

COMMAND AND CONTROL AT THE OPERATIONAL LEVEL

by

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The study of the operational art as one of the principal divisions of military history is a relatively recent phenomenon, although the practice of that art may extend into antiquity. Consensus exists that Napoleon first understood mass warfare and suggests that "his success in raising, organizing, and equipping mass armies revolutionized the conduct of war and marked the origin of modern warfare."¹ Operational art, then, as an integral part of the discipline of military history, can be traced to that French Emperor and his two quarreling students, Clausewitz and Jomini.

With the publication of Field Circular 100-16-1, *Theater Army, Army Group, and Field Army Operations*, the US Army has explicitly recognized the requirement to develop doctrine and organizations at those levels to establish the full range of command and control functions necessary for the conduct of the operational level of war. The existing amplifying literature on the subject of command and control at the corps and division levels and below is extensive. Certainly, the recent publication of Field Circular 101-55, *Corps and Division Command and Control*, represents another positive step in making current doctrine more practicable. However, little published material exists on the subject of command and control at the operational level.

That command and control of large formations has been successfully executed

historically is undeniable. Napoleon's conduct of the Jena campaign in the fall of 1806 staggers even the modern imagination. In the space of less than a month, he concentrated his *Grande Armée* of six corps from garrison locations in what is today south and southwestern Germany, joining them with the Old Guard from Paris, and fought two major, simultaneous battles near Erfurt, in what is now southern East Germany, and won both of them. Napoleon then conducted a series of pursuit operations that ranged north to the Baltic Sea, and from present-day western Poland to the city of Hamburg. "In three weeks of unrelenting maneuver, battle, and marching, the French gathered 140,000 prisoners, 250 flags, and 800 field guns."² The Prussian army was destroyed, and an area that exceeds modern East Germany was occupied.

Martin van Creveld, in his book *Command in War*, thoroughly analyzes the Jena campaign through the conclusion of the simultaneous battles at Jena and Auerstadt. He concludes that Napoleon's command and control system allowed him to issue three different movement orders to his corps commanders in 24 hours and have those orders executed.³ Napoleon's corps varied in size from 16,500 soldiers in Marshal Augereau's corps to 26,000 soldiers in Marshal Davout's corps during the Jena campaign.⁴ The distances between units varied almost continuously, but a figure of between 10 to 20

miles fairly represents the situation while on the march. (The actual fighting at Jena and Auerstadt was separated by a little more than 12 miles.⁵) Even with modern transportation and telecommunications, the flexibility and mobility achieved during the Jena campaign would be no easy feat today.

Detailed study of the Jena campaign serves to illuminate many aspects of command and control. One principal lesson is that the utility and effectiveness of any command and control system must be measured relative to the system of one's adversary. Napoleon's command and control system in its totality was far superior to his enemy's, and by effectively wielding that tool he destroyed the Prussian army in a single campaign.

That the effectiveness of a command and control system must be evaluated not in isolation, but relative to the system of one's foe, remains as valid today as it was in the Napoleonic era. With the reintroduction of operational art into US Army doctrine, one of the foremost challenges of the true incorporation of that doctrine into practice is the adoption of an appropriate command and control system. The purpose of this article is to examine command and control issues at the operational level with a view toward identifying the philosophic foundations of a system that will provide the US Army with significant relative advantages over potential adversaries.

BACKGROUND

On the 6th and 9th of August 1945, US B-29s dropped atomic bombs on Hiroshima and Nagasaki, forever changing the nature of warfare and ushering in a new era in human history. Throughout the 1950s and 1960s, the United States enjoyed overwhelming nuclear superiority, in both quantity and quality.⁶ In October 1962, Khrushchev made the decision, possibly because of the Soviet Union's inferiority, to emplace nuclear-tipped missiles in Cuba. President Kennedy ordered a naval blockade and forced the Soviets to back down. During the crisis, "President Kennedy personally supervised the location of each US

Navy vessel involved in the blockade."⁷ The crisis underscored the perceived need in the nuclear era for the President to exercise firm, absolute control over the military forces to achieve his desired political ends while minimizing the risk of escalation. Since then the incident has been used to justify the establishment of command links extending from the White House to the soldier in the foxhole, and subsequent experience has "further reinforced the tendency toward greater and greater centralization."⁸

While the world was feeling its way through the first decades of the nuclear era, an electronics revolution was taking place which neatly dovetailed with the command and control requirements of the nuclear age. As a result of the rapid technological advances during World War II and in space research, enormous progress was achieved by the early 1960s. The advent of nuclear weapons had created the imperative for those weapons to be tightly controlled at the highest levels of government, and the electronics revolution, with the computer and data processing as a major subset, provided the technical means to exercise the requisite control.

The Cuban missile crisis gave impetus to the fledgling World Wide Military Command and Control System, which progressively extended to the Strategic Air Command and then the conventional forces.⁹ The remote

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control of the war in Vietnam from Washington continued the trend toward ever-greater centralization. Additionally, the use of the helicopter as a vehicle for micro-command sometimes created unprecedented situations at the lowest tactical levels. A whole generation of officers matured in an era that taught them exactly the wrong lessons with regard to command and control on the next battlefield.

One of the anomalies of our era is that centralized command and control of nuclear weapons at the highest level is vital to the survival of the human race, but the realities of the battlefield envisioned in FM 100-5 demand that leaders at all levels exercise initiative and aggressiveness to fight and win in a fluid, fragmented environment, very likely with severely degraded command links. The crucial issue is that organizations must continue to function despite the fact that command and control probably will be disrupted. Encouraging signs exist that senior leaders understand this reality. General John Vessey, formerly Chairman of the JCS, clearly recognized this requirement when he assiduously avoided oversupervising Vice Admiral Joseph Metcalf during the Grenada operation. An even more recent example is the freedom of action delegated to Vice Admiral Frank Kelso during the confrontation in the Gulf of Sidra. As *The New York Times* reported,

Pentagon officials said the rules of engagement, worked out in advance, gave the commander of the Sixth Fleet, Vice Adm. Frank B. Kelso 2d, the authority to attack Libyan missile sites and ships to defend American ships.

"This Administration is comfortable in delegating authority to the field," a Pentagon official said.¹⁰

This evidence is clearly a refreshing signal from the highest levels of our government. For training officers, NCOs, and soldiers to exercise their initiative, to take risks, to be aggressive, and to accept responsibility requires the senior trainers of the Army to understand the dichotomy between the pressures toward centralization

in the modern world and the decentralizing imperatives of the next battlefield.

To relate this discussion more directly to the Soviet threat, a few points are worth highlighting. The first is that "nuclear weapons, especially at operational and tactical levels of warfare, have become nonrelevant means of seeking the political goals likely to be considered appropriate, especially by First and Second World governments."¹¹ This state of affairs obtains largely because essential parity exists between the United States and the Soviet Union at both the strategic and theater nuclear levels. Consequently, there has been increased emphasis on strong conventional forces to keep the nuclear threshold as high as possible.

A second point is that whether, in gauging Soviet intentions, one foresees the Soviet-style operational concept of mass, momentum, and continuous combat with echelonment, or the Operational Maneuver Group style, the essential feature of both styles is that they are maneuver-based and designed "to disrupt the operational tactics of the defender."¹² The response to this perceived threat by the US Army and Air Force is the AirLand Battle doctrine, also a maneuver style of fighting.

A third point, repeatedly emphasized in FM 100-5, is that on the next battlefield "opposing forces will rarely fight along orderly, distinct lines."¹³ The battle will consist of three fights: the deep, the close-in, and the rear. Exercising command and control will be especially difficult:

At the very time when battle demands better and more effective command and control, modern electronic countermeasures may make that task more difficult than ever before. Commanders will find it difficult to determine what is happening. Small units will often have to fight without sure knowledge about their force as a whole. Electronic warfare, vulnerability of command and control facilities, and mobile combat will demand initiative in subordinate commanders. The commander who continues to exercise effective command and control will enjoy a decisive edge over his opponent.¹⁴

MISSION-ORIENTED COMMAND AND CONTROL

The recently published Field Circular 101-55, *Corps and Division Command and Control*, addresses for the first time in US Army doctrinal literature the term mission-oriented command and control: "Mission-oriented command and control promotes clear communication of the commander's intent; coordination of key elements of the deep, close-in, and rear battles; and maximum latitude for subordinates in execution of assigned tasks."¹⁵ The circular goes on to emphasize that the key operative concept stems from a clear statement of the commander's intent.¹⁶ The concept is then illustrated with the historical example of Colonel Joshua Chamberlain's 20th Maine Regiment at the Battle of Little Round Top on 2 July 1863, during the battle of Gettysburg:

When Colonel Vincent led the 20th Maine to its position, he told Colonel Joshua Chamberlain, its commander, "This is the left of the Union line. You understand. You are to hold this ground at all costs."

After withstanding six violent enemy attacks, . . . Colonel Chamberlain realized his 20th Maine could not repulse another assault. Losses had been high and ammunition was critically short. Chamberlain made the decision to fix bayonets and charge. . . . The 20th Maine swept their entire brigade's front.

Colonel Chamberlain's leadership at Little Round Top demonstrates the kind of creative, thinking leadership needed at all levels to succeed on the modern battlefield. Mission-oriented command and control provides a framework within which subordinates have the latitude to act with imagination as illustrated by the Chamberlain example. Thorough understanding of the higher commander's intent serves as the basis for such independent action.¹⁷

The origin of the concept of mission-oriented command and control has been

traced by Richard Simpkin in his book *Race to the Swift* to an 1806 Prussian regulation.¹⁸ The German army term for the concept is *Auftragstaktik*, defined as follows in the current German army regulation:

A command and control procedure within which the subordinate is given extensive latitude, within the framework of the intention of the individual giving the order, in carrying out his mission. The missions are to include only those restraints which are indispensable for being able to interact with others, and it must be possible to accomplish them by making use of the subordinate's forces, resources, and the authority delegated to him. Mission-oriented command and control requires uniformity in the way of thinking, sound judgment and initiative, as well as responsible actions at all levels.¹⁹

This command and control concept is used at all levels in the German army, both in peacetime and in wartime.²⁰ The concept is currently enjoying serious attention in the American Army primarily because of renewed interest during recent years in the operational level of war on the Eastern Front during World War II. Many of the more successful German commanders of those battles are still alive, and since 1979 a number of them have been interviewed in tape-recorded sessions and have participated in the Art of War Colloquiums at the US Army War College. All of these German officers subscribe to the concept of *Auftragstaktik*, and their experiences in fighting the Soviets can be enlightening. Many advantages accrue to the Army that operates in accordance with the precepts of mission-oriented command and control, not the least of which is that its organizations will continue to function when out of contact with higher headquarters.

Several key ingredients are essential if such a philosophy of command and control is to work. The first prerequisite is that trust and confidence must exist "throughout the ranks, all the way down to the private soldier."²¹ There must be confidence that everyone will "exercise initiative to get the

mission accomplished."²² The following remarks by General Hermann Balck are particularly illuminating:

Generally the German higher commander[s] rarely or never reproached their subordinates unless they made a terrible blunder. They were fostering the individual's initiative. They left him room for initiative, and did not reprimand him unless he did something very wrong. This went down to the individual soldier, who was praised for developing initiative.²³

The second ingredient is an effective officer education system oriented on the concept. The educational process should stress the development of initiative, flexibility, decisiveness, and the willingness to assume responsibility. Mistakes should be corrected without condemnation. Major General F. W. von Mellenthin, General Balck's Chief of Staff, stated, "We found that leaders at any level grow with their experience . . . [T]heir initiative should be fostered in the case of a division commander as much as in the case of a platoon leader."²⁴ The German education process also stressed approaching military problems with a common understanding, a common doctrine, and the common determination to execute the commander's intent.²⁵

SOLDIERS FROM A FREE SOCIETY

From a theoretical point of view, one way to approach the subject of command and control would be to characterize the threat, examine one's own society to assess the inherent strengths and weaknesses of its citizens, and then create a command and control system that capitalizes on the strengths of that society to meet the threat. Obviously, the system would also have to have appropriate organizations, processes, and technical means, but attacking the problem from the human side first should lead to a solution that is balanced, integrated, and not the captive of some technological panacea. Although this approach to the

problem will not yield a complete answer, it is nonetheless worth examining, particularly in light of S. L. A. Marshall's research into the behavior of soldiers under fire in World War II:

Wherever one surveys the forces of the battlefield, it is to see that fear is general among men, but to observe further that men commonly are loath that their fear will be expressed in specific acts which their comrades will recognize as cowardice. The majority are unwilling to take extraordinary risks and do not aspire to a hero's role, but they are equally unwilling that they should be considered the least worthy among those present.²⁶

While it is true that a small group of infantrymen under fire is several levels removed from the issue of command and control at the operational level, Marshall's results are germane in that they do reveal a primary motivating factor in human beings under extreme stress. Marshall's studies show that American soldiers desire above all else to be held in esteem by their peers. This is true among private soldiers, and it is certainly true among officers who function at the operational level of war. Fiercely independent officers who are held in esteem by their peers are essential to the execution of mission-oriented command and control.

The diversity of American society makes US military training more complicated than training in the European armies, except possibly in the Soviet army. Despite the heterogeneous nature of American society, however, one trait clearly runs through all segments of our culture: the common determination to improve our lot in life and to better provide for our families. Individuals state that they join the military services for many reasons, but the bottom line is that they perceive it to be in their own best interest. Again, S. L. A. Marshall is worth quoting: "I think that one of the general mistakes made by the military body is that because soldiering is a patriotic calling, it is regarded as somehow base to put self-interest foremost in appealing to the judgment and imagination of

the soldier.”²⁷ Officers, particularly those who have risen to positions in the operational-level command and control apparatus, have reached their positions by being ambitious as well as patriotic, and they generally view themselves as decisive, independent, and aggressive.

The way to capitalize on these attributes at the operational level is through the application of the philosophy of mission-oriented command and control in the tradition of the German army’s *Auftragstaktik*. The greatest obstruction may be another natural trait, a reluctance of officers “to delegate because, in the intense competition for promotion, a single error by a subordinate could wreck their career.”²⁸ However, in the last several years the American Army has made enormous strides in its training programs to encourage initiative and risk-taking. At this juncture, the Army needs to articulate a philosophy of mission-oriented command and control and to teach young officers, NCOs, and soldiers that initiative, aggressiveness, risk-taking, and willingness to assume responsibility are integral parts of command and control. Those attributes and qualities are prevalent in the soldiers from a free society, and they should be nurtured and honed in training by focusing on the commander’s intent and by using common doctrine.

Two points must be made with respect to “leadership.” The first is that leadership is inseparable from command and control at the operational level or any other level, although an artificial barrier has been erected between them. It is instructive to note that the German army regulation that discusses their form of command and control is titled *Truppenführung*. That German word translates as troop-leading or troop-directing or troop-commanding. Simply put, leadership and command cannot be separated.

A second point is that the Army has been focusing on the wrong type of leadership. This point is well argued in a recent article in *Military Review* titled “Jazz Musicians and Algonquin Indians,” by retired Colonel Mike Malone and Major Michael McGee. Malone and McGee point out that there are two basic

types of leadership—individual and organizational. The Army has directed most of its efforts to the former, while it should have been concentrating on the latter. Among its central features, organizational leadership promotes “an attitude that emphasizes the relatedness of the unit’s subparts and factors that influence unit performance.”²⁹ Similarly, Richard Simpkin argues that the success of *Auftragstaktik* flows from “the acknowledgement and unreserved acceptance of mutual dependence” in traditional Prussian society.³⁰ The essence of Malone and McGee’s article is precisely what Simpkin is describing based on his research and historical evidence.

IN CLOSING

The Army does not have a coherent philosophy with regard to command and control. Although many documents exist for the various levels of military operations, no unified, consistent written theory exists. This state of affairs contrasts starkly with the example of the German army, which has a long history of exactly the type of regulation required. The introduction of a mission-oriented command and control philosophy in the doctrinal literature of the operational and tactical levels is specifically needed. Priority must be given to teaching the philosophy to the Army at large.

At present the principal missing element in a consistent theory of command and control has to do with the fact that command and leadership essentially form two distinct disciplines in the Army’s Training and Doctrine Command. Leadership is handled at Fort Benning, while command and control is taught at Fort Leavenworth. The two subjects need to be tied closer together through the concept of organizational leadership.

Malone and McGee emphasize in their article that “leadership is a process which must occur within the organization if the organization is to be effective. This process activates, sustains, aims, and synchronizes the smaller parts of the whole system.”³¹ The great value of organizational leadership is that it focuses on the preservation of the

organization. The writings of successful German wartime commanders are replete with specific comments about their actions to preserve their organizations. Focusing on organizational leadership, then, rather than on the infinitely variable individual type of leadership, encourages the growth of a more robust command and control system, increasing the probability that an organization will be effective and will survive.

Many Army programs and initiatives exist that in actuality constitute critical subsets of command and control at all levels, not only the operational. For example, the emphasis by the Army's senior leaders in the last few years on the issue of trust and confidence throughout the chain of command is vitally important. As with all programs, some units and organizations put it into practice while others do not. The importance of trust and confidence to effective command cannot be overstated, and soldiers at all levels should be taught and expected to operate accordingly. The emphasis on mentorship and footlocker counseling, although certainly not promulgated specifically as an element of a command and control training program, contributes to instilling trust and confidence throughout the chain of command. These techniques also contribute to the concept of mission-oriented command and control because, if they are done properly, the subordinate should come away with a better understanding of the senior's intent. Mentorship and counseling can help to eradicate the "them versus us" syndrome that is so debilitating; the techniques can help to establish a unit that executes vigorously because all its members understand the commander's intent. Unanimity of purpose and loyalty to executing the commander's intent are achieved because subordinates understand that they are essential.

A recent political essay by Hugh Sidey, titled "When Trust is Delegated," suggests that one of the principal reasons for President Reagan's wide-ranging success as a leader is that he places trust and confidence in his subordinates:

Reagan's trust in and loyalty to the people who work for him are now paying huge

dividends. Every week Cabinet officers, agency heads, staff assistants, clerks and G.I.s, wherever they may be, take it on the chin for the chief and seem to love it. That trust almost more than any other thing may be the element that holds Reagan's Government together and keeps it on the march even as the President's power begins to wane in the second term.³²

President Reagan's organization functions so well because trust and confidence permeate the executive branch and individuals understand the intent of the "commander."

The emphasis in recent years on encouraging subordinates to take risks and be innovative and aggressive in the training environment also has contributed to trust and confidence, as well as directly giving units and organizations opportunities to experiment in a no-fault environment. Once again, the senior leadership is committed to the concept; if deviations occur, they are most likely made by colonels or lieutenant colonels who fear having a subordinate make a mistake that would be too visible.

The Army's educational system also is contributing immensely to better command and control. One course that is particularly valuable in that regard is the CAS³ course for captains at Fort Leavenworth. The course is demanding and it yields an outstanding product. Those captains will be the "doers" in organizations from battalion level to army group if the country gets involved in a major war. Those officers speak the same language and have been through the same tempering process. The CAS³ course will undoubtedly contribute more to effective command and control than any of the current hardware programs under procurement. A commonality in doctrinal orientation will enable those officers to save their bosses from making grave mistakes.

Despite the presence of these bright spots, the Army remains in need of a coherent and unified philosophy of command and control at the operational level of war. One of the principal lessons emerging from the studies of the Eastern Front during World War II is that with superior command and control, armies can fight outnumbered and

win. Only by developing a coherent approach to command and control will our Army achieve the goal for which it must always strive: winning the first battle, and the last.

NOTES

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3. Martin van Creveld, *Command in War* (Cambridge, Mass.: Harvard Univ. Press, 1985), p. 88.
4. Esposito and Elting, map 63.
5. *Ibid.*, map 68.
6. Russell F. Weigley, *The American Way of War* (New York: Macmillan, 1973), p. 452.
7. Van Creveld, p. 237.
8. *Ibid.*
9. *Ibid.*
10. "US Says One Vessel It Hit Had Come Within 10 Miles," *The New York Times*, 26 March 1986, p. A8.
11. General Donn Starry quoted in Richard Simpkin, *Race to the Swift* (Washington: Brassey's, 1985), p. x.
12. *Ibid.*, p. ix.
13. US Department of the Army, *Operations*, Field Manual 100-5 (Washington: GPO, 1986), p. 1-2.
14. *Ibid.*, p. 1-3.
15. US Department of the Army, US Army Command and General Staff College, *Corps and Division Command and Control*, Field Circular 101-55 (Washington: GPO, 1985), p. 1-4.
16. *Ibid.*, p. 1-5.
17. *Ibid.*, pp. 1-5 to 1-6.
18. Simpkin, p. 227.
19. "The German Army's Mission Oriented Command and Control," *Armor*, 90 (January-February 1981), 12.
20. *Ibid.*
21. Richard F. Timmons, "Lessons From the Past for NATO," *Parameters*, 14 (Autumn 1984), 5.
22. *Ibid.*
23. General Hermann Balck, in transcript, *Generals Balck and von Mellenthin on Tactics: Implications for NATO Military Doctrine*, (McLean, Va.: BDM Corp., 1980), reprinted by the US Army War College for the Art of War Colloquium, April 1983, p. 17.
24. Major General F. W. von Mellenthin, *ibid.*, p. 22.
25. Timmons, p. 7.
26. S.L.A. Marshall, *Men Against Fire* (Washington: Infantry Journal, 1947), p. 149.
27. *Ibid.*, p. 159.
28. Simpkin, p. 219.
29. Dandridge M. Malone and Michael L. McGee, "Jazz Musicians and Algonquin Indians," *Military Review*, 65 (December 1985), 53.
30. Simpkin, p. 243.
31. Malone and McGee, p. 54.
32. Hugh Sidey, "When Trust Is Delegated," *Time*, 26 April 1986, p. 34.

