AD-A264 391

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖

NAVAL WAR COLLEGE
Newport, R.I.

INTELLIGENCE AND SURPRISE:
THE BATTLE OF MIDWAY

by

Stephanie A. Markam

Lieutenant Commander, United States Navy

A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Military 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.
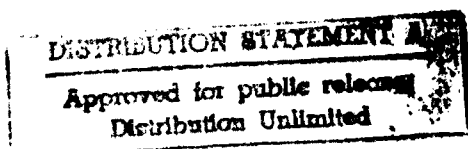
Signature: *Stephanie Markam*

18 June 1993

Paper directed by Captain H. Ward Clark
Chairman, Military Operations Department

Faculty Research Advisor Captain Paul Odell
Department of Strategy and Policy

Approved by:

P. Odell   22 Feb 93
Faculty Research Advisor   Date

DTIC
ELECTE
S MAY 13 1993
B D

93 5 11 122

93-10356

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖

REPORT DOCUMENTATION PAGE

Form Approved
OMB No 0704-0188

1a. REPORT SECURITY CLASSIFICATION	1b. RESTRICTIVE MARKINGS
Unclassified	

2a. SECURITY CLASSIFICATION AUTHORITY	3. DISTRIBUTION/AVAILABILITY OF REPORT
	DISTRIBUTION STATEMENT A; APPROVED FOR
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE	PUBLIC RELEASE; DISTRIBUTION UNLIMITED.

4. PERFORMING ORGANIZATION REPORT NUMBER(S)	5. MONITORING ORGANIZATION REPORT NUMBER(S)

6a. NAME OF PERFORMING ORGANIZATION	6b. OFFICE SYMBOL (If applicable)	7a. NAME OF MONITORING ORGANIZATION
OPERATIONS DEPARTMENT	C	

6c. ADDRESS (City, State, and ZIP Code)	7b. ADDRESS (City, State, and ZIP Code)
NAVAL WAR COLLEGE NEWPORT RI 02841	

8a. NAME OF FUNDING/SPONSORING ORGANIZATION	8b. OFFICE SYMBOL (If applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER

8c. ADDRESS (City, State, and ZIP Code)	10. SOURCE OF FUNDING NUMBERS			
	PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT ACCESSION NO.

11. TITLE (Include Security Classification)

INTELLIGENCE AND SURPRISE: THE BATTLE OF MIDWAY (U)

12. PERSONAL AUTHOR(S)
MARKAM, STEPHANIE ANN, LCDR, USN

13a. TYPE OF REPORT	13b. TIME COVERED	14. DATE OF REPORT (Year, Month, Day)	15. PAGE COUNT
FINAL	FROM _____ TO _____	1993 JUNE 18	37

16. SUPPLEMENTARY NOTATION   A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Operations. 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.

17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
FIELD	GROUP	SUB-GROUP	INTELLIGENCE; SURPRISE; STRATEGY; OPERATIONS

19. ABSTRACT (Continue on reverse if necessary and identify by block number)
Intelligence is a key element on the military strategy of surprise. It is perplexing to many that in today's high technology environment that intelligence cannot prevent surprises from happening. The very nature of the intelligence, no matter how much or how sophisticated it is, will still permit one adversary to surprise another. It is crucial that the operational commander have a clear understanding of the process of the production of intelligence, the uses of intelligence and how it can affect the strategy of surprise. The dramatic success of the Battle of Midway, coming so closely on the heels of the shocking disaster of Pearl Harbor, demonstrated that Admiral Nimitz gained an appreciation for the value of intelligence. I will examine intelligence and the strategy of surprise in general terms and show how the battle of Midway was influenced by them. Finally, I want to point out that though today's operations are more sophisticated than those of World War II, there are plenty of critical concerns to consider today with regard to intelligence and surprise at the operational level.

20. DISTRIBUTION/AVAILABILITY OF ABSTRACT	21. ABSTRACT SECURITY CLASSIFICATION
☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT. ☐ DTIC USERS	unclass

22a. NAME OF RESPONSIBLE INDIVIDUAL	22b. TELEPHONE (Include Area Code)	22c. OFFICE SYMBOL
H. WARD CLARK, CAPT, USN	(401) 841-3414	C

DD Form 1473, JUN 86   Previous editions are obsolete.   SECURITY CLASSIFICATION OF THIS PAGE

S/N 0102-LF-014-6603

Abstract of
INTELLIGENCE AND SURPRISE:
THE BATTLE OF MIDWAY

Intelligence is a key element in the military strategy of
surprise. It is perplexing to many that in today's high
technology environment that intelligence cannot prevent surprises
from happening. The very nature of the intelligence, no matter
how much or how sophisticated it is, will still permit one
adversary to surprise another. It is crucial that the
operational commander have a clear understanding of the process
of the production of intelligence, the uses of intelligence and
how it can affect the strategy of surprise. The dramatic success
of the Battle of Midway, coming so closely on the heels of the
shocking disaster at Pearl Harbor, demonstrated that Admiral
Nimitz gained an appreciation for the value of intelligence. I
will examine intelligence and the strategy of surprise in general
terms and show how the battle of Midway was influenced by them.
Finally, I want to point out that though today's operations may
be more sophisticated than those of World War II, there are
plenty of critical concerns to consider today with regard to
intelligence and surprise at the operational level.

ii

PREFACE

I was interested in the battle of Midway initially because the code breakers save the day. It was novel to me that a cryptologic success story could be told in an unclassified environment. The memoirs of Admiral Layton gave me an appreciation for how far cryptology and intelligence have come since World War II. Furthermore, it was even more interesting to learn how far intelligence had come in the intervening six months between the attack on Pearl Harbor and the battle of Midway. I then read Captain Odell's paper on surprise in the Korean War which, among other recommendations, proposed that the U.S. military become more aware of surprise. I became interested in the studying why surprise would work one time and not another, even when both situations had intelligence prior to the surprise.

It is not just a case of cryptologic professionals being allowed to do their job; intelligence and its relationship to the strategy of surprise is very intricate. The battle of Midway illustrates how complicated the relationship is at the operational level. I feel this case study is relevant to the intelligence community today. The emphasis on regional conflicts places more emphasis on the judgement of the operational commander. He or she must understand intelligence and the elements of surprise in order to be prepared for future operations.

I am grateful to Captain Odell who agreed to advise me on this paper. In addition to his encouragement and very constructive criticism, he recommended that I take Professor Handel's elective on intelligence and the strategy of surprise. The readings and lectures of this outstanding class guided my paper as much as Captain Odell's suggestions.

TABLE OF CONTENTS

CHAPTER ONE

INTRODUCTION

The battle of Midway has long been heralded as a cryptologic success story. It also is an interesting tale of the surpriser, the Japanese navy, being surprised by the intended victim, the U.S. Pacific Fleet. There are very few cases, if any, in history where an intended victim successfully avoids surprise and actually inflicts surprise. For this reason alone, it is worthwhile to study the actions of Admiral Nimitz and Admiral Yamamoto.

The Midway battle plans of both sides were predicated on the strategy of surprise, based on an interpretation of intelligence. This paper will focus first on intelligence and its production. I will then examine the elements of surprise and demonstrate the importance of intelligence in these various elements. The examination of the battle of Midway will focus on the strategy of surprise and the impact of intelligence in the battle preparation.

Finally, I will discuss several key lessons that emerged from the battle of Midway. These lessons focus on intelligence and the operational commander, because without successful use of intelligence, the operational commander will not be able to use the strategy of surprise effectively.

CHAPTER TWO

INTELLIGENCE

> When someone is honestly 55% right,
> that's very good and there's no use
> wrangling. And if someone is 60% right,
> it's wonderful, it's great luck, and
> let him thank God. But what's to be
> said about 75% right? Wise people
> say this is suspicious. Well, and what
> about 100% right? Whoever says he's
> 100% right is a fanatic, a thug, and
> the worst kind of rascal.
>
> An Old Jew Of Galacia
> Czeslaw Milosz, The Captive Mind

Joint Pub 0-1, The Basic National Defense Doctrine defines intelligence as "...the product resulting from the processing of information concerning foreign nations, hostile or potentially hostile forces or elements or areas of actual or potential operations."[1] Intelligence may provide information on enemy capabilities or intentions; it may provide information on specifics (such as order of battle or troop movements) or it may estimate intangibles (such as morale or effectiveness of pilot training). Each source of intelligence has a unique strength or limitation in providing intelligence which is of interest to the operational commander. The operational commander must define the intelligence requirements for an operation and have a realistic expectation of the capabilities of the intelligence system. When the operational commander receives intelligence, he or she must be prepared to use the intelligence to its maximum advantage as appropriate to the situation. Failing to accept the intelligence can lead to failure.

Admiral Nimitz was very successful in incorporating intelligence in his operational planning because he understood the operational advantages of intelligence. He believed the intelligence provided to him by the Pacific Fleet cryptologists was accurate and reliable because he understood intelligence production. This enabled him to aggressively counter the Japanese fleet in the Pacific. By becoming familiar with the process of producing intelligence, the operational commander is better able to set expectations and react to the intelligence produced by the intelligence system. Intelligence production requires a thorough understanding by the operational commander, even if there is an intelligence officer assigned to support the operation.

Intelligence production is both an art and a science. Certainly with the proliferation of satellites, digital communications, super-computers and cellular telephones, science has enabled the modernization of the process of supporting the commander. The intelligence officer of today must be a combination of computer scientist, electronic engineer, space technologies expert and data base manager. On the other hand, technical data is of minimum value without the human evaluation of the data in the context of the current operational situation. This is where the artistic aspect of intelligence production still lives. While the technology of the intelligence system is capable of producing a digitized description of the enemy, the intelligence community must translate the data into an

3

intelligence product, essentially a picture of the enemy's capabilities or intentions. The intelligence officer must be able to assess the data and accurately inform the commander of its impact on operations.

The process of intelligence production has four main characteristics: collection, analysis, dissemination and acceptance.[1] These characteristics are linear in nature and build upon one another (first you collect, then you analyze what you collect, etc.) A failure or blunder in one aspect of the process will adversely impact the entire process, and therefore "intelligence" fails. Intelligence production is an interactive process requiring coordination between the consumer of the intelligence and the intelligence system. It is worthwhile to point out that the last characteristic, acceptance, is often completely outside the domain of the intelligence community and is normally in the realm of the consumer or decision maker. When evaluating the success or failure of intelligence, it is useful to question whether "intelligence" (meaning the intelligence system) failed or did the consumer fail to adequately task collection or to heed the resulting product. At each step of the intelligence process the consumer figures prominently and must not be subtracted from the equation of intelligence success. The operational commander must actively participate in intelligence

---

[1] I realize that most authors on intelligence omit dissemination as a key element. I include dissemination as broadly defined because I feel it is an important part of the process at the operational level.

4

production from the beginning of his or her tour; the day before a major operation is not the time to try to make the system responsive to operational requirements.

The primary step in the intelligence process is collection. Collection is directed at targets that are of interest to the intelligence consumer. It is essential that the consumer clearly indicate to the intelligence system requirements in advance so that the collection may be directed in ample time. The intelligence community requires lead time to build up expertise on the target in order to identify what to collect and what collection method to task (i.e. human intelligence, signals intelligence, imagery, etc.). Technology is prominent in the collection arena as it takes a sophisticated collection system to counter the sophisticated enemies of today. Generally speaking, in order to collect intelligence, an enormous amount of data is collected. The raw collection results in signals (that which reveals something about the enemy) and noise (that which does not provide useful information on the enemy). The challenge of collection is to efficiently gather the maximum "signals" and the minimum "noise".

The second step of the intelligence process is assessment. Assessment or processing of the collected information can be automated in some areas, but still requires an analyst familiar with the interests of the user to determine what is significant and what is superfluous. For example, prior to the surprise attack of Pearl Harbor, Washington area Navy analysts decrypted a

message sent from Japan to the consul general in Honolulu which provided a grid of Pearl Harbor and asked for detailed reports of ships positions, using the grid. "Clearly it was intended as an overlay for planning bombing attack targets -- hence it became known as the 'bomb plot' message."[2] The analysts did not attach any particular significance to the message, so it was included in a routine summary of intelligence messages. When circulated in Washington, senior naval officers did not view the intelligence as urgent or particularly unique and consequently, did not forward the intelligence report to Pacific Fleet headquarters. In hindsight, it can be said that the analyst "misassessed" this intercept and should have treated it as a priority. But since the consumer of the intelligence report (the senior naval officials) did not become alarmed by the Japanese interest in Pearl Harbor, it is not completely fair to blame the analyst. The analyst was in fact in tune with the interests of the consumer. At the time, the assessment of the intercept was considered appropriate. Therefore, it is critical for the consumer to be certain that his or her priorities are correct and ensure the analysts are aware of those priorities.

More significant than many realize is the dissemination aspect of intelligence, especially at the operational level. I define dissemination very broadly in this context to mean that once an analyst is finished with an intelligence report, the information must be transferred to the interested consumer. Dissemination problems commonly encountered are classifications/

compartmentations which exclude users, communications problems which inhibit timely delivery of information, or intelligence which is buried in jargon or irrelevant information. An excellent example of a dissemination problem is the "bomb plot" message for Pearl Harbor. The information was disseminated routinely, not at a higher priority, and the information was not sent to the military authorities in Hawaii, who had a great interest in this piece of intelligence. Intelligence is a perishable commodity and must be presented to the consumer accurately, timely and in a useable format. Intelligence that is misleading, late or cumbersome to use will either be discarded outright by the consumer or will cause the consumer to question the validity of the source. An excellent example of a dissemination problem was intelligence reporting to the U.S. Navy afloat and support commands where intelligence reports overloaded the communications capacity and the ability of the consumer to digest the information during an event.[2]

Finally, intelligence can be properly collected, accurately assessed, disseminated efficiently and still "fail" if the

---

[2] One particular intelligence source was able to collect and process information in a timely manner but the dissemination of the intelligence was a nightmare. Communications paths were overloaded so much so that consumers often received time sensitive information hours after an event had concluded. The volume of the information was such that no one could review all the material during the event. Until dramatic changes were made in communications, formatting and filtering the intelligence, many officers were reluctant to request that particular source of intelligence support, even though they acknowledged it was information they needed during an event. To them, it was not useable and it was more trouble than it was worth.

consumer does not accept the intelligence. The consumer may not accept the intelligence for a variety of reasons: the intelligence conflicts with existing plans or intentions of the consumer, the consumer lacks faith in the intelligence source or system, the consumer does not like the bearer of the intelligence, the consumer does not understand the intelligence, the intelligence is ambiguous and subject to various interpretations, etc. For example, the Pearl Harbor attack was not anticipated by many in Washington because they believed that the attack would be on the Soviet Union or Southeast Asia. Intelligence was interpreted in this context, diverting attention away from Hawaii.[3] For this reason, the "bomb plot message" was not considered significant. Therefore, it is feasible that accurate and timely information may be available, but if it is not accepted by the consumer, it will not be used.

In each step of the process of intelligence production, it is evident that the consumer of the intelligence can affect the final product. The consumer must identify his or her interests, or it is unlikely that there will be appropriate collection. The analyst must appreciate the intentions of the consumer in order to assess the collected information in the appropriate operational context. The analyst must understand the needs of the consumer and provide the intelligence to the consumer in the proper format and in a timely fashion or else the value of the intelligence decreases. Finally, if the consumer does not

welcome the intelligence and disregards it, for whatever reason, the entire process is futile.

Surprise depends on intelligence. Avoiding surprise depends upon intelligence. It is difficult to say how much or what kind of intelligence is necessary to effectively use the strategy of surprise or to elude a surprise attack, but intelligence is the critical factor. What the operational commander does with the intelligence is up to him or her. However, in the strategy of surprise, there are several elements that are universal and intelligence is intricately involved with these.

CHAPTER THREE

THE STRATEGY OF SURPRISE

There are several common elements found in studies of the strategy of surprise. Captain Odell, in his study of surprise and the Korean War, reviewed much of the material written on surprise and found...

> "A synthesis of this theoretical work can be distilled in six key elements or concepts of surprise theory:
> 1. The force multiplying impact of surprise
> 2. Signal to noise ratio
> 3. Problem of misperception
> 4. Risk paradox
> 5. Deception
> 6. Criteria for measuring success in avoiding surprise."[4]

Intelligence is a critical factor in many of these elements.

Why is surprise desired by the operational commander? The value is known most simply as a force multiplier. If you are the weaker force and attack your enemy unexpectedly, the enemy is very likely unable to fully and efficiently employ his resources against your forces. Hence, you may be able to compensate for having less force by concentrating your forces and catching the enemy off guard. Even if you are the stronger force, by employing the element of surprise, you maximize your resources and potentially minimize your losses. Therefore, surprise is an element that works in your favor and is worthwhile to employ. Surprise is recognized as one of the basic principles of war by the Joint Chiefs of Staff.[5] More importantly to the battle of Midway, Admiral Nimitz had listed these principles as "reminders"

under the glass top of his desk, a "check-off list of things to be considered before launching an operations".[6]

How can you achieve surprise if your enemy has intelligence concerning your intended surprise? It is here that signal to noise ratio and the problems of misperception figure prominently. First of all, if you collect a lot of noise in search of a "signal" (i.e., valid intelligence), how often can you effectively zero in on the critical nugget which tells you something significant? It is not a straight forward prospect; information can be ambiguous. "After the event, of course, a signal is always crystal clear...before the event it is obscure and pregnant with conflicting meanings. It comes to the observer embedded in an atmosphere of "noise", i.e. in the company of all sorts of information that is useless and irrelevant for predicting the particular disaster."[7]

By the same token, misperception influences how intelligence is evaluated. Ariel Levite states that accurate threat perception by policymakers rules out strategic surprise,[8] and I suggest this holds true at the operational level as well. If the operational commander perceives a threat, intelligence will be useful in countering enemy actions. Conversely, if the operational commander holds a rigid concept of a situation, intelligence which may be useful in countering the enemy will be disregarded or rationalized to fit with the rigid concept. The old adage "Don't confuse me with the facts!" is prominent in misperception. The submarines and aircraft sighted prior to the

11

bombing of Pearl Harbor were disregarded because the mind-set of the watch officers was that they were at peace and some other explanation must be found to explain the Japanese actions.

The paradox of risk is tied to the element of surprise because it is part of what makes the surprise. The Germans would "never" go through the Ardennes, the Japanese would "never" attack the Pacific Fleet, etc. because these operations are too risky. The defender prepares a defense for the most likely enemy action which lowers the danger of the risky operation. "Paradoxically then, opting for a high-risk strategy might be less foolhardy than is first assumed."[9] However, high quality intelligence is critical when evaluating the risk paradox. It is worth taking the risk if you are reasonably certain that you hold the advantage of surprise. If the enemy detects your surprise and reacts appropriately -- and you do not know this --, then the high risk becomes a more likely case f high loss. When a worthwhile strategy is selected and surprise is achieved through high risk, the pay off is likely to be substantial (e.g. MacArthur's landing at Inchon, the Japanese at Pearl Harbor.)

Deception is often a key element of surprise. It is "an act intended by its perpetrator to dupe or mislead a victim."[10] The deception should tell the victim something that is already believed or reinforce a preconceived notion. Good deception lulls the victim into a state of unpreparedness; great deception causes the victim to take action which is counterproductive to his or her own defense. For example, in the Falkland Islands

12

campaign, the British sent a special forces team to the area the Argentineans expected a British landing. By simulating a pre-invasion force, the British deceived the Argentineans into bunkering their defenses facing the wrong direction.[11]

The final aspect of surprise is the difficulty in measuring success in avoiding surprise. If you perceive a threat through intelligence, take defensive action and no attack materializes, were you successful in avoiding surprise (the attacker cancelled the plan because of unacceptable risk due to your readiness), did you perceive a threat when none was actually there (faulty intelligence or perception), or was the attack cancelled for unrelated reasons (e.g. weather, logistics, etc.)?[12] If you are lucky, your intelligence may provide you the answer, but it is not always apparent. Therefore, it is very difficult to define the criteria for measuring the effectiveness of avoiding surprise and the value of the intelligence associated with the warning.

CHAPTER FOUR

MIDWAY

The battle of Midway is famous for the demonstration of the power projection of aircraft carriers and the first major defeat of the Japanese in World War II. Midway is also an interesting study in the strategy of surprise and the value of intelligence. The Japanese were defeated in the battle, despite the fact that they outnumbered the U.S. Pacific fleet, because they failed to maintain the element of surprise in their operation and did not properly use intelligence. The Americans were able to sink four Japanese aircraft carriers because they were able to use intelligence to avoid surprise and successfully counter the Japanese attack.

Briefly, the highlights of the battle are as follows: It became apparent to Admiral Yamamoto that he needed to destroy the American aircraft carriers -- their recent action in the Coral Sea and the success of the Doolittle raid on Tokyo showed that the Americans were a potential threat to Japanese operations as long as their aircraft carriers were operational. He devised a plan to take the islands of Attu and Kiska on 3 June 1942 and to take Midway Island on 4 June 1942. By attacking Alaska and Midway, he hoped to convince Admiral Nimitz that a major Japanese campaign was underway in the northern Pacific. While he did not think Admiral Nimitz would willingly risk his meager fleet assets, the strength of the Japanese campaign would force Nimitz

14

to react hastily. Admiral Yamamoto planned to ambush the U.S. Pacific Fleet with a massive naval force, with the additional advantage of the use of the captured Midway airfield.

Naval cryptologists assigned to the U.S. Pacific Fleet intercepted many of the Japanese planning messages and after intense analysis and debate, provided Admiral Nimitz a detailed picture of the Japanese operation. After careful review of the Japanese intentions, Admiral Nimitz laid plans to eliminate the carriers under the command of Admiral Nagumo, the Japanese carrier task force commander. Admiral Nimitz launched an offensive with inferior forces that completely shocked the Japanese.

Not suspecting the presence of aircraft carriers, Admiral Nagumo decided to rearm and refuel his aircraft for a second attack against Midway Island, including those aircraft held in reserve for the possible anti-surface warfare. When the Japanese pilots finally spotted the U.S. carriers, Nagumo changed his mind again about the rearmament. He now knew he must destroy the American carriers. While they had safely evaded the first wave of American aircraft attacks, the battle group was widely scattered and out of defensive formation. By 1000,

> "...their (Japanese) combat air patrols, dragged down from altitude by torpedo attacks, were at sea level -- the worst position for a fighter escort. Further, the flight decks were crowded with refueling and rearming aircraft, draped with high octane petrol hoses and littered with the high explosive bombs discarded after Nagumo's change of mind an hour and a half earlier."[13]

15

At 1020, Nagumo prepared to launch against the American aircraft carriers. By 1047, Admiral Nagumo was forcibly taken from his sinking command ship, the carrier Akagi. Bombers from the USS Enterprise had a clear shot of the battle group and hit their targets. The tide in the Pacific had turned.

The Japanese counted on the value of surprise to compensate for the complex dispersal of their fleet in the Midway operation. By maintaining radio silence and adhering to a strict timetable, the Japanese intended to lure the remaining Pacific Fleet carriers into an ambush. "Yamamoto, counting on surprise, expected no opposition to his invasion of Midway...The vital defect in this sort of plan is that it depends on the enemy doing exactly what is expected."[14] Because they lost the element of surprise critical to their strategy and the unexpected participation of the U.S. aircraft carriers, the Japanese lost the force multiplication value of their operation.

Proper use of intelligence may have aided the Japanese prior to the battle of Midway, but they did not value intelligence as highly as Admiral Nimitz. Intelligence reports were ignored if they did not fit with plans or perceptions. "There can be no doubt that the Japanese belief in their moral supremacy over their enemies at all stages of the war never wavered...their estimation of the effect of the Pearl Harbor attack on American attitudes was disastrously inept."[15] This fixed perception or arrogance led Admiral Yamamoto and other Midway planners to estimate that the Americans would be lingering near Hawaii,

16

awaiting the next action by the Japanese. This was the critical
premise of the battle plan for Midway and the Japanese did little
to verify this assumption. Furthermore, the plan was inflexible
and did not allow reassessment prior to the battle. Admiral
Yamamoto had sent Japanese sea planes and submarines to scout
around Pearl Harbor in order to report on the locations of the
U.S. carriers. The sea planes never arrived -- they were unable
to reach Pearl Harbor because Admiral Nimitz had stationed a U.S.
vessel at their refueling point. The submarines set up a picket
around Pearl Harbor, but arrived after the carriers had departed
for Midway.[16] Admiral Yamamoto did not pause to take the lack
of intelligence into consideration. By dispersing the fleet and
not seeking corroborating intelligence, the Japanese put their
fleet at risk.

The signal to noise ratio aspect of surprise worked against
the Japanese as they prepared for the battle of Midway. The
Japanese fleet authorities used radio messages to pass a
significant number of coordination and planning messages. Even
if the U.S. Pacific Fleet cryptologists had been unable to break
the Japanese code, analysis of the externals of the traffic (high
volumes of traffic, lengthy messages, etc.) may have alerted the
U.S. fleet that something was unusual. Instead of taking
measures to ensure that their "signals" were hidden in the noise
of routine communications, the Japanese blatantly sent operations
tasking messages out over the airwaves, which the U.S. exploited.

The problem of misperception on the Japanese is also tied to the risk paradox. Admiral Yamamoto understood that the risk of the Midway battle plan was the extended lines of communication and the vulnerability of his fleet so far from home. This risk was acceptable as long as he held the value of surprise. His arrogance prevented him from taking into account the possibility of detection and therefore his risk assessment was flawed. The risk was greatly increased once the Americans knew of Yamamoto's plan and met the Japanese fleet with a well prepared offense.

Deception was a factor in the Japanese plan in several respects. First, Midway was not the actual objective for the Japanese. By capturing Midway, the Japanese could make use of the airfields to attack the U.S. aircraft carriers. Second, the Japanese battle force sent to Attu and Kiska was a feint to convince Admiral Nimitz that the threat to the Northern Pacific holdings was credible and massive. These deceptions were unsuccessful. Admiral Nimitz correctly assessed that the plan was designed to lure out the U.S. Pacific Fleet.[17] He did not panic, but carefully concentrated his assets to meet the Japanese.

Finally, because the Japanese never detected that the U.S. Pacific Fleet was alerted to their plan, they proceeded with their operations. The Japanese did not think it possible that they themselves could be surprised and were not alert to that possibility.

Admiral Nimitz was able to successfully use the element of surprise to _his_ advantage through his excellent use of intelligence and bold action. Decrypts of the Japanese radio transmissions were available from the cryptologists at Station Hypo in Pearl Harbor. Headed by LCDR Joe Rochefort, this group was determined to ensure an American victory over the Japanese. Before the war, Washington (OP-20-G) had prohibited Station Hypo from working on the JN-25 code or diplomatic codes (Purple) but instead tasked the team against the unbreakable (and probably less useful) "admiral's code".[18] After the surprise attack at Pearl Harbor, the Navy finally permitted Rochefort's group to work the Japanese main operational code, the current JN-25 ciphers.[19] Within months, they discovered tne preparations for a major Japanese fleet operation -- Midway. Commander Layton, the U.S. Pacific Fleet Intelligence Officer, advised Admiral Nimitz that despite the Washington view that the Japanese were headed for New Caldonia, Port Moresby and Fiji, the Japanese were in fact headed toward Midway.[20] Admiral Nimitz was convinced and planned according to Rochefort's assessment.

Admiral Nimitz marshalled his meager forces and went on the offensive. Armed with one of the most accurate intelligence estimates in modern warfare, Admiral Fletcher and Admiral Spruance, the two Midway Task Force Commanders, knew precisely what to expect. As Admiral Nimitz remarked to Commander Layton, "Well, you were only five miles, five degrees, and five minutes off."[21] Not only did the concentrated force against the more

19

dispersed Japanese force assist the Pacific Fleet but the fact that Admiral Nagumo did not anticipate the presence of the U.S. carriers caused him to make a fatal error in switching aircraft armament.

Admiral Nimitz effectively used the force multiplication aspect of his surprising offensive by making a high risk move pay off with a high payback. His caution to Admiral Spruance and Admiral Fletcher was to protect their carriers -- they could come back another day to take Midway, but it would be a long time before the Pacific Fleet would get additional aircraft carriers. The aggressive action ordered by Admiral Nimitz was a risk, but one well worth taking, as long as he held the advantage of surprise.

Admiral Nimitz understood the value of communications security and wisely ordered radio silence for the operation. He was not going to risk his operation by giving the Japanese an opportunity to detect unusual "signals" in the routine noise. Furthermore, Admiral Nimitz conducted his own deception by ensuring that Admiral Halsey's carrier was spotted within 500 miles of the East Solomons before returning to Pearl Harbor to receive his orders for Midway.[22] Just prior to the battle of Midway, a cruiser down in the Coral Sea broadcast on U.S. aircraft carrier frequencies. This was designed to lull the Japanese into believing that one carrier was completely out of the theater of operations.[23]

CHAPTER FIVE

LESSONS LEARNED
AND CONCLUSIONS

The battle of Midway is an excellent example of the proper use of intelligence by the operational commander. There are several points that deserve notice:

Lesson One: The intelligence system must be properly tasked in order ensure adequate collection. The key source of intelligence for the Midway operation was the JN-25 code, which the United States was collecting even prior to the bombing of Pearl Harbor. The dramatic change in the intervening months between the bombing of Pearl Harbor and the battle of Midway resulted in an improvement in all areas of the intelligence process: more productive division of effort in assessing the intelligence, a commitment to share the intelligence with the operational and high level tactical commanders and a wholehearted trust or acceptance of the intelligence. However, the first key step in the battle of Midway was the tasking of the intelligence system to collect against the proper target far in advance of hostilities.

The new national strategy that focuses on regional conflicts poses a challenge for intelligence collection for the future. The intelligence community must be tasked early so that collection resources can be directed to the target of interest. The intelligence process cannot begin without collection and the collection cannot begin with the consumer stating requirements.

21

The operational commander must be aware of conditions in his or her area of responsibility and effectively state intelligence requirements in order to obtain collection. Intelligence resources are finite and the allocation of these resources is a highly competitive process. The operational commander cannot assume that an intelligence system is automatically collecting against the main threat in his or her theater. In order to have the quality and quantity of intelligence necessary to carry out a mission, the operational commander must plan ahead and persuasively state intelligence requirements.

Lesson Two: The intelligence system must fully appreciate the mission of the operational commander in order to provide the best possible intelligence. The U.S. Pacific Fleet cryptologists were devoted to the mission of defeating the Japanese after witnessing the devastating attack on Pearl Harbor. Their intense scrutiny of the Japanese fleet enabled them to determine the method of Japanese operations and assess the intelligence in the appropriate context. Commander Layton not only gave Admiral Nimitz the intelligence reports produced by Commander Rochefort, but he added his own comments. Admiral Nimitz was interested in assessments and welcomed the reports produced by the Pacific Fleet intelligence community. He was not reluctant to question Commander Layton and Commander Rochefort on their sources or methods. Yet, Admiral Nimitz almost always incorporated their assessments into his operations. Admiral Nimitz often consulted Commander Layton on operations plans, seeking his assessment of

the likely Japanese actions or using Commander Layton as a sounding board. This close coordination of Commander Layton and Admiral Nimitz enabled Layton to quickly relay operational insights back to Commander Rochefort which allowed Rochefort to better focus his intelligence support. This flow of information up and down the chain of command significantly contributed to the ability of the U.S. intelligence system in the Pacific theater to support operations.

Operational commanders must promote dialogue between operations and intelligence. As discussed previously, intelligence is not produced in a vacuum. The intelligence community can better refine their support to fit the needs of the commander when the intelligence community clearly understands the mission.

Lesson Three: Intelligence must be disseminated to those who need to know the information accompanied by an explanation or interpretation of the information. If the operational commander understands the context of the intelligence, it is more readily accepted. When Admiral Nimitz received intelligence, especially the communications intelligence from Commander Rochefort's team, he understood the source and the methods used to obtain the information. His intelligence officer explained its significance or answered any questions.

Unfortunately, when Admiral Nimitz gave the intelligence to those who needed to know the information, he did not always reveal the source. Some who received the intelligence were able

to accept it at face value, while others mistrusted the intelligence. Admiral Fletcher and Admiral Spruance were able to accept the intelligence reports forecasting the Japanese plans for Midway. Admiral Theobald refused to believe the information. While he was briefed that "reliable sources" indicated the Japanese intent to capture Attu and Kiska and raid Dutch Harbor, he did not understand the "reliable source" and felt that the Japanese plan was a ruse. Admiral Theobald waited for the Japanese a thousand miles from where Admiral Nimitz sent him, which resulted in the Japanese easily taking the two islands.[24]

This is an important illustration as to why the intelligence community, usually in the person of the staff intelligence officer, must be included in the operational planning and discussion. For the operational commander to be successful, intelligence must be fully used. If intelligence is not clearly understood or credible, the intelligence officer must be asked to clarify the intelligence. Even if the source of the intelligence is sensitive and cannot be explained, the intelligence officer can provide additional background or verify the authenticity of the intelligence. It is a waste of valuable resources if intelligence is produced but disregarded by the operational commander. Admiral Theobald should have consulted Commander Layton before setting sail to get a better appreciation for the intelligence, rather making up his own version of the Japanese intentions.

Lesson Four: Theater intelligence assets support theater operations better than distant "national" centers. For example, the fleet intelligence officer (Layton) could visit face to face with the officer in charge of intelligence production (Rochefort). Commander Rochefort could brief Admiral Nimitz directly, clarifying his intelligence reports. The excellent working relationship at the U.S. Pacific Fleet was enhanced by the close proximity of the commander and the intelligence unit directly supporting him.

The Washington assessment of intelligence was dramatically different than the Pacific theater assessment. While the Pacific Fleet cryptologists concluded that the Japanese were heading for Midway, Washington analysts were telling Admiral King, Commander in Chief U.S. Fleet, that the Japanese were headed south.[25] One of the difficulties facing the Pacific theater intelligence team was to convince Washington, not Admiral Nimitz, that the Washington assessments of the intercepts were wrong.

Today, modern technology provides the operational commander with more sophisticated intelligence and better communications. As resources dwindle, a popular consideration in the intelligence community is to close theater facilities and consolidate processing facilities, usually stateside, relying upon instantaneous communications to compensate for the distance. I am skeptical of this proposal as it may endanger the vitality of the intelligence effort in support of the operational commander. While it is not always feasible to co-locate all elements of

intelligence as they were in the Pacific in early 1942, there is a danger that remote facilities will lose their responsiveness to the operational commander, especially if they are supporting a variety of commanders from their facility. This loss is unquantifiable and it is difficult to argue against the cost savings of consolidation. Yet, removing the collectors and analysts from the theater mission endangers the sense of interest and loyalty and must be done cautiously.

Lesson Five: Intelligence is a key factor to a successful operation. The Japanese did not seek the intelligence necessary to successfully complete their mission and lost the critical value of surprise. Admiral Nimitz recognized the value of intelligence and promoted a healthy interaction with his intelligence support. Operational commanders must incorporate intelligence in their plans and not separate themselves from the process.

Conclusion: Clausewitz points out that imperfect knowledge of a situation can bring military action to a standstill.[26]

> "The art of war deals with living and with moral forces. Consequently, it cannot attain the absolute, or certainty; it must always leave a margin for uncertainty...With uncertainty in one scale, courage and self confidence must be thrown into the other to correct the balance."[27]

By careful use of intelligence, the operational commander can lessen his or her uncertainty and increase self confidence. By employing the strategy of surprise, the operational commander can increase the enemy's uncertainty.

Prior to the battle of Midway, there were serious doubts as to when the United States would be able to effectively halt the Japanese steamrolling offensive throughout the Pacific. Admiral Nimitz lessened the feeling of uncertainty in the U.S. Pacific Fleet theater through his artful use of intelligence, his confidence in himself and his subordinates and his courage to aggressively counter the Japanese. His ability to maintain the element of surprise ultimately contributed to the crushing defeat of the Japanese at the battle of Midway.

NOTES

1. The U.S. Joint Chiefs of Staff, <u>Basic National Defense Doctrine</u>, (Washington D.C.: 7 May 1991), p. IV-34.

2. RADM Edwin T. Layton, USN, Ret. et al., <u>And I Was There...,</u> (New York: Quill, 1985), p. 162.

3. Roberta Wohlstetter, <u>Pearl Harbor: Warning and Decision</u> (Stanford CA: Stanford University Press, 1962), pp. 312-335.

4. Captain Paul Odell, USN, "Surprise: The Korean Case Study," Unpublished Research Paper, U.S. Naval War College, Newport, RI: 1992, p. 3.

5. The U.S. Joint Chiefs of Staff, <u>Doctrine for Unified and Joint Operations</u> (Washington D.C.: January 1990), (TEST PUB), Appendix A.

6. E. B. Potter, <u>Nimitz</u> (Annapolis, MD: Naval Institute Press, 1987), p. 222.

7. Wohlstetter, p. 387.

8. Ariel Levite, <u>Intelligence and Strategic Surprises</u> (New York: Columbia University Press, 1987), p. 3.

9. Michael Handel, <u>War, Strategy and Intelligence</u> (London: Frank Cass and Company, Limited, 1989), p. 243.

10. Barton Whaley, "Stratagem: Deception and Surprise in War," mimeographed, (Cambridge, MA: MIT Center for International Studies, 1969), p. 154.

11. Martin Middlebrook, <u>Task Force</u> (London: Penguin Books, 1987), p. 192.

12. Handel, pp. 244-246.

13. John Keegan, <u>The Price of Admiralty</u> (New York: Viking Press, 1988), p. 204.

14. Samuel E. Morison, quoted in Keegan, <u>The Price of Admiralty</u>, p. 188.

15. H. P. Willmott, <u>Empires in Balance</u> (Annapolis, MD: Naval Institute Press, 1982), p. 141.

16. Potter, p. 88.

17. <u>Ibid</u>., p. 83.

18. Layton, p. 94.

19. <u>Ibid</u>., p. 339.

20. <u>Ibid</u>., p.410.

21. Potter, p. 93.

22. <u>Ibid</u>., p. 77.

23. <u>Ibid</u>., p. 88.

24. Layton, p. 434.

25. <u>Ibid</u>., p.411.

26.   Carl von Clausewitz, <u>On War</u> (Princeton NJ: Princeton University Press, 1989), p. 84.

27.   <u>Ibid</u>., p. 86.

BIBLIOGRAPHY

Buell, Thomas B. The Quiet Warrior. Annapolis, MD: Naval
    Institute Press, 1987.

von Clausewitz, Carl. On War. Princeton, NJ: Princeton
    University Press, 1989.

Handel, Michael. War, Strategy and Intelligence. London: Frank
    Cass and Company Limited, 1989.

Keegan, John.   The Price of Admiralty. New York: Viking Press,
    1988.

_____.   The Second World War. New York: Penguin, 1989.

Layton, Edwin T., RADM, USN, Ret., et al.   And I Was There. New
    York: Quill, 1985.

Levite, Ariel.   Intelligence and Strategic Surprise. New York:
    Columbia University Press, 1987.

Middlebrook, Martin. Task Force. London: Penguin, 1987.

Oakes, Michael R., MAJ, USAF.   "The Operational Use of
    Intelligence: What to Avoid." Unpublished Research Paper,
    U.S. Naval War College, Newport, RI: 1992.

Odell, Paul, CAPT, USN.   "Surprise: The Korean Case Study."
    Unpublished Research Paper, U.S. Naval War College, Newport,
    RI: 1992.

Perlberg, Miriam F., LCDR, USN.   "Intelligence Lessons Learned
    from the Battle for Crete, May 1941." Unpublished Research
    Paper, U.S. Naval War College, Newport, RI: 1992.

Potter, E. B. Nimitz. Annapolis, MD: Naval Institute Press,
    1987.

Spector, Ronald H. Eagle Against the Sun. New York: Vintage,
    1985.

The U.S. Joint Chiefs of Staff.   Basic National Defense Doctrine.
    Washington D.C., 1991.

_____.   Doctrine for Unified and Joint Operations.
    Washington D.C., 1991.

Whaley, Barton.   "Stratagem: Deception and Surprise in War."
    Mimeographed. Cambridge, MA: MIT Center for International
    Studies, 1969.

Willmott, H. P. <u>Empires in Balance</u>. Annapolis, MD: Naval
    Institute Press, 1982.

Wohlstetter, Roberta. <u>Pearl Harbor: Warning and Decision</u>.
    Stanford, CA: Stanford University Press, 1962.