# Chance Dominates in War

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THE IMAGE BANK (D. JEFFREY)

**It prevents absolute calculations; it misleads; it provides for the seemingly impossible. Chance applies equally to both sides at every level, and the side that best adapts to it is most likely to be victorious.**

In his attempt to explain the phenomenon of war, Carl von Clausewitz delved deeply into the role played by the human element. He proposed that war in fact is a balance among a trinity of forces: the blind natural force of primordial violence and hatred, the rational element of subordination to policy, and the interplay of creative spirit within an environment of chance and probability.[1] Clausewitz alone captured the human element in war, and, as with most remarkable advancements in history, it was essentially a simple thought. That war has an uncertain element is obvious to anyone who has seen combat.

Yet, the predominant role of chance in war has been smothered repeatedly by bureaucratic dogmatism and the phenomenal pace of technological progress since the early 19th century. Dogmatism has shifted the soldier's values away from effectiveness in war toward efficiency and perfection. Technology has been touted as a cure for war's fog and as the principal means of ensuring victory, eliminating the need to deal with the element of chance or, in extreme cases, with the element of military expertise.[2] Time and again, soldiers have placed their trust too exclusively in technology, only to learn through hard experience that the reality of war demands a more balanced approach.

Chance cannot be eliminated in war. It applies equally to both sides at every level, and the side that best adapts to it will most likely be the victorious one. We must build a system that will minimize its effects on our own forces and maximize its deleterious effects on the enemy.

## *The Concept of Chance In War*

Chance touches every facet and every act of war. The key to understanding its pervasive role is Clausewitz's concept of war as the interaction of opposed wills. The enemy reacts to your every move, but he does so based on his own objectives, capabilities, and perceptions. Because you can never know all of the elements that go into his calculations, you can never predict what he will do. Thus, the very nature of war is built on chance.

Chance in war takes on many guises. It is what we call luck, such as the lucky shot that kills the enemy general or the failure of a key piece of equipment at just the wrong time. It also operates through what Clausewitz calls friction—the little elements that combine in war to impede progress, from fatigue to the weather to misunderstandings and indecision. Finally, chance arises from the uncertainty that pervades war, the fog of war in Clausewitz's terms.[3] The commander can never be certain of the situation because of its human element. Information can be absent or misleading, orders can be garbled or misunderstood, and the intentions of the enemy can never be known fully.

Chance, then, prevents us from calculating with any degree of accuracy how any action is going to go. We cannot rule out the random event. We cannot know the myriad details that direct war along a given course. We cannot see the whole thing. We are forced, therefore, to make assumptions, to make intuitive judgments, to guess. The commander is forced from the identification of absolutes to the calculation of probabilities.[4] Chance turns war from a deterministic science to a nonlinear art, where two plus two rarely equals four and similar sets of initial conditions will never produce the same result.[5]

Chance, it would seem, is constantly stepping in to thwart our every move and plan. Fortunately, however, chance operates equally against the enemy commander. If a commander can limit the negative influences of chance on his own plans and maximize its negative influence on his opponent's, then he greatly enhances his opportunities for success. When seen in this light, chance is a welcome element on the battlefield. It lessens the impact of pure numbers and technological capabilities, encourages a commander's ingenuity, and provides for the seemingly impossible victory of a materially inferior force over a superior one.

## *What the Element of Chance Demands*

As a central element in the fundamental nature of war, chance requires that a force be able to adapt to unforeseen circumstances, and to do so quickly. The need for adaptability, in turn, requires such qualities as timeliness, flexibility in command, initiative at the lowest possible level, eagerness to act, an ability to sense the nature of the battle quickly, and simplicity in doctrine and plans.

➤ *Time.* Because of the interactive nature of war, circumstances change constantly. War is a fluid phenomenon where each episode "merges with those that precede and follow it—shaped by the former and shaping the conditions of the latter—creating a continuous, fluctuating fabric of activity replete with fleeting opportunities and unforeseen events."[6] With every delay in action, a commander risks missing those fleeting opportunities; with every period of indecision he risks surrendering initiative to the enemy. It is the exploitation of chance in time, therefore, that can aid our efforts and paralyze the enemy.

➤ *Flexibility and Initiative.* The ability to adapt and to exploit fleeting opportunities—to bend chance to one's advantage—rests in forces that are trained, equipped, and organized to maximize flexibility at all levels of the chain of command. This in turn argues for the development of initiative at the lowest possible level, for boldness and innovation combined with the sense of time, tempo, and momentum.[7] Such a recipe runs counter to our normal training, because it risks allowing subordinates to make mistakes and to do things we do not expect. But the nature of war compels us to adopt such a structure; our normally linear approach prevents the adaptability needed to exploit war's unpredictable nature.

History is replete with examples of a failure to take this demand of chance to heart. For example, in 1941-42, the Soviet Army was outmaneuvered by the Germans time and again, because, among other things, the Germans were trained to decide at the lowest possible level while the Russians had to clear changes through higher commands. With few exceptions, the Germans were therefore able to operate inside what John Boyd calls the enemy's OODA cycle—observation, orientation, decision, action.[8] German armor commander General Hermann Balck noted that his favorite subordinate commanders were those who could be given the general outline of action and then carry on with little subsequent direction.[9]

The German approach suggests several things. First, the subordinate commanders understood the general thrust of operations, not only for themselves, but also for adjacent units, and they operated from a common, well-understood doctrine. Second, they understood that they were to exploit opportunities as they occurred, without waiting for authority from above. Finally, General Balck felt confident in his ability to overcome any local errors or problems created by such a fluid method of operating.

➤ *Eagerness to Act.* Forces must be trained to accept eagerly the responsibility for deciding to act. This requires an organization that is prejudiced to tolerating mistakes rather than to censuring them—so long as subordinates act. Failure to act must be seen as more reprehensible than to make a mistake in acting. Obviously, severe mistakes may require the removal of the officer concerned; most other mistakes teach hard lessons and can be overcome.

Such an organizational perspective acknowledges that the ability to decide and act independently is a frail blossom that must be nurtured carefully. Above all, it recognizes the difficulty of deciding amid uncertainty. It is one thing to sit in the comfort of the classroom and say what one would do if confronted with a given situation. It is quite another to realize that situation and to decide—to sift through the information and impressions, to overcome fear and fatigue, to question the wisdom of the move, to wonder whether it is in accordance with the plan, to worry about the lives that might be lost, and then, in the end, to act. Any organization hoping to adapt to chance in war must cultivate—consciously and aggressively—the willingness and eagerness to accept responsibility and to act.

➤ *An Ability to Sense the Battle.* The ability to sense the battle and refine judgment under pressure is what Clausewitz refers to as coup d'oeil, or 'inward eye.'[10] It also applies to the ability to sense what is possible and what is not within the vagaries of chance. Cultivation of coup d'oeil goes hand-in-hand with encouragement of boldness, initiative, and eagerness to accept responsibility. Each accelerates the growth of the other and each amplifies the other's impact.

➤ *Simplicity.* Plans must be as simple as possible, with clear objectives that allow subordinate commanders to exercise their initiative in pursuit of the overall goal, because no plan can anticipate all the circumstances and uncertainties through which it must operate. At the same time, plans also must emphasize speed and tempo in developing the momentum needed to push through enemy resistance—both psychological and physical. Such plans are much more likely to succeed than those that ignore chance.

Perhaps the best negative example of this is the highly complex and rigid Japanese plan for the capture of Midway Island in June 1942. It called for widely separated forces to support the objective in such clockwork fash-

ion that any unexpected development could cause the whole plan to collapse. This rigidity was compounded by the assignment of more than one objective to the striking force commander—to capture Midway and later to destroy the U.S. fleet. The plan did not allow for the U.S. carriers to come out early, before the island was captured. When they did, the entire Japanese plan collapsed. Chance, friction, and simplicity were ignored in planning, and defeat was the result.[11]

DOD (R.D. WARD)

**Training cannot replace combat experience, but if it mimics the elements of war—friction, danger, fatigue, and uncertainty—it can provide the perspective needed to overcome the shock of combat when it comes. U.S. Army Europe's wargaming facility, which links individual commanders so that battle results are determined by each combatant's skill, is a start. Exercises such as this one at Ft. Irwin, California, (opposite) which train soldiers using realistic multiple integrated laser engagement systems, will help to further reduce the line between training and actual combat.**

War is nonlinear. It is the realm of chance, and organizations that disregard this fact risk defeat in combat. Chance demands that we be able to adapt quickly to circumstances on the battlefield; risk taking in terms of decentralization of decision making can actually decrease the overall risk of an operation. That this must confound people who have been brought up in the linear world of science and engineering is certain. That it must be acknowledged and internalized is also certain, if we are to prevail in war.

## *Implications for U.S. Forces*

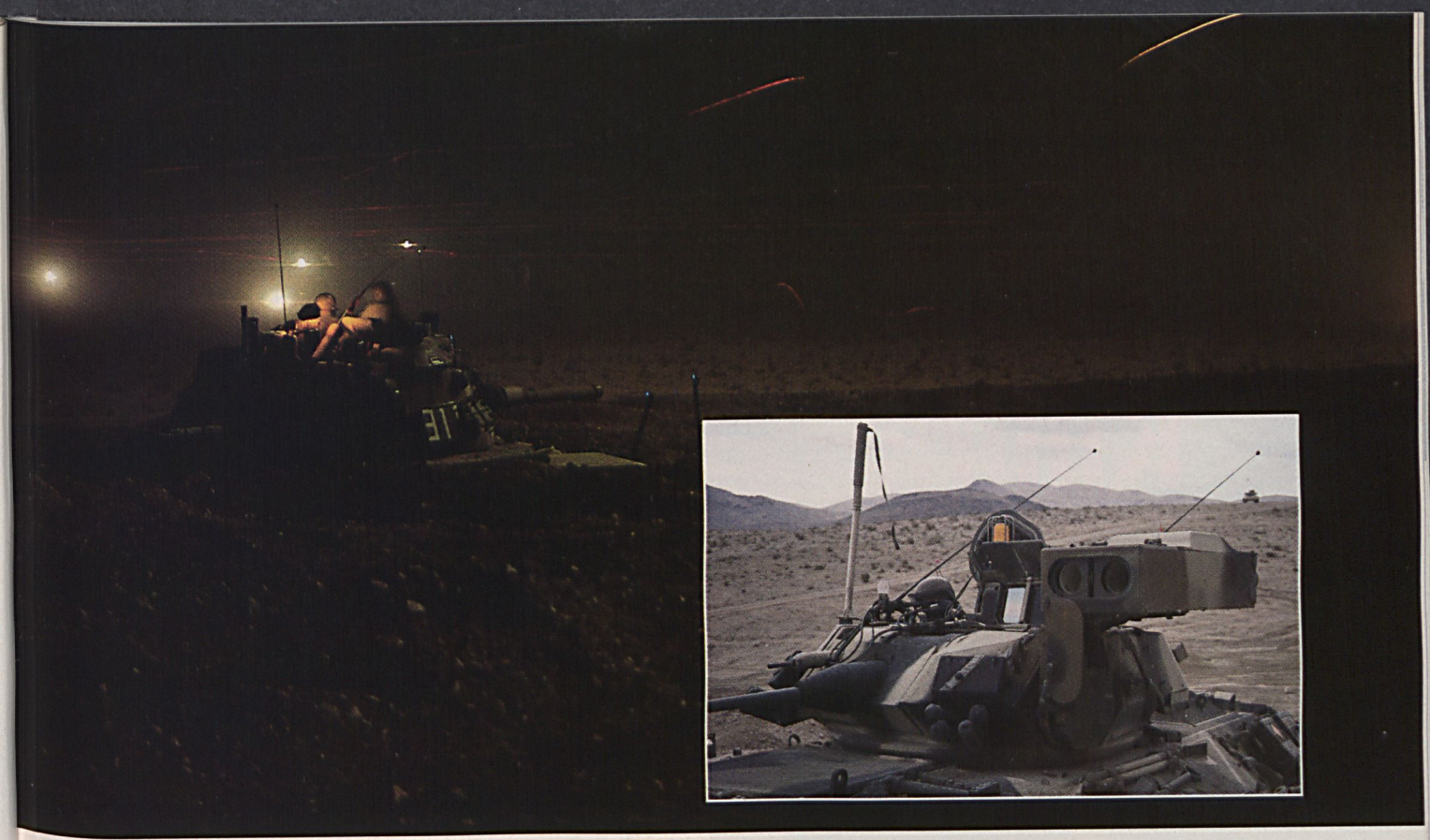
Absent major war and in the face of rapid technological change, we risk returning to the linear mentality that is so comfortable. Yet, we ignore the lessons of history and the role of chance at great peril. The nature of chance and the demands it places on the conduct of war have direct implications for the organization, training and doctrine, and equipment of the U.S. military.

➤ *Organization.* First, our armed forces must be organized and conditioned for flexibility at every level. This requires an emphasis on initiative at the lowest level, as well as an efficient feedback system. It also requires thorough training at all levels of the chain of command so that seniors feel confident in giving their juniors the latitude they need to exploit opportunities quickly. This organizational construct requires that boldness and initiative be rewarded over the success of a given mission. Especially in peacetime, we should be concerned with the process, not necessarily the outcome. This, of course, requires some inefficiencies, which are hard to sell, but it will provide the fertile soil in which sound combat leaders will grow.

➤ *Doctrine and Training.* Together, doctrine and training determine how an armed force will approach the novel conditions that each war and each engagement present. A flexible doctrine, such as the Marine Corps' maneuver-warfare concept, provides all levels in the organization with a similar frame of reference.[12] When that doctrine also acknowledges the nonlinear nature of war and encourages all levels of the chain of command to operate within the element of chance rather than against it, it provides the essential underpinning to successful operations in war.

Doctrine, however, is insufficient on its own. The commander and his troops must be trained to the doctrine, with the equipment at their disposal. Training should emphasize that nothing can be relied on in combat but the ability to take each situation on its own merits, to decide on a course of action, and to act. Training should include to the maximum extent possible the elements of friction, danger, fatigue, and uncertainty that pervade war. It cannot replace combat experience, but realistic training can provide the perspective needed to overcome the shock of actual combat when it comes. Above all, it can equip our forces with the tools needed to succeed in the environment of chance.

➤ *Equipment.* Our forces must be equipped with technology that is rugged, redundant, sustainable, and of the highest quality. Chance too often has stepped in at the most inappropriate time to disable a key weapon system. Lack of redundancy and ruggedness can have disastrous repercussions if the missile won't shoot, the plane won't fly, or the gun won't fire when you need them. Our weapon systems often are designed and built by technologists, who have different measures of effectiveness than do warriors and who are subject to the ever-present demands of fiscal efficiency. Technical perfection and low cost do not necessarily create a system that accounts for chance in war. Without substantial and forceful warrior input into systems development, we risk having weapons that will only suffice if they work perfectly



LORAL/INSET: ARMS COMMUNICATIONS (G. STEWART)

every time—and that does not conform to the reality of chance in war.

## *Conclusions*

The effort in every area of war preparation—organization, doctrine, training, and equipment—should be directed toward giving our forces the capability to operate within the environment of chance and to exploit its nature against our enemies. Our systems must be tailored so that the right kinds of minds are developed—ones willing and eager to accept responsibility, innovative in developing solutions to unanticipated problems, and able to decide and act quickly in an environment full of danger, fatigue, and uncertainty.

Our junior schools tend to emphasize the linear logic necessary to comprehend the technology we use every day—and that understanding is critical to successful combat operations. Nevertheless, those same schools often give short shrift to the other side of the equation, the theoretical and historical foundation that expounds the nonlinear nature of war. We must be alert in our efforts to present the full picture of the art of war—encompassing doctrine and chance as well as technology—from the very beginnings of our officer training programs. It is only through experience combined with an understanding of history and theory that the combat commander develops the framework that allows him to adapt to the unexpected and the surprising in combat.

For the most part, it would appear that we, as a military, are heading in the right direction. The danger, of course, is that our recent experience in Desert Storm, if accepted as the paradigm for modern war, may generate exactly the wrong lessons. The wonderful performance of technology there, as well as the superb conduct of our troops against Iraqi forces, may blind us to the more enduring lessons of war. When analyzing that conflict and the systems with which we fought it, we must do it through the lens of chance and the nonlinear nature of war. Any other lens will ensure that we gradually drift away from the reality of war and may find us unprepared the next time we face combat.

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[1]Carl von Clausewitz, *On War*, ed. and trans. by Michael Howard and Peter Paret (Princeton, N.J.: Princeton University Press, 1984), p. 89.

[2]There are numerous works that treat the issue of technology and war. See especially, Martin van Creveld, *Command in War* (Cambridge, Mass.: Harvard University Press, 1985) and *Technology and War: From 2000 B.C. to the Present* (New York: The Free Press, 1989), as well as Edward N. Luttwak, *Strategy: The Logic of War and Peace* (Cambridge, Mass.: Harvard University Press, 1987).

[3]Clausewitz, p. 101.

[4]"From the very start there is an interplay of possibilities, probabilities, good luck and bad that weaves its way throughout the length and breadth of the tapestry." Clausewitz, p. 86.

[5]A superb discussion of the nonlinear nature of war and Clausewitz's realization of this fact is contained in Alan Beyerchen, "Clausewitz, Nonlinearity, and the Unpredictability of War," *International Security*, vol. 17, no. 3 (Winter 1992/3), pp. 59-90.

[6]Department of the Navy, Headquarters, U.S. Marine Corps, *FMFM-1 Warfighting* (Washington), p. 8.

[7]The Marine Corps has heavily stressed the importance of momentum in shaping the battlefield for victory of the numerically inferior over the numerically superior. See *FMFM-1 Warfighting*, pp. 31-37.

[8]Cited in Cdr. Linton Wells, USN, "Maneuver in Naval Warfare," U.S. Naval Institute *Proceedings*, December 1980, p. 36.

[9]"Translation of Taped Conversation with General Hermann Balck, 13 April 1979" (Columbus, Ohio: Batelle Columbus Laboratories Tactical Technology Center), p. 26.

[10]Clausewitz, p. 102.

[11]RAdm. Edwin T. Layton, USN (Ret.), *"And I Was There": Pearl Harbor and Midway—Breaking the Secrets*, with Capt. Roger Pineau, USNR (Ret.), and John Costello (New York: William Morrow & Co., 1985), pp. 406-408.

[12]See *FMFM-1 Warfighting* for elaboration of this doctrine.

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