
THE CONTEXT OF COMMAND AND COMMAND CONCEPTS

The stroke of genius that turns the fate of a battle? I don't believe in it. A battle is a complicated operation, that you prepare laboriously. If the enemy does this, you say to yourself, I will do that. If such and such happens, these are the steps I shall take to meet it. You think out every possible development and decide on the way to deal with the situation created. One of these developments occurs, you put your plan into operation, and everyone says, "What genius . . ." whereas the credit is really due to the labor of preparation.

——Ferdinand Foch, Interview, 1919

THE ESSENCE OF COMMAND

Martin van Creveld, in his excellent book *Command in War*, describes the essence of command as the ability to deal successfully with uncertainty, to function effectively in the absence of complete information.¹ He stresses that command is both an organizational function and a cognitive function, and that technology, by itself, is not a panacea. Historical success in command has stemmed from a commander's ability to get the most out of his C2 system through structuring, training, and developing his organization to minimize the constraints imposed by the limitations of contemporary technology:²

Far from determining the essence of command, then, communications and information processing technology merely constitute one part of the general environment in which command operates. To allow that part to dictate the structure and functioning of command

¹Van Creveld, 1985, pp. 268–275.

²The Guderian case in Chapter Four is an excellent example of such constraint-minimizing organization.

systems, as is sometimes done, is not merely to become the slave of technology but also to lose sight of what command is all about. Furthermore, since any technology is by definition subject to limitations, historical advances in command have often resulted less from any technological superiority that one side had over the other than from the ability to recognize those limitations and to discover ways—improvements in training, doctrine, and organization—of going around them. Instead of confining one's actions to what available technology can do, the point of the exercise is to discover what it cannot do and then proceed to do it nonetheless.³

If command concepts are the most essential pieces of information to be conveyed and altered by a command and control system, then the development and quality of those concepts are every bit as important as the ability of systems to inform and communicate them. Therefore, commanders and their visions of operations count, and excellent C2 systems may not be able to overcome a lack of vision or to compensate for a commander's failures. To believe that advanced C2 technology, in the absence of a sound idea controlling its implementation, will automatically be a "force multiplier" may be turning a blind eye to the historical evidence of both the importance and variability—idiosyncrasy—of commanders and their ideas.

We examine six historical cases that suggest, as did van Crevelde, that the quality of the commander's ideas is a critical factor in the functioning of C2 systems. An idea, or command concept, that outpaces the system's ability to support it can cause the C2 system to function poorly and the command function to suffer. Likewise, if the concept is flawed and does not identify the information critical to validating it, the system will likely become flooded with extraneous information as units in battle attempt to make sense out of what is happening. The cases also suggest that the massive improvements in C2-system performance over the past several decades have not altered the reality that people have to know what to look for in order to maximize the performance of the system.

³Van Crevelde, 1985, p. 275.

SELECTION CRITERIA

In selecting the six historical cases, we were, of course, looking for information that would give insights into the C2 theory advanced here. More specifically, we selected the cases according to the following criteria:

- The conflicts are modern (they occurred in the past 50 years), because modern warfare involves a scale of operations and technology that can affect C2 systems and their use.
- They represent different battle media (land, sea, and air). Each medium may present different C2 challenges and solutions.
- The account in the literature appeared likely to be adequate for us to discern the presence or absence of command concepts.

We limited the cases to six so that, within our resource constraints, we could examine them in the detail necessary to illuminate the theory. We selected the particular cases because we were interested personally in learning more about them as military history.

The six cases span four modern wars and eight principal combatants. The combatants appear in more than one case, in both offensive and defensive roles:

- World War II, with the Germans on the offensive against the French at Sedan, the Japanese on the offensive against the Americans at Midway, and the British (principally) on the offensive against the Germans at MARKET-GARDEN.
- The Korean Conflict, with the Americans on the offensive against the North Koreans at Inchon.
- The War in Vietnam, with the Americans on the offensive against the North Vietnamese.
- The Gulf War, with the Americans (principally) on the offensive against the Iraqis.

They also represent the spectrum of operational media and forces:

- naval, air, and amphibious forces and operations at Midway and Inchon

- air and mechanized forces in blitzkrieg operations at Sedan and in DESERT STORM
- airborne forces and ground operations at MARKET-GARDEN and Ia Drang.

And the command concepts in those cases run the gamut from those that were

- visionary and determinedly pursued, as at Midway and Inchon
- to well-developed and fully articulated, as at Sedan and in DESERT STORM
- to fundamentally flawed and incomplete, as at Ia Drang and MARKET-GARDEN.

We do not impute any significance to the correlation between the last two lists—the quality of the command concepts and the dominant kinds of forces involved (naval, mechanized, and airborne); the cases are too few and we can imagine too many exceptions. We also focus on operational or strategic commanders because battle accounts often focus on their role, and their quotations reveal their thought processes.

ELEMENTS OF THE COMMAND CONCEPT

If it could be demonstrated that command concepts—their promulgation and correction—are (or should be) the essential substantive content of the information flowing through C2 systems, then the following approach to a theory of command and control is indicated: The structure and content of historical command concepts—actual or implied—should be examined for empirical patterns, particularly as those patterns may vary by command environment, circumstances, and level.

An intellectual device for carrying out the examination is to synthesize the ideal command concepts that would have been appropriate to some well-documented battles.⁴ Even in those (many) cases in

⁴Admiral Horatio Nelson's writings before Trafalgar and the history of the battle itself may provide a good example of what is pertinent to a near-ideal command concept.

which the commander did not have a clearly articulated command concept or was not successful in battle, it should be possible to prepare an ideal command concept to match the actual events of the battle.

An ideal command concept for a historical battle is a hypothetical statement of the commander's intent that should have been, under the doctrine, training, and common knowledge of the time, clearly sufficient for subordinate commanders to successfully execute the responsibilities they were actually called on to fulfill during battle, without exchanging additional information with their superior commander. In effect, it answers the question, "What would the commander have had to tell his subordinates before the battle in order to have made their subsequent actions conform to his concept?"

Translation of concept to information is the key step: If conveying and altering concepts are the essence of ideal C2 *functions*, then conveying information to those same ends is the priority task of C2 *systems*.

Our theory proposes the command concept as the primary feature of *battle planning*. At a minimum, the command concept should include the following elements:

- Time scales that reveal adequate preparation and readiness not just of the concept but of the armed forces tasked with carrying it out. Ideally, there would be enough time to take what van Creveld considers the optimal approach to improving the performance of a C2 system: Divide the task into various parts and create forces capable of dealing with these parts on a semi-independent basis.⁵ A commander who develops his command concept on the fly, based primarily on a picture of the battle space, even in real time, has probably already lost his fight, because he has failed to develop a mental picture of probable future developments in the battle space.
- Awareness of the key physical, geographical, and meteorological features of the battle space—situational awareness—that will enable the concept to be realized.

⁵Van Creveld, 1985, p. 269.

- Congruence between the plan and the means (resources, troops) for carrying it out.
- A structuring of forces consistent with the battle tasks to be accomplished. Several of the case histories involve all the services in a way that supports the forces of the one service tasked with the strategic mission. MARKET-GARDEN illustrates the problems of trying to make a task conform to the available service/forces.
- What is to be accomplished, from the highest to the lowest levels of command. The squad leader understands his platoon commander's concept for platoon operations and has then developed his own for squad operations that is supportive of and consistent with the next-higher-level concept. The role of doctrine is to make such nested, hierarchical concepts consistent.
- Intelligence on what the enemy is expected to do, including the confirming and refuting signs to be looked for throughout the coming engagement.
- What the enemy is trying to accomplish, not just what his capabilities and dispositions may be.
- What the concept-originating commander and his forces should be able to do and how to do it, with all of its problems and opportunities—not just the required deployments, logistics, and schedules, but the nature of the clashes and what to expect in the confusion of battle. Personality or character traits of key officers are sometimes mentioned because they are viewed in historical accounts as contributing significantly to how an operation unfolds.
- Indicators of the failure of or flaws in the command concepts and ways of identifying and communicating information that would change or cancel the concept. Stresses on the C2 system are included among these indicators so that we can examine whether the manner in which different commanders develop, articulate, and execute their ideas places different burdens on their C2 systems.
- A contingency plan in the event of failure of the concept and the resulting operation.

This list parallels the statement of the operational commander's intent set forth in FM 100-7:

After mission analysis, the operational-level commander clearly describes the operation's purpose, the desired end state, the degree of acceptable risk, and the method of unifying focus for all subordinate elements. The operational-level commander's intent contains the intent statement of the next senior commander in the chain of command. The commander's intent is meant to be a constant reference point for subordinates to discipline their efforts. It helps them focus on what they have to do to achieve success, even under changed conditions when plans and concepts no longer apply. For major operations, a clear statement of intent is essential to successful integration and synchronization of effort, including support operations throughout the depth of the battle space.⁶

In some—but not all—of the historical cases that follow, the commander has provided an operational concept that reveals these elements. For this reason, we have structured the histories so that the concepts can be inferred. Each chapter is organized as follows:

- A background section describing the physical/geographic situation, key players, intelligence sources, and whether those sources were relied on
- The operational plan
- A description of the battle
- A description of the communications, or command and control
- A command concept drawn from secondary-source descriptions of the above elements. The concept is divided into three sections: information about the enemy and his plans, information about the concept-originating commander and his plans, and contingency plans. We provide quotations from the secondary sources to reveal the thinking-out-loud of the commander, insights into the creativity/idiosyncrasies of the commander that may refute doctrine or training, and the demands placed on the C2 system.

⁶Headquarters, Department of the Army, 1995, p. 1-2.

- Our assessment of how well the battle adheres to our theory of what is absolutely essential information for a C2 system.

Note that although the concepts are presented in a linear format, the cognitive processes themselves may not have been linear.

History provides many more examples of situations in which the command concept was neither sound nor even formed, neither shared nor agreed upon, and neither altered in the face of contrary information nor susceptible to being altered. These less-happy examples do not refute the notion of command concepts or their centrality to command and control. Rather, they emphasize the importance of command concepts and demonstrate that there are many command and control failures that even perfect C2 systems cannot prevent.

After we present the case histories, we summarize them in Chapter Nine. We focus on those elements that were “looked for” and found and/or those that were not looked for but should have been. Because of the differences among battles, an element that is crucial to one battle may be minor or barely mentioned in regard to another.

We begin with a case history that bears out our theory most clearly in the realization of the commander’s vision: Nimitz at the Battle of Midway.