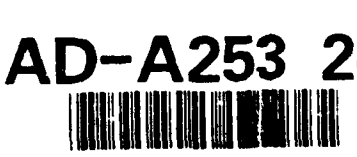

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A CRITICAL EXAMINATION OF THE U.S. NAVY'S USE OF UNRESTRICTED SUBMARINE WARFARE IN THE PACIFIC THEATER DURING WWII

by

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

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

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This paper analyzes the United States use of unrestricted submarine warfare against the Japanese in World War II. Within the framework of the principles of war, the paper critically analyzes the strategy of the use of submarines during the war and how the operational strategy changed during the course of the war. This paper also critically surveys the use (or misuse) of the key tenets of modern, fundamental military thought. Recommendations and observations are offered which are considered applicable to modern warfare.

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This paper analyzes the United States use of unrestricted submarine warfare against the Japanese in World War II. Within the framework of the principles of war, this paper critically analyzes the strategy of the use of submarines during the war and how the operational strategy changed during the course of the war. This paper also critically surveys the use (or misuse) of the key tenets of modern, fundamental military thought. Recommendations and observations are offered which are considered applicable to modern warfare.

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INTRODUCTION

United States submarine operations in the Pacific during World War II contributed significantly to the defeat of Japan. By relentlessly attacking Japan's lifeline, its sea lines of communication, U.S. submarines effectively blockaded Japan. Cut off from the natural resources, food, oil and strategic mineral sources in Southeast Asia, Japan was unable to maintain its war industry.

However, U.S. submarine operations did not immediately achieve success. Problems with doctrine, command and control, weapons, and crews (especially the shortage of aggressive and experienced commanding officers) plagued the submarine force during the early days of the war. Fortunately, the submarine force evolved into an elite force which inflicted catastrophic damage on the Japanese Navy and merchant fleet.

The purpose of this paper is to apply the principles of war to the successful prosecution of the U.S. Pacific Fleet submarine campaign. The U.S. Army's principles of war[1] (listed in Appendix I) are used as the framework to examine the operations conducted by submarines. The intent of this paper is not to provide an historic overview nor historical research, but to apply and analyze the principles of war (both positively and negatively) as they were implemented during a prolonged, highly

[1]Headquarters, U.S. Department of the Army, Field Manual 100-5 Operations (U), (Washington D.C.: 5 May 1986), pp. 173-177.

successful campaign. After analysis, discussion of modern applications of the principles of war will be presented.

CHAPTER 1

THE PRINCIPLES OF WAR

As stated above, this analysis is not intended to be all inclusive. Many well-researched accounts of submarine operations in the Pacific are available to the reader desirous of greater detail. A partial list of these excellent and voluminous sources are listed in the bibliography.

I. THE PRINCIPLE OF THE OBJECTIVE. 'Direct every military operation towards a clearly defined, decisive, and attainable objective.'

Early in WWII, U.S. submarine doctrine was extremely conservative and cautious. This attitude reflected the perspective of the prevailing top command at the beginning of the war who thought of decisive fleet actions in Mahanian terms. The nearly war-winning strategy of the German U-boat warfare utilized in both WWI and WWII to destroy the Britain's merchant marine was not acknowledged by American commanders. In fact, at the onset of WWII, American submarines were primarily considered auxiliaries to the operational capabilities of the main battle line of the surface fleet. However, as is well-known, the 'age of the battleship' was superceded by carrier-based aviation and submarines. Consequently, in the early days of WWII, there was no objective for the submarine forces.

Some historians have declared the early part of the campaign a failure for the submarine force. For example, Clay Blair, in his definitive history of the submarine war against Japan, Silent Victory, asserts that it was "a failure of imagination on the highest levels [of command which] failed to set up a broad, unified strategy for Pacific submarines aimed at a single, specific goal: interdicting Japanese shipping services in a most efficient and telling manner."[2] Without a clearly defined objective, Pacific submarines, early in the war, were a divided force, used compulsively on missions for which they were not suited.

Blair may be too critical. Early in the war, the U.S. Navy was retreating in all areas. Commanders such as Nimitz and MacArthur had to husband scarce resources to support the defense against Japanese advances. There is no doubt, however, that the submarine force lacked direction and lost an opportunity to inflict early heavy damage against the Japanese naval forces.

Not until mid-1943 did the submarine force establish a clear doctrine. This long-overdue objective consisted of the following:[3]

1. Submarine concentrations to cut the enemy's supply lines to the target areas.

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[2]Clay Blair, Jr., Silent Victory (Philadelphia: J.B. Lippincott Company, 1975), v.1, p.335.

[3]Theodore Roscoe, United States Submarine Operations in World War II, (Annapolis: United States Naval Institute, 1949), p.361.

2. Submarine photographic reconnaissance of beachheads marked for amphibious landings and enemy military or naval installations marked for future reference.

3. Submarine lifeguarding during air strikes.

4. Submarine scouting duty in the target area and off enemy bases to report enemy movements and intercept and attack enemy forces which sortied to oppose the attacking United States forces.

5. Submarines stationed to intercept and attack fugitive shipping attempting to flee the target area.

Once these objectives were established and the objective of the submarines defined, the submarine force was devastatingly effective on the Japanese merchant fleet. Appendix II charts the overwhelming success of the submarine campaign.

II. THE PRINCIPLE OF THE OFFENSIVE. 'Seize, retain, and exploit the initiative.'

During the early months of WWII, the U.S. suffered a string of serious defeats throughout the Pacific. U.S. forces, outgunned and outnumbered, fought a strategic defense until the enormous power of the U.S. industrial base was mobilized and was producing war materiel. Submarines were not exempt. The 51 submarines in the Pacific, some long overage for combat, were handicapped by unreliable torpedoes, nonexistent spare parts, no radar, and lack of personnel replacements. In short, the first year of the war, the U.S. Pacific Fleet spent virtually all its energy checking the Japanese advance and wresting back the strategic and operational initiative.

Fighting the strategic defensive remained a fact of life for submarines until 1943. However, Nimitz as Commander in Chief,

U.S. Pacific Fleet, saw his mission in terms of a defensive-offensive campaign:

> The Mission is formulated as follows: While protecting the territory and sea communications of Associated Powers east of 180 degrees and raiding enemy communications and forces, to reenforce and defend Oahu and outlying bases; in order to retain, and make secure, a fleet base for further operations. When the fleet is strong enough, to take the strategic offensive.[4]

After the Battle of Midway, the Japanese offensive juggernaut stalled. Submarines seized the strategic offensive. Released from defensive duties, the thrust of the submarine campaign directly attacked Japan's overextended sea lines of communication. As more submarines were coming out of the shipyards and more combat patrols were conducted, submarines carried the war to the vital sea lanes around Japan taking a heavy toll on Japanese shipping. The submarine campaign had seized the initiative and would contribute significantly to Japan's ultimate defeat.

Once the initiative was attained and prosecuted, Japan was forced to react. Unfortunately, Japan found itself without organized control of shipping. Poor utilization of merchant ships (often transiting in ballast) reflected the uncoordinated control of three different shipping pools, the Army, the Navy and the Ministry of Munitions. Furthermore, protection of vital shipping was a weakness with no escort command, no communications plan and no convoy and escort doctrine.

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[4]Montgomery C. Miegs, Slide Rules and Submarines (Washington, National Defense University Press, 1990), p.159.

U.S. submarines quickly exploited these weaknesses. Aggressive skippers carried the battle to the Japanese and crippled the Japanese war effort.

III. THE PRINCIPLE OF MASS. "Concentrate combat power at the decisive place and time."

Early deployment of Pacific submarines reflected American inexperience with submarine operations and demonstrated that U.S. submarines were not ready for unrestricted warfare. Pre-war tactics were directed at attacking high-speed, well-screened combat ships. These conditions required extreme caution. It was this very caution which worked against skippers making attacks on merchant ships early in the war. U.S. submarine doctrine also emphasized attack by sound from deep submergence. Such doctrine proved to be sheer folly. For example, of the 4873 U.S. submarine attacks analyzed after the war, only 31 were sound attacks and none were successful.[5]

Additionally, submarines were deployed and patrolled numerous areas which proved unproductive. Further, submarines were often sent on missions based on Ultra reports, super-secret intelligence on movement of Japanese capital ships. Too often the Ultra report was reliable, but the submarine was in the improper position for an attack against a fast moving capital ship well-defended by both escorts and aircraft. Much patrol time and many submarine patrol days were devoted to this effort.

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[5]W.J. Holmes, Undersea Victory (Garden City, NY, Doubleday & Company, 1966), p.48.

Early war patrols were also sent to known ports to await shipping. These ports, such as Truk, Rabaul and Palau, were heavily defended not only with surface escorts, but also air cover. Not surprisingly, these patrols too were not productive. Thus, American commanders did not mass their assets at a crucial point.

However, analysis by American commanders discovered that virtually all critical Japanese shipping routes transited the Luzon Strait. By concentr .ting patrols in this area, submarine productivity and merchant ship sinkings increased dramatically. For example, in 1942, only 15 per cent of war patrols went to the Empire, the East China Sea and Formosan waters; yet these patrols accounted for 45 per cent of the sinkings. However, in 1943, fully 50 per cent of the patrols were in Empire waters. By 1944, after the invasion of Mindoro, the flow of oil from Southeast Asia to Japan was essentially stopped due to preying submarines in the Luzon Strait bottleneck.[6]

By exercising the principle of mass, U.S. submarine commanders concentrated submarines in the most likely areas to interdict Japanese merchant ships. Deploying submarines in this manner greatly increased the probability of contact. Further, utilization of wolf-pack tactics and submarine to submarine communications, individual ships and, later in the war, convoys were attacked repeatedly and relentlessly.

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[6]Blair, v2, p.521 and p.791.

Operational level massing of submarines was achieved using wolf-pack tactics. American doctrine had never used coordinated submarine attacks previously so again caution was the watchword. Coordination was also hampered by a reluctance to use the radio lest Japanese anti-submarine forces would home in on the submarines position. Thus initial wolf-packs were small and simplistic. Development of this principle of mass (concentration) evolved to coordinated search rather than coordinated attack. All told, during the war, 117 American wolf-packs were formed to prey on Japanese shipping.

IV. THE PRINCIPLE OF ECONOMY OF FORCE. "Allocate minimum essential combat power to secondary efforts."

In the preceding paragraphs the necessity to assume the strategic defensive was discussed. Submarines were required to assume unaccustomed roles because beleaguered garrison commanders had limited assets to accomplish necessary missions. Although submarines were primarily employed for interdiction of Japanese shipping, they were used for a variety of missions throughout the war.

Perhaps the most noteworthy secondary mission was lifeguarding; that is, rescuing downed aviators. During the war 504 airmen, one of whom went on to become President, were rescued by submarines. The lifeguard missions were carefully integrated into aviation attack plans so pilots could ditch near pre-positioned submarines.

Another vital secondary mission was collection of intelligence. Photographic reconnaissance and surveillance of proposed assault beaches provided valuable information for amphibious assault planners.

Other secondary missions abounded during the early years of the war.

> [Submarines] had been used for coastal defense (Lingayen Gulf, Java, Midway), for blockading (Truk-Solomons), for interrupting Japanese capital ships, for interdicting merchant shipping, for commando raids (Makin), for delivering and retrieving guerrillas and spies in Japanese-held territory (mostly the Philippines), for minelaying, for reconnaissance (primarily in the Marshalls), for delivering supplies and evacuating personnel (Corregidor), for shifting staff around the Asiatic theater, and for 'beacons' and weather forecasting in support of a few carrier strikes (Doolittle raid, bombing of Wake Island).[7]

Despite these secondary missions which exploited the versatility and flexibility of the submarine platform, the primary mission of sinking ships was strongly pursued. As soon as the U.S. assumed the strategic offensive, American commanders did a superb job in not only achieving its primary mission but also providing complementary support to other war fighters in the Pacific theater.

V. THE PRINCIPLE OF MANEUVER. 'Place the enemy in a position of disadvantage through the flexible application of combat power.'

During the war, Pacific submarines were initially based at three locations: Pearl Harbor, Brisbane and Freemantle. These excellent bases provided refit facilities so necessary to a submarine after a war patrol. Unfortunately, each of these bases

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[7] Ibid, v1, p.333.

was thousands of miles from the prime patrol areas of Empire waters.

At first, little could be done to improve the location of these bases. As MacArthur made his advances through the Southwest Pacific, the utility of the Brisbane base was lost and submarines were transferred to Freemantle. Unfortunately, MacArthur's advances did not liberate any facilities suitable for the industrial refit of a submarine. Not until the liberation of Subic Bay in the Philippines was the submarine base moved from Freemantle closer to the patrol areas. Of course by this time, the submarines dominated the seas and pickings of merchant ships was meager at best.

From Pearl Harbor, an advance base was established first at Midway Island and later at Guam. Midway was equipped with submarine tenders and shore facilities. By moving to Midway, each submarine saved 2400 miles of travel on each patrol. Thus more time was available on station for patrolling.

Operational level maneuver was also accomplished by rotating submarines through various zones. Maritime zones were devised and grouped together and a group of submarines sent in, not necessarily simultaneously, to occupy the entire territory in accordance with a simple system of rotation. These zones were laid out to facilitate movement without confusion. Safety lanes were also identified so that friendly aircraft and ships in the area would not attack any submarines found in the safety lanes.

The principle of maneuver was also exploited at the operational level through frequent communication with patrolling submarines. Maneuver of submarines based on Ultra reports was discussed previously. But submarines were also notified of ship contacts made by other submarines via SubPac operations. Hence, the prudent use of communications for fortuitous exploitation of shipping contacts was frequently used.

VI. THE PRINCIPLE OF UNITY OF COMMAND. 'For every objective, ensure unity of effort under one responsible commander.'

There were two separate submarine forces in the Pacific: Submarine Forces, Pacific Fleet (SubPac) in Pearl Harbor; and Submarine Forces, SouthWest Pacific Area (SubSWPac) in Freemantle. There were two additional area submarine command areas, the North Pacific area and South Pacific area which were separate task forces but coordinated with SubPac.[8] For purposes of this paper, the effect of divided command between SubPac and SubSWPac will be examined. This separation also reflected the respective areas of responsibility for Nimitz and MacArthur. However, by violating the principle of unity of command, the overall submarine campaign in the Pacific was deleteriously affected.

Initially, the decision to retain submarines in Australia was made by the Chief of Naval Operations, Admiral E. King. The submarines in the SouthWest Pacific were the remnants of the

[8]See Appendix III for a map delineating the various areas.

proud Asiatic Fleet. Australia seemed the logical location to conduct offensive submarine warfare against Japanese sea lines of communications in the South China Sea, Celebes Sea and Java Sea. All were areas frequented by Japanese shipping laden with the necessary imports for Japan. These Asiatic submarines were responsible for patrolling about three million square miles of ocean - an enormous task for only 19 submarines.

King's decision, in retrospect, appears unsound. First, Freemantle is at the end of a long Pacific logistics pipeline. Freemantle submarines were the last to receive weapons, spare parts, replacements, but this shortfall was overcome by the superb liberty offered to the submarine crews during refit.

Another problem with Freemantle was King's failure to appreciate the geography of the Japanese sea lines of communication mentioned previously. Moreover, the transit to the productive grounds in the Luzon Strait was through shallow water under constant threat from Japanese aircraft.

Further, there was a jurisdictional problem. The division of command areas bisected the shipping bottleneck of the Luzon Strait. Because coordinated operations between submarines were difficult, neither SubPac nor SubSWPac patrolled the Luzon Strait early in the war.

Perhaps, the worst feature of the two organizations is that they became rivals, competing rather than cooperating.

Finally, the Freemantle submarines were further hampered when General MacArthur was appointed chief of all Allied Forces

in the SouthWest Pacific. MacArthur greatly underestimated the offensive value of submarines. He routinely used submarines primarily for defensive purposes with interdiction of enemy shipping a secondary mission. Unfortunately for the submarine force, MacArthur insisted on numerous special missions to the Philippines, primarily supporting guerrilla activity. The submarines conducting these missions, while perhaps filling a void in MacArthur's heart for the Philippines, would have better served the operational campaign if deployed against tanker and merchant traffic in the Luzon Strait.

Consolidation all the submarines at Pearl Harbor under a single commander could have generated numerous, enormous benefits. Instead of splitting the logistics between Freemantle and Pearl Harbor, a greater logistics base could be held at Pearl Harbor. Modernization of submarines with better radar and weapons would have occurred sooner. Elimination of one staff in Freemantle would have freed experienced submariners to man short-handed submarines. At one location, the individual patrol reports were routinely routed to all skippers with endorsements regarding tactics, enemy anti-submarine warfare capabilities and weapons use, thus quickly spreading the word about improved doctrine. Finally, under one commander, with increased numbers of submarines available for assignment, coordinated wolf-pack tactics would have occurred much earlier.

Other benefits would have also accrued. The SubPac commander was collocated with CINCPAC. The SubPac commander

routinely attended CINCPAC conferences and participated in the development of plans for future operations. The SubSWPac commander enjoyed no such benefit. They were extremely remote from both the Naval component of the MacArthur's staff and MacArthur's headquarters. Thus, SubSWPac was not able to be involved real-time in development of plans. The remote location also affected SubSWPac's ability to lobby MacArthur for greater freedom of action and to use the submarines in a greater offensive role.

Adherence to the principle of unity of command could have accelerated the impact of submarines forces on Japanese shipping. By eliminating the helpful, but superfluous, missions directed by MacArthur and instead aggressively prosecuting patrols in Empire waters, a greater, earlier impact would have been suffered in Japan.

VII. THE PRINCIPLE OF SECURITY. 'Never permit the enemy to acquire an unexpected advantage.'

At the operational level knowledge of enemy strategy, tactics and doctrine as well as detailed staff planning can improve, emphasize and highlight the principle of security. Japanese anti-submarine strategy, tactics and doctrine were well-known to American commanders. Exploitation of the weaknesses in Japanese anti-submarine warfare (ASW) doctrine contributed significantly to the success of the campaign.

Throughout the war the Japanese ASW effort was unimaginative, possessing nothing novel or original. There was

no secret ASW weapon, nor were new tactics employed or developed. Moreover, the Japanese ASW effort was hampered by scientific and technological inferiority. The Japanese were also late in employing basic ASW techniques such as the convoy system and adequate air cover.

Also, Japanese intelligence forces contributed little to combatting the submarine threat. A major and fatal shortcoming of Japanese intelligence was the inability to generate valid evidence of American submarine tactics upon which legitimate evaluation of ASW attacks could be based. Throughout the war, the Japanese constantly over-estimated the success of their ASW efforts. And, as one might expect, the 'Silent Service' did not talk down the exaggerated Japanese claims.

As mentioned previously, one of the most serious shortcomings of Japanese shipping was lack of a convoy doctrine. After the initial successes in 1941, the threat from undersea warfare was indeed remote; yet, by 1943 when the Japanese finally realized the gravity of the threat, it was too late to effectively employ meaningful convoys with the attendant escorts.

Finally, the Japanese Navy continually searched for the decisive Mahanian battle which sapped escort resources for merchant shipping. Prevailing Japanese naval doctrine eschewed the use of destroyers for mundane escort duty. Destroyers were built to protect and screen the capital ships. The Japanese Combined Fleet jealously conserved its best destroyers scorning escort duty non-combatants.

American commanders relentlessly exploited these ASW weaknesses. Submarine skippers were strongly encouraged to try new tactics such as repeated night surface attacks and end-around maneuvers. Operationally, submarines began patrolling at known convoy departure routes rather than near well-defended base areas. American skippers also knew that the Japanese set their depth charges too shallow, broke off anti-submarine attacks too soon and repeatedly reported successful anti-submarine attacks unjustified by the facts.

VIII. THE PRINCIPLE OF SURPRISE. "Strike the enemy at a time or place, or in a manner, for which he is unprepared."

Use of the principle of surprise is fundamental to the submarine. However, at the operational level, one method by which surprise can be achieved is through the prudent, unexpected choice of submarine patrol areas. As the war progressed, and American skippers became more confident in their abilities, patrol areas went deeper and deeper into Empire waters, such as the Yellow Sea. Early incursions into the fabled Japanese lake, the Sea of Japan, were extremely risky, produced little damage (mainly due to faulty torpedoes) but proved to the Japanese that no area around Japan was immune from submarine attack.

Surprise can also be generated through the use of intelligence. As mentioned above, American code breakers were able to read Japanese radio traffic detailing ship movements. These reports proved invaluable to American skippers. Although the reports were primarily on capital ship contacts, but were

used most productively identifying Japanese submarine movements resulting in numerous Japanese submarine losses. Later in the war, code breakers were able to deduce convoy movements allowing for prepositioning of submarines to intercept the convoys.

IX. THE PRINCIPLE OF SIMPLICITY. "Prepare clear, uncomplicated plans and clear, concise orders to ensure thorough understanding."

Perhaps the principle of simplicity is best illustrated by the title of the quasi-autobiographical book by the WWII COMSubPac, VADM C.A. Lockwood, Sink 'Em All. This attitude certainly reflected the strategic level directive which epitomized the principle of simplicity: "execute unrestricted air and submarine warfare against Japan."[9] At the operational level this directive was interpreted as follows: "you will sink or destroy enemy shipping wherever encountered."[10] Unfortunately, it took American commanders until 1943 to establish a clear, defined, simplistic objective (see principle I. above).

Once doctrine was established, individual operations orders (oporders) issued at the operational level were relatively uncomplicated. For example, here are two oporder excerpts from actual WWII combat patrols of the submarine Tang:

> "When in all respects ready for sea, proceed to area 10W west of Palau. Stay beyond normal search in passing Ulithi and Yap, and regulate speed so as to reach position 60 miles bearing 235 from Toagel

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[9] Blair, p.84.

[10] Roscoe, p.26.

Mlungui Passage by 28 March [44] for carrier task force strike."[11]

"When in all respects ready for sea and patrol, proceed by route south of Kure reef to the Nampo Shoto and areas 4 and 5. Conduct offensive patrol against shipping. There will be no friendly submarines in the adjacent areas."[12]

The oporder excerpts clearly indicate that clear, simple directives and order were given to the submarine skippers, yet offering the individual commanding officer the latitude and opportunity to exercise and display initiative, innovation, techniques and tactics.

Here ends the discussion of the Pacific submarine campaign against the Japanese during WWII. The campaign was eminently successful in severing Japan's sea lines of communications and starved Japan into submission. Statistically, the success of the submarine campaign is as follows:[13]

	Sunk	Tonnage
Naval vessels	214	577,626
Merchant vessels	1,178	5,053,491[14]

[11] Richard H. O'Kane, Clear the Bridge! (Chicago, Rand McNally, 1977), p.136.

[12] Ibid, p.298.

[13] Lockwood, p.351.

[14] For comparison purposes, in WWI, German submarines sank 5,078 ships for 11 million tons. In WWII, German submarines sank 2,882 Allied merchant vessels for 14.4 million tons plus 175 men-of-war. See Blair, v2, p.852.

52 American submarines were lost which consisted of 18 per cent of all submarines which made war patrols.[15] This impact by the Submarine Forces, which, at their peak, were only 1.6 per cent of the U.S. Navy, was enormous.[16]

CHAPTER 2

RECOMMENDATIONS AND OBSERVATIONS

Since the end of World War II, the submarine force has undergone sweeping yet fundamental changes. No longer are the distinguishing marks of the 'steely-eyed denizens of the deep' the roar of diesel engines and the wake of a steam torpedo, but rather the power of the atom and of ICBMs. Harnessing atomic power and placing a reactor in a submarine hull was a technological and engineering advancement of enormous proportions. Atomic power has given the submarine the benefits and advantages of high speed, unlimited range and operational ability. Deployment of the atomic submarine in the 1950's created new problems in th anti-submarine warfare arena as well as created a new weapons system, the underwater launch of ballistic missiles and later guided missiles.

Also, the explosion in the electronics industry has greatly changed the face of submarine warfare. WWII submarines had

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[15] Although this loss rate is considered high by American standards, consider that Germany lost 781 submarines, Japan 130 and Italy 85.

[16] Lockwood, p.351.

rudimentary radar, VHF communications via morse code, primitive sonar and celestial navigation. Today's submarines are on the leading edge of the most advanced technological developments in electronics. Radar, though available, is seldom used, but is replaced with electronic warfare capability to track a target's electronic emissions. State of the art satellite based communications are *de rigueur* for today's modern submarine. Sonar, the submarine's most valuable sensor, has delved deeply into the secrets, mysteries, and vagaries of underwater acoustics. And finally, inertial and satellite navigation has rendered the sextant of celestial navigation an antique.

The differences are numerous and it is not the intent of this paper to explore them all. What then, can modern warfighters learn from the successful submarine campaign in WWII? This paper will examine four concepts which appear as relevant in WWII as today. They are: the importance of unity of command; the importance of effective ASW doctrine and performance; the importance of secure, reliable communications; and, the importance of convoy doctrine.

In Chapter 1, the overwhelming success of the submarine force masked the division of the boats between Pearl Harbor and Freemantle, a chasm in the principle of unity of command. In spite of this estrangement, the campaign was an unqualified operational success. Part of the problem can be traced to the egos of the area commanders: Nimitz and MacArthur. As stated above, pre-war doctrine greatly underestimated the value of the

submarine. However, once the war started, MacArthur wanted his own naval forces to support his thrust through the Southwest Pacific.

Today, we have attacked the problems of unity of command. Within the Navy, there is one organizational champion of submarines, the Deputy Chief of Naval Operations for Submarine Warfare. No such organization existed during WWII. Today submarines and their respective missions are tightly controlled by the Fleet Type Commander (ComSubLant and ComSubPac). Submarines are rarely assigned to CINCs and remain under operational control of the type commander. In this way, the difficult problem of water-space management is controlled centrally. Submarines are assigned to Carrier Battle Groups, but only with extremely close coordination with the type commander. Because of this tight control, the extraordinary skills and operational capabilities of the submarine force are not misused or mismanaged.

Another facet of this unity of command problem is a generic one. There exists the potential for miscommunication or miscalculation or for exploitation by the enemy of the arbitrary geographic separation between CINCs. As discussed above, the dividing line of the Luzon Strait proved to be operationally and strategically disastrous. Today, with our arrangement of the unified CINCs, potential areas of mismatch occur. For example, the line separating EUCOM from CINCENT in the Middle East is ripe for difficulties. The geographic separation cuts right through

areas of broad ethnic and religious antipodes in the most volatile region of the globe. The serious consequences of maintaining boundaries through such unstable and irrational geopolitical areas requires military planners to develop well-considered political guidance in the event a crisis overlaps two CINC's areas of responsibility.

Another lesson which can be taken from the submarine war in the Pacific is the absolute importance of ASW. The American submarines were not 'secret weapons' nor did they possess any special evasive techniques. The Japanese merely failed to prosecute the anti-submarine campaign tenaciously. As the U.S. Navy has learned, ASW is an extremely complex, expensive and frustrating task. However, failure to prosecute ASW is placing surface shipping at the mercy of submarines.

Communications played an giant role during the campaign. SubPac's constant radio contact with submarines to pass along contact information, change in patrol area or change in mission is a fundamental precepts of warfare. Today's submarine depends more than ever before on stealth and quietness. Two-way secure, non-detectable, non-interruptable communicat.ons are vital to submarines achieving their mission. Continuous upgrades of these integral links will continue to be of primary importance to today's submarine.

The final lesson this paper will discuss is the role of convoys. Although the Japanese used convoys late in the war, they were ineffective. The Allies used convoys with great

success in the North Atlantic during WWII achieved primarily by the greater assets, including both ship and aircraft, placed in combatting the German submarine threat. Nevertheless, in today's environment, the U.S. relies on strategic sealift to move the massive amounts of materiel needed to fight a mid-intensity regional conflict such as Desert Storm. Because the sealift proved so indispensable, the U.S. must have a vigorous, dynamic convoy doctrine which is in place and exercised regularly. If one considers the enormous problems the U.S. had in executing the sealift to Southwest Asia, consider also the disruptive effect and losses if the ships had to run a submarine gauntlet. Consider also that if submarines posed a threat, were there enough combatants available to provide convoy escorts? Also, were there enough carrier task forces to provide convoy protection over all the sea lanes to Southwest Asia and back? Fortunately, no submarines threatened the shipping of war materiel to Desert Storm. However, with the array of very capable, extremely quiet diesel submarines spread throughout the Third World, use of convoys in strategic and operational thinking must be explored, analyzed and available for implementation during the next crisis.

As with all papers of this size and depth, only small areas of entire campaign were examined. However, the Pacific American submarines of WWII provides valuable lesson material for today's operational planners.

Appendix I

Principles of War

OBJECTIVE: Direct every military operation towards a clearly defined, decisive, and attainable objective.

OFFENSIVE: Seize, retain, and exploit the initiative.

MASS: Concentrate combat power at the decisive time and place.

ECONOMY OF FORCE: Allocate minimum essential combat power to secondary efforts.

MANEUVER: Place the enemy in a position of disadvantage through the flexible application of combat power.

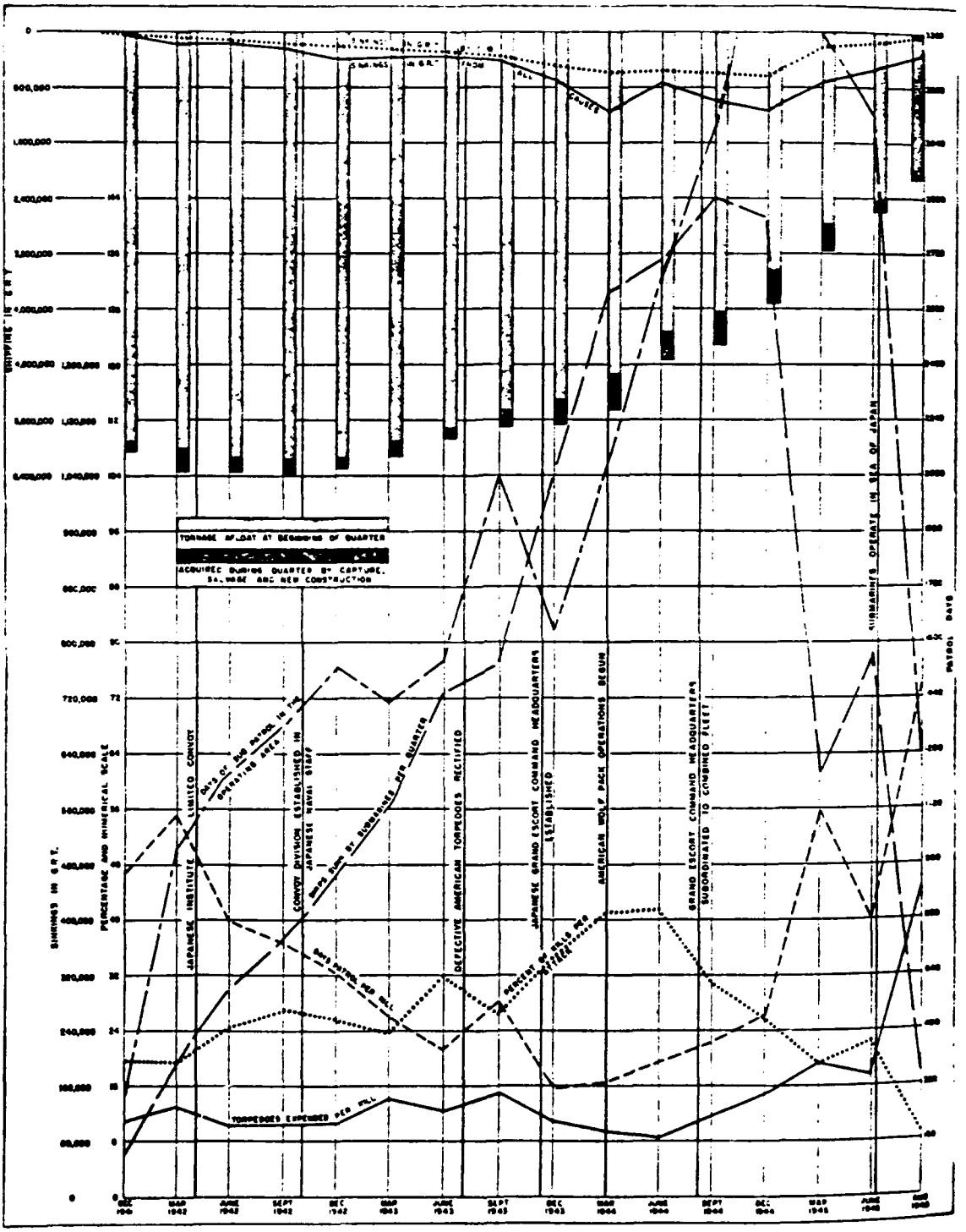
UNITY OF COMMAND: For every objective, ensure unity of effort under one responsible commander.

SECURITY: Never permit the enemy to acquire an unexpected advantage.

SURPRISE: Strike the enemy at a time or place, or in a manner, for which he is unprepared.

SIMPLICITY: Prepare, clear, uncomplicated plans and clear, concise orders to ensure thorough understanding.

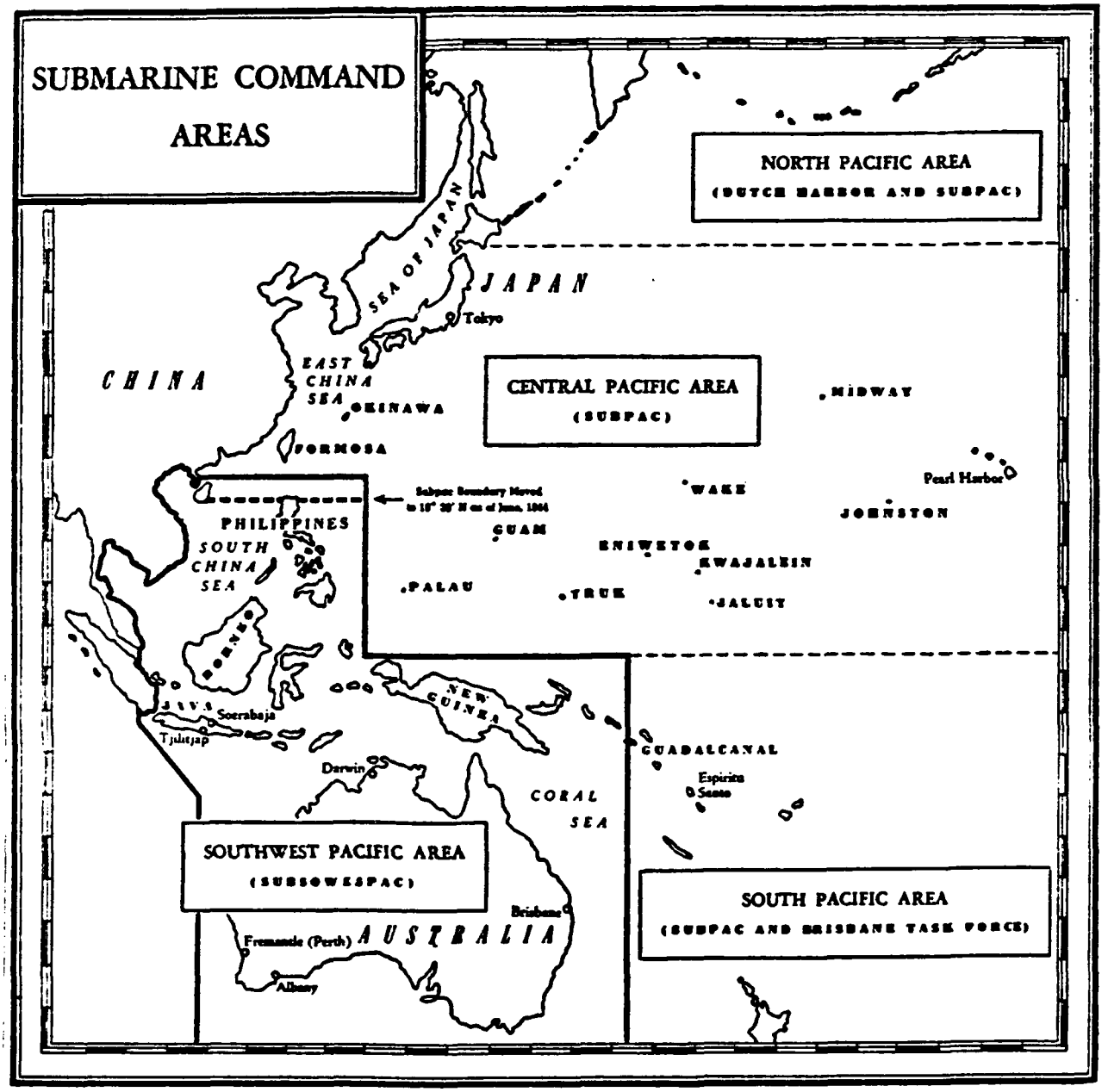
APPENDIX II



ATTRITION OF JAPANESE SHIPPING IN WORLD WAR II

Source: Potter and Nimitz, eds., Seapower, p.808.

APPENDIX III



Source: Roscoe, United States Submarine Operations in WWII, p.119

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