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DEFEATING SURPRISE?

by

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Lieutenant Commander, U. S. Navy

A paper submitted to the faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Maritime Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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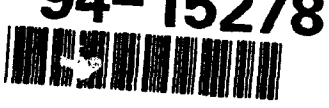
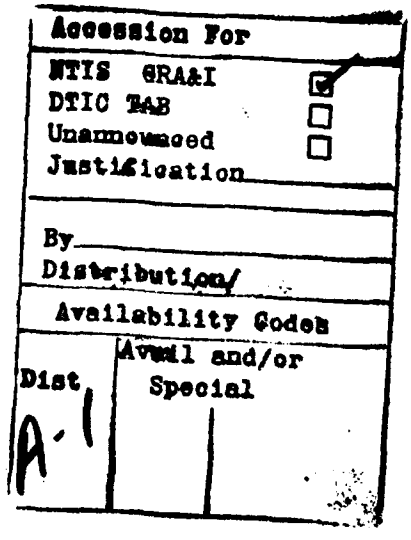


Abstract of
DEFEATING SURPRISE?

Surprise is an extremely useful technique to employ in warfare. Historically, it has been used with varying degrees of success at the operational level of warfare. In addition, it has normally been reviewed from the view of the attacker. By building a framework that describes the interaction between the attacker and the victim, some insight can developed as to whether surprise can be defeated by the victim.



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CHAPTER I

INTRODUCTION

Of all the principles of war, surprise has clearly underpinned most of the successful campaigns and operations throughout the twentieth century. From the W.W.II Normandy landing to MacArthur's Inchon landing during the Korean War, surprise has played an instrumental role in the way modern warfare has been fought.

Historically, surprise has been recognized as a relatively important principle of war. However, it's utility and practicality has been disputed by the "masters of war." Carl Von Clausewitz argued:

> . . . while the wish to achieve surprise is common and, indeed, indispensable, and while it is true that it will never be completely ineffective, it is equally true that by its very nature surprise can rarely be outstandingly successful. It would be a mistake, therefore, to regard surprise as a key element of success in war.[1]

On the otherhand, Sun Tzu was more endeared to the principle. Surprise and deception were recurring themes in his book "The Art of War". He advocated, "Attack when they are unprepared.. .,"[2] and argued, "All warfare is based on deception."[3]

Sun Tzu described surprise essentially at the tactical level of war, while Clausewitz questioned its usefulness at the higher levels of war. Clausewitz argued,

> Basically surprise is a tactical device, simply because in tactics, time and space are limited in scale. Therefore in strategy surprise becomes feasible the closer it occurs to the tactical realm, and more difficult, the more it approaches the higher levels of policy.[4]

Jomini maintained, "the surprise of an army is now next to an impossibility . . .."[5] These observations were made in the context of nineteenth century continental warfare. The lack of mobility of large armies, limited firepower, and simple communication means lay at the foundation of these observations.

However, the Industrial Revolution radically altered the nature of warfare. The unprecedented advance in technology, provided generals and their armies with tools necessary to make surprise possible at the higher levels of war.

These changes in warfare may have supported J. F. C. Fuller in 1920 to write, "Surprise should be regarded as the soul of every operation. It is the secret of victory and the key to success."[6] It now appeared that the wisdom and counsel of Sun Tzu was applicable also at the operational and strategic levels of war. The examples in the twentieth century that proved the utility of surprise are numerous. Among these are the Japanese attack on Pearl Harbor, the North Vietnamese

TET Offensive during the Vietnam War, and the finally the American "end run" during Gulf War against Iraq.

When assessing the apparent unfailing utility and frequency of surprise in the higher levels of modern warfare, questions arise. What are the key elements of surprise that make it so successful? Can anything be done to mitigate or prevent surprise? These questions will provide the focus for the following discussion on, "Defeating Surprise?"

CHAPTER II

THE ELEMENTS OF SURPRISE

Fundamental Concepts. The primary effect of surprise is the physical dislocation of the enemy's forces. This effect allows the commander to achieve superiority at the decisive point. A concept proposed by Clausewitz.[7] Additionally, B. F. Liddell Hart writes, "by using the indirect approach the enemy may not only lose his physical balance but he may lose his psychological balance as well."[8] J. F. C. Fuller expanded on this aspect of surprise saying,

> The object of surprise is to attack the will of the enemy by accentuating fear, for if a man is reduced to such a state of fear that he can do nothing save think of protection, he is at our mercy, for his endurance has ceased to dominate him.[9]

Physical and psychological dislocation are simplified and historical characterizations of the complex reactions resulting from surprise. However, they provide a starting place from which to identify the ways and means of achieving surprise.

Methods Used by the Attacker. There are three generally accepted ways an operational commander can achieve surprise. Current U. S. Army Doctrine lists these as striking the enemy at an unexpected time or place, or in an unexpected manner.[10]

The most common, and probably easiest manner to achieve surprise is to attack at an unexpected time. Take for example the 1973 Yom Kippur War. Fighting had continued at various levels of intensity between the Arabs and the Israelis since the conclusion of the 1967 Six Day War. The Israelis estimated the Arabs would not be able to wage a major attack until 1975.[11] Not withstanding, the Israeli's were surprised in October of 1973. Compounding the timing issue further the attack occurred during the Moslem religious month of Ramadan and on the most holy of Jewish holidays, Yom Kippur.

The degree of success achieved in utilizing timing alone is dependent on the difference between the estimated and actual time of the attack.[12] This time difference also correlates well to the level of warfare being considered. At the strategic level one must decide whether the attack will occur at all, much less when. Conversely, at the operational level, the forces may already be engaged in hostilities and the expectation of attack is not disputed. The 1991 Gulf War is a good example of this. After the air campaign started in January 1991, it was fairly clear that the coalition forces would eventually follow with a ground phase. However, the range of dates for the beginning of the ground phase covered several weeks.

Attacking at an unexpected location is another way to achieve surprise. Sun Tzu writes, "appear at places to which he must hasten, move swiftly where he does not expect you."[13] Historically, this was extremely difficult to achieve at the operational level of war because, "concentrating troops at their main assembly points generally requires . . . considerable troop movements, whose purpose can be guessed soon enough."[14] Mobility through mechanization and airlift solved this problem. An excellent example of this is the Battle of the Bulge. The German counteroffensive at the Ardennes caught the allies off guard. A brilliant deception plan, coupled with the assumption the Ardennes was a nonthreatening area, allowed the allies to focus their efforts elsewhere.[15]

The final way to achieve surprise is by altering the method in which the operation will be fought. This change may include new methods of warfare or tactics as well as technological advances in weaponry. In the Yom Kippur War, the Israelis had anticipated a repeat of the air superiority demonstrated in the 1967 Six Day War. The expected Israeli rout of the Egyptian Air Force failed to materialize. The Egyptian weakness in air-to-air combat was compensated for by massive deployments of ground based air defenses. The initial 8000 Egyptian shock troops were heavily armed with portable

Soviet made SA-7 missiles.[16] The portable missiles were complemented by a relatively impregnable air defense umbrella consisting of longer range SA-2,3,6 missiles and ZSU-23-4 anti-aircraft guns. The Israelis had developed counter measures and tactics for the SA-2 and SA-3 missiles. However, the combination of the modern SA-6, SA-7 and the ZSU-23-4 AA guns proved formidable. One United Nations observer noted eighty percent aircraft casualties in one Israeli air attack on the first day of the war.[17] In addition, the Egyptians claim that not a single bridge across the Suez Canal was permanently destroyed by the air attacks.[18]

Although useful, this type of surprise appears less effective than the other two methods.[19] In the case of the Yom Kippur War, the Israelis were eventually able to counter the SAM threat with combined arms coordination. This was a new type of maneuver for the Israelis, surprising the Egyptians in return.[20]

The Attacker's Means. The means available to the attacker to achieve surprise fall into three categories: security, deception, and speed. Security is the starting point from which the possibility of surprise emerges and lays the foundation for deception to work. Divorced from any additional efforts by the attacker or the cooperative effort of the victim, the protection of plans, intentions, and capabilities

can produce surprise. By forcing the enemy to estimate capabilities and intentions the possibility of surprise improves.

The second means used to achieve surprise is through deception. It is the main offensive weapon of surprise and takes many forms. The range of options can include concealment of forces through camouflage, active or passive misinformation, feints and diversions. Sun Tzu maintained, ". . . when capable, feign incapacity; when active, inactivity. When near, make it appear that you are far away; when far away that you are near."[21] This sage advice is supported by the more pragmatic Niccolo' Machiavelli, who said, "It is necessary to be . . . a great feigner and dissembler; and men are so simple and so ready to obey present necessitous, that one who deceives will always find those who allow themselves to be deceived".[22] Deception plays on the intrinsic weakness of the defenders estimative and decision making processes.

The final means to achieve surprise is through speed. Generally, the degree of surprise achieved is proportional to the speed with which maneuver is executed. That is one of the reasons Clausewitz and Jomini dismissed surprise at the operational level. The armies of their day couldn't maneuver quickly enough to capitalize on the effects of security or

deception because their intentions were quickly unveiled. However, as mobility improved, speed improved and as result more surprise.

The utility of speed may wane as a means of operational surprise, as command and control warfare (C^2W) catches up with the advances in mobility. Commanders will gain the ability to observe the whole "battlefield" counteracting the effects of speed.

The Victim's Role in Surprise. The foregoing discussion on the ways and means of surprise pointed to the role of the victim in surprise. Even if the attacker fails to actively employ the tools of surprise, the effect on the defender may still be the same. The reason for this is the importance beliefs, ideological bias, organizational cognitive processes, perceptions and assumptions play in understanding the enemies capabilities and intentions. Lieutenant General Bar-lev of the Israeli Defense Force said it well.

> Surprise is a paramount principle of war that belongs in the sphere of psychology. Unlike some other principles that depend on the means of war, surprise relies mainly on the conceptual ability to overcome the enemy's understanding of what's going on. It is directed against the psychology of the enemy with the intention of exploiting his weak points.[23]

In general, surprise can be categorized in two ways with respect to the victim. First the commander may be surprised because the enemy is acting in a manner that is not expected.

This type of surprise has been called "technical,"[24] where assumptions and predictions may be in error. It is the result of either the tools of surprise employed by the enemy, failures in collecting intelligence, or making assumptions based on myth or wishful thinking. The second way to be surprised has been described as "fundamental" or "behavioral."[25] In this case, the commander and his staff have a basic conceptual flaw. For example, MacArthur could not envision Chinese Communist intervention into the Korean War. He believed Mao was preoccupied with internal consolidation of power and the issue of Taiwan. The Israeli's had the same problem in the Yom Kippur War. The Egyptian's decision to use ground based air defense to counter Israeli air superiority destroyed the Israeli concept of the necessity for an improved Egyptian Air Force before a major Arab offensive could be renewed. Whether behavioral or technical, the cognitive qualities of the commander and his staff play an important role in creating the conditions to be surprised. The ability to objectively collect, analyze, and interpret information about the enemy capabilities and intentions is the key task for the commander to avoid surprise.

Estimating Enemy Capabilities and Intentions. The biggest problem in determining capabilities and intentions is removing the layers of filters that obscure the signal. A signal can be

described as a piece of evidence, clue, or data pointing to a specific capability or intention. The signal may be suppressed by enemy security measures. Concurrently, irrelevant or incorrect information might misdirect or obscure the real signal. This information can be deliberately created by the adversary (deception), by chance, or some by victim himself. The complexity of just sorting out this overabundance of information makes it easy for misperceptions to develop during its interpretation.

The reasons for these misperceptions are numerous. First, people fit the incoming information into their existing framework for describing a certain situation. In other words, they have a tendency to see what they want to see and disregard the rest.[26] Personal or organizational beliefs and experiences coupled to a framework of historical analogy are at the root of this issue. Second, intentions and capabilities are arrived at prematurely with minimum confirmation because it validates a theory or assumption. Similarly, planners and intelligence personnel will unknowingly manipulate data that is out of place in order to save a theory.[27] Thirdly, small clues to alternative capabilities and intentions are ignored if received piecemeal.[28] Lastly, to interpret information correctly requires an assessment of the caliber of the adversary, his risk tolerance and interpretation of you. In

general, even if you get the right signals the interpretation may be wrong or distorted.

Even after the estimative process has been accomplished as objectively as possible, the commander of the defending forces must select a course of action for his own forces. Once again the behavioral and cognitive bias already discussed come into play again. However, it is at this point the seeds of "behavioral" surprise are more likely to appear. The preconceptions and "theories" are now, those of individuals vice the military organization. More importantly, these perceptions are probably more deeply held. Enemy capabilities and intentions provided by the estimative process may be dismissed or ignored to support a personal theory or concept.

Again, the 1973 Yom Kippur War provides a good example of how senior leadership and their decision process contributes to surprise. The Israeli leadership's "concept" was that the Arabs could not threaten a full scale attack on Israel. They failed to anticipate Sadat would renew the fighting to achieve limited aims. Specifically, Anwar Sadat's goal was to restore Arab prestige and force the Israelis to negotiate.[29]

A Framework for Surprise. Figure 1 shows the combined actions of the victim and the attacker that results in operational surprise. The "ways" of achieving surprise are included in the actual plans and intentions of the attacker.

Deception and security measures used by the attacker, act on the estimative and decision making processes of the defender. At the same time background noise and the defender's cognitive problems complicate the selection of a course of action to counter the estimated attacker intentions and capabilities. The mismatch between the defenders course of action and the attacker's "actual" execution of his plans complemented by speed results in surprise.

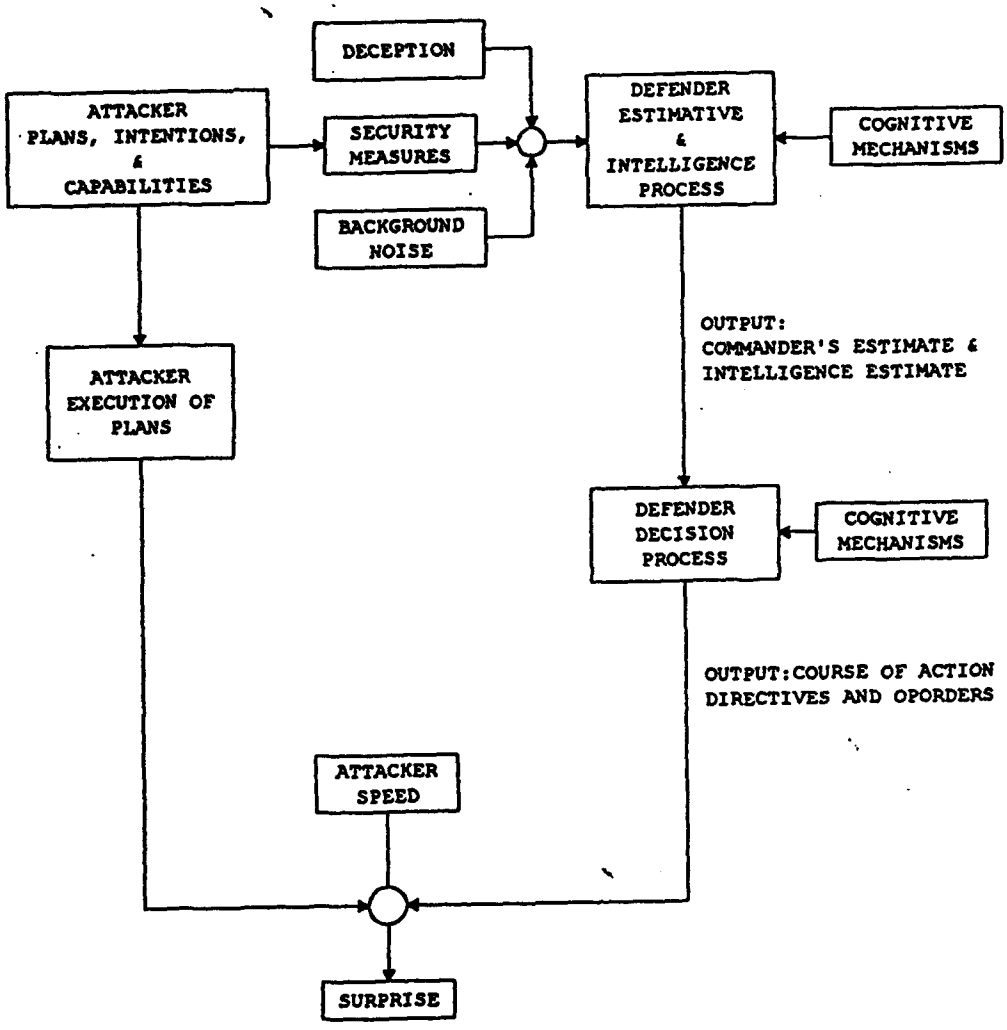
Using this simple framework the complexity of surprise now becomes clear. Clausewitz's general observation of war also seem to hold true for the element of surprise:

> In short, absolute, so-called mathematical, factors never find a firm basis in military calculations. 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. In the whole range of human activities, war most closely resembles a game of cards.[29]

For example, assume that the defender has a copy of the attacker's plans and directs his forces perfectly to counter these plans. In this situation, the estimative and decision making processes of the defender approach the purely objective. However, the uncertainty Clausewitz has described may affect the interaction. The attacker may execute his plans poorly or incorrectly. This may result in the defender being surprised in some degree due the unexpected action by the attacker. So even the "sure thing" may produce surprise.

FIGURE 1

A FRAMEWORK FOR SURPRISE



CHAPTER III

DEFENDING AGAINST SURPRISE

Based on the foregoing discussion it is clear the victim can not eliminate the possibility of surprise attack. However, there are steps the operational commander can take to reduce the degree to which it occurs.

First, the development of the range of enemy capabilities derived in the Intelligence Estimate and the Commander's Estimate must be a rational process. Military planners and intelligence analysts must clearly understand the problematic nature of the data and the process they use to make their estimates. By recognizing the influence of their expectations and preexisting beliefs, they may be more sensitive to alternatives. In addition, the list of enemy capabilities and the likelihood of adoption must be continually tested. Identify the kind of information that would invalidate the current assessment of enemy capabilities. A tickler system for tagging this type of information would force a reassessment thus preventing important data from getting lost in the noise.[30] This effort could be supported by a cell of analysts whose job it would be to discredited the accepted set of enemy capabilities. Alternatively, an independent group of analysts could be tasked to construct the enemy capabilities using the

same data. For example, if CINCCENT was the operational commander, a supporting CINC could tasked to have his staff work the problem in parallel.

Second, the operational commander must create a spirit of openness on his staff. By encouraging dissenting opinions and unconventional analysis, the prevailing concept might always remain in question. This is a difficult task to accomplish. The key is to encourage this type of free thought and analysis throughout the military education system

Thirdly, conduct operational planning assuming the worst case scenario. By building surprise into operational plans then it's effect might be mitigated. The pitfall with this solution is that with current downsizing, the resources and forces may not be available in the theater of operations.

Fourth, the idea of coup d'oeil on the part of the commander must be looked at with suspicion especially at the operational level of war. Operational commanders must fight the propensity to make decisions based on their own estimates since the limitations of human perceptions will prevail.[31]

Another way to reduce the propensity for surprise is aggressively attack the security "filter" that protects the enemies plans and intentions. For example, prior to the Battle of Midway during World War II, deception by the Japanese made it unclear as to their next major move in the Pacific.

However, the Japanese code was broke by the Americans and indicated the main attack would come at Midway Island.[32] By overcoming the Japanese security filter, Admiral Nimitz was able to anticipate the Japanese moves and concentrate his small Pacific Fleet for success at the Battle of Midway.

Finally, command and control systems must continue to be improved. By allowing the commander to see a real time picture of the area of operations, speed can be regulated back to the tactical level of warfare.

CHAPTER IV

CONCLUSIONS

Their is no panacea to prevent the human propensity to be surprised. Misperceptions are inevitable. At best a commander and his staff can improve their awareness and take efforts to combat the cognitive mechanisms working against them. This coupled with the technological advantages in command and control warfare should produce a reduction in the frequency that surprise affects the final outcome of an operation or campaign. However, the bottom line is that "in war more than anything else, things do not turn out as expected."[33] As such, the future success in defeating surprise will probably depend as much on chance, as on the methods employed against it.

NOTES

[1] Clausewitz, Carl Von. On War. Edited and Translated by Michael Howard and Peter Paret, (Princeton: Princeton University Press, 1984), p. 198.

[2] Sun Tzu, The Art of War, Translated by Samuel B. Griffith (London: Oxford University Press, 1963; reprint ed.), p. 69.

[3] Sun Tzu, p. 66.

[4] Clausewitz, p. 198.

[5] Baron de Jomini, The Art Of War, Trans. Capt. G. H. Mendell and Capt. W. P. Craighill (Westport: Greenwood Press, 1977), p. 209.

[6] J. F. C. Fuller, The Foundation of the Science of War (London: Hutchinson and Company, Ltd., 1923), p. 272.

[7] Clausewitz, Carl Von. On War. Edited and Translated by Michael Howard and Peter Paret, (Princeton: Princeton University Press, 1984), p. 198.

[8] B. F. Liddell Hart, quoted in Brian Bond, Liddell Hart, A Study of His Military Thought (London: Cassel, 1976), p. 56.

[9] Fuller, p. 273.

[10] U.S. Army Department, Field Manual, FM 100-5, Operations (Washington, 1993), p. 7-1.

[11] Samuel M. Katz, Soldier Spies: Israeli Military Intelligence. (Novato: Presidio Press, 1992), p. 236.

[12] Ephraim Kam, Surprise Attack: The Victim's Perspective (Cambridge: Harvard University Press, 1988), p. 15.

[13] Sun Tzu, p. 96.

[14] Clausewitz, p. 198.

[15] Robert L. Clark, The Essential Elements of Surprise (Fort Leavenworth, Ks., 1987), p. 18.

[16] Mohamed Heikal, The Road to Ramadan (New York: Quadrangle/New York Times Book Co., 1975), p. 15.

[17] Trevor N. Dupuy, Elusive Victory: The Arab-Israeli Wars, 1947-1974 (New York: Harper and Row, 1978), p. 419.

[18] Dupuy, p. 472.

[19] Kam, p. 19.

[20] Dupuy, p. 552.

[21] Sun Tzu, p. 66.

[22] Niccolo Machiavelli. The Writings of Niccolo Machiavelli, Ed. and Trans. by Christian E. Detmold (Boston: James R. Osgood and Co., 1882), p.

[23] Julian Critchley. Warning and Response. (New York: Crane, Russak, and Company, 1978), p. 75.

[24] Avi Shlaim, Failures in Intelligence Estimates: The Case of the Yom Kippur War," World Politics, April 1976, p. 364.

[25] Kam, p. 8.

[26] Roberta Wohlstetter, Cuba and Pearl Harbor: Hindsight and Foresight (Santa Monica: Rand, 1965), p. 21.

[27] Wohlstetter, p. 22.

[28] Robert Jervis, "Hypotheses of Misperception," World Politics, April 1968, p. 465.

[29] Dupuy, p. 387.

[30] Clausewitz, p. 86.

[31] Richard E. Neustadt and Ernest R. May, Thinking in Time (New York: The Free Press, 1986), p.153.

[32] Kam, p. 218.

[33] E. B. Potter Nimitz. (Annapolis: Naval Institute Press, 1976), p.76.

[34] Clausewitz, p.193.

BIBLIOGRAPHY

Bond, Brian. Liddell Hart, A Study of His Military Thought. London: Cassel, 1976.

Clark, Robert L. The Essential Elements of Operational Surprise. Fort Leavenworth, KS.: USACGSC, 1987.

Clausewitz, Carl Von. On War. Edited and Translated by Michael Howard and Peter Paret, Princeton: Princeton University Press, 1976.

Critchley, Julian. Warning and Response. New York: Crane, Russak, and Company, Inc., 1978.

Dupuy, Trevor N. Elusive Victory: The Arab-Israeli Wars, 1947-1974. New York: Harper and Row, 1978.

Fuller, J. F. C. The Foundation of the Science of War. London: Hutchinson and Company, Ltd., 1923.

Heikal, Mohamed. The Road to Ramadan. New York: Quadrangle/New York Times Book Co., 1975.

Jervis, Robert. "Hypothesis on Misperception," World Politics. April 1968, pp. 454-479.

Jomini, Baron de. The Art Of War. Westport: Greenwood Press, 1977.

Kam, Ephraim. Surprise Attack: The Victim's Perspective. Cambridge: Harvard University Press, 1988.

Katz, Samuel M. Soldier Spies: Israeli Military Intelligence. Novato: Presidio Press, 1992.

Machiavelli, Noccolo. The Writings of Niccolo Machiavelli. Ed. and Trans. by Christian E. Detmold. Boston: James R. Osgood and Co., 1882.

Neustadt, Richard E. and Ernest R. May. Thinking in Time. New York: The Free Press, 1986.

Potter, E. B. Nimitz. Annapolis: Naval Institute Press, 1976.

Shlaim, Avi. " Failures in National Intelligence Estimates: The case of the Yom Kippur War." World Politics, April 1976. pp. 348-380.

Sun Tzu. The Art of War. Translated by Samuel B. Griffith. New York: Oxford University Press, 1963: Reprint ed., 1971.

U.S. Department of the Army. Field Manual, FM 100-5, Operations. Washington, 1993.

Wohlstetter, Roberta. Cuba and Pearl Harbor: Hindsight and Foresight. Santa Monica: Rand, 1965.