly used in joint and U.S. Army applications. The MCPP ensures that the correct problem is defined, a feasible course of action (COA) is chosen, and a written product is developed that effectively outlines the execution. Communications planning demands a prescriptive, methodical approach, and the MCPP offers such a structure. This article specifies how the MCPP can be used to plan the development of tactical communications architectures.

Tenets of Planning

The MCPP is based on the three tenets of planning found in Marine

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Corps doctrine—top down, single battle concept, and integrated planning. Together, these tenets form the foundation of major planning efforts for every level of command. Top-down planning refers to planning led by the commander. The single battle concept highlights the notion that all actions in a battlespace are related and have effects on each other. Integrated plan-

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ning emphasizes the requirement for planning to be integrated laterally across staff sections and adjacent commands as well as with higher and subordinate elements.

These tenets have specific applications to communications planning. In top-down planning, communications planning is led by the communications officer. Though not always serving in the billet of a commander, the communications officer is nevertheless responsible for all matters pertaining

to electronic communications within a given command. He leads the effort and approves the plan. Regular interaction between the communications officer and his staff, to include in-progress reviews, provides a formal venue for him to share guidance and make decisions at predetermined decision points.

Few elements of military planning are more influenced by the single battle concept than communications. A single action on a network can easily have cascading effects throughout the battlespace. An understanding of these interactions is vital to an effective network architecture. For instance, a network rule may exist that automatically reroutes data traffic through various nodes within an area of operations based on a given set of conditions. This rule may depend on certain static configurations within the network. If those configurations are changed, the rule may not execute, and network traffic may not reach its intended destination. A given network may have an almost infinite number of these circumstances, so even minor changes can result in unintended consequences. In particular, these consequences are usually readily noticeable and have a direct and immediate impact on command and control (C2).

Similarly, communications support will struggle if planning is not integrated with higher, adjacent, and subordinate commands across the battlespace. Commands may rely on network nodes to transfer information that is not neatly aligned along the hierarchical chain of command. Geographic convenience may necessitate a relationship between units that are not in the same command (or even the same Service) for communications support. Additionally, units may rely on external agencies for redundant paths to pass information across the battlespace, even though those agencies have no formal command relationship with the using unit. This efficient but complicated structure absolutely necessitates the importance of integrated communications planning in every scenario.

The MCPP

There are six steps within the MCPP. The first step, problem framing, exists to allow planners to define and scope the problem at hand. The second step, COA development, allows planners to develop multiple ways to address the problem. The third step, COA wargaming, directs planners to step through the plan in both space and time and determine potential friction points, particularly resource shortfalls. COA comparison and decision is the step that results in an unbiased comparison of the COAs and a chosen COA from the communications officer. Orders development typically refers to the development of Annex K of the operations order, and transition refers to the successful handoff of the order to its executors. Each of these steps has a distinct application to communications planning.

Problem framing. Problem framing consists of two categories of activities design and staff action. Design is a process for determining the correct set of problems and a way to conceptualize them. These problems are the factors that hinder progress from the current state to the desired state. For instance, in a typical communications planning scenario, the current state might be an area of operations with no communications infrastructure. The desired state may be a command post with full voice, video, and data capabilities. The problems might include difficult terrain, enemy cyber-attack capabilities, or frequency restrictions. These problems form the problem set, which is the key output of design.



Guidance for subordinate communications sections must be clear and without confusion as to exactly what is required. (Photo by LCpl Armando Elizalde.)

Staff actions contain a thorough analysis of the higher operations order or letter of instruction. This includes a detailed itemization of every specified and implied task as well as an interpretation of the essential tasks from this list. Typical tasks include the establishment and termination of links and circuits. It also includes a listing of all constraints and restraints in the higher order. Unfortunately, it is common for communications units to be expected to operate in the absence of an Annex K (or its equivalent) from higher headquarters. In that likely scenario, the unit relies heavily on assumptions and archived knowledge about the situation to perform these staff actions.

Problem framing concludes with the development of a mission statement that addresses the problem set outlined during design. The mission statement is derived from the essential task list created during task analysis. This mission statement should be specific and have utility for subordinates. For instance, a weak mission statement might simply say, "Provide communications systems in order to enable C2." A more useful mission statement might say,

NLT 1200, provide classified and unclassified voice and data communications capabilities for the Main and Forward Combat Operations Centers (COC) in order to set conditions for the Division staff to perform C2 functions during Phase 3 of Operation X. The second mission statement clearly guides the subordinate communications sections and provides scope for the way ahead.

COA development. The communications officer provides COA development guidance prior to the start of this step. The guidance should be as specific as necessary without stifling the creativity of the planning staff. Guidance should preferably include the number of COAs that need to be developed and the key feature that distinguishes them. For instance, guidance may state the requirement for two COAs, where one is focused on supporting a MEB command element and the other a MEF command element. Another form of guidance may instruct planners to produce one COA with no redundant transmission systems and another with the maximum number of redundant transmission systems in accordance with the unit's table of equipment.

Once the guidance is issued, the planners proceed with developing the COAs. Each COA should be detailed enough to allow for sufficient wargaming. This equates to details that allow wargaming at a level of command at least two levels down from the planning

unit. For example, if the planning unit is a major subordinate command, then wargaming would occur at the major subordinate command, regiment, and battalion levels.

COAs are not just maps with unit locations and broad tasks to subordinate units. Products from COA development should highlight the significant tasks across all major elements of communications overlaid in time and space. This equates to a thorough understanding of expectations as units displace across the battlespace at different times. For example, an adequate task might state that during Phase 1 of an operation, Unit X will establish single-channel radio communications, in accordance with the radio guard chart, at Camp Y. This task has enough detail for a unit to understand the resources required to accomplish the task. Locations of communications nodes and retransmission sites should be depicted on a different map for each phase of the operation.

COA wargaming. Each COA should be wargamed thoroughly enough to reveal gaps in planning and resource shortfalls. This step is usually conducted on a large map of the area of operations and driven by the synchronization matrix developed during COA development. The synchronization matrix should be detailed enough to allow the wargaming moderator to easily step through significant actions in the battlespace across time. It serves as a script for the war game. Findings are documented at the conclusion of each step or action.

In the communications field, a war game demonstrates the sequence of actions occuring in setup and maintenance, during time within space. Unless there is a known significant enemy threat that would affect these actions, there is no need to wargame an enemy reaction and then a friendly counteraction, as is done in a typical wargame turn. Instead, wargame each significant friendly action as its own turn. Such actions could include convoying to the field, setting up transmission terminals, configuring network routing, establishing single channel radios, creating user accounts, or conducting planned service interruptions. In a given turn, a subjectmatter expert (SME) from each com-

munications specialty would comment on actions and how they affect other specialties. For instance, a turn may portray the establishment of a satellite link and network services between a unit and its higher headquarters. SMEs would methodically itemize their stake in this action. Satellite transmission specialists would detail methods for linking the terminal to the satellite. Communications maintainers might explain their actions in the event of an equipment failure. Network specialists could define routing protocols, encryption methods, and equipment strings that allow user services to pass across this link.

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Wargaming should flush out the details of each COA and highlight resource shortfalls. It is also an opportunity for the staff to learn about each COA thoroughly. This step should conclude with a brief to the communications officer on what was learned about each COA and proposed changes to make them more effective at accomplishing the mission.

COA comparison and decision. Once wargaming is complete, the COAs need to be objectively compared, and a recommended choice should be provided to the communications officer. Several methods for comparison exist. Some involve assigning a numeric score or qualitative description to a list of characteristics against each COA. For instance, characteristics might include the speed of setup, the complexity of the architecture, the redundancy of the transmission links, and the overall reliability. Some COAs may score higher in come categories than others. Another way to compare COAs is by simply asking the SMEs for their own feedback. This process does not restrict comparison across pre-determined traits, and it encourages the creative thought of the stakeholders. However, if not controlled by a facilitator, the feedback could become subjective and biased, resulting in a comparison that is not useful to the communications officer. In either method, the information is then aggregated into a recommended choice for the communications officer. The analysis is then presented, and a choice is made. Often, the decisionmaker will choose to redesign another COA—a hybrid of the ones that were presented with the key benefits of both.

Orders development. Annex K of the operations order is developed from the chosen COA. If the planning is simply for a communications exercise, perhaps a detailed letter of instruction would be more appropriate. In either circumstance, the purpose of orders development is to develop a detailed set of instructions that subordinates can understand and execute with very little additional information. The order should explain the situation, the mission, timelines, the overall concept of operations, detailed tasks to each section, logistical support requirements, and the succession of command. The most common shortfall in this process is a lack of sufficient detail in the taskings that results in confusion among subordinates and a loss of trust in the higher command.

Transition. The final step in the MCPP is transitioning the order to the executors. Unlike other military planning processes, transition is a formal step in the MCPP because it deserves a commander's influence and supervision. Transition occurs through a formal set of briefs where relevant stakeholders are present to ask questions of the planners and confirm their understanding. It is not a simple email of the Annex K or letter of instruction to the executing platoon. Transition can save hundreds of manhours of confusion and frustration if done correctly.

Assessment. Assessment is the constant monitoring of the execution and its effectiveness at addressing the problem identified during design. In communications planning, assessment will likely reveal whether the COA is meeting timelines and providing the required capability to the commander.

If it is not, problem framing needs to be revisited, and a new COA should be developed. The sooner this is identified, the more likely changes can be made without completely aborting a mission to start over. Assessment is the responsibility of the communications officer. In senior commands, it can be argued that it is his most important responsibility during execution.

Conclusion

The use of the MCPP is often challenged by a lack of time or the availability of relevant personnel to methodically step through the planning properly. This is likely the case because communications planning is not treated like the rest of warfighting. However, without adequate communications capabilities, commanders cannot control subordinate units and therefore cannot fight. Communications planning deserves the same level of focus and attention as any other operational planning team

meeting, and communications officers should influence their commanders to buy in to this point and set conditions for their success.

Modern communications planning requires more than just a commander's intent and motivated enlisted Marines. It requires detailed, methodical planning that is effectively communicated to all subordinate leaders in a way that they can understand. This can be achieved by using the MCPP as it was designed, with subordinates participating and understanding along the way. The final product, the order, serves as a compilation of ideas from all relevant parties. Consequently, success is much more likely because subordinate interests are considered.

Additionally, the MCPP forces the communications officer and his team to mentally rehearse all aspects of the communications setup. This brainstorming results in discourse among SMEs that usually highlights challenges

that can be mitigated before execution. The prescriptive nature of the process significantly reduces unneeded risk and friction

Communications technology has never advanced more on such a regular basis as it does today. It is no longer sufficient to expect Marines to establish sophisticated computer networks without detailed plans that are understood for all levels of leadership. The MCPP can provide the framework required for our Marines to be successful in this new age of war and technology.





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