MEMORANDUM FOR THE SECRETARY OF THE NAVY:

Subject: Second Report of Commander in Chief, United States Fleet and Chief of Naval Operations on the Progress of the War.

1. The President has read the subject report and has returned it to me marked "O.K."

2. Mr. Harry Hopkins has asked to see the report and unless you wish our copy returned I will send it along to Harry.

Very respectfully,

WILLIAM BROWN,  
Vice Admiral, U.S.N.,  
Naval Aide to the President.
MEMORANDUM FOR THE PRESIDENT:

The within report from King briefs the major operations in which the Navy has participated during the period from 1 March 1944 to 1 March 1945. It does not attempt to discuss the details of combat but does attempt to present the combat picture as a whole for the period covered.

The Secretary of the Navy proposes, with your approval, to publish the report. I list the following pages that appeal to me as having special interest:

(a) Pages 1 - 5: An impressive list of combats for the year.
(b) Pages 5 & 6: An excellent statement of the effect of our submarine campaign in the Pacific.
(c) Pages 13-16: A very able discussion of the differences between the Atlantic and Pacific campaigns as affecting the command problem. This also serves as a vindication of a balanced fleet as provided for in our original construction program.
(d) Pages 139-144: The conclusions are well worth reading if you have time.

Very respectfully,

[Signature]

WILSON BROWN
MEMORANDUM FOR THE PRESIDENT:


1. I wish to advise you that Fleet Admiral King has submitted to me his second report on the progress of the war.

2. The report briefs the major operations in which the Navy has participated for the period 1 March 1944 to 1 March 1945. It also sets forth the contributions of the various branches of the Navy and stresses the successful coordination of effort between the forces of the United States and our allies.

3. I plan on releasing the report to the press within the present month.

James Forrestal
JAMES FORRESTAL
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James Forrestal

JAMES FORRESTAL
Dear Mr. Secretary:

Twelve months ago I presented to the late Secretary Knox a report of the progress of our naval operations and the expansion of our naval establishment since the beginning of the war.

Long before the war Frank Knox saw clearly and supported strongly the necessity for arming the United States against her enemies. He knew that a powerful Navy is essential to the welfare of our country, and fought with all his energies to build a Navy that could carry the attack to the enemy. How well he succeeded is now a matter of history.

The manner in which the Navy has carried the attack to the enemy during the twelve months from 1 March 1944 to 1 March 1945 is the subject of the report which I present to you at this time.

In reading this report, attention is especially invited to the significant role of amphibious operations during the entire period. In fact, amphibious operations have initiated practically all of the Allied successes during the past three years.

Fleet Admiral
Commander in Chief, United States Fleet
and Chief of Naval Operations

The Honorable James Forrestal,
Secretary of the Navy,
Washington, D. C.
I

INTRODUCTION

My previous report presented an account of the development of the Navy and of combat operations up to 1 March 1944. This report covers the twelve months from 1 March 1944 until 1 March 1945. Within this period the battle of the Pacific has been carried more than three thousand miles to the westward - from the Marshall Islands into the South China Sea beyond the Philippines - and to the Tokyo approaches. Within this same period the invasion of the continent of Europe has been accomplished. These successes have been made possible only by the strength and resoluteness of our amphibious forces, acting in conjunction with the fleet.

During these twelve months, there occurred the following actions with the enemy in which the United States Navy took part:

20 March 1944  Landings on Emirau Island, St. Matthias Group, northeast of New Guinea
20 March - 1 April 1944  Bombardment of Kavieng, New Ireland
22 April 1944  Carrier Task Force Attacks on Western Carolines
29 April - 1 May 1944  Landings in Bollanda Area, New Guinea
17 May 1944  Carrier Task Force Attacks on Central and Eastern Carolines
19-20 May 1944  Landings in Wadde Island Area, New Guinea

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12 January 1945  
Carrier Task Force Attack on French Inde-China Coast

15 January 1945  
Carrier Task Force Attack on Formosa

16 January 1945  
Carrier Task Force Attack on Hong Kong, Canton and Hainan, China

21-22 January 1945  
Carrier Task Force Attack on Formosa and Hansel Shot

24 January 1945  
Air-surface Attack on Iwo Jima, Volcano Islands

29-30 January 1945  
Landings in Subic Bay Area, Luzon, Philippine Islands

31 January 1945  
Landings at Nasugbu, Luzon, Philippine Islands

13-15 February 1945  
Bombardment of Manila Bay Defenses, Philippine Islands

14 February 1945  
Landings at Mariveles, Luzon, Philippine Islands

16 February 1945  
Landings on Corregidor Island, Luzon, Philippine Islands

16-17 February 1945  
Carrier Task Force Attack on Tokyo

19 February 1945  
Landings on Iwo Jima, Volcano Islands Bombardment of Kurabu Zaki, Paramushiro, Kurile Islands

25-26 February 1945  
Carrier Task Force Attack on Tokyo and Hachijo Jima

26 February 1945  
Landings on Palawan, Philippine Islands

No listing of actions with the enemy, however complete, can include the ceaseless and unrelenting depredations of our submarines in the Pacific. In the earlier phases of the war they operated by themselves.
far beyond the range of any of our surface ships or aircraft. Their constant presence in the westernmost reaches of the Pacific limited the freedom of the enemy's operations: their frequent and effective attacks depleted his shipping and diminished his logistic as well as his combatant strength. The rapid advance of our other forces, both sea and air, has been due in no small measure to the outstanding success with which our submarine activities have been carried on in waters where nothing but submarines could go. During the current phases of the war, our submarines are not only continuing independent operations, but are also working in concert with the task fleets which are now exerting such heavy pressure on the Japanese.

The account of combat operations in this report is based on special summaries recently made by the fleet commanders concerned. In some instances, this information will be found to differ slightly from communiques previously issued, due to the subsequent accumulation of additional facts. However, it should be understood that there has been no opportunity yet for an exhaustive analysis from an historian's point of view of the great mass of operational reports in my files. I can furnish at this time no more than outline sketches of the highlights of combat operations. The preparation of carefully documented historical studies is underway, but the results will not be available during the progress of the war.
Limits of space further require that this account of combat operations be restricted to those actions which have had a significant or decisive effect upon the progress of the war. Similarly, because of the greatly magnified scale of the operations described, it has been impossible to cite the names of individual ships and commanders in most cases. To retain any semblance of continuity, it has been necessary to omit the details of the constant activity of many naval air, surface, and shore-based units which have performed invaluable services of patrol, supply and maintenance on a vast scale. Land-based planes and PT boats have incessantly harassed the beleaguered Japanese garrisons which have been by-passed in our progress across the Pacific. Seabees and other naval forces on shore have made great contributions to the conversion of islands seized in amphibious operations into useful bases for further attack upon the enemy. Countless ships and planes have contributed to the safe progress of troops and supplies along far-flung lines of communication. The operations of these forces, which have frequently involved bitter combat with the enemy, cannot, because of the nature of this report, be further elaborated upon.
THE PACIFIC OFFENSIVE

--- LINE OF FARTHEST JAPANESE ADVANCE 7 AUGUST 1942

- PROGRESS: 7 AUGUST 1942 - 1 MARCH 1944
- PROGRESS: 1 MARCH 1944 - 1 MARCH 1945

CHINA

AUSTRALIA

JAPAN

SEA OF OKhotsk

FORMOSA ISLANDS

PHILIPPINE ISLANDS

MARINAS ISLANDS

PALAU ISLANDS

CAROLINE ISLANDS

SOLOMON ISLANDS

NEW HEBRIDES ISLANDS

INDIA

BAY OF BENGAL

THAILAND

FRENCH INDIA CHINA

MALAYA

SOUTH CHINA SEA

BONN ISLANDS

VOLCANO ISLANDS

HONSHU

PEOPLE'S REPUBLIC OF CHINA

KOREA

NORTH KOREA

JAPAN

KOREA

HAWAIIAN ISLANDS

HAWAIIAN ISLANDS

GILBERT ISLANDS

MARSHALL ISLANDS

PELELIU

TAU

NEW GUINEA

SANTA CRUZ ISLANDS

SAMOA ISLANDS

DIAMOND HEAD

PEARL HARBOR

VANCOUVER

SAN FRANCISCO

REGRADED UNCLASSIFIED
II

OFFICE AND FACTOR ORGANIZATION
UNITED STATES FLEET

The basic organization of the United States Fleet has remained unchanged during the twelve months covered by this report.

The Headquarters of Commander in Chief, United States Fleet, located in Washington since December 1941, has continued to function as originally conceived, but with the growth in complexity and volume of work, I felt the need of assistance in matters of military policy concerning both the United States Fleet and the Office of the Chief of Naval Operations. Consequently the post of Deputy Commander in Chief, United States Fleet and Deputy Chief of Naval Operations was created, and on 1 October 1944, Vice Admiral R. S. Edwards reported for duty in that capacity. On the same date Vice Admiral G. H. Cooke, Jr., reported as Chief of Staff to Commander in Chief, United States Fleet, and Rear Admiral E. H. Riel reported as Deputy Chief of Staff.

ORGANIZATION OF UNITED STATES NAVAL FORCES IN THE PACIFIC

United States Pacific Fleet

Operations in the Pacific Ocean Areas continue under the command of Fleet Admiral C. N. Halsey, Commander in Chief, U. S. Pacific Fleet and Pacific Ocean Areas. As the scene of operations moved

- 8 -
into the far western Pacific, Fleet Admiral Nimitz's headquarters at Pearl Harbor became increasingly remote. Therefore in January 1943 advance headquarters were established at Guam, from which the Commander in Chief could supervise operations more closely.

**Seventh Fleet**

The Seventh Fleet (Vice Admiral Thomas C. Hart, Commander) continues to operate in the Southwest Pacific Area. Vice Admiral Hart is under the command of General of the Army MacArthur, Commander in Chief of that Area.

**San Francisco**

On 23 April 1944 a series of changes in the command organization of waters along the Pacific coast of the United States was made. The Northwest Sea Frontier, which had been composed of the Northwestern Sector (Oregon and Washington) and the Alaska Sector, was abolished. The Northwestern Sector was incorporated into the Western Sea Frontier, and the Alaska Sector was established as the Alaskan Sea Frontier (Vice Admiral F. J. Fletcher, Commander). At the same time the 17th Naval District was created including the Territory of Alaska and its waters. This change consolidated all sea frontier and correlated activities on the west coast of the United States under the Commander, Western Sea Frontier (Vice Admiral D. W.
Bagley), and incidentally brought the jurisdictional limits of the naval sea frontiers into conformity with the Army defense organizations on the Pacific coast of the United States.

On 8 November 1944, the functions of the Commander, Western Sea Frontier, were greatly enlarged in scope in order to afford more effective logistic support for war operations of United States forces in the Pacific. On 17 November 1944, Admiral R. E. Ingersoll, assumed duties as Commander, Western Sea Frontier, relieving Vice Admiral Bagley.

On 26 November 1944, Vice Admiral Bagley relieved Vice Admiral R. L. Chevalay as Commander, Hawaiian Sea Frontier.

The Philippine Sea Frontier (Rear Admiral J. L. Kauffman, Commander) was established as a separate command under Commander Seventh Fleet (Southwest Pacific Area) on 13 November 1944.

ORGANIZATION OF UNITED STATES NAVAL FORCES IN THE ATLANTIC - MEDITERRANEAN

United States Atlantic Fleet

The U. S. Atlantic Fleet (Admiral Ingersoll, Commander in Chief, until 15 November 1944, when relieved by Admiral J. H. Ingraham) consists of the forces operating in the United States area of strategic responsibility, which is, roughly, the western half of the Atlantic Ocean. The Fourth Fleet, operating in the South Atlantic, is a unit of U. S. Atlantic Fleet. Vice Admiral (now Admiral) Ingraham was Commander Fourth Fleet until November 1944, when relieved by Vice Admiral U. R. Hanus.
United States Naval Forces, Europe

U. S. Naval Forces, Europe (Twelfth Fleet), Admiral E. H. Stark, Commander, is an administrative command, embracing all United States naval forces assigned to British waters and the Atlantic coastal waters of Europe. Admiral Stark is responsible for the maintenance and training of all United States naval units in his area. For operations connected with the invasion of the continent of Europe, he assigns appropriate task forces to the operational control of the British Admiral commanding the Allied naval contingent of General of the Army Eisenhower's supreme command, which embraces all Army, Navy and Air elements involved in activities connected with the Western Front.

United States Naval Forces, Northwest African Waters

U. S. Naval Forces, Northwest African Waters (Eighteenth Fleet)

Vice Admiral E. H. E作为一名 Admiral, includes all United States naval forces in the Mediterranean. Vice Admiral E作为一名 Admiral is under the British naval Commander in Chief of the Allied naval forces in the area, who in turn, under the command of the Supreme Commander of the area (formerly General of the Army Eisenhower, later Field Marshal Sir Henry Haldane Wilson, at present Field Marshal Alexander of the British Army).
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United States Naval Forces, Northwest African Waters

U. S. Naval Forces, Northwest African Waters ( Eighth Fleet) Vice Admiral E. E. Hewitt, Commander, includes all United States naval forces in the Mediterranean. Vice Admiral Hewitt is under the British naval Commander in Chief of the Allied naval forces in the area, who is, in turn, under the command of the Supreme Commander of the area (formerly General of the Army Eisenhower, later Field Marshal Sir Henry Hailsham-Wilson, at present Field Marshal Alexander of the British Army).
The commission has power (Commander B. &. Rear-Admiral, C. E.)
III

COMBAT OPERATIONS

THE PACIFIC

During the year 1944, the whole of the United States Navy in the Pacific was on the offensive. By previous report, summarizing combat operations to 1 March 1944, showed the evolution by which we had passed from the defensive, through the defensive-offensive and offensive-defensive stages, to the full offensive. To understand the significance of our operations in the account which follows, the reader must be aware of the basic reasons behind them.

The campaign in the Pacific has important elements of dissimilarity from the campaign in Europe. Since the “battle of the beaches” was finally won with the landings in Normandy last June, the naval task in Europe has become of secondary scope. The European war has turned into a vast land campaign, in which the role of the navies is to keep open the trans-Atlantic sea routes against an enemy whose naval strength appears to be broken except for his U-boat activities. In contrast, the Pacific war is still in the “crossing the ocean” phase. There are times in the Pacific when troops get beyond the range of naval gun support, but much of the fighting has been, is now, and will continue for some time to be on beaches where Army and Navy combine in amphibious operations. Therefore, the essential element of our dominance over the Japanese has been the strength of our fleet.
The ability to move troops from island to island, and to put them ashore against opposition, is due to the fact that our command of the sea is spreading as Japanese naval strength withers. As a rough generalization, the war in Europe is now predominantly an affair of armies, while the war in the Pacific is still predominantly naval.

The strategy in the Pacific has been to advance on the core of the Japanese position from two directions. Under General of the Army MacArthur, a combined Allied Army-Navy force has moved north from the Australian region. Under Fleet Admiral Nimitz, a United States Army-Navy-Marine force has moved west from Hawaii. The mobile power embodied in the major combatant vessels of the Pacific Fleet has, sometimes united and sometimes separately, covered operations along both routes of advance, and at the same time contained the Japanese Navy.

In November 1943 South Pacific forces secured a beachhead on Bougainville, on which airfields were constructed for the neutralization of the Japanese base of Rabaul on New Britain. Simultaneously Southwest Pacific forces were working their way along the northern coast of New Guinea.

In November 1943 Pacific Ocean Areas forces attacked the Gilbert Islands, and at the end of January 1944 the Marshall Islands - the first stepping stones along the road from Hawaii. To control the
seas and render secure a route from Hawaii westward, it was not necessary to occupy every atoll. We could and did pursue a "leap frog" strategy, the basic concept of which is to seize those islands essential for our use, by-passing many strongly held intervening ones which were not necessary for our purposes. This policy was made possible by the gradually increasing disparity between our own naval power and that of the enemy, so that the enemy was and still is unable to support the garrisons of the by-passed atolls. Consequently, by cutting the enemy's line of communicating bases, the isolated ones became innocuous, without the necessity for our expending effort for their capture. Therefore, we can with impunity by-pass numerous enemy positions, with small comfort to the isolated Japanese garrisons, who are left to meditate on the fate of exposed forces beyond the range of naval support.

This strategy has brought the Navy into combat with shore-based air forces. It has involved some risks and considerable difficulty, which we have overcome. However, as we near the enemy's homeland, the problem becomes more and more difficult. During the first landing in the Philippines, for example, it was necessary to deal with the hundred or more Japanese airfields that were within flying range of Leyte. This imposed on our carrier forces a heavy task which we may expect to become increasingly heavy from time to time. While shore-based air facilities are being established as
rapidly as possible in each position we capture, there will always
be a period following a successful landing when control of the air
will rest solely on the strength of our carrier based aviation.

The value of having naval vessels in support of landings
has been fully confirmed. The renewed importance of battleships is
one of the interesting features of the Pacific war. The concentrated
power of heavy naval guns is very great by standards of land warfare,
and the artillery support they have given in landing operations has
been a material factor in getting our troops ashore with minimum loss
of life. Battleships and cruisers, as well as smaller ships, have
proved their worth for this purpose.

As I pointed out above, our advance across the Pacific
followed two routes. At the opening of the period covered by this
report, General of the Army MacArthur's forces were working their way
along the northern coast of New Guinea, while Fleet Admiral Nimitz,
by the capture of the Gilbert and Marshall Islands, had taken the
first steps along the other route. The narrative which follows be-
gins with the operations leading to the capture of Hollandia on the
north coast of New Guinea.
HOLLANDIA AND FAST CARRIER TASK FORCE

COVERING OPERATIONS

On 13 February 1944 the final occupation of the Huon Peninsula in Northeast New Guinea was completed. The occupation of the Admiralty Islands on 29 February 1944 by General of the Army MacArthur's forces and of Emirau in the St. Matthias group, north of New Britain, by Admiral Halsey's forces on 20 March had further advanced our holdings. In these two operations, the amphibious attack forces were commanded respectively by Rear Admiral W. W. Fechteler and Rear Admiral (now Vice Admiral) T. S. Wilkinson. On 20 March battleships and destroyers bombarded Kavieng, New Ireland.

The enemy had concentrated a considerable force at Wewak, on the northern coast of New Guinea, several hundred miles west of the Huon Peninsula. Hollandia, more than two hundred miles west of Wewak, had a good potential harbor and three airstrips capable of rehabilitation and enlargement. In order to accelerate the reconquest of New Guinea, it was decided to push far to the northwest, seize the coastal area in the vicinity of Aitape and Hollandia, thus by-passing and neutralizing the enemy's holdings in the Hansa Bay and Wewak areas. This operation was made possible by the availability of the fast carrier task force of the Pacific Fleet to perform two functions, namely to neutralize enemy positions in the Western Carolines from which attacks might be launched against our landing forces or against
our new bases in the Admiralties and Emirau, and to furnish close cover for the landing.

**Carrier Task Force Attacks on Western Carolines**

Under command of Admiral R. A. Spruance, Commander Fifth Fleet, a powerful force of the Pacific Fleet, including carriers, fast battleships, cruisers, and destroyers, attacked the Western Carolines. On 30 and 31 March, carrier-based planes struck at the Palau group with shipping as primary target. They sank 3 destroyers, 17 freighters, 5 oilers and 3 small vessels, and damaged 17 additional ships. The planes also bombed the airfields, but they did not entirely stop Japanese air activity. At the same time, our aircraft mined the waters around Palau in order to immobilize enemy shipping in the area.

Part of the force struck Yap and Ulithi on 31 March and Woleai on 1 April.

Although the carrier aircraft encountered active air opposition over the Palau area on both days, they quickly overcame it. Enemy planes approached the task force on the evenings of 29 March and 30 March but were destroyed or driven off by the combat air patrols. During the three days' operation our plane losses were 25 in combat, while the enemy had 114 planes destroyed in combat and 46 on the ground. These attacks were successful in obtaining the desired
effect, and the operation in New Guinea went forward without opposition from the Western Carolines.

**Capture and Occupation of Hollandia**

The assault on Hollandia involved a simultaneous three-pronged attack by Southwest Pacific forces. Landings at Tanahmerah Bay and, 30 miles to the eastward, at Humboldt Bay trapped the Hollandia airstrips situated 12 miles inland. The third landing, an additional 90 miles to the eastward at Aitape, provided a diversionary attack, wiped out an enemy strong point, and won another airstrip. Approximately 50,000 Japanese were cut off and the complete domination of New Guinea by Allied forces was hastened. The operation was under the command of General of the Army MacArthur. Three separate attack groups operated under a single attack force commander, Rear Admiral (now Vice Admiral) D. E. Barbey, who also commanded the Tanahmerah Bay attack group. Rear Admiral Fechtelar commanded the Humboldt Bay group and Captain (now Rear Admiral) A. G. Noble the Aitape group. This amphibious operation was the largest that had been undertaken in the Southwest Pacific area up to that time. Over 200 ships were engaged. A powerful force of carriers, fast battleships, cruisers and destroyers from the Pacific Fleet, commanded by Rear Admiral (now Vice Admiral) H. A. Mitscher, covered the landings.

Throughout 21 April, the day before the landings, the carriers launched strikes against the airstrips in the Aitape-Hollandia area,
which had previously been bombed nightly since 12 April by land-based aircraft. On the night of 21-22 April, light cruisers and destroyers bombarded the airfields at Wadde and Sawar. The amphibious landing took place on the 22nd, and on that and the following day planes from the Pacific Fleet carriers supported operations ashore, while keeping neighboring enemy airfields neutralized. Prepared defenses were found abandoned at Aitape; at Hollandia and Tanahmerah Bay there were none. The enemy took to the hills and the landings were virtually unopposed. Once ashore, all three groups encountered difficulties with swampy areas behind the beaches, lack of overland communications, and dense jungles. In spite of these obstacles, satisfactory progress was made. At the end of the second day the Aitape strip had been occupied and fighters were using it within twenty-four hours. The Hollandia strips fell a few days later.

As soon as the airstrips were in full operation and the port facilities at Hollandia developed, we were ready for further attacks at points along the northwestern coast of New Guinea.

**Carrier Task Force Attack on Central and Eastern Caroline**

Returning from support of the Hollandia landings, the fast carrier task force attacked Truk on 29 and 30 April. Initial fighter sweeps overcame almost all enemy air opposition by 1000 on the morning of the 29th, and thereafter over 2200 sorties, dropping 740 tons of...
bombs, were flown against land installations on Truk Atoll. Our planes encountered vigorous and active antiaircraft fire, but did exceedingly heavy damage to buildings and installations ashore. One air attack was attempted on our carriers on the morning of the 29th, but the approaching planes were shot down before they could do damage. Our plane losses in combat were 27 against 63 enemy planes destroyed in the air and at least 60 more on the ground.

For over two hours on 30 April a group of cruisers and destroyers bombarded Satawan Island, where the enemy had been developing an air base. Although existing installations were of little importance, the bombardment served to hinder the enemy's plans and furnished training for the crews of our ships. Similarly, a group of fast battleships and destroyers, returning from Truk, bombarded Ponape for 80 minutes on 1 May. There was no opposition except for antiaircraft fire against the supporting planes.
MARIANAS OPERATIONS

During the summer of 1944, Pacific Ocean Areas forces captured the islands of Saipan, Guam and Tinian, and neutralized the other Marianas Islands which remained in the hands of the enemy.

The Marianas form part of an almost continuous chain of islands extending 1350 miles southward from Tokyo. Many of these islands are small, rocky, and valueless from a military viewpoint; but others provide a series of mutually supporting airfields and bases, like so many stepping stones, affording protected lines of air and sea communication from the home islands of the Japanese Empire through the Nampo Shoto (Bonin and Volcano Islands) and Marianas to Truk; thence to the Eastern Carolines and Marshalls, as well as to the Western Carolines, the Philippines and Japanese-held territory to the south and west. Our occupation of the Marianas would, therefore, effectively cut these admirably protected lines of enemy communication, and give us bases from which we could not only control sea areas further west in the Pacific but also on which we could base aircraft to bomb Tokyo and the home islands of the Empire.

As soon as essential points in the Marshall Islands had been secured, preparations were made for the Marianas operation. Admiral Spruance, who had already conducted the Gilberts and Marshalls operations, was in command. Amphibious forces were directly under Vice Admiral R. K. Turner and the Expeditionary Forces were commanded by
Lieutenant General Holland M. Smith, USMC. Ships were assembled, trained, and loaded at many points in the Pacific Ocean Areas. More than 600 vessels ranging from battleships and aircraft carriers to cruisers, high-speed transports and tankers, more than 2,000 aircraft, and some 300,000 Navy, Marine and Army personnel took part in the capture of the Marianas.

Enemy airbases on Marcus and Wake Islands flanked on the north our approach to the Marianas. Consequently, a detachment of carriers, cruisers, and destroyers from the Fifth Fleet attacked these islands almost a month before the projected landings in order to destroy aircraft, shore installations, and shipping. Carrier planes struck Marcus on 19 and 20 May and Wake on 23 May. They encountered little opposition and accomplished their mission with very light losses due to antiaircraft fire.

From about the beginning of June, land-based aircraft from the Admiralties, Green, Emirau and Hollandia kept enemy bases, especially at Truk, Palau, and Yap well neutralized. The fast carriers and battleships of the Fifth Fleet, under Vice Admiral Mitscher, prepared the way for the amphibious assault. Carrier planes began attacks on the Marianas on 11 June with the object of first destroying aircraft and air facilities and then concentrating on bombing shore defenses in preparation for the coming amphibious landings. They achieved control of the air over the Marianas on the first fighter
sweep of 11 June and thereafter attacked air facilities, defense installations, and shipping in the vicinity.

**Initial Landings on Saipan**

Saipan, the first objective, was the key to the Japanese defenses; having been in Japanese hands since World War I, its fortifications were formidable. Although a rugged island unlike the coral atolls of the Gilberts and Marshalls, Saipan was partly surrounded by a reef which made landing extremely difficult. To prepare for the assault scheduled for 15 June, surface ships began to bombard Saipan on the 13th. The fast battleships fired their main and secondary batteries for nearly 7 hours into the western coast of Saipan and Tinian Islands. Under cover of this fire, fast mine sweepers cleared the waters for the assault ships, and underwater demolition teams examined the beaches for obstructions and cleared away such as were found.

The brunt of surface bombardment for destruction of defenses was borne by the fire support groups of older battleships, cruisers and destroyers, which preceded the transports to the Marianas and began to bombard Saipan and Tinian on 14 June.

Early on the morning of 15 June the transports, cargo ships, and LST's of Vice Admiral Turner's amphibious force came into position off the west coast of Saipan. The bombardment ships delivered a heavy, close range pre-assault fire, and carrier aircraft made strikes to
destroy enemy resistance on the landing beaches. The first troops reached the beaches at 0840, and within the next half hour several thousand were landed. In spite of preparatory bombing and bombardment, the enemy met the landing force with heavy fire from mortars and small calibre guns on the beaches. Initial beachheads were established, not without difficulty, and concentrated and determined enemy fire and counterattacks caused some casualties and rendered progress inland slower than was anticipated.

The 26th and 4th Marine Divisions landed first and were followed the next day by the 27th Army Infantry Division. Although Saipan had an area of but 72 square miles, it was rugged and admirably suited to delaying defensive action by a stubborn and tenacious enemy. The strong resistance at Saipan, coupled with the news of a sortie of the Japanese fleet, delayed landings on Guam.

**Battle of the Philippine Sea**

This sortie of the Japanese fleet promised to develop into a full scale action. On 15 June, the very day of the Saipan landings, Admiral Spruance received reports that a large force of enemy carriers, battleships, cruisers and destroyers was headed toward him, evidently on its way to relieve the beleaguered garrisons in the Marianas. As the primary mission of the American forces in the area was to capture the Marianas, the Saipan amphibious operations had to be protected from
enemy interference at all costs. In his plans for what developed into the Battle of the Philippine Sea, Admiral Spruance was rightly guided by this basic mission. He therefore operated aggressively to the westward of the Marianas, but did not draw his carriers and battleships so far away that they could not protect the amphibious units from any possible Japanese "end run" which might develop.

While some of the fast carriers and battleships were disposed to the westward to meet this threat, other carriers on 15 and 16 June attacked the Japanese bases of Iwo Jima and Chichi Jima. During this strike to the northward our carrier planes destroyed enemy planes in the air and on the ground, and set fire to buildings, ammunition and fuel dumps, thus temporarily neutralizing those bases, and freeing our forces from attack by enemy aircraft coming from the Bonins and Volcanoes. These latter forces were recalled to rendezvous west of Saipan, as were also many of the ships designated to give fire support to the troops on Saipan.

On 19 June the engagement with the Japanese fleet began. The actions on the 19th consisted of 2 air battles over Guam with Japanese planes, evidently launched from carriers and intended to land for fueling and arming on the fields of Guam and Tinian, and a large scale lengthy attack by enemy aircraft on Admiral Spruance's ships. The result of the day's action was some 402 enemy planes destroyed out of a total of 545 seen, as against 17 American planes lost and minor damage to 4 ships.
With further air attacks against Saipan by enemy aircraft unlikely because of the enemy's large carrier plane losses, and with its basic mission thus fulfilled, our fleet headed to the westward hoping to bring the Japanese fleet to action. Air searches were instituted early on the 20th to locate the Japanese surface ships. Search planes did not make contact until afternoon and, when heavy strikes from our carriers were sent out, it was nearly sunset. The enemy was so far to the westward that our air attacks had to be made at extreme range. They sank 2 enemy carriers, 2 destroyers and 1 tanker, and severely damaged 3 carriers, 1 battleship, 3 cruisers, 1 destroyer and 3 tankers. We lost only 16 planes shot down by enemy antiaircraft and fighter planes. Precariously low gasoline in our planes and the coming of darkness cut the attack short. Our pilots had difficulty in locating their carriers and many landed in darkness.

A total of 73 planes were lost due to running out of fuel and landing crashes, but over 90 per cent of the personnel of planes which made water landings near our fleet were picked up in the dark by destroyers and cruisers. The heavy damage inflicted on the Japanese surface ships, and prevention of enemy interference to operations at Saipan, made these losses a fair price to pay in return.

The enemy continued retiring on the night of the 20th and during the 21st. Although his fleet was located by searches on the 21st, planes sent out to attack did not make contact. Admiral Spruance's
primary mission precluded getting out of range of the Marianas, and on the night of the 21st, distance caused the chase to be abandoned. The Battle of the Philippine Sea broke the Japanese effort to reinforce the Marianas; thereafter, the capture and occupation of the group went forward without serious threat of enemy interference.

**Conquest of Saipan**

During the major fleet engagement, land fighting on Saipan continued as bitterly as before. Between 15 and 20 June the troops pushed across the southern portion of the island, gaining control of two enemy airfields. During the next ten days, from the 21st to the 30th, the rough central section around Mount Tapotchau was captured. The Japanese, exploiting the terrain, resisted with machine guns, small arms and light mortars from caves and other almost inaccessible positions. This central part of the island was cleared of organised resistance, and the last stage of the battle commenced.

By 1 July, the 2nd Marine Division had captured the heights overlooking Garapan and Tanapag Harbor on the west coast, while the 4th Marine Division and 27th Army Division had advanced their lines to within about five miles of the northern tip of the island. From 1 to 9 July the enemy resisted sporadically, in isolated groups, in northern Saipan. On 4 July the 2d Marine Division captured Garapan, the capital city of the island. One desperate "banzai" counterattack occurred on 7 July,
but this was stemmed and all organised resistance ceased on the 9th. Many isolated small groups remained, which required continuous mopping up operations; in fact, some mopping up still continues.

While the campaign ashore went on, it was constantly supported by surface and air forces. Surface ships were always ready to deliver gunfire, which was controlled by liaison officers ashore in order to direct the fire where it would be of greatest effectiveness. Carrier aircraft likewise assisted. Supplies, ammunition, artillery and reinforcements were brought to the reef by landing craft and were carried ashore by amphibious vehicles until such time as reef obstacles were cleared and craft could beach. The captured Aslito airfield was quickly made ready for use, and on 22 June Army planes began operation from there in patrols against enemy aircraft. Tanapag Harbor was cleared and available for use 7 July.

Japanese planes from other bases in the Marianas and the Carolines harassed our ships off Saipan from the time of landing until 7 July. Their raids were not large and, considering the number of ships in the area, these attacks did little damage. An LCI was sunk and the battleship MARYLAND damaged. An escort carrier, 2 fleet tankers, and 4 smaller craft received some damage, but none serious enough to require immediate withdrawal from the area.

While these activities went on in Saipan, the fast carriers and battleships continued to afford cover to the westward, and also
to prevent the enemy from repairing his air strength in the Bonins and Volcanoes. On 23 and 24 June, Pagan Island, which was still held by the Japanese, was heavily attacked by carrier planes. Iwo Jima received attacks on 24 June and 4 July and Chichi Jima and Haha Jima on the latter date. The 4 July attack on Iwo included bombardment by cruisers and destroyers. These attacks kept air facilities neutralized and destroyed shipping.

Reoccupation of Guam

As has been seen, the unexpectedly stiff resistance on Saipan, together with the sortie of the Japanese fleet, had necessitated a postponement of landings on Guam. This delay permitted a period of air and surface bombardment which was unprecedented in severity and duration. Surface ships first bombarded Guam on 16 June; from 8 July until the landing on the 21st the island was under daily gunfire from battleships, cruisers and destroyers, which destroyed all important emplaced defenses. This incessant bombardment was coordinated with air strikes from fields on Saipan and from fast and escort carriers. The destruction of air facilities and planes on Guam and Rota, as well as the neutralization of more distant Japanese bases, gave us uncontested control of the air. The forces engaged in the reoccupation of Guam were under the command of Rear Admiral R. L. Conolly.
The evacuation of troops from the Japanese opposition to the land, with the...

During this period, the evacuation of troops from the Japanese opposition to the land was a long and difficult task, even after the end of organized resistance. The evacuation of troops from the Japanese opposition

The evacuation of troops from the Japanese opposition was conducted during the period from August 1944 to December 1944. On 21 July, our forces advanced across the western shore, making the convoy harbor area suitable for a beachhead and the capacity of closer penetration with the artillery and other...

Where the heaviest enemy opposition was encountered...

Landings from 21 to 30 July, they found in the open harbor area...

The 3rd Marine Division, under command of Major General H. S. Geiger, USMC, made the...

After the Ariya Armored Division and the 1st Marine Division...

The troops reached enemy mortar...

And artillery was placed on the beach. The troops reached enemy mortar...

Supported by the 3rd Marine Division, they reached the...

In the support of bombarding artillery and planes, the troops...

Troops landed on Guam on 21 July, at the edge of the beach...
many caves, made the annihilation of the remaining small enemy forces a difficult task. The enemy casualty figures for Guam illustrate the character of this phase. By 10 August the total number of Japanese dead counted was 10,971 and 86 were prisoners of war. By the middle of November, these numbers had increased to 17,238 enemy killed and 469 prisoners.

Occupation of Tinian

The capture of Tinian Island, by forces commanded by Rear Admiral H. W. Hill, completed the amphibious operations in the Marianas in the summer of 1944. Located across the narrow channel to the southward of Saipan, Tinian was taken by troops who had already participated in the capture of the former island. Intermittent bombardment began at the same time as on Saipan and continued not only from sea and air, but from artillery on the south coast of Saipan. A joint naval and air program for "softening" the defenses of Tinian went on from 26 June to 8 July, and thereafter both air and surface forces kept the enemy from repairing destroyed positions. There were heavy air and surface attacks on 22 and 23 July, the days immediately preceding the landing, and these completed the destruction of almost all enemy gun emplacements and defense positions. The landings, which took place on beaches at the northern end of Tinian, began early on 24 July. Beach reconnaissance had been conducted at night and the
enemy was surprised in the location of our landing. Troops of
the 2d and 4th Marine Divisions landed in amphibious vehicles
from transports at 0740 on the 24th. They met only light rifle
and mortar fire, and secured a firm beachhead. Like Saipan and
Guam, Tinian presented a difficult terrain problem, but enemy
resistance was much less stubborn than on the other islands. On
1 August the island was declared secure, and the assault and occu-
pation phase ended on the 8th.

Throughout this period, surface and air units provided
constant close support to the ground troops. In addition, on 4
and 5 August units of the fast carrier task force virtually wiped
out a Japanese convoy, and raided airfields and installations in
the Bonin and Volcano Islands. Damage to the enemy was 11 ships
sunk, 8 ships damaged, and 13 aircraft destroyed; our losses were
16 planes.
PROGRESS ALONG NEW GUINEA COAST

Before and during the Marianas operation, Southwest Pacific forces under General of the Army MacArthur engaged in a series of amphibious landings along the north coast of New Guinea. These operations were undertaken to deny the Japanese air and troop movements in western New Guinea and approaches from the southwest to our lines of communication across the Pacific, thus securing our flank. Unlike the Hollandia operation, which was supported by carriers and battleships of the Fifth Fleet, they involved the use of no ships larger than heavy cruisers.

Occupation of the Wakde Island Area

In order to secure airfields for the support of further operations to the westward, an unopposed landing was made on 17 May 1944 by U. S. Army units at Arara, on the mainland of Dutch New Guinea, about 70 miles west of Hollandia. Under command of Captain (now Rear Admiral) Noble, a naval force of cruisers, destroyers, transports and miscellaneous landing craft landed the 163rd Regimental Combat Team reinforced. Extending their beachhead on D-day along the coast from Toem to the Tor River, the troops made shore-to-shore movements to Wakde Islands on 17 and 18 May. By 19 May, all organized enemy resistance on the Wakde Islands had ceased.
Occupation of Biak Island

Because of the need for a forward base from which to operate heavy bombers, an amphibious assault was made on Biak Island, beginning on 27 May. The attack force, under the command of Rear Admiral Fechteler, composed of cruisers, destroyers, transports and landing craft, departed Humboldt Bay on the evening of 25 May and arrived off the objective without detection. Initial enemy opposition was weak and quickly overcome, but subsequently the landing force encountered stiff resistance in the move toward the Biak airfields. Air support and bombardment were furnished by B-24's, B-25's and A-20's, while fighter cover was provided by planes from our bases at Hollandia and Aitape.

After the initial landing on Biak Island, the enemy, entrenched in caves commanding the coastal road to the airstrips, continued stubborn resistance and seriously retarded the scheduled development of the air facilities for which the operation had been undertaken. Furthermore, it became apparent that the enemy was planning to reinforce his position on Biak. To counter this threat, a force of 3 cruisers and 14 destroyers under the command of Rear Admiral V. A. C. Crutchley, R.N., was given the mission of destroying enemy naval forces threatening our Biak occupation. On the night of 8-9 June, a force of 5 enemy destroyers attempting a "Tokyo Express" run
was intercepted by Rear Admiral Gruchay's force. The Japanese
destroyers turned and fled at such high speed that in the ensuing
chase only one of our destroyer divisions, commanded by Commander
(now Captain) A. E. Jarrell, was able to gain firing range. After
a vain chase of about three hours the action was broken off.

**Occupation of Noemfoor Island**

On 2 July 1944, a landing was made in the vicinity of
Kaimiri Airdrome on the northwest coast of Noemfoor Island, southwest of Biak Island. The amphibious attack force, under the com-
mand of Rear Admiral (now Vice Admiral) Barbey, consisted of an
attack group, a covering group of cruisers and destroyers, a land-
ing craft unit, and a landing force built around the 148th U. S.
Infantry Regimental Combat Team reinforced. Landing began at 0800,
and all troops and a considerable number of bulk stores were landed
on D-day. Prior to the landing nearby Japanese airfields were ef-
fensively neutralized by the 5th Air Force.

Enemy opposition was feeble, resistance not reaching the
fanatical heights experienced on other islands. There were not more
than 2000 enemy troops on Noemfoor Island and our casualties were
extremely light, only 8 of our men having been killed by D-plus-6 day.
Again, forward air facilities to support further advance to the west-
ward had been secured at a relatively light cost.
OCCUPATION OF CAPE SANSAPER AREA

On 30 July 1944 an amphibious force, under the command of Rear Admiral Fechteler, carried out a landing in the Cape Sansaper area on the Vogelkop Peninsula in western New Guinea. Rear Admiral Berkey commanded the covering force.

The main assault was made without enemy air or naval resistance. Beach conditions were ideal and within a short time secondary landings had been made at Middleberg Island and Amsterdam Island, a few thousand yards off shore.

Prior to D-day Army Air Force bombers and fighters had neutralised enemy areas in the Geelvink-Vogelkop area and the main air bases in the Halmaheras. On D-day, when it became evident that the ground forces would encounter no resistance, Army support aircraft from Owi and Wakde were released for other missions and naval bombardment was not utilised. Again, casualties sustained were light: one man killed with minor damage to small landing craft.

This move brought our forces to the western extremity of New Guinea. It effectively neutralised New Guinea as a base for enemy operations, and rendered the enemy more vulnerable to air attack in Halmahera, the Molukka Passage and Makassar Strait. Enemy concentrations had been by-passed in our progress up the coast, but due to the absence of roads, the major portion of enemy transport was of necessity water-borne. Here our PT boats did admirable service, roaming east and west along the coast, harassing enemy barge traffic, and preventing reinforcements from being put ashore.

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WESTERN CAROLINES OPERATIONS

Following closely upon the capture of the Marianas, Fleet Admiral Nimitz's forces moved to the west and south to attack the Western Caroline Islands. Establishment of our forces in that area would give us control of the southern half of the crescent shaped chain of islands which runs from Tokyo to the southern Philippines. It would complete the isolation of the enemy-held central and eastern Carolines, including the base at Truk.

Admiral W. F. Halsey, Jr., Commander Third Fleet, commanded the operations in the Western Carolines. Additions to the Pacific Fleet from new construction made an even larger force available to strike the Western Carolines than the Marianas. Nearly 800 vessels participated. Vice Admiral Wilkinson commanded the joint expeditionary forces which conducted landing operations. Major General J. C. Smith, USMC, was Commander Expeditionary Troops, and Vice Admiral Mitscher was again commander of the fast carrier force. Troops employed included the 1st Marine Division and the 81st Army Infantry Division.

Preliminary Strikes by Fast Carrier Task Force

Prior to the landings in the Western Carolines, wide ranging air and surface strikes were made to divert and destroy
Japanese forces which might have interfered. Between 31 August and 2 September, planes from the fast carriers bombed and strafed Chichi Jima, Haha Jima and Iwo Jima. Cruisers and destroyers bombarded Chichi Jima and Iwo Jima. They destroyed 46 planes in the air and on the ground, sank at least 6 ships, and damaged installations, airfields and supply dumps. Our forces lost five aircraft. On the 7th and 8th, planes from the same carriers attacked Yap Island.

Simultaneously, other groups of fast carriers devoted their attention to the Palau Islands where the first Western Carolines landings were to take place. In attacks throughout the group from 6 to 8 September, they did extensive damage to ammunition and supply dumps, barracks and warehouses.

The plan was for Pacific Ocean Areas forces to land on Peleliu Island in the Palau group on 15 September, simultaneously with a landing on Morotai by Southwest Pacific forces. In order to neutralize bases from which aircraft might interfere with these operations, carrier air strikes on Mindanao Island in the southern Philippines were made. These attacks began on 9 September and revealed the unexpected weakness of enemy air resistance in the Mindanao area. On 10 September there were further air attacks, as well as a cruiser-destroyer raid off the eastern Mindanao coast, which caught and completely destroyed a convoy of 32 small freighters.
The lack of opposition at Mindanao prompted air strikes into the central Philippines. From 12 to 14 September, planes from the carrier task force attacked the Visayas. They achieved tactical surprise, destroyed 75 enemy planes in the air and 123 on the ground, sank many ships, and damaged installations ashore.

In direct support of the Southwest Pacific landing at Morotai, carrier task force planes attacked Mindanao, the Celebes, and Talaud on 14-15 September. On the 14th destroyers bombarded the eastern coast of Mindanao. There was little airborne opposition and our forces destroyed and damaged a number of aircraft and surface ships.

**Landings on Peleliu and Angaur**

Ships and troops employed in the Western Carolines landings came from various parts of the Pacific. Three days of surface bombardment and air bombing preceded the landing on Peleliu. During this time mine sweepers cleared the waters of Peleliu and Angaur Islands and underwater demolition teams removed beach obstructions. The Peleliu landing took place on 15 September, the landing force convoys arriving off the selected beaches at dawn. Following intensive preparatory bombardment, bombing and strafing of the island, units of the 1st Marine Division went ashore. Despite difficult reef conditions, the initial landings were successful. The troops quickly
overran the beach defenses, which were thickly mined but less heavily manned than usual. By the night of the 16th, the Palauli airfield, which was the prime objective of the entire operation, had been captured. After the rapid conquest of the southern portion of the island, however, progress on Palauli slowed. The rough ridge which formed the north-south backbone of the island was a natural fortress of mutually supporting cave positions, organized in depth and with many automatic weapons. Advance along this ridge was slow and costly. The Japanese used barges at night to reinforce their troops, but naval gunfire dispersed and destroyed many of them. Enemy forces had been surrounded by 26 September, although it was not until the middle of October that the assault phase of the operation was completed.

The 81st Infantry Division went ashore on Angaur Island, six miles south of Palauli, on 17 September. Fire support ships and aircraft had previously prepared the way for the assault transports. Beach conditions here were more favorable than at Palauli. Opposition also was less severe, and by noon of 20 September the entire island had been overrun, except for one knot of resistance in rough country. Prompt steps were taken to develop a heavy bomber field on Angaur. Part of the 81st Division went to Palauli on 22 September to reinforce the 1st Marine Division, which had suffered severe casualties.

The southern Palau Islands offered no protective anchorage. Before the landings of the 15th, mine sweepers had been clearing the

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extensive mine fields in Kossol Roads, a large body of reef-enclosed water 70 miles north of Peleliu. Part of this area was ready for an anchorage on 15 September, and the next day seaplane tenders entered and began to use it as a base for aircraft operation. It proved to be a reasonably satisfactory roadstead, where ships could lie while waiting call to Peleliu for unloading, and where fuel, stores and ammunition could be replenished.

Marine troops from Peleliu landed on Ngesebus Island, just north of Peleliu, on 28 September, by a shore-to-shore movement. The light enemy opposition was overcome by the 29th. Later several small islands in the vicinity were occupied as outposts.

No landing was made on Babelthaup, the largest of the Palau group. It was heavily garrisoned, had rough terrain, would have required a costly operation, and offered no favorable airfield sites or other particular advantages. From Peleliu and Angaur the rest of the Palau group is being dominated, and the enemy ground forces on the other islands are kept neutralized.

As soon as it became clear that the entire 81st Division would not be needed for the capture of Angaur, a regimental combat team was dispatched to Ulithi Atoll. Mine sweepers, under cover of light surface ships, began work in the lagoon on 21 September and in two days cleared the entrance and anchorage inside for the attack force. The Japanese had abandoned Ulithi and the landing of troops
on the 23rd was without opposition. Escort carrier and long range
bombers kept the air facilities at Yap neutralized so that there was
no aerial interference with landing operations. Although Ulithi was
not an ideal anchorage, it was the best available shelter for large
surface forces in the Western Carolines, and steps were taken at once
to develop it.

**Landings on Morotai**

Occupation of the southern part of Morotai Island was carried
out by the Southwest Pacific forces of General of the Army MacArthur
to establish air, air warning and minor naval facilities. This action
was further designed to isolate Japanese forces on Halmahera, who would
otherwise have been in a position to flank any movement into the Southern
Philippines. It was timed simultaneously with the seizure of Palau by
Pacific Ocean Areas forces. On 15 September 1944 an amphibious task
force composed of escort carriers, cruisers, destroyers, destroyer es-
corts, attack transports and miscellaneous landing ships and craft, all
under the command of Rear Admiral (now Vice Admiral) Barbey, approached
Morotai. Practically no enemy opposition was encountered, and person-
nel casualties were light; difficulty was experienced, however, in
beaching and unloading, due to coral heads and depressions in the reef
adjacent to the landing areas.

Prior to D-day Army land-based planes from Biak and Wosmafoor
carried out heavy strikes on enemy air facilities in Ceram, Halmahera,
northern Celebes, Vogalkop and southern Philippine areas. Carrier
fighter sweeps combined with further bombing operations prevented
hostile aircraft from reaching Morotai on D-day. Naval gunfire sup-
port was furnished by destroyers and two heavy cruisers. During
subsequent covering operations we sustained our first naval loss in
the Southwest Pacific Area, except for planes and minor landing
craft, since the Cape Gloucester operations in December 1943; the
destroyer escort SHELTON was torpedoed and sunk by an enemy submarine.
REOCCUPATION OF PHILIPPINE ISLANDS

After providing support for the Palau landings, the Third Fleet fast carrier task force returned to the attack on enemy power in the Philippines. From waters to the east, they conducted the first carrier attack of the war on Manila and Luzon. Under cover of bad weather the carriers approached without detection. On 21 and 22 September planes from the carriers attacked Manila and other targets on Luzon, inflicting severe damage on the enemy and suffering only light losses.

On 24 September carrier planes struck the central Philippines. They completed photographic coverage of the area of Leyte and Samar, where amphibious landings were to take place in October, and reached out to Coron Bay, a much used anchorage in the western Visayas. Many enemy planes and much shipping were destroyed. The light air opposition revealed how effective the first Visayas strikes of 10 days previous had been. Following the strikes of the 24th, the fast carrier task force retired to forward bases to prepare for forthcoming operations.

Initial plans for re-entry into the Philippines intended securing Morotai as a stepping stone with a view to landings by the Seventh Amphibious Force on Mindanao some time in November. The decision to accelerate the advance by making the initial landings on Leyte in the central Philippines was reached in middle September.
The Central Philippine Attack Force, composed of Seventh Fleet units, greatly augmented by Pacific Fleet forces, was under the command of Vice Admiral Thomas C. Hartshorn. This large force was divided into the Northern Attack Force (Samar-Horn Island Force), under the command of Vice Admiral Thomas C. Hartshorn, and the Southern Attack Force under General of the Army Kenney, which was a part of the Eastern Support Group. The Northern Attack Force was to proceed directly to the eastern part of the Philippines, while the Southern Attack Force was to proceed to the central part, the primary objective being to seize Leyte Island. The force was to proceed in two phases: the first phase was to seize Leyte Island, and the second phase was to advance to the central part of the Philippines. The purpose of the operation was to secure Leyte Island and the adjacent islands, and to establish a base for further operations in the central part of the Philippines.

The Northern Attack Force was to proceed to the eastern part of the Philippines, and was to be supported by the Southern Attack Force. The Southern Attack Force was to proceed to the central part of the Philippines, and was to be supported by the Northern Attack Force.

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Force (Third Amphibious Force, Vice Admiral Wilkinson commanding), plus surface and air cover groups, fire support, bombardment, mine sweeping and supply groups. It comprised a total of more than 650 ships, including battleships, cruisers, destroyers, destroyer escorts, escort carriers, transports, cargo ships, landing craft, mine craft, and supply vessels. Four army divisions were to be landed on D-day.

The Third Fleet, operating under Admiral Halsey, was to cover and support the operation by air strikes over Formosa, Luzon and the Visayas, to provide protection for the landing against heavy units of the Japanese fleet, and to destroy enemy vessels when opportunity offered.

**Preliminary Strikes by Fast Carrier Task Force**

Preperatory strikes to obtain information on installations, and to destroy air and surface strength which might hinder our success in the Philippines, lasted from 9 to 20 October.

While a cruiser-destroyer task group bombarded and damaged installations on Marcus Island on 9 October, ships of the fast carrier forces were approaching the Nansei Shoto [Ryuku Islands]. Long range search-planes and submarines "ran interference" for the force, attacking and destroying enemy search-planes and picket boats, so that our
heavy forces achieved tactical surprise at their objective. Carrier aircraft attacked Okinawa Island in the Nansei Shoto on 10 October. The Japanese apparently were taken by surprise. Not only was little airborne opposition met, but shipping had not been routed away from the area. Many enemy ships were sunk and airfields and facilities severely damaged.

On 11 October while the force was refueling, a fighter sweep against Aparri on the northern end of Luzon disorganized the relatively undeveloped and lightly garrisoned fields there.

The next attack, on Formosa and the Fiscadores, took place on 12 and 13 October. These strikes on aviation facilities, factory warehouses, wharves and coastal shipping, were expected by the enemy and, for the first time in this series of operations, a large number of enemy planes were over the targets and antiaircraft fire was intense. In spite of opposition, 193 planes were shot down on the first day and 123 more were destroyed on the ground.

At dusk on the 13th, part of the task force was skillfully attacked by aircraft and one of our cruisers was damaged. Although power was lost, the ship remained stable, due to prompt and effective damage control, and was taken in tow. With a screen of cruisers and destroyers, and under air cover from carriers, the slow retirement of the damaged ship began. At that time the group was 120 miles from Formosa and within range of enemy aircraft on Okinawa, Luzon, and
Formosa. Enemy planes kept the group under constant attack and succeeded in damaging another cruiser on the evening of the 14th. She also was taken in tow, and both vessels were brought safely to a base for repairs.

In order to prevent further air attacks while the damaged ships retired, the carriers launched repeated fighter sweeps and strikes over Formosa and northern Luzon on 14 and 15 October.

Beginning on 16 October the carrier planes again struck the Philippines. In strategic as well as direct tactical support of the landings of Southwest Pacific forces at Leyte on the 20th, the strikes of the 16th and 19th were aimed at the northern and central Philippines. On 20 October some of the fast carriers furnished direct support to the Leyte landing and others conducted long-range searches for units of the enemy fleet. Thus, Japanese airfields in and around Manila and in the Visayas were kept neutralized during the initial assault phase of the Leyte landing, while at the same time carrier planes from the Third Fleet furnished direct support to the landings by bombing and strafing beaches and interior areas on Leyte throughout the day. On 21 October there were sweeps and strikes to southern Luzon and the Visayas, including an attack as far west as Coron Bay. Carrier planes also continued long-range searches with negative results.
**Leyte Landings**

During the 9 days preceding the landing on Leyte, the task groups sortied from New Guinea ports and the Admiralties and moved toward Leyte Gulf. On 17 October (D-minus-3 day) preliminary operations commenced under difficult weather conditions. By D-day the islands guarding the eastern entrances to Leyte Gulf were secured. The approach channels and landing beaches were cleared of mines and reconnaissance of the main beaches on Leyte had been effected.

After heavy bombardment by ships' guns and bombing by escort carrier planes had neutralized most of the enemy opposition at the beaches, troops of the 10th and 24th Corps were landed as scheduled on the morning of 20 October. The landings were made without difficulty and were entirely successful. Our troops were established in the central Philippines, but it remained for the naval forces to protect our rapidly expanding beachheads from attack by sea and air.

In the amphibious phase of the Leyte operation, LMS 70 sank in a storm during the approach and the tug SONOMA and LCI(L) 1065 were sunk by enemy action. The destroyer ROSS struck a mine on 19 October and the light cruiser HONOLULU was seriously damaged by an aerial torpedo on 20 October.

**Battle for Leyte Gulf**

The Leyte landings were challenged by Japanese naval forces determined to drive us from the area. Between 23 and 26 October a
series of major surface and air engagements took place with far reaching effect. These engagements, which have been designated the Battle for Leyte Gulf, culminated in three almost simultaneous naval actions, the Battle of Surigao Strait, the Battle off Samar, and the Battle off Cape Engaño. They involved the battleships, carriers, and escort carriers, cruisers, destroyers and destroyer escorts of the Third and Seventh Fleets, as well as PT boats and submarines.

Three enemy forces were involved. One of these, referred to hereinafter as the Southern Force, approached Leyte through Surigao Strait and was destroyed there by Seventh Fleet units on the night of 24-25 October. A second, or Central Force, passed through San Bernardino Strait in spite of previous air attacks by Third Fleet carrier planes and attacked Seventh Fleet escort carriers off Samar on the morning of the 25th. Finally, a Northern Force approached the Philippines from the direction of Japan and was attacked and most of it destroyed by the Third Fleet fast carrier force on the 25th.

On the early morning of 23 October, two submarines, DARTER and DAGE, in the narrow channel between Palawan and the Dangerous Ground to the westward discovered the Central Force, then composed of 5 battleships, 10 heavy cruisers, 1 or 2 light cruisers, and about 15 destroyers. These submarines promptly attacked, reporting four torpedo hits in each of three heavy cruisers, two of which were sunk and the third heavily damaged. DARTER, while maneuvering into position
for a subsequent attack, grounded on a reef in the middle of the channel, and had to be destroyed after her crew had been removed. Other contacts were made later in the day in Mindoro Strait and off the approach to Manila Bay, resulting in damage to an enemy heavy cruiser.

On the 24th carrier planes located and reported the Central Force (in the Sibuyan Sea) and the Southern Force (proceeding through the Sulu Sea) sufficiently early to permit aircraft from Vice Admiral Mitscher's fast carriers to inflict substantial damage.

The third enemy force, the Northern, was not located and reported until so late on the afternoon of the 24th that strikes could not be launched against it until the next morning. While these searches and strikes were being made, the northernmost of our fast carrier task groups was subjected to constant attacks by enemy land-based planes.

Although about 110 planes were shot down in the vicinity of the group, one of the enemy aircraft succeeded in bombing the light carrier PRINCETON. Large fires broke out on the damaged carrier and despite heroic efforts of cruisers and destroyers to combat them, PRINCETON suffered a series of devastating explosions which also caused damage and casualties to ships alongside. After hours of effort to save the ship, it became necessary to move the task group to meet a new enemy threat (the reported sighting of the Northern Force),
and PRINCETON was sunk by torpedo fire from our own ships. It should be noted that PRINCETON was the first fast carrier lost by the United States Navy since the sinking of HORNET in the Battle of the Santa Cruz Islands on 26 October 1942.

**Battle of Surigao Strait**

A part of the enemy's Southern Force entered Surigao Strait in the early hours of 25 October. 7 ships (2 battleships, 1 heavy cruiser and 4 destroyers) advanced in rough column up the narrow strait during darkness toward our waiting forces. The enemy was first met by our PT boats, then in succession by three coordinated destroyer torpedo attacks, and finally by devastating gunfire from our cruisers and battleships which had been disposed across the northern end of the strait by the officer in tactical command, Rear Admiral (now Vice Admiral) J. B. Oldendorf. The enemy was utterly defeated. This action is an exemplification of the classical naval tactics of "crossing the T". Rear Admiral Oldendorf had deployed his light forces on each flank of the approaching column and had sealed off the enemy's advance through the strait with his cruisers and battleships. By means of this deployment he was able to concentrate his fire, both guns and torpedoes, on the enemy units before they were able to extricate themselves from the trap. The Japanese lost 2 battleships and 3 destroyers almost before they could open...
fire. The heavy cruiser and one destroyer escaped, but the cruiser was sunk on the 26th by our planes. Other ships of the Southern Force which did not engage in the night battle were either later sunk or badly damaged by aircraft attack. In the night action, the destroyer ALBERT W. GRANT was severely damaged by gunfire; our other ships suffered no damage.

Battle off Samar

Throughout the 24th the Third Fleet carriers launched strikes against the Central Force which was heading for San Bernardino Strait. This force consisted of 5 battleships, 8 cruisers and 13 destroyers. As they passed through Mindoro Strait and proceeded to the eastward, our planes launched vigorous attacks which sank the new battleship KUGA - pride of the Japanese Navy - 1 cruiser and 1 destroyer, and heavily damaged other units, including the battleship YAMATO, sister ship of KUGA, with bombs and torpedoes. In spite of these losses and damage which caused some of the enemy ships to turn back, part of the Central Force continued doggedly through San Bernardino Strait and moved southward unobserved off the east coast of Samar. Our escort carriers with screens, under the command of Rear Admiral T. L. Sprague, were dispersed in three groups to the westward of Samar, with the mission of maintaining patrols and supporting ground operations on Leyte. Shortly after daybreak on 25 October the Japanese Central Force, now composed of 4 battleships,
25 October with the escort carriers SIRIUS and APPEALANTLY. On planes
were lost by 27th. Escort carriers during the Battle for Leyte

In the surface engagement, the destroyers HEAL and JOHNSTON,

enemy's other ships were sunk by enemy gunfire, other carriers and escort ships which weere

Another escort destroyer was sunk and several other enemy ships were
the afternoon of the 25th, sank 2 enemy heavy cruisers and 1 destroyer.

At this time all three groups of escort planes had been engaged, planes from all three groups of escort
planes and escort carriers, one after the other, left our line of action.

Enemy aircraft, gun and torpedoes, destroyer attacks were made by
their planes. Guns and torpedoes, a group of escort carriers attached.

As our IJN ships encountered, fought a duel.

5 cruisers and 2 escort carriers, at least the Group of escort carriers
Battle Off Cape Engaño

Search planes from Third Fleet carriers had located the enemy Southern and Central Forces on the morning of 24 October, and had ascertained that they were composed of battleships, cruisers and destroyers, without aircraft carriers. As it was evident that the Japanese Navy was making a major effort, Admiral Halsey reasoned that there must be an enemy carrier force somewhere in the vicinity. Consequently he ordered a special search to be made to the north, which resulted in the sighting by one of our carrier planes on the afternoon of the 24th of the enemy Northern Force - a powerful collection of carriers, battleships, cruisers and destroyers - standing to the southward.

During the night of the 24th-25th, our carrier task force ran to the northward and before dawn launched planes to attack the enemy. Throughout most of 25 October the Battle off Cape Engaño (so named from the nearest point of land at the northeastern tip of Luzon Island) went on with carrier aircraft striking the enemy force, which had been identified as consisting of 1 large carrier, 3 light carriers, 2 battleships with flight decks, 5 cruisers, and 6 destroyers. Beginning at 0840 air attacks on these ships continued until nearly 1800. Late in the day a force of our cruisers and destroyers was detached to finish off ships which had been crippled by air strikes. In that day's work all the enemy carriers, a light cruiser, and a
destroyer were sunk, and heavy bomb and torpedo damage was inflicted on the battleships and other Japanese units.

Early on the morning of the 25th, Admiral Halsey received the report that the Central Force, which his carrier planes had attacked the day before, had pushed on through San Bernardino Strait, had turned southward along the coast of Samar and was attacking Rear Admiral Sprague's escort carriers. Consequently, Admiral Halsey dispatched a detachment of fast battleships and carriers to the assistance of these Seventh Fleet units. Meanwhile the Central Force had turned away and begun to retire northward to San Bernardino Strait in the face of the heroic defense put up by the escort carriers and the expectation of attack by other of our forces. Third Fleet aircraft reached this Central Force after it had begun to retire and inflicted additional serious damage. On the afternoon of 25 October our carrier planes probably sank 2 heavy cruisers and a light cruiser, blew the bow off a destroyer, and damaged 4 battleships and other cruisers and destroyers. Fast surface ships of the Third Fleet reached the scene of action after the enemy had re-entered San Bernardino Strait. However, they encountered a straggler on the 26th, which was promptly sunk. This straggler was identified as either a cruiser or destroyer.

On 26 October aircraft from Third Fleet carriers attacked the retiring Japanese forces again, doing further damage to the surviving
battleships. By the end of that day, the Battle for Leyte Gulf was
over and the three enemy forces were either destroyed or had retreated
out of range of our ships and planes. Thus the major Japanese threat
to our initial Philippine landing was averted and the enemy's total
surface power severely crippled. The losses of our Third Fleet in
the action amounted to 40 planes in combat, in addition to the light
carrier PRINCETON.

November Carrier Task Force Strikes

While part of the fast carrier task force retired to fuel
and reprovision at forward bases, the remainder continued in action
in support of the Leyte campaign. During this period the fast carri-
er task force was commanded by Vice Admiral J. S. McCain. On 27 Oc-
tober planes from carriers bombed and strafed a cruiser and a destroyer
off Mindoro.

No major naval actions developed during the remainder of
1944, but the Third Fleet was constantly active in providing vigorous
support for the operations in the Southwest Pacific Area. Although
Japanese installations in the Philippines and to the northward had
been heavily damaged by the September and October strikes, they were
not destroyed. On 2 November enemy planes attacked a carrier task
group of the Third Fleet and although 10 of the Japanese aircraft
were shot down, several ships were damaged and some personnel casual-
ties were suffered.
Carrier aircraft of the Third Fleet struck at Manila and the airstrip in the vicinity on 5 and 6 November. They destroyed 43 planes, sunk a cruiser, a destroyer, a tender, a destructor escort, a sub, 400 planes, sank a cruiser, a destructor, a destructor escort, a sub, 2 transports and a freighter, as well as damaging 44 vessels. They hit numerous ground installations and destroyed railroad facilities.

Another two-day series of strikes on Iwo Jima. Two groups of aircraft went ashore on 17 and 18 November. Antiaircraft fire over the targets was light on the first day, but increased the second. Carrier aircraft sank 3 transports, 3 freighters, and 3 destroyers, and damaged 43 vessels. Of enemy planes were destroyed in the two days' raids.

Another air attack on Iwo Jima targets came on the 19th. There was little aircraft opposition, only 16 planes being shot down at the target, but 100 were destroyed on the ground and with those shot down.

Two shipping targets could be located and the total in that category was 1 freighter and 2 small craft sunk with 13 vessels damaged.
On 25 November the last strike in support of the Leyte operation was launched against Luzon. This time, a light cruiser, a mine layer, a destroyer escort, 6 freighters, and a tanker were sunk, and 29 vessels were damaged. Over the target our planes shot down 25 aircraft and destroyed 32 on the ground. Enemy air attacks on the carriers were heavier than usual, and 31 enemy planes were shot down near our ships.

During the November strikes the air combat losses of the fast carrier task force were 97 planes.

**Landings at Ormoc Bay**

In order to cut the enemy overwater lines of supply and reinforcement and to separate enemy ground forces on Leyte, an additional amphibious landing was made at Ormoc Bay, on the west coast of the island, on 7 December. Naval forces commanded by Rear Admiral A. D. Struble put Army troops ashore 3 miles southeast of Ormoc against sporadic resistance. The destroyer MAHAN and destroyer transport WARD were, however, so heavily damaged by enemy aerial torpedoes that it was necessary for them to be sunk by our own forces. Several days prior to the landing, the destroyer COOPER was lost in a night action, while engaged in an anti-shipping sweep in this vicinity, and on 11 December the destroyer HEID was sunk during an enemy air attack on a supply convoy en route to Ormoc Bay.
Landings on Mindoro

On 15 December Southwest Pacific forces landed on the southwest coast of Mindoro Island, nearly 300 miles northwest of Leyte, in order to seize the San Jose area and establish air facilities there. Enemy air on Luzon, not having been entirely neutralized, attacked the convoy en route. Our ships suffered some damage but continued the approach. The landing was without opposition from shore but sporadic air attacks resulted in the sinking of a few LST's. In moving from Leyte to Mindoro, our forces obtained the advantages of more favorable weather for airfield construction and aircraft operations.

Occupation of southwest Mindoro presented a more serious threat to Manila and to Japan's shipping lanes through the South China Sea. As an immediate and strong reaction by the enemy was expected, carrier planes of the Third Fleet promptly began making Manila Bay untenable. Securing tactical surprise, they struck at dawn 14 December, the day before the Mindoro landings. Local air control was gained and held continuously for three days. In attacks on 14, 15 and 16 December our carrier aircraft sank or destroyed 27 vessels and damaged 60 more, destroyed 269 Japanese planes, and bombed air and railroad facilities. Enemy aircraft did not molest the carriers during this strike, but 20 of our planes were lost in combat.
On 17 December sea conditions began to deteriorate east of Luzon where the Third Fleet was scheduled to refuel. A typhoon of severe intensity developed with great rapidity along an erratic course. Although the main body of the fleet escaped the center of the storm, the destroyers HULL, SPENCE and MONAGHAN were lost.

**Landings at Lingayen Gulf**

The mid-December carrier strikes on Manila Bay had led the enemy to expect further landings in that area. When we by-passed southern Luzon and landed on the south and southeast coast of Lingayen Gulf on 9 January, the enemy was again taken by surprise.

Luzon, the largest of the Philippine Islands, with an area roughly the size of Virginia, is generally mountainous, but is cut by two large valleys. The central plain, extending from Lingayen to Manila Bay — about 100 miles long and from 30 to 50 miles wide — contains Manila, the capital, the major concentration of the population and wealth, numerous airfields, and a network of roads and railways. Prompt seizure of this area would strike at the heart of the enemy defenses in the Philippines, provide bases for the support of further operations against the Japanese, and deny the enemy the freedom of the South China Sea. The most vulnerable part of the central plain is at Lingayen, where the low land does not offer the same opportunities for defense as do the approaches to Manila Bay.
The Luzon Attack Force, commanded by Vice Admiral Kinkaid, under the over-all command of General of the Army MacArthur, was composed of Seventh Fleet units largely augmented by Pacific Fleet forces, and numbered more than 850 ships. This was divided into the Lingayen Attack Force (Vice Admiral Wilkinson commanding), the San Fabian Attack Force (Vice Admiral Barbey commanding), a reinforcement group (Rear Admiral Conolly commanding), a fire support and bombardment group (Vice Admiral Oldendorf commanding) and surface and air covering groups (Rear Admiral Berkey and Rear Admiral G. T. Durgin respectively commanding). The Luzon Attack Force was to transport, put ashore and support elements of the 6th United States Army (Lieutenant General Walter Krueger commanding) to assist in the seizure and development of the Lingayen area.

The Third Fleet, operating under Admiral Halsey, with its fast carrier task force commanded by Vice Admiral McCain, was to cover and protect the operation by air strikes over Luzon, Formosa and the Nansei Shoto. Complete surprise was attained in attacks on Formosa and the southern Nansei Shoto on 3 and 4 January. There was little airborne opposition, but unfavorable weather conditions somewhat reduced the toll of enemy ships, planes and facilities destroyed. Luzon was hit 6 January, with the zone of operations extending southward to the Manila Bay area in order to give special attention to enemy airfields. Overcast weather prevented blanketing of the northern Luzon fields, and the attack was consequently renewed on the 7th.
dispersed their personnel.

They selected this area for the main body of the main force and prepared and practiced their

next to the beaches, and the troops advanced rapidly inland in spite of

attacks to the northwestern shore. Only very light resistance was

forced the Japanese on the beach in the

the southern shore of Langay Gulf, while the 6th Army Corps

The Japanese attack force landed the 7th Army Corps on

carrying the flares directed inland and to the flank.

which took up the position. The troops were, therefore, the

were proceeded by mortar, rifle and mortar-carrier landing craft,

stations from seaplane carriers were intensified the essential

parade to the landings the bombardment to heavy stays and the

were at work and beach obstacles were being cleared. Immediately

were, when the seaplane stations, carrier and destroyers bombarded the area, while the seaplane

For three days prior to the assault, the destroyers altered course

Hovey and Palmer, and considerable damage was caused to other ships.

of the escort carrier O SUMMER. But, the East wind prevented the

Japanese operations in Langay Gulf, which resulted in the loss

however, intensified the attack during the passage and the

with the bay, and was sunk by our escorting destroyers. There was

enemy surface opposition. One Japanese destroyer put out from the

During the passage of the attack force to Langay there was no

Landings in Langay Gulf were scheduled for 9 January.
While the troops were going ashore in Lingayen Gulf on 9 January, the Third Fleet fast carrier task force was striking Formosa. This target was chosen to lessen the enemy air strength which had been operating against Seventh Fleet forces on earlier days. As a result of this operation there was little enemy air interference with the actual Lingayen landings; the Third Fleet in addition netted 15 enemy ships sunk and 58 damaged for its day's work.

Although the troops pressed rapidly southward on Luzon, and were soon out of range of naval fire support, a heavy force of battleships, cruisers, destroyers and escort carriers remained in Lingayen Gulf for a considerable length of time to cover the landing of reinforcements and supplies and prevent enemy surface, subsurface, and air interference.

Third Fleet Covering Operations

In continued support of the Lingayen operations, the Third Fleet fast carrier task force made a thrust into the South China Sea, especially seeking the destruction of any major units of the Japanese Fleet that might be encountered there. None were found, but the air strikes of 12 January on the coast between Saigon and Camranh Bay achieved much shipping destruction. One enemy convoy was entirely destroyed and two others were severely mauled; the shipping tally totaled 41 ships sunk and 31 damaged. 112 enemy planes were destroyed,
enlisted forces.

Led to a marked increase of Japanese air effort against the invasion
as a result of enemy attacks and strafing by B-25s in all these strafes.
On the morning of May 29, in the Hawaiian, a B-25 and the Japanese gun at Tana.

Interted in an attack on the island, the islanders were taken
off from the southern exposed shores were again attacked.

Fortune and the southern exposed shores were again attacked.

been able to approach the rear areas that forces closer than 20 miles.

China sea with no notice to our ships. By enemy artillery had

in the gunners of this type into war that the enemy had

the opposition was again negligible.

In the Hong Kong area, where there were well sited at Canton.

destruction was intense on doone, artillery and the naval salamander
commands were disrupted by the disruption of the Japanese army.

a Hong Kong, Canton and Thamian were struck in force on 16 June.

To complete the third phase's threat to the China coast.

drain the threat of destroying the opposition

danger. Hong Kong and Canton. Poor weather, however, greatly no-

opposition, while Japanese smoke and screening were made to make

another war with our attack on the 25th, against very slight

the opposition was negligible.

and doone, at the town and strafed facilities were heavily damaged.
Operations against Manila

During the remainder of January, General of the Army MacArthur's troops pressed steadily southward from Lingayen Gulf down the central plain. To accelerate the progress of operations against Manila and to open sea access to its harbor, additional amphibious landings were carried out in southwestern Luzon at the end of the month. On 29 January an amphibious assault force, commanded by Rear Admiral Struble, put the 11th Army Corps ashore in the San Narciso area, northwest of Subic Bay. This move, which was designed to cut off Bataan Peninsula, was entirely unopposed. Mine sweepers made exploratory sweeps off the landing beaches with negative results, and as it was evident that no enemy forces were present the scheduled bombardment of the area was not carried out. The troops moved rapidly inland and reached Subic by noon. On the following day, the 30th, troops were landed on Grande Island in Subic Bay, again without opposition. Mine sweeping of Subic Bay continued, with negative results, and this fine harbor was made available for further operations against the Manila entrance.

An assault force commanded by Rear Admiral Fechteler landed elements of the 11th Airborne Division at Nasugbu, 15 miles directly south of the entrance to Manila Bay, on 31 January. In this instance also the naval bombardment was dispensed with because of the obvious
lack of shore resistance. Although the troops reached their objective without opposition, a number of small high-speed craft attacked the naval force, and PC-1129 was sunk in the ensuing action.

On 13 February a force of light cruisers and destroyers, commanded by Rear Admiral Berkey, commenced a preliminary bombardment of the entrances to Manila Bay, and on the following day continued to shell Corregidor Island and the southern portion of Bataan Peninsula. Mine sweepers began clearing Manila Bay. On the 15th, while the bombardment of Corregidor and the mine sweeping continued, troops landed at Mariveles on Bataan against very light opposition, and on the 16th landings were made on Corregidor itself.

The ability to place troops ashore in protected and mined waters was made possible by naval gunfire against the fixed defenses of Corregidor, and the sweeping of mines in the channel between Corregidor and Mariveles. In considerably less than two months from the initial landings at Lingayen Gulf, General of the Army MacArthur's forces had covered the ground that had required more than four months for the Japanese in 1942. In comparing the methods used by the two invaders for seizing positions controlling the entrance to Manila Bay, it is interesting to note that in both cases the attacking forces had control of the sea and air. The Japanese relied principally on field artillery from Bataan against our guns on Corregidor. Our
method employed naval strength as the spearhead of amphibious assault, thus allowing the ground force commander flexibility in selecting the time and place of the attack.

**Landings on Palawan**

At the close of February various operations against enemy holdings in different parts of the Philippines were in progress, in which forces of the Seventh Fleet were participating. On the 28th, the last day covered by this report, a force of cruisers and destroyers commanded by Rear Admiral R. S. Riggs bombarded Puerto Princesa, on the east coast of Palawan. An amphibious attack group, commanded by Rear Admiral Fechteler, put troops ashore shortly after. No opposition was encountered: the town and two near-by airfields were quickly seized. This landing secured virtual control of the westernmost of the Philippine Islands, and provided the sites for air bases that will assist in hindering enemy water transport from the Netherlands East Indies.
ASSAULT ON INNER DEFENSES OF JAPAN

The amphibious operations of the spring, summer and autumn of 1944 carried our forces such great distances across the Pacific that in February 1945 they were enabled to begin the assault upon the inner defenses of the Japanese Empire itself.

The occupation of Saipan, Tinian and Guam had established shore-based air forces of the Pacific Ocean Areas in positions from which continuing air attacks could be made against the Volcano and Bonin Islands, and from which long-range bombers could operate against Japan. To operate with the greatest effectiveness and a minimum of losses, long-range bombers should be provided with fighter support.

Iwo Jima in the Volcano Islands, 750 miles from Tokyo, provided three sites for airfields, and was admirably situated for the establishment of a fighter base for supporting Marianas-based B-29's operating over the home islands of the Empire. The possession of Iwo Jima would also permit medium bombers to attack Japan, deprive the enemy of an important aerial lookout station, and reduce his air attacks on our Marianas bases.

The operations for the capture of Iwo Jima were under the command of Admiral Spruance, Commander Fifth Fleet. Vice Admiral Turner was in over-all command of the amphibious forces, and the Expeditionary Forces were commanded by Lieutenant General Holland M. Smith, USMC.
Major General Harry Schmidt, USMC, commanded the Fifth Amphibious Corps; Major General Clifton B. Cates, USMC, the 4th Marine Division; Major General Keller E. Rockey, USMC, the 5th Marine Division; and Major General Graves B. Erskine, USMC, the 3rd Marine Division. The fast carrier task force, operating in support of the assault, was once more commanded by Vice Admiral Mitscher.

It was anticipated that enemy resistance would be severe. Iwo Jima had been heavily fortified by the Japanese over a period of many years because it is the only island in this strategically important group which lends itself to construction of airfields. As the island is only five miles long and less than two miles wide, the enemy could cover the whole shoreline with artillery and machine gun fire and could concentrate on the only two landing beaches. There was no opportunity for maneuver to select an undefended landing place, and hence there could be no surprise once we had begun reduction of the major defenses of the island. Consequently preparations had to be made for the most intensive ground fighting yet encountered in the Pacific. Landing forces of 60,000 Marines, put ashore by a naval force of more than 800 ships, manned by approximately 220,000 naval personnel, are evidence of the scale of the attack and the determination of opposition expected.
Preliminary Air-Surface Attacks on Iwo Jima

For seven months prior to the February 1945 assault, Iwo Jima was subjected to air attacks and surface bombardments, which increased in frequency and intensity from December 1944 onward. Planes from the fast carrier task force struck the island on 15, 16, 24 June, 4 July, 4-5 August and 31 August - 2 September; on 4 July and 2 September bombardment by surface ships was carried out.

Beginning just before midnight on 11 November and continuing until 0100 on the 12th, cruisers and destroyers commanded by Rear Admiral A. E. Smith bombarded Iwo Jima, making special efforts to damage air installations. There was moderate shore battery fire during the first part of the bombardment, but none of our ships suffered damage. Numerous explosions were seen and several large fires were started.

Early in December bombers of the 7th Army Air Force, operating under the Strategic Air Force, Pacific Ocean Areas, began daily attacks on Iwo Jima, and Marine Corps bomber squadrons, based in the Marianas, began a daily series of night harassing flights against enemy shipping in the area. These constant raids were supplemented periodically by intensified air attack and surface bombardment.

On 8 December and again on 24 December attacks by P-38's, B-29's and B-24's were followed by over an hour's bombardment by Rear Admiral Smith's cruisers and destroyers. A number of large fires were
started ashore during each attack. The bombarding ships suffered no damage.

On 27 December Army B-29's and P-38's bombed Iwo Jima once more, and the same surface ships returned to fire on shore targets for an hour and a half. Little opposition was encountered on either day, although one of our ships received slight damage from shore batteries. Light personnel casualties aboard one of our destroyers resulted from a hit from an enemy destroyer escort which was pursued and sunk at sea.

Chihi Jima and Haha Jima in the Bonin Islands, as well as Iwo Jima, were bombarded on 5 January 1945 by Rear Admiral Smith's surface ships, while Army aircraft of the Strategic Air Force, Pacific Ocean Areas, bombed airstrip installations on Iwo. Fire from enemy shore batteries was meager.

A battleship-cruiser-destroyer force, commanded by Rear Admiral O. C. Badger, attacked Iwo Jima on 24 January in a coordinated action with Strategic Air Force bombers and B-29's of the 21st Bomber Command. Air installations and shipping were attacked, with no interception by enemy planes and only slight antiaircraft fire. One Japanese cargo vessel blew up and two others were left burning.

**Attack on Tokyo**

Carrier aircraft of the Fifth Fleet attacked Tokyo on 16 February, exactly one year after the first carrier strike on Truk. Fleet
Admiral Nimitz's communiqué announcing the strike stated: "This operation has long been planned and the opportunity to accomplish it fulfills the deeply cherished desire of every officer and man in the Pacific Fleet."

Landings on Iwo Jima were scheduled for 19 February. Consequently on the 16th pre-invasion bombardment and bombing of Iwo Jima began, while the fast carrier task force struck Tokyo. This attack on the enemy's capital was designed to provide strategic cover for the operations against Iwo by destroying air forces, facilities and manufacturing installations, as well as to bring to the Japanese home front a disrupting awareness of the progress of the war.

Approaching the coast of Japan under cover of weather so adverse as to handicap enemy air operations, our forces obtained complete tactical surprise; our attack was vigorously pressed for two days. All enemy efforts to damage our ships were unsuccessful. Against a loss of 49 of our planes, 322 enemy aircraft were shot out of the air and 177 destroyed on the ground. A Japanese escort carrier at Yokohama was bombed and set on fire; she went down by the bow and was left lying on her side. 9 coastal vessels, a destroyer, 2 destroyer escorts and a cargo ship were sunk. Hangars, shops and other installations at numerous airfields were destroyed; the Ota aircraft factory was damaged; and the Musashino Tama and Tachigawa engine plants were heavily bombed.

Upon completion of the 17 February strike, the fast carrier task force retired towards Iwo Jima to give more direct support of the landing operations.
Troops had captured Koga Bay April 14. During the early morning hours of 20 February, an enemy force was observed in the north.

Western tip, recall the Japanese on Mount Suribachi from the main beach and the enemy approaches. By the end of the first day, the enemy was on both guns on Mount Suribachi (at the southern tip of the island) and in the northwestern area commanding the harbor positions.

Empreached in an interlocking system of caves, pillboxes and trenches, in the president's view, the defenses are "formidable at 20,000 yards."

The troops who came afoot encountered an interlocking array of defenses, and the remainder of the day was bitter fighting at the harbor involved establishing control of artillery, cooker and mortar fire on the beaches.

As the enemy soldier facing the 29th during the day, the evening was soon justified when the enemy made an attack at 15:14 but reestablished defensibility. The 1st and 29th Marne divisions began landing operations at 0900. By 1900, the 1st and 29th Marine Divisions began landing operations at the pitch peak and bombarding Kay carrots and any shore-based planes.

After three days of intense bombardment by surface ships...
Desperate fighting continued during the third day; by
1800 more than 1200 Japanese dead had been counted, and one had been
captured. The 3rd Marine Division landed, as reserves, and moved
into line between the 4th and 5th Divisions. Although enemy air
strength was generally light, it succeeded in sinking the escort
carrier BISMARCK SEA. During the night of 21-22 February, the enemy
counterattacked again and again, but each assault was hurled back.
The following morning the Marines renewed the attack; by noon they
were advancing slowly under adverse weather conditions, knocking out
enemy strongpoints. During the afternoon the enemy counterattacked
again, exerting maximum pressure on both flanks of the Marine spear-
head which was pointed toward Motoyama Airfield No. 2; the attack
was repulsed with heavy losses.

The southern part of Motoyama Airfield No. 2 was occupied
on 23 February. Simultaneously other troops stormed the steep slopes
of Mount Suribachi, capturing the summit and winning gun positions
which commanded the island. At 1035 the 26th Marine Regiment hoisted
the United States flag over the extinct volcano. The capture of these
heights eliminated some of the enemy mortar and artillery fire which
had been directed against our troops on the previous days, while mortar
fire from Kangoku Rock, northwest of the island, was eliminated by a
destroyer. Throughout the entire period, close support was constantly
furnished by carrier aircraft and naval gunfire. Unloading continued
on the beaches; roads were being constructed, and the captured air-
strips being restored to operational condition.

By 25 February, Marines of the three divisions, spearheaded
by tanks, had captured approximately half of the island, including
Motoyama Airfield No. 2, and were closing in on the main village. The
advance was made against fanatical resistance from rockets, bazooka-
type guns, pillboxes and interlocking underground strongholds. On one
flank alone, 100 caves, 30 to 40 feet deep, had to be knocked out one
by one.

By the end of February, Marine Corps observation and ar-
tillery spotting planes were operating from Motoyama Airfield No. 1;
the 3rd and 4th Marine Divisions had captured hills which further re-
duced the enemy's fire power and allowed a freer supply flow on the
beaches. The Japanese, despite heavy losses, continued to offer maxi-
num resistance, but the Marines were established on high ground, and
the conquest of Iwo Jima was assured.

Renewed Attack on Tokyo

Tokyo was again attacked on 25 February by Vice Admiral
Mitscher's fast carrier task force, which struck the island of Hachijo,
off the coast of Honshu, the following day. Weather conditions were
extremely adverse, but at least 158 planes were destroyed and 5 small
vessels sunk. Numerous ground installations were attacked. The Ota
and Koizumi aircraft plants were heavily damaged; radar installations, aircraft hangars, and 2 trains were demolished. Our forces lost 9 fighter planes in combat; the ships of the task force suffered no damage during the attack, but minor damage was inflicted upon two light units during retirement.

On 1 March 1944 our forces were in the Marshall Islands and Northeast New Guinea. On 1 March 1945 they were established in Iwo Jima, 750 miles from Tokyo.
CONTINUING OPERATIONS

In addition to the great battles and the major combats, there were many vital continuing operations against the Japanese in the Pacific. Although less spectacular, they were none the less significant in exerting pressure on the enemy at every possible point. These activities, with the exception of those by submarines, took place in areas where campaigns had already been fought and where the fruits of those campaigns were now capitalized on. Favorable positions and bases gained from the enemy became points of attack on his more remote holdings.

Northern Pacific

From bases in the Aleutians our air and surface forces kept up a constant attack on Japanese positions in the northern and central Kurile Islands. In spite of chronically bad weather, Army and Navy planes flew both attack and photographic missions to the Kuriles many times each month. They not only observed Japanese activity, but also destroyed important installations, supply dumps and shipping units. A task force of cruisers and destroyers commanded by the late Rear Admiral E. G. Small bombarded Matsuwa Island in the Kuriles on 13 June and Kurabu Zaki, an important enemy air base on the southeast tip of Paramushiro, on 26 June. Matsuwa Island was again bombarded on 21 November by a task force commanded by Rear Admiral J. L. McGrea. On
5 January 1945, Rear Admiral McCrea's forces bombarded Suribachi Wan, off Paramushiro, returning on 19 February to bombard Kurabu Zaki.

Submarines

The activities of Pacific Fleet and Seventh Fleet submarines grew more extensive and varied after 1 March 1944. As previously, they operated aggressively against enemy combat ships and commerce. No waters of the Pacific were too remote for their operations and their patrols carried them to the interior lines of Japanese sea communication, where they have littered the bottom of the ocean with the sunken wrecks of a large part of Japan's once great merchant fleet, as well as many naval vessels. Their contribution to the success of our advance in the Pacific is noteworthy. Besides their combat patrols, the submarines have rendered invaluable service on reconnaissance missions and have rescued many aviators shot down during strikes against various Japanese bases. Pacific Fleet submarines have been under the command of Vice Admiral C. A. Lockwood, Jr., during the period covered by this report. Seventh Fleet submarines were under the command of Rear Admiral R. W. Christie until 30 December 1944, when he was relieved by Rear Admiral J. Fife, Jr.
The British Pacific Fleet

Recently we have had the pleasure of welcoming the arrival in the Pacific of a strong task force of the Royal Navy, commanded by Admiral Sir Bruce A. Fraser, G.C.B., K.B.E. This potent addition to the Allied naval power in the Far East has been placed under the operational control of the Commander in Chief, United States Fleet, and will work side by side with our armed forces in the common effort against the Japanese.
IV

COMBAT OPERATIONS

ATLANTIC-INDO-PACIFIC

UNITED STATES ATLANTIC FLEET

During the past year the combat operations of the U. S. Atlantic Fleet have been concerned primarily with antisubmarine activities, in coordination with the sea frontier commands. Escort systems in certain trans-Atlantic convoy routes are also the responsibility of the Commander in Chief, U. S. Atlantic Fleet. As was announced in the monthly statements of the President and the Prime Minister, the antisubmarine war has been on a fairly low scale during the past year. The German submarine force apparently has been engaged in "licking its wounds" after the rough handling it received in 1943. Its operations were badly interfered with by the invasion of the Continent in June, which knocked out the many U-boat bases on the French coast and forced the Germans to use bases less conveniently located in Norway and the Baltic. It is assumed that the long period of relative quietness has been employed for building more effective types of submarines. The possibility of a renewed outbreak of submarine activity must, therefore, be guarded against. The remarks in my previous report as to the necessity for complete secrecy concerning our antisubmarine methods still hold. I consider it of the greatest importance that the material and technique we have developed for dealing
with the submarine menace be kept to ourselves until the conclusion of the war, to the end that the Japanese may not be able to apply our antisubmarine methods against our submarines operating in the Pacific.

An important duty of the U. S. Atlantic Fleet has been the maintenance of what might be called a general reserve of battleships, cruisers and other ships needed to make up a balanced task force. While possibility of a break-out of what was left of the German surface fleet remained, this force was held in readiness to deal with surface raids on Atlantic commerce. From time to time, particularly during the landings in northern and southern France, these ships were assigned first to the invasion of Normandy and then to the Eighth Fleet for the invasion of southern France. With the successful accomplishment of these operations, the need for heavy surface ships in the Atlantic area was reduced, and a large part of this general reserve has been shifted to the Pacific Fleet.

One of the little publicized but valuable tasks of the Atlantic Fleet has been to train for service elsewhere the large number of ships and landing craft built on the Atlantic coast. This has enabled the best use to be made of the facilities on the east coast, and has prevented overcrowding of the congested harbors on the Pacific coast. The same system is used in training patrol plane squadrons, which insofar as is practicable are fully trained in the
Atlantic Fleet before being transferred to combat duty in the Pacific. The fact that during the past year some 3300 ships and craft were "shaken down" in the Atlantic Fleet operational training command indicates the magnitude of these training operations. An important element in this activity is the preparation of new submarines for war, carried on by the Submarine Force of the Atlantic Fleet, and the education of submarine officers and men in the schools at the Submarine Base at New London. The outstanding success of our submarines in the Pacific is in a large measure due to the sound preliminary training they receive in the schools and the school submarines in the Atlantic.

The Atlantic Fleet has worked in close cooperation with the British, Canadian, French, Brazilian and Netherlands Navies. The Brazilians have developed a very efficient antisubmarine force of surface ships and aircraft which, operating as an integrated part of the South Atlantic detachment of the Atlantic Fleet, took its full share of the task of knocking out the German submarine effort directed against the convoy routes off the east coast of South America. Netherlands vessels have continued to serve with distinction in our antisubmarine forces.
UNITED STATES NAVAL FORCES IN EUROPE - THE NORMANDY INVASION

After a long period of careful planning, the assembly of United States Army and Air forces in Great Britain for the invasion of France began early in 1943. The military organization set up for the cross-channel invasion involved ground, naval and air forces of a number of our Allies. The United States naval contingent was assembled and trained under the Commander Twelfth Fleet (Admiral Stark), who at the appropriate time turned it over to the operational control of the Allied Naval Commander in Chief.

The Supreme Commander, Allied Expeditionary Force, General (now General of the Army) Dwight D. Eisenhower, arrived in London and assumed command in January 1944. Meanwhile, his three principal subordinates had already been appointed: Allied Naval Commander in Chief, the late Admiral Sir Bertram H. Ramsay, R. N.; Commander in Chief 21st Army Group, General (now Field Marshal) Sir Bernard Montgomery, R. A.; and Air Commander in Chief, the late Air Chief Marshal Sir Trafford Leigh-Mallory, R.A.F.

The success of our amphibious operations in North Africa, Sicily and Italy had demonstrated that, given air and sea superiority, there would be small doubt of our initial success, even against so strongly fortified a coast as northern France. The critical factor was whether, having seized a beachhead, we would be able to supply and reinforce it sufficiently fast to build an army larger than that.
The final assembly of ships and cargo in British ports was so large
there was little chance of effective submarine surprise.

At the cessation of the war in order to enable the landing craft to pass over rocks which existed before the troops landed, and in exit into the rear, two ramps would be
constructed so as to allow some delay for preliminary bombardment
could be thrown far up the beach at high tide. The ramps on the seaward edge of the beach structures would be exposed at low water and landing craft
would be delivered as that was possible. A great deal was done to get the most favorable weather possible, and the tide during the assault, and the condition of the
were

However, this was determined after the assault. This meant
brought the major destruction of the region was the lack of a good
leashed from other German forces by destruction of the Seine River
breakout facilitated on the Pan de Calais area, and could be more easily
see the range of larger passenger bases in Britain. The region was not as
port of southern and western England, and because there were aviation
result of the fact that prior to the invasion worried
the battle of in mobile bases in Normandy were selected for
and the battle-ship. In both, the May would play a key part. After
which the enemy was certain to concentrate against our. The op-

Regraded Unclassified
as to be beyond concealment. All that could be done was to confuse
the enemy as to the time and place of the landing.

Joint Army-Navy training began in September 1943. In the
spring of 1944 several large scale rehearsals were conducted in order
to perfect our technique and to achieve effective coordination between
the troops and the vessels of the expeditionary force.

The general scheme of the operation provided for landing
United States troops in United States vessels on the western half of
the area to be attacked, while the British took the eastern half.
The naval assault force was consequently divided into the Western
Western Naval Task Force, under the command of Rear Admiral (now Vice
Admiral) A. G. Kirk, transported and landed the 1st U. S. Army, com-
mended by Lieutenant General O. N. Bradley. This task force was
comprised of two assault forces: "O", commanded by Rear Admiral
J. L. Hall, Jr., and "U", commanded by the late Rear Admiral D. P.
Moon, and a follow-up force commanded by Commodore C. D. Edgar. Each
assault force in turn contained the necessary transports, bombardment
ships, landing craft, escort craft, gunfire support craft, mine
sweepers and control craft required to transport and land Army forces.
Force "O" was designated to land elements of the 5th Corps, including
the 1st and 29th Infantry Divisions and the 2nd and 5th Ranger Battalions
on "Omaha" beach, which was the Vierville-Colleville sector of the Bais
between the comparative group in Force H, 

commanded the five support groups of Force H and Force L, H. H. 

or the British, French and British navies, have adopted, I hope, 

greater desalination techniques and are support ships, together with units 

other than the. The casualties increased and gained and some 90 killed. 

which I trust will the troops had advanced beyond the major 

away support, beginning with the provisional bombardment, and co- 

United States battalions advanced, took and reached the 

german air force to interception provides initial attack. The old 

mission, the fighter cover throughout the operation intensified the 

a focus on "cannon" beach may be attributed to the failure of the 

by heavy bombs. Some of the effectiveness encountered on 

6 June preceded the scheduled pe-Landing combatant of some's, 

were executed the night of 5–6 June. A bow counter on the morning of 

the maximum effort of principal heavy, medium and lighter bomber missions 

western Germany. An D-day approach, attacks were intensified with 

cost defense targets in northern France, the low committee and 

the D-day invasion. During the final preparatory period (D-day–90 

and the target air force were assigned in the United Kingdom at the 

the U’s. 36th Air Force, the 32, 46th Air Force 

St. Miel-de-Parthen. 

force off the land assault on the 7th Corps on "cannon" beach, near 

de in battle, extruding from Port-en-Bessin to Caen in Kentary.
About 124,000 United States naval officers and men participated directly or indirectly in the invasion. Of these, 87,000 were aboard landing craft and small escort vessels, 15,000 were aboard the combatant ships, and 22,000 were attached to the amphibious bases in England.

By 1 June, when the loading of troops began, 2,493 United States Navy ships and craft had been assembled for the operation, and of these only 14 were unable to take part because of material difficulties.

On 3 June all troops had been loaded and briefed, but because of weather conditions the timing of the operation was still undetermined. At least four days of good weather were needed, commencing with D-day, which was initially set for 5 June. It was apparent on 3 June that unfavorable weather was developing, and early on 4 June the order for a postponement of 24 hours was broadcast. By the evening of 4 June, much improved conditions were forecast for the morning of the 6th, although there was some doubt as to how long the favorable condition would continue. However, because of tide and light considerations, the uncertainty of the weather immediately following D-day was accepted, and on the evening of 4 June, a confirmation of 6 June as D-day was broadcast.

The terrain where the landings were made was of great natural defensive strength, augmented by many strongly protected and
cleverly concealed gun emplacements, machine gun nests and pill boxes, together with slit trenches, tank traps, and antitank ditches. In addition, between the high and low water levels on the beaches there were installed several rows of underwater obstacles consisting of hedgehogs, tetrahedrons and pole ramps interconnected by barbed wire and thickly sown with mines. Artillery and machine guns were placed for enfilading fire along the beaches, and in some cases were completely concealed and protected from seaward by concrete walls covered with earth.

The assault plans contemplated overcoming these defenses by the employment of naval gunfire and air bombardment to destroy or neutralize as many of the emplaced installations as possible, to breach the underwater obstacles under cover of an assault by infantry and tanks, and to storm the remaining defenses with succeeding waves of infantry supported by naval gunfire.

**The Assault on "Omaha" Beach**

Force "O", the larger of the two American assault forces, had as its target the Vierville-Colleville sector of the Normandy beaches, called for the purpose of these landings beach "Omaha". On its eastern flank was Port-en-Bessin, which marked the dividing line between the British and American areas. On its western flank was the Carentan estuary, which separated it from Force "U's" beach, "Utah", on the Cherbourg peninsula.
The ships and craft of Force "C" loaded at Portland, Weymouth and Poole on the south coast of England. Cross-channel convoys began moving on 5 June, and were joined by Rear Admiral Bryant's fire support group, which had assembled at Belfast. No enemy action hindered the movement, but a choppy sea with a 20-knot wind from the southwest made landing operations difficult, though possible. Nine sweepers cleared channels, and ARKANSAS, TEXAS and other combat ships opened their scheduled fire on shore batteries. Unfortunately, as previously mentioned, the planned air bombing did not materialize owing to weather conditions, and certain LCT(A)'s [landing craft armed with M-4 tanks] and amphibious tanks failed to reach the beach on schedule. In addition, the 352nd Field Division of the German Army happened to be holding exercises in the area, and immediately joined the coastal defense troops in opposing our attack.

The tanks, infantry and demolition parties which landed at H-hour were subjected at once to a heavy cross-fire from artillery, mortars and machine guns, and losses were severe. Troops continued, however, to move in toward the beach, and by 1030 the entire landing force had been committed, though numerous personnel both of the assault waves and the Army-Navy shore party were pinned down on the beach just above high water by enemy fire. Destroyers and gunfire support craft stood in as close to the beach as the depth of water
would allow and engaged all enemy guns which they could observe. 
The first encouraging news came at 1100 when German soldiers began 
to leave their posts and surrender. At 1300 Colleville was taken, 
and by 1330 our troops had begun a general advance up the slopes of 
the beach. At about 1430 Commodore Edgar's follow-up force arrived 
with the remaining regiments of the 1st and 29th Divisions; by late 
afternoon, except for sniping and occasional artillery and mortar 
fire, hostile action against the beach area had ceased, and the work 
of organising the beaches for further unloading was progressing in 
orderly fashion.

Our heavy ships had no trouble in putting the enemy's 
major shore batteries out of action promptly. Our chief difficulties 
came from the light artillery and machine guns which the enemy had 
sited to fire up and down the beach instead of out to sea. These 
guns, which were very difficult to detect, waited for our troops to 
land before opening fire. Specially trained Navy Shore Fire Control 
Parties attached to Army units were put ashore early in the assault 
to inform our ships by radio of the location of such targets, but 
many of them were unable to set up their radio equipment because of 
casualties and enemy fire. At this juncture 8 United States and 
3 British destroyers closed the beach and took many enemy positions 
under fire. This unplanned bombardment, which was directed in part 
from the ships and in part from those Shore Fire Control Parties which
had succeeded in establishing communications, deserves great credit.
The battleships and cruisers for the most part fired with air spot
at targets designated by Shore Fire Control Parties or by planes
which were busily searching for enemy guns inland from the beaches.
By 1300 on 6 June the Shore Fire Control Parties had begun to function
according to schedule. Acting on their directions, TEXAS and the
other ships repeatedly took enemy troops, tanks and vehicles under
fire several miles inland. On D-plus-2 day, for example, TEXAS'
14-inch guns demolished the railway station at Isigny and effectively
scattered a convoy of German vehicles moving through the town square.
It is not surprising that a German Government broadcast on 16 June,
recorded by the BBC, expressed admiration of the military value of
this naval gunfire. These "floating batteries", it said, "enabled
the invaders to achieve overpowering artillery concentrations at any
point along the coast." By D-plus-4 day, when the Army's forward
line reached the forest of Cerisy, the enemy was beyond the range of
our ships.

On the morning of 7 June, the first of the build-up person-
nel convoys of transports arrived off the beach. Just to seaward of
the assault area the transport SUSAN B. ANTHONY struck a mine and
eventually sank, though all personnel aboard were taken off. During
the forenoon, surveys for the establishment of the artificial harbor
and the small craft shelters were begun.
The Assault on "Utah" Beach

The mission of Force "U" was to establish tank-supported infantry on the beach area, designated "Utah", near St. Martin-de-Varreville. Consisting of approximately 865 vessels and craft, Force "U" was organized in ports along the English coast between Plymouth and Torquay, although the fire support group of heavier ships assembled at Belfast.

The safety of Force "U"s" cross-channel movement lay with three squadrons of United States and three flotillas of British mine sweepers. In general, all waters through which our convoys were to pass were suitable for mining, and the final leg of the course assigned Force "U" lay squarely across a very probable mine field on Cardonnet Bank. The only casualty occurred when the mine sweeper OSPREY was sunk.

The assault on "Utah" beaches progressed substantially as planned. Bombardment by the fire support ships, supplemented by aerial bombing, preceded the landing of waves of amphibious tanks and landing craft carrying troops of the 8th Infantry Division, which were supported by rocket-firing landing craft. Our forward troops encountered no small arms fire, and the little artillery fire directed against the beach from several distant batteries proved inaccurate and ineffectual. Main battery fire from NEVADA and QUINCY had breached the seawall in five places, materially aiding our advance inland.
Our amphibious tanks, proceeding through rough waters under their own power, managed to survive the heavy swells, engaged enemy installations on the forward beachhead and pressed on inland.

Following the initial assault against "Utah" beach, the landing of subsequent waves proceeded with but slight deviation from schedule. Nearly all of the beach obstacles were exposed and Army engineers and Navy demolition teams were able to clear lanes for the passage of subsequent waves of troops and vehicles. Although our concentrated air and naval bombardment had temporarily neutralized the enemy's coastal batteries, thus affording the earlier assault waves a reasonably safe landing, the enemy from 1100 onwards brought the beach under accurate artillery fire. Aided by Shore Fire Control Parties, our support ships replied. Some of the enemy batteries were extremely hard to knock out, but by early afternoon all but three had been silenced. These tended to come to life unexpectedly and to fire a few rounds when landing craft offered good targets. Otherwise they caused little hindrance to the work on the beaches. During the first twelve hours we landed 21,328 troops, 1742 vehicles and 1695 tons of supplies.

In the course of the "Utah" landings the destroyers MEREDITH and GLENNON, the destroyer escort RICH, the mine sweeper TIDE, and several landing craft were lost.
During the next few days the batteries of the fire support ships were turned against targets well inland and to the west as the Seventh Corps fought its way toward Cherbourg, and requests for these support missions continued until the Army had advanced beyond the ships' range. Our troops were now more than half way across the Cotentin peninsula, and were advancing northwest along the coast towards Cherbourg against stubborn opposition.

The Normandy Build-up

Once the Army had been successfully established on the beaches, the Navy's primary responsibility was supply. The enemy had fortified and defensively manned the ports to such an extent as to make the military cost of direct attack upon them extreme. On the other hand, to attempt the assault of a continent over open beaches, affording no protection from the vagaries of the weather, would place the entire operation in jeopardy.

The solution of this problem was one of the most dramatic creations of the war -- the artificial harbors, or "Mulberries", and the small boat shelters, or "Gooseberries". There were to be two of the former -- "Mulberry A" in the American sector (at St. Laurent in "Omaha" area), and "Mulberry B" in the British sector at Arromanches -- and five "Gooseberries", three in the British sector and one on each of the two American beaches.
The "Gooseberries", created by sinking a number of old warships and merchant ships in a line in 2.5 fathoms of water just off the beaches, were to provide a refuge for small craft in rough weather. The bleakships were to proceed to the beaches under their own power, and be sunk quickly by internally placed explosives. The "Gooseberries" were a relatively simple undertaking.

The "Mulberries" were much more complicated. Conceived by the British, the tremendous task of manufacturing and assembling the many components had to be carried out with complete secrecy, lest the enemy gain a clue as to our intention to assault a harborless part of the French coast.

It was necessary to tow "Mulberry" units and other essential parts of the invasion armada across the channel. This inconspicuous but important role was carried out by a large pool of British and American tugs. The latter had crossed the Atlantic under their own power, many of them manned by civilian masters and crews who had had little experience with naval or military operations. TUG CONTROL operated from Lee Tower, Lee-on-Salent and was headed by Captain (now Commodore) Edmond J. Moran, USNR.

On 7 June all elements had been towed from England, and Rear Admiral Hall, Commander of Force "O" at "Omaha" beach, gave permission to begin "operation Mulberry". Specially trained Seabees sank hollow concrete caissons, each mounting an AA gun, in designated
positions by flooding through built-in valves. Inside the breakwater thus formed were established two Leobnitz floating pierheads. These were connected to the beach by a floating roadway composed of bridgework mounted on pontoons, and two sunken causeways constructed of the same material used in pontoon causeways and Rhino barges. Protecting both the breakwater and the blockships of the nearby "Gooseberry" was a line of steel caissons secured end to end and moored to buoys. The work of installation and construction of "Gooseberries" and "Mulberries" progressed rapidly and smoothly, with all blockships in place by D-plus-4 day.

By this time the delays caused by the unfavorable weather and by the failure of the assault at "Omaha" to proceed as planned had been overcome, and the build-up began to move rapidly and on schedule. At "Utah", in spite of the problems of handling a great number of ferry craft in a small area, often under shell fire, unloading was nearly up to schedule by D-plus-4 day. On the 8th the first pontoon causeway had been successfully established at "Utah", although at the outset it could not be employed because of shell fire. During the first week of occupation we succeeded in landing approximately 74,000 troops, 10,000 vehicles, and 17,000 tons of supplies.

Then came the storm. During the night of 18 June the wind began to freshen, and by mid-afternoon of the 19th it was blowing a moderate gale from the northeast. Ferry service ceased, all craft
took shelter inside the "Gooseberry" or "Mulberry", and unloading of almost every type was brought to a halt. It continued to blow steadily for the next three days, with the seas making up to destructive proportions. When the storm ended on the morning of 22 June, the beach was a shambles. More than 300 craft had been washed up high and dry, many of them damaged beyond salvage. The only ferry craft undamaged were the DUKW's, which had remained safely parked ashore during the storm.

The blockships of the "Gooseberry" shelter had held together, although several of them had broken their backs and all had settled, but the storm had been disastrous to the "Mulberry". The concrete caissons had either broken apart or had become submerged in the bottom sands. The roadway to one of the Loebnits pierheads had been smashed by the impact of LGT's driven against it, and many of its pontoons were flooded. The causeway had held together but was twisted. Many of the steel caissons had carried away from their moorings and had drifted about as a menace to shipping. Others were flooded and half submerged.

The British "Mulberry" suffered less from the storm than the American, which was exposed to heavier seas and had been built on deeper sands, where the secur was far more severe. Consequently, it was decided to abandon the American harbor. The British one was completed, partly with material salvaged from the American.
A major port was absolutely necessary if unloading schedules were to be maintained through the fall and winter. The first to fall to our troops was Cherbourg.

Bombardment of Cherbourg

To assist the 7th Corps, which was advancing on the port of Cherbourg from the land side, the fire support group of the Western Naval Task Force, commanded by Rear Admiral Deyo, bombarded the shore batteries which commanded the waters leading to Cherbourg harbor. These enemy coastal defenses consisted of 20 casemated batteries [guns covered by steel and concrete walls and roofs], three of which had 280mm guns with an estimated range of 40,000 yards [approximately 20 miles].

The force, consisting of the battleships NEVADA, TEXAS and ARKANSAS, U. S. cruisers TUSCALOOSA and QUINCY, British cruisers GLASGOW and ENTERPRISE, and 11 destroyers, approached the coast shortly before noon on 25 June. The intention was to avoid engaging the enemy batteries as long as possible in order to close the shore and provide the support requested by our troops. The Germans, waiting until our ships arrived well within range, opened fire. The destroyers interposed with smoke, but the enemy fire increased in volume, and shortly afterwards the mine sweepers, which had preceded the force, were obliged to withdraw to the northward.
By 1230 the enemy’s fire had become so heavy and accurate that our ships were directed to maneuver independently, and they steamed back and forth in a line ranging from four to eight miles offshore. While the heavy ships fired at targets inland designated by Shore Fire Control Parties and spotting planes, the destroyers endeavored to silence the enemy coastal batteries. The latter were only partly successful, and our ships continued to be under shore fire until, having completed their mission, they retired shortly before 1500. This abnormal exposure of ships to heavy shore guns, without adequate counterfire, was well warranted by the urgent need of supporting our invading troops. The Army later reported that of 21 firings requested on inland targets 19 were successful.

Of the seven heavy ships engaged (battleships and cruisers) all but one were either hit or had fragments on board, and all were closely missed frequently. The destroyer O’BRIEN was considerably damaged, and the destroyers BARKEN and LAFAYETTE slightly damaged. Personnel casualties — 14 dead and 28 wounded for the entire force — were remarkably small. The 7th Corps occupied Cherbourg two days later, assaulting and capturing the remaining shore batteries from the rear.

Under the command of Commodore W. A. Sullivan, task forces composed of British and American salvage and fire fighting units did phenomenal work repairing ships and craft, and clearing the major
ports for deckside unloading of cargo. This important but difficult task was performed with rapidity. Cherbourg’s port facilities were in operation early in July. Although we soon secured several minor ports, a second major port was not available until Le Havre surrendered on 12 September. It was opened to small craft in three days, and was in full operation within a month. For some time, however, shipping in the approaches to Le Havre was seriously harassed by enemy mining. Although organized resistance in Brest ended on 19 September, its facilities were so damaged, and it was then so distant from the battle front, that it did not appear worthwhile to restore the port.

With the approach of winter, it became apparent that only three liberated ports in northern France could be operated on a year round basis. These were Cherbourg, Le Havre, and Rouen, unloading having begun at the last port in mid-October. Antwerp in Belgium, a British commitment, became early in December an important avenue of supplies to our troops. A U. S. Naval Port Office was opened there, and daily unloadings of up to 22,000 tons of U. S. stores were handled.
EIGHTH FLEET - ITALY

Support of the Anzio Beachhead

On 22 January 1944 a combined British-American operation secured a beachhead at Anzio on the west coast of Italy, some 60 miles behind the German lines. The landing progressed as scheduled against slight initial opposition; however, the enemy reacted strongly, and rapidly assembled a powerful force around the beachhead. Resistance and counter-attacks were so severe that extraordinary effort was required to maintain and support the Army in this area; the capacity of the small captured port of Anzio and the adjoining beaches was so small that scarcely any part of the Army was free from enemy observation and artillery fire. The beachhead was raided by enemy aircraft 277 times during the first twelve weeks after landing. On 25 May the beachhead forces joined those advancing from the main front; throughout the four months preceding this junction, cruisers and destroyers constantly furnished gunfire support by bombardment of enemy targets on shore. Screening and patrol vessels guarded the anchorage from air-surface attack and amphibious craft transported supplies and fresh troops from the Naples area to Anzio, returning with prisoners and other personnel.

Continuously throughout the year British and U. S. Eighth Fleet motor torpedo boats were on patrol to intercept enemy corvettes, torpedo boats and the barges with which the enemy desperately sought
to carry on coast-wise support of his armies in Italy. Destruction of enemy naval strength and coastal commerce in the Ligurian Sea was the prime objective.

Capture of Elba

An amphibious assault resulting in the capture of the island of Elba was carried out on 17 June by a naval task force under the command of Rear Admiral T. H. Troubridge, RN. United States destroyers, mine sweepers, patrol and landing craft formed part of the combined force. One of the immediate objects in securing the island, which is situated only five miles from the coast of Italy, was to set up a heavy battery opposite the mainland to curtail the movement of enemy supply convoys which hugged the coast. The army forces to be landed comprised the French 9th Colonial Division and support elements totaling 11,200 more under the command of General of Army Corps Henri Martin, French Army. Although the attacking forces outnumbered the defenders about five to one, the strongly defended beaches were well alerted and several hours of severe fighting were required to secure the initial beachhead. All organized resistance ended on 19 June.
EIGHTH FLEET - INVASION OF SOUTHERN FRANCE

Landings in southern France were an integral part of the over-all Allied strategy in Western Europe, and as conceived were a logical sequence to the invasion of northern France. By the beginning of 1944, planning was underway and Vice Admiral H. K. Hewitt, Commander Eighth Fleet, had been appointed naval commander for the operation with the designation of Commander Western Task Force. Beaches finally selected for landings were east of Toulon, in the Cavalaire-Frejus area, since the necessary forces and supplies required for a quick thrust up the Rhone valley could be advantageously landed there.

The general situation in the western Mediterranean was favorable for amphibious operations during the summer. The submarine menace was rapidly being brought under control, and enemy naval surface strength was not a serious threat. As a result of losses sustained in the invasion of Normandy, the enemy air force was no longer able to operate in strength in the Mediterranean. The coast to be assaulted had fair beaches with strong enemy defenses; however, these defenses lacked depth, and the enemy had few available reserves for counter-attack.

All forces allocated for the invasion of southern France were included in the Western Task Force under the over-all command of the Supreme Allied Commander, Mediterranean, General (now Field Marshal) Sir Henry Maitland-Wilson. Tactical command was jointly
exercised by the Naval Commander, Vice Admiral Hewitt; the Army
Commander, Major General (now Lieutenant General) A. H. Patch;
and the Air Commander, Brigadier General G. P. Saville. Command of
the joint Army and Navy forces of the Western Task Force after embar-
tation was vested in the Naval Commander until the Commanding General
landed and assumed command of the Army forces on shore.

Intensive bombing of targets in southern France in support
of the invasion commenced on 29 April with a damaging raid on the
airport installations of Toulon. Thereafter, according to a plan
carefully coordinated with the allied bombing of Europe from England,
the assault area was isolated by destruction and damage to bridges,
tunnels, viaducts and railroad yards, without definite indication to
the enemy of the precise location of the projected landings. This
bombing was carried out by the Mediterranean Allied Strategic Air
Force and comprised about 5,400 sorties which dropped 6,700 tons of
bombs.

On 9 August the first of the assault convoys sailed from
Naples, and thereafter further convoys left other ports in order to
arrive in the assault area on the morning of the 15th. All convoys
arrived on schedule, and 880 ships and craft and 1,370 shipborne
landing craft were present. This allied naval force included 515
United States, 283 British, 12 French and 7 Greek ships and craft
and 63 merchant ships of various nationalities.
About eight hours before the main landings, French commanders and units of the First Special Service Forces were landed near Cape Negre and on the Hyeres Islands by forces under command of Rear Admiral L. A. Davidson. Rear Admiral T. E. Chandler (subsequently killed in the Philippine Islands in January 1945) commanded a group of gunfire support ships of this force. No resistance was met on the islands and only inaccurate machinegun and small arms fire on the mainland.

In the meantime, diversionary groups were operating to the eastward in the Nice-Cannes area and to the westward between Toulon and Marseille, where a mock landing and repulse were staged at LaCiotat, producing considerable enemy reaction.

The bombing in tactical support of the landings commenced before daylight on D-day. This was followed at dawn with heavy and medium bombing for one hour and twenty minutes by more than 1,300 aircraft along a 40 mile front. The execution of this plan, in conjunction with naval gunfire and barrages of rockets, appeared to paralyze the enemy defenses on all the initial assault beaches.

preceded by this coordinated neutralizing attack of 1,300 aircraft and 53 gunfire support ships, the assault took place at 0800, about two hours after daylight, on 15 August. The main amphibious landings were carried out in three principal sectors. The attack in the Frejus-St. Raphael sector was made by forces under the command of Rear Admiral S. S. Lewis; the St. Maxime-St. Tropes area under
The attack force was divided into two groups: one of the escort carriers under command of Rear Admiral H. W. Harrelson, and the other under command of Rear Admiral R. J. Lowry, for the attack on the coast of Occupied Germany. The escort carriers were commanded by Rear Admiral D. H. Swift, and Rear Admiral L. B. Halsey, and Rear Admiral G. F. Groves, for the German coast of Norway. The escort carriers and the attack on the coast of Occupied Germany.
encountered two German corvettes, which were engaged and sunk about 13 miles from Cape Croisette Light; 211 survivors were taken prisoner.

On 18 August, rapid progress by the Army continued, and sustained naval effort was required to speed up unloading to meet the requirements of our rapidly advancing forces.

In the days that followed, United States ships engaged German coast defense batteries along the coast and repulsed attacks by light enemy forces. By 29 August the last defenders of Toulon and Marseilles had surrendered. With the capture of these ports, naval emphasis was shifted to mine sweeping and port clearance. Ships and craft were released from duty in the assault area as rapidly as their services could be spared. On 1 September U. S. Naval Detachment Marseille was established. While Army engineers were clearing the land side of the port of Marseille with full Navy cooperation, additional Seabee personnel were engaged in the rehabilitation of part of the port of Toulon. On 25 September, with the closing of the last beaches used for maintenance, the amphibious phase of the campaign was considered ended. During this phase, naval vessels carried out 850 separate shore bombardment missions, with more than 54,000 rounds fired, and mine sweeping forces swept 550 mines. The invasion of southern France achieved highly satisfactory results with comparatively small losses. As no further large scale amphibious operation appeared in prospect in the Mediterranean, forces were returned as rapidly as practicable to the United States for use in other war areas.
Naval accomplishments in this mechanized age are dependent upon production. The best officers and men can do little without an adequate supply of the highly specialized machinery of warfare. Our guiding policy is to achieve not mere adequacy, but overwhelming superiority of material, thereby insuring not only victory, but early victory with the least possible loss of American lives. The excellence of our material is unquestioned. The genius of American research and industry has put us a long step ahead of our naval enemies in effectiveness of ships, planes and weapons. As regards quantity of ships, planes and weapons, the balance of power is, also, decisively on our side. The magnificent productive capacity of the United States has given us the greatest navy in all history.

The Navy is deeply grateful to industry for its accomplishments, which have enabled the Navy to play a large and effective part in the landings of the Allied armies in Europe, as well as to prosecute the Pacific war with a vigor evidenced by the rapid advance towards Japan in recent months. We have gone ahead rapidly because we have been able to keep steady pressure on the enemy. It is of the utmost importance that we not only maintain this pressure but intensify it. There must be no relaxation of the fighting effort, nor of the industrial effort that makes the fighting effort possible. I make a
special point of this because of recent indications that industry is having difficulty in meeting the needs of the armed services. This is cause for concern, since, if the industrial output falls off, the effect will be to prolong the war at great cost in American lives as well as money.

**Ship Production Program**

As the war develops, the changing nature of operations results in shifting of production emphasis from vessels of one type to another. For example, during the first five months of 1944, the need for landing craft was paramount. After the landings in France and the capture of Saipan and Guam, large assault transports had the right-of-way in preparation for operations in the far reaches of the Pacific. Some of the small ship programs have come to completion during the past year, while the construction of the larger vessels goes on with diminished intensity.

The ship construction program is under constant review. The effect of building too many vessels of any particular type would be as serious as building too few, since the construction of unnecessary craft would involve waste of manpower and critical materials urgently needed for other parts of the war effort. It is not easy to keep the shipbuilding program in balance. It has been necessary to cut back certain programs and to expand others with little warning. This has
NAVY SHIPBUILDING PROGRAM
DELIVERIES 1942-1944

<table>
<thead>
<tr>
<th>YEAR</th>
<th>NUMBER</th>
<th>TONS</th>
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</thead>
<tbody>
<tr>
<td>1942</td>
<td>15,000</td>
<td>1,500,000</td>
</tr>
<tr>
<td>1943</td>
<td>30,000</td>
<td>3,000,000</td>
</tr>
<tr>
<td>1944</td>
<td>45,000</td>
<td>4,500,000</td>
</tr>
</tbody>
</table>

Page dimensions: 540.0x720.0
NAVY SHIPBUILDING PROGRAM
MAIN PROPULSION HORSEPOWER
INSTALLED 1942 - 1944

H.P.
50,000,000
40,000,000
30,000,000
20,000,000
10,000,000
0

1942 1943 1944

Regraded Unclassified
been embarrassing to industry, but I am convinced that the over-all result has been good. Within reasonable limits, we have obtained what we needed without drawing on the productive capacity of the country for things that we do not need.

Since last March, two new IOWA Class battleships - MISSOURI and WISCONSIN - have joined the Fleet. Aircraft carriers have come into service with a steady flow. The small escort carriers, built for the Navy by the Maritime Commission, have been tested in battle and found to be effective fighting units within the expected limitations imposed by their relatively small size, power and speed. The first two 12-inch large cruisers - ALASKA and GUAM - were commissioned during 1944. Heavy cruisers of the BALTIMORE Class, as well as many light cruisers, have been added to the fleet. Destroyers have come into service in large numbers. Auxiliary vessels have been built and acquired in quantity, so that the ever increasing huge demands for transports, supply ships, repair ships, tenders, tankers, tugs, and floating hospitals have almost been met. Many of these auxiliary vessels have been built by the Maritime Commission through designs developed by the Navy Department. The success of our widespread operations in the Pacific is due in no small measure to our good fortune in having an increasing supply of well designed and well built auxiliary vessels.

Among the smaller types, landing craft have been all important. During the past 12 months, the Navy has acquired 6,000 of these, ranging in size from tank lighters to the 457-foot landing ship (dock). In
SHIPYARD EMPLOYEES
BUILDING & REPAIRING
U. S. NAVY VESSELS

JANUARY 1942
443,500

JANUARY 1943
911,900

JANUARY 1944
970,900

JANUARY 1945
861,300

Plate 3
addition, more than 29,000 smaller landing boats of all types have been produced. The effectiveness of our landing craft has been demonstrated from the shores of Normandy to the beaches of Iwo Jima.

Our landing craft, initially conceived merely as carriers of troops and cargo, have been found capable of considerable combat value of their own, due to recent developments in rocket armament and light-weight rapid-fire guns.

The so-called amphibious vehicles, craft that are equally at home on water and on land, have proved their value and are under constant improvement.

As new ships are added daily to the fleet, the maintenance problem grows more difficult. The skilled crews of our vessels do much to keep their ships in repair. Fully equipped repair units follow the fleet as one advanced base after another is captured. The huge machine shops in our repair ships are always near at hand when a man-of-war needs help. By these means, much is done in forward areas to effect battle repairs and normal upkeep.

However, really serious repair problems must be dealt with in our navy yards. Here, manpower shortage has begun to present a critical problem. Battle damage repair has kept some of our combatant ships out of the fighting line for far too long a time. Plate numbers 1 and 2 graphically illustrate the vast increase in hulls and machinery to be maintained. Plate number 2 shows the fall in shipyard employment. The possibility that the situation may get worse is cause for concern.
Aircraft

At the beginning of the current year, most of our fighters were either Hellcats or Corsairs, while a greatly improved version of the Wildcat was operative from escort carriers. In production are still newer fighters, including those which are jet-propelled. One of the most important innovations of the year has been the employment in combat of night fighters armed with machine guns, cannon and rockets.

The Sea Hawk is now replacing the Seagull as our standard scout observation plane. The Seagull had previously replaced in part the Kingfisher.

The Helldiver, which has proved its worth time and again in the Pacific campaigns, is now our dive-bomber. It carries, over considerably longer ranges and at much higher speeds, twice the bomb load of the older Dauntless. Experimentation is being vigorously pushed to produce dive-bombers with even better performance.

The Avenger, a torpedo-bomber, has replaced the Devastator, and is in turn about to be supplanted by new models now in production. All are designed to increase the load, range and rates of climb of the present torpedo-plane. A new night torpedo-bomber has already come into use.

The Catalina, a long range twin-engine patrol plane, still in great demand for air-sea rescue work, has been generally supplanted for patrol work by the larger Mariner and the Liberator. Its bombing work has been taken over in part also by the Ventura and the Privateer.
Experimental patrol planes now envisaged will carry greater loads of fuel or bombs at considerably higher speeds than those of the present day.

The **Mare**, which entered regular service this past year, has proved to be a most efficient cargo carrier in terms of cost per ton-mile. Plans for the experimental transport program now contemplate pressurized cabin planes for high-speed, high-altitude transports.

Amphibious gliders, rotary wing devices, and target aircraft for the improvement of antiaircraft fire, are also under intensive development.

**Ordinance**

The present technique of amphibious operations has imposed upon the fleet the role of acting as support artillery for our ground forces. Today this artillery support is of major importance, as landings are normally preceded by terrific naval bombardments. After landings have been effected, naval gunfire is often called upon for the destruction of specific targets, to assist the advance of our troops.

Engagements with other sea-going targets are usually relatively brief. Shore bombardment, however, is a tremendously heavy consumer of ammunition, and has increased enormously the volume requirements for firepower. For example, our bombardments from 7 December 1941 to July 1944 (not including the shelling of Saipan) used approximately 40,000 tons of projectiles. During the one-month bombardment of Saipan,
from 13 June to 12 July, the ships of the attacking task force fired
11,000 tons of shells. In many cases in the Pacific it has been found
possible to neutralize enemy installations before our troops have landed.
For example, in an official report of the Guam action it was stated that
"coastal defense guns, heavy and light AA guns, dual-purpose guns and all
types of defense installations were rendered impotent prior to the landing
of troops..... It is believed that not one fixed gun was left in commission
on the west coast that was of greater size than a machine gun."

These shore bombardments have changed ordnance requirements
and standards affecting high-capacity shells, rockets, bombs, and fuses.
At the time of the attack on Pearl Harbor, the Navy had virtually no
high-capacity ammunition [so-called because it contains an extremely
high amount of explosive]. Since then, production of this type of
projectile has risen rapidly, and currently accounts for 75 per cent
of the output of shells from six to sixteen inches in calibre. Monthly
naval production of all types of major calibre ammunition now exceeds
the total quantity delivered during World War I.

The multiplicity of tasks which must be performed in
rendering impotent an enemy-held shore involves far more than volume
of fire, however. There are many different types of projectiles and
many different types of fuses, but the nature of the objective is the
major factor in determining their employment. For example, armor-
piercing shells (the only type effective against armored ships) are
relatively ineffective against personnel or light structures ashore.
During the year the rocket has become a major weapon. Beach barrage rockets, first used by the Navy in the invasion of North Africa in the fall of 1942, have assisted our landing craft, as well as our heavier ships, to act as support artillery for ground forces. Their great usefulness begins when the barrage and bombing by big guns and planes cease. At this time, when landing troops are most exposed to enemy mortars and machine guns, rockets provide effective fire support. Seven main types of rockets, ranging from 2.25 inches to 5 inches and larger, are now being produced in quantity. Production this year will be approximately ten times that of 1943.

Approximately nine hundred ordnance research projects are currently in progress. Although combat experience has proved the efficiency of our ordnance, it has also emphasized the necessity for the greatest possible concentration on research and development.

The weekly procurement of ordnance equipment during 1944 equalled the total yearly production during 1938. In addition to equipping our naval vessels, we have armed approximately 5500 merchant ships. Although a number of construction programs are due for completion shortly, heavy demand for such expendable items as high-capacity ammunition and rockets will continue until final victory is won.
ENLISTED PERSONNEL
U.S. NAVY
1941 - 1944
FIGURES AS OF 31 DECEMBER

3,000,000
2,800,000
2,600,000
2,400,000
2,200,000
2,000,000
1,800,000
1,600,000
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
1941 1942 1943 1944

2,833,904
2,034,343
1,012,248
332,274
PERSONNEL

On 19 July 1944 the President authorized the Navy to base its plans upon a total strength of 3,389,000 by 30 June 1945. On 31 December 1944, the personnel strength of the Navy consisted of 300,101 officers, 2,833,904 enlisted men and women, 84,627 officer candidates, and 8,393 nurses. The growth of all branches of the naval service has been as follows:

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<tr>
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<tbody>
<tr>
<td>Navy</td>
<td>337,349</td>
<td>1,259,167</td>
<td>2,381,116</td>
<td>3,227,125</td>
</tr>
<tr>
<td>Marine Corps</td>
<td>66,048</td>
<td>238,423</td>
<td>405,169</td>
<td>472,682</td>
</tr>
<tr>
<td>Coast Guard</td>
<td>25,336</td>
<td>141,769</td>
<td>171,941</td>
<td>169,832</td>
</tr>
</tbody>
</table>

The enormous increase in enlisted personnel is graphically indicated in Plate 4.

Within the past twelve months the Navy has gained by the experience of its personnel, from flag officers to gun pointers. A large number of senior commanders have been tried and tested in combat, as have many of the Reserve officers, whose continued professional improvement and excellent performance of duty have made them not only an indispensable but an integral part of the navy team.

Training

Of the personnel on active duty on the last day of February 1945, only about 10 per cent were in service before Pearl Harbor. It is not surprising, therefore, that in June 1944 we were

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One of the most important aspects of our training program is to make sure that all personnel are fully trained and prepared to perform their duties effectively. This requires a period of at least 10 weeks of specialized training and preparation, with a recent 12-week more training above, starting with a recent training. The need for this type of training is not only with the fundamental principles, but also with the very latest precepts.

In the early months of the year, when the need was most acute, this development has become increasingly important. The extent to which the instruction of personnel and the preparation to provide the degree of specialization desired. To some extent, for a large number of trained personnel, it has been possible to train the personnel and to pass during the year under consideration, to make full use of the attendance of 97,000. But because the peak of recruitment was reached earlier, the training need is now less than 4% of the training schools.
performed in various billets, the skills required, and the equipment used. This information is used in writing the qualifications for the various rates; in establishing curricula for schools training men for particular rates; and in preparing self-study training courses.

As the war has progressed, many new ratings and subdivisions have been added. There are now more than 450 petty officer ratings and enlisted specialties. To overcome the lack of opportunity for training while at sea and to utilize to best advantage time spent ashore while ships undergo repairs, a program of refresher training has recently been organized at special training centers. These courses serve to bring personnel up to date with the latest advances in tactics and equipment, and thereby promote the efficiency of operating units.

Of officers commissioned since Pearl Harbor, approximately 131,000 were appointed directly from civilian life, 97,000 from officer candidate programs, and 58,000 from enlisted sources. By direct commissioning it was generally possible from 1942 to mid-1944, the period of greatest expansion, to meet the immediate requirements of the service.

Procurement of officers from civilian life for general sea duty was closed on 17 August 1944; since then our principal source of young sea-going officers has been the six Reserve Midshipmen's Schools. Towards the end of 1944, a General Line School at Hollywood, Florida, was opened to provide already commissioned officers with an eight weeks' course of training of sufficient scope to qualify
them as junior division officers. The procurement of chaplains, doctors and electrical engineers from civilian life still continues, in order to meet urgent needs.

It is anticipated that we will be able to meet most of our developing needs for new officers through the officer candidate programs — aviation cadet (V-5), reserve midshipmen (V-7), college (V-12) — and by commissioning enlisted personnel of the Regular Navy and Naval Reserve. Those appointments to commissioned rank from within the service have steadily increased.

At the end of February 1945 approximately 12,500 aviation cadets were under instruction. During the year ending 28 February 1945, approximately 20,000 officers were commissioned after completing four months' deck and engineering training at the Reserve Midshipmen's Schools: 91 per cent of these were products of the Navy college program (V-12). At the end of February 1945, reserve midshipmen numbered 8,600; the V-12 program was operating 269 units at 185 colleges and universities, with an attendance of 52,000. Through the active assistance and guidance of university authorities, V-12 curricula have been designed to meet our operating needs; the methods used in selecting candidates have enabled us to obtain the most promising material available. Recent congressional authorization has made possible the institution of a plan of transition from the V-12 to an expanded NROTC program.
Reserve officers were designated to designate
as accurately as possible the qualifications necessary for specific
types of duty at sea and ashore.

During the latter part of 1944, a new system of classifying
officers was established symbols were devised to designate
women who can be used, although it will be increased if future needs show that additional

Reserve training program has grown from a

19,000 officers and enlisted men, who are serving

In the United States and more recently in Hawaii, paratroopers are

WAVE training program there were approximately 10 schools preparing

In nearly every type of shore activity. At 50 shore stations throug-

People volunteering for overseas duty at certain noncombat

The Seabees [construction battalions] now number approxi-

about 25,000 men and 8,500 Civil Engineer Corps officers. of

While the first

Regarded Unclassified
Needs of Personnel

Faced with a war of uncertain length requiring prolonged service, it has been our responsibility to see that military spirit and efficiency are maintained at the highest possible level. In 1944 this involved increasingly close attention not only to material requirements but to the needs and aspirations of personnel. Continuing emphasis was placed upon the effective administration and extension of insurance, dependents' benefits, and family allowance programs, which support the morale of the individual by providing for his long-range welfare and for that of his dependents.

During the year the voluntary off-duty education program was also greatly expanded. It is in operation at overseas and continental bases and stations, is being extended to the fleet, and is an integral part of the rehabilitation program in naval hospitals. During 1944 about 100,000 personnel were enrolled in correspondence courses, 250,000 in courses involving class-room instruction, and self-study materials and reprints of standard texts were supplied for an additional 750,000.

Plans for Demobilization

Since there still exists a critical need for combat and seagoing officers and enlisted personnel, no demobilization of personnel can take place until the defeat of Japan is at hand.

- 123 -
something the means by which an effective and realistic attack
appopriate to communicate the problems and make recommendations con-

Regraded Unclassified
may be maintained, and by which Reserve officers of the highest quality and of appropriate age and rank may be attracted towards a naval career, in which they will receive the same training as and compete on an equal basis with Regular officers.
SUPPLY

The supply of combatant forces is a major problem of vital importance at sea, as it is on land. The Navy has two distinct phases of this problem with which to deal: the moving of supplies into advanced shore bases, and the supply of ships while they are at sea.

The United States Navy has for years given great attention to developing means for replenishing fuel, food and ammunition at sea. Before the war began, (even as far back as 1916) we had the so-called "Fleet Train" composed of tankers and other auxiliary vessels specially designed for this purpose. Since the war began, we have developed improved types of ships and better technique in using them, with the result that our fleet in the Pacific has been able to keep at sea for long periods of time. This has given us a decided advantage over the Japanese Navy, which is largely dependent on bases as sources of supply, and therefore has much less mobility.

The question of how to supply a fleet must be settled largely on geographical grounds. If the ocean combat area is small, as is the case in European waters, and if it is possible to set up shore-based establishments at strategic points, there is little need for a Fleet Train. However, the problem that we have had to solve in the Pacific is how to project a fleet throughout a vast ocean area initially dominated by the enemy. We are solving this problem...
troops and provisions needed for the assault troops, but we must also
first meet of the assault troops. Have only must we suppose the amount
committed of materiel be landed with and immediately forwarded to
location operations in the Persian region that great

Further supported.

The handling of the supplies problem has been good. It is because
and during the past three or four months in the advance across the front,
operation such essential experience. Performed have, however, improved,
sufficiently, indeed because in peninsular we had less opportunity to
problem of the course of supplies to advance bases, we have been less
the sort of thing in prosecution execution. The other part of the
the beginning of the war, Italy because of natural experience during
the supply system. It has performed the function successfully since
the key here, I think, the thing to be proud of is the fact-

90 years*

want reasons of the fact, directed naval effort in the past
was a result of the operation the problem of naval operations in the
Agatha of the reason connected the problem of naval operations. The
which is the result of the fact-measured planing of those who
is not true that Jones directed to get at the Japanese. The success of the
that we, to prepare defensive positions, a great strike on the system. It has
then, now referred to as the German force. To supply our task force
we capture these, and we put into the supply base in which the

* By Rear Admiral A. A. King, Commander of the Base and Supply Base in canvas tents at
commence to build at once the airfields necessary to secure local
control of the air without carrier assistance. Immediately following,
there must be moved in repair facilities for ships and depots for
supplying stores for base activities, ships of the fleet, and vessels
of the Fleet Train. Docks and other harbor facilities must be im-
provised rapidly. The amount of material that is involved is enormous.
Air squadrons require living quarters, supply depots, and repair shops
on a large scale. Extensive facilities are necessary for ship repairs,
to the end that minor battle damage may be remedied without the neces-
sity of returning the ships to the mainland. Large quantities of
spare parts must be kept on hand and given careful and specialized
handling, so that no ship may be immobilized for want of something
necessary to put a vital mechanism into operating condition. Quantities
of ordinary stores and ammunition must be handled and protected from
the weather.

All necessary material must be provided long before an
operation commences and must be stored initially in the continental
United States. In consequence the naval supply system for the Pacific
Ocean consists of a "pipe line", beginning hundreds of miles inland
from the western coast of the United States and extending across the
Pacific to the Philippines, with branches to our many ocean bases.
The management of this "pipe line" is a difficult problem. The
capacity of the "pipe line" is limited, and it requires careful
control to insure that the most necessary things get through and that the line be not clogged by the shipment of unessential items. Care must be taken that there is an adequate reserve at the start of the "pipe line", and at intermediate points, but this reserve must not be allowed to reach undue size, since the hoarding of material in storehouses would be a very real handicap to the war effort. The loading of cargo ships must be painstakingly planned, in order to give high priority to the most important cargo. Cargo ship schedules must be carefully worked out so that ships may unload promptly when they reach their destinations; we cannot afford to waste shipping by having vessels lie idle while waiting their turn to unload at their destinations.

The Navy's trans-ocean service of supply is in many respects like any commercial trans-ocean freight business, but it is complicated by the lack of organized ports at the distant termini, and by the fact that the urgency of certain types of cargo is constantly shifting with changes in the military situation. The problem has been attacked by taking into the Navy men of experience in the shipping world, who are bracketed together with naval officers to form teams conversant with all its phases. For the most part shipments to advanced bases are carried in commercial vessels, supplied by the War Shipping Administration, and loaded and unloaded under the direction of the Navy. Assault ships [transports and cargo ships specially
fitted to support the first wave of a landing,
tankers and other vessels that serve the fleet in combat areas are, as a rule, naval vessels.

On shore, in the western United States, where the flow of supplies largely originates, the problem has become more and more difficult as the scope of the Pacific operations increases. So important has this task become that recently one of the most senior officers in the Navy, Admiral R. E. Ingersoll, was shifted from the assignment of Commander in Chief, United States Atlantic Fleet, in which he had served with distinction since the early days of the war, to the command of the Western Sea Frontier to handle the vital and complex operating and logistic tasks in that area. Recognition of the magnitude of the logistic problem was again emphasized in the promotion of Vice Admiral F. J. Horne, Vice Chief of Naval Operations, to the rank of Admiral on 29 January 1945.

It should be added that supply operations in the Pacific are not solely naval. The Army has a task of at least equal magnitude in supplying its air and ground forces. The supply systems of the two services have been merged together, as much as possible, under Fleet Admiral Nimitz in the Central Pacific and under General of the Army MacArthur in the Southwest Pacific. In some cases, in which only one service uses an item, that item is handled entirely by the service concerned. For example, the supply of spare parts peculiar to the
Super-Fortress bombers is handled entirely by the Army, while battle-
ship ammunition, being used only by the Navy, is handled only by the
Navy. Certain items in common use are pooled for handling by joint
Army-Navy agencies. In other instances, it has been found convenient
to have one service look but for the needs of both; fuel in the Pacific
is handled entirely by the Navy, while rations for all personnel on
shore are handled by the Army.

In the foregoing discussion I have stressed the problems in
the Pacific, because they are the most difficult with which to deal
from the naval logistic point of view, due mainly to the absence of
port facilities in the island bases we have captured, and to the
distances involved. In the Atlantic the problem has been easier,
because of the more highly developed nature of the ports we have
occupied, but the over-all volume of material to be moved and handled
has required the maximum service from every ship that could be made
available. Extensive logistic operations were also carried out in
the Mediterranean. The most spectacular of these efforts was the
creation of artificial harbors during the landings in Normandy.
Here United States naval personnel installed and operated the unique
breakwater caissons and flexible pier-heads (of British design and
fabrication) at the beaches where United States troops landed. The
Normandy operation was a striking example of close logistic support
of masses of troops during the landing attack.
were employed outside rear formations. The extensive use of white
wounded provided, despite distrustful surrender conditions, to hospital
depressed the morale of the troops, to the further depression emplaced to carry
wounded men to a hospital. Amputation rates, together with many
wounded men to a hospital. Amputation rates, together with many
The use of new deep amputations is further keeping the hand of
ork-shoe operations, to bone landings carried out by deepened surgeons.
Moreover, it has been found that many of the attacks
en in many instances, they have lacked gunfire protection, and there are no
battled casualties where our medical personnel have been sufficiently
assistance as close to the battle lines as possible. According to
experience we areespecially no effort, the result of the battle
who live until they receive medical attention, 99 out of every 100
experience in this war indicates that of the wounded men

1943. Year 1941 compares the fetal rate of 7.5 per thousand in 1943
death rate from all causes is estimated at 8.5 per thousand for the
Year 1941 on the basis of preliminary calculations, the total
compared with the fetal rate of 3.6 per thousand in 1943.
estimated rate for mortality causes of the 3.6 per thousand in 1943.
In terms of total annual strength, recent tabulation indicates an
battled record of the key comparable countries with post experience.

extremely indifferent conditions in many occupied areas, the
Despite the great increase in combat operations and the

HEALTH

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blood, penicillin, plasma, new types of bandages, and serum albumen is proving effective in saving many lives.

The administrative problems which arise during a large-scale landing are considerable. Lately it has been found practicable to divide surgical landing craft in two groups -- one to care for the slightly wounded, the other to care for the more serious cases. Medical personnel are correspondingly divided into specialized teams, and liaison units are formed to locate and cooperate with the beach dressing stations. Resuscitation teams are organized to appraise and diagnose injuries and treat casualties suffering from shock. Surgical teams, specializing in certain types of wounds, provide operating rooms, procure and prepare supplies, administer anaesthetics, and perform necessary operations. During several landings last year psychiatrists were assigned to medical divisions to handle cases of combat fatigue.

In order to manipulate this complex organization, it has been found desirable to station a medical officer aboard the control ship where he can receive reports and transmit quickly the necessary orders. Systems have been worked out which enable ships to interchange medical equipment efficiently during combat.

On many Pacific islands disease and unsanitary conditions provide serious obstacles to the maintenance of good health. Sanitary measures must be applied as soon as territory is won. The introduction of new insect control methods during the year has brought excellent
results. The incidence of dysentery and other epidemic diseases that were troublesome during earlier operations lowered markedly. Hundreds of cases of pulmonary tuberculosis, broncho pneumonia, bacillary dysentery and malnutrition among the natives were treated. Volunteer native nurses, who were recruited in large numbers, were of considerable assistance in caring for both civilian and military patients.

The Navy has provided for the health of thousands of men aboard ships, submarines and planes, and has maintained and operated a system of fleet, advance base, base and naval hospitals, hospital ships and dispensaries. During the year a number of new hospitals and hospital ships were commissioned; several large hotel properties and estates were acquired and converted into convalescent hospitals; and numerous new fleet, advance base and base hospitals, as well as other field units, were established. Also, many new dispensaries were set up to serve the various continental shore activities.

Naval medical research during the year fell into four large divisions; that relating to naval service in general, to naval aviation, to the submarine service, and to the Marine Corps. Among the new developments were personnel selection tests and techniques, protection equipment and devices (relating to such matters as chemical warfare, flash burns, sunburn, sound, immersion and armor), aids to survivors at sea, insecticides and fungistatic agents, training devices, field equipment, and various preventive medicine and surgery techniques.
THE MARINE CORPS

In 1939 the Marine Corps comprised 19,500 officers and men, little more than the equivalent of one division. It is now composed of 478,000 men and women. There are now six full divisions of combat troops in the field, and 118,086 officers and men in Marine Corps aviation.

The greater part of this strength is devoted to the combat divisions and supporting troops, who have so notably furthered our progress in the Pacific by their participation in the amphibious operations described earlier in this report. 12,000 Marines are assigned to combatant naval vessels as integral parts of the crews. Others are on duty guarding naval establishments within the United States and at advanced bases.

Marine Corps Schools, Quantico, Virginia, have carried out an intensive officer training program, including advanced studies at its new Command and Staff School, set up to train officers for staff duties in Marine battalions, regiments, and divisions. Some 400 officers have been graduated from the Command and Staff School; since 1 March 1944, the Reserve Officers' School has graduated 2,939 officers; and the Officer Candidates' School, as of 1 January 1945, has graduated 3,237 commissioned officers. The Aviation Ground Officers' School, organized in January 1944, has turned out 650 trained specialists to relieve pilots for operational duties. The elementary and specialist
training of enlisted men is conducted in recruit depots, sea schools, training centers and other schools, including those of the Army and Navy, when available. In general, the policy has been to transfer basic training activities to the East Coast.

The expansion of the Corps and the altered circumstances of recent operations have necessitated several changes in organization. During March and April of 1944 defense battalions were converted into antiaircraft artillery battalions and field artillery battalions; all Marine raider units were merged into the 4th Marine Regiment. On 15 April the 1st Marine Amphibious Corps was redesignated the 3rd Amphibious Corps. On 5 June Lieutenant General Holland M. Smith was designated type commander of ground forces attached to the Fleet Marine Force in the Pacific Ocean Areas.

The Marine Corps Women's Reserve, now completing its second year of service, reached its total authorized strength of 18,000 in June 1944. Approximately 1700 of their number have been requested for duty in Hawaii.
THE COAST GUARD

The Coast Guard, which is a part of the Navy in time of war, has performed a great variety of duties, both within the United States and abroad, as part of the naval combatant forces, as well as in furtherance of normal Coast Guard functions. As of 31 December 1944 Coast Guard personnel totaled 169,832.

Coast Guard personnel man nearly 300 vessels of the fleet — transports, cargo vessels, fuel ships, destroyer escorts and landing craft of various types — which have participated in numerous amphibious operations in both the Atlantic and Pacific — as well as 600 Coast Guard cutters and 3,000 small craft employed in escort service and harbor security duty. 221 cargo vessels under Army control are manned by Coast Guard crews.

Acting as volunteer port security forces, Coast Guard personnel have been assigned to safeguard the nation's ports, with their 5,000,000 linear feet of wharfage.

The Coast Guard has continued to improve aids to navigation along our inland and coastal waterways. The safe movement to the seashore of landing craft built in the upper Mississippi River basin and on the Great Lakes has been accomplished by Coast Guard pilots, utilizing well marked channels. Intra-coastal waterways, recently extended in the Gulf area, have been marked to permit safer movement of vital war materials.
A major function of the Coast Guard has been the inspection of merchant vessels and safety appliances thereon. The efforts of Coast Guard inspectors to ensure that merchant vessels carry adequate safety equipment, and that their crews attain greater efficiency in operation, has contributed to the decline of casualties among our merchant seamen. In home ports, lifeboat drills and safety instruction have been given by the Coast Guard. Marine inspectors detailed to ports in the United States and abroad have examined merchant officers and seamen for upgrading, and have administered discipline.

In carrying out its function of life saving, the Coast Guard, under direction of the Joint Chiefs of Staff, has undertaken the task of developing improved methods and devices for rendering emergency assistance to aircraft and surface vessels in distress and to rescue survivors thereof. In connection with the recovery of these survivors, the use of helicopters from shore and surface craft is being thoroughly evaluated.

SPARS [Women's Reserve of the Coast Guard] are performing practically every type of non-combatant duty, thus releasing men for service at sea. Their enlistment, except for replacements, was terminated in November 1944; the SPAR officer training program was completed in December. As of 31 December 1944, there were 9,829 SPARS.
VI

CONCLUSION

At the conclusion of my previous report, I commented upon the successful teamwork between the Army and Navy, which has so effectually furthered the progress of the war. Within the past twelve months the character of our operations has increasingly necessitated a free and rapid interchange of forces of the several services, so that the greatest possible strength can be brought to bear against the enemy at the place and the time that will do the most good. It is a matter of basic policy to freeze the smallest possible number of forces in permanent assignment to any single area, and to leave the major portion of the fleet as a mobile unit that is ready for service where it is most vitally needed. As an example, during the past year Admirals Halsey and Spruance, in turn commanding major units of the Pacific Fleet, have been moving back and forth between the Central and Southwest Pacific in support of the westward advances of Fleet Admiral Nimitz in the Pacific Ocean Areas and of General of the Army MacArthur in the Southwest Pacific Area. As a general principle, all naval forces are placed under a naval commander of the nation that has the primary interest in the area of operations. During the invasion of Normandy and in the Mediterranean, United States naval forces operated under British naval commanders, while British and Australian naval forces are under our operational control in the Pacific.

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The harmonious integration within and between the services has been particularly essential in amphibious operations, where personnel of one service have served under the command of another. In any amphibious operation, command of all forces engaged rests in the hands of the naval commander until the troops have been put ashore and have established their command organization. At this point the landing force commander advises the naval commander that he has assumed command of his troops ashore.

The function of the Navy in an amphibious operation falls into four main phases. During the "approach" phase, the Navy commands passage to the area of landings for the invasion forces, bombards shore batteries, landing beaches and supporting areas, conducts mine sweeping operations and removes beach obstacles. Frequently the bombarding of landing beaches and shore defenses is a joint function of Army and Navy aircraft. In the "landing" phase, the Navy, by employment of special landing craft, puts the invasion forces and all their equipment ashore, under cover of ships' guns and carrier aircraft. In the "support" phase, after the consolidation of the beachhead, the Navy continues to provide artillery and air support to the forces ashore for as long a time as they remain within range of ships' guns, and until shore based aviation can relieve our carriers of the task of air support. In the "supply" phase, the Navy guarantees the security of the supply lines of the invasion forces and obstructs the
enemy's efforts to reinforce his troops by sea.

The extent and varied character of naval participation in amphibious operations have required vast quantities of ships, men and material. Consider, for example, the Lingayen Gulf landings on 9 January 1945. The naval attack and covering forces for this operation consisted of 1,033 ships, ranging in size from battleships and carriers on down through landing craft. The naval personnel in this force numbered upwards of 273,000. The Army forces put ashore on D-day and during the following four days were slightly more than two-thirds of this number. Similarly, in the landings on Iwo Jima, approximately 300 naval vessels were involved, with a total personnel of over 220,000. Approximately 60,000 Marines were landed in the first three days of the operation, a ratio of ships' personnel to troops landed of slightly less than 4 to 1.

The experience of more than three years of war has demonstrated the soundness of our concept of a "balanced fleet", in which aircraft and ships work together as a coordinated team. There has been no dispute as to "carriers versus battleships". Aircraft can do some things that ships cannot do. Ships can do some things that aircraft cannot do. Working together, surface ships, submarines and aircraft supplement each other so that the strength of the unified team is greater than the sum of the parts.
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reported shown the value of naval gunfire in Eralingytoj and
the amphibious landings of the past three months have
the light carrier PATROON.

loss in combat of the light fleet of only 696 of our own planes and
a
were destroyed, 25 enemy combatant ships sunk and 772 enemy aircraft.

carrier and transport land operations, 1/26 enemy aircraft
months, while the light fleet was engaged in supporting the Western
years, the present situation of their effectiveness is seen in the box
between 21 August 1941 and 25 January 1942. During these three

sasos with the Japanese fleet that have taken place during the past

completed. They have again proved their worth in the war

with both before and after landings and until after strikes could be

throw. They have supported amphibious operations, concentrating the

battleship damage on the enemy's ships and installations.

have operated at long distances into distant waters.

fleet's consist of aircraft carriers, battleships, cruisers and destroyers,

network of air bases. The fast carrier task forces of the Pacific

take En't for strikes across the Pacific in spite of the enemy's

are impossible both to operate effectively without air power

down the conditions under which naval war is now fought.
in saving the lives of our assault troops. Shore bombardments in
preparation for landings, during the landings, and for as long after
as troops are within range of ships' guns, have been carried out on
a scale not contemplated in the past. New methods, joint procedures,
and new materials have been developed. A sufficient volume of fire
is laid down to knock out the shore and beach defenses and to drive
off the beach defense personnel. Initially fire is carried out by
heavy ships and support aircraft. Battleship fire provides the only
gun (or weapon for that matter) that is sufficiently powerful and
accurate to knock out reinforced concrete pillboxes eight to ten feet
thick, and other similarly strong land gun emplacements. Just prior
to landing, destroyers, gunboats, and rocket ships lay down heavy
barrages of fire; ships and aircraft continue to give support as
the troops move in. Although ships are designed primarily to fight
other ships, their effectiveness against heavy shore batteries has
been well proven in this war, as in the past. The risk of so exposing
ships is justifiable if the object sought is sufficiently important,
more especially when command of the sea is not in jeopardy. The
Normandy landing was an especially convincing demonstration of the
value of naval gunfire in support of troops, not only as they land but
also as they move inland off the beaches. The new applications of
naval gunfire in amphibious operations, as well as in fleet actions,
have demonstrated that the battleship is a versatile and essential
vessel, far from obsolete.
We have heard much of things being ahead of schedule in the Pacific. Actually we have had no schedule, except to go as far and as fast as the means in hand would permit. It can be said that the war today is ahead of our expectations of last year. This should stimulate rather than sap our determination to carry on with every means we can muster. I have said before, and I repeat -- a quick and easy Pacific victory cannot be taken for granted, even after the European war is over. While we rejoice in the reoccupation of Guam and of the Philippines, from which our forces were driven three years ago, we must constantly realize that we are only now gaining a position from which we can assault the heart of the Japanese strength. That is our goal, and the enemy is welcome to know that we shall continue to press him with every means at our command. But the very speed of our advance has created new production problems. Our accelerated operations are placing a heavy strain upon reserves of certain vital items, while production of certain necessities is falling behind mounting requirements. It is only by unrelenting support and effort on the home front that our advance can continue.

While we contemplate with pride the accomplishments of the past twelve months -- accomplishments without precedent in naval history -- we must never forget that there is a long, tough and laborious road ahead.
CONFIDENTIAL

January 29, 1945.

MEMORANDUM FOR THE SECRETARY OF THE NAVY

Dear Jim:

I have glanced through the rough draft of your annual report which you were good enough to send me and I congratulate you on transforming what is ordinarily a very dry, uninteresting document to one that is alive and full of interest.

In sending it to me in advance of publication, I suppose you want my comments, and I, therefore, send you the following:

(a) In the hearts and minds of our people the history of the Navy during the fiscal year 1944 will be centered in our multitude of actions and victories against our enemies. While your report recognizes that these actions have previously been covered by Admiral King at the outset of your introduction, it seems to me it would be well if you would stress our pride in our victories and our fighting men throughout the report. Specifically, I think the paragraph two of your letter of transmittal to me should state that, since Admiral King has already issued the history of our actions and victories, your report will confine itself to logistics, production, research, etc., and that recognition of the fighting forces should be more adequately covered.

(b) It appears to me highly inappropriate that civilians should be mentioned by name when the men who have fought our battles are only listed among the many agencies of the shore establishment at the end of the report. In this connection, I note with concern that, whereas you mention a long list of Naval officers by name for recognition, General Vandegrift is the only Marine who is mentioned by name.

(c) Your report will, of course, be read by the fighting forces and I think we must keep in mind
what their reaction will be to the report you make, as well as the impression it will make on the public and on Members of Congress. I, therefore, repeat that it seems to me throughout the report there should be ample appreciation of the brilliant work the Navy has accomplished as a fighting machine.

In general, I agree with your conclusions. In particular I agree with your ideas on research and intelligence during peace. I emphatically agree that a grand job has been done by the Navy team.

Sincerely yours,

Franklin D. Roosevelt

Honorable James V. Forrestal,
The Secretary of the Navy.
MEMORANDUM FOR THE PRESIDENT

This is a draft of my annual report to you. I submit this draft on the chance that you may find time to read it while you are traveling.

The final draft probably will be substantially the same with one additional section.

Respectfully,

James Forrestal
My dear Mr. President:

In 1823, the Secretary of the Navy, Mr. Samuel L. Southard, submitted for the first time, and at the request of President Monroe, a report to the President on the administration of the Navy Department. In accordance with the custom thus established and since continued, I submit herewith the report for the fiscal year 1944.

In time of war, no annual report can do justice to all of the activities of the Navy Department. This report will not attempt to do so. It will cover only six problems, which were especially prominent during the fiscal year ended June 30, 1944: Logistics, production, research, training, health, and finance.

The achievements recorded in this report are not those of any man or small group of men. The Navy is a team. Every one of its 3,900,000 officers and men is a member of that team, sharing in the achievements reported here -- and in many more. Similarly, if the Navy is to solve the problems set forth here, they will be solved by the work of all hands.

Respectfully,

James Forrestal

The President,
The White House.
INTRODUCTION

The Navy pays tribute to Frank Knox, whose death in line of duty was, as Admiral King has said, as much a casualty of the war as those of the men who have fallen in combat. He was a soldier, a wise counsellor, and a friend. Under his administration, the Navy was reborn after Pearl Harbor, and most of the progress recorded in this report took place. He would have liked, I know, to live to witness the victory which will be made possible in large measure by his efforts and by his devotion to his country and to the Navy. However, he died, as I know he would have chosen to die, in the full rush of an active and useful life.

If he had lived, Secretary Knox would have written you first of the other gallant members of the Navy who gave their lives or who were casualties in the fight against the enemy. From Pearl Harbor to June 30, 1944, 71,929 men were listed as casualties by the Navy, Marine Corps, and Coast Guard. Of these, 31,880 died (19,483 being killed in battle), 25,974 were wounded, 9,313 were missing, and 4,762 were prisoners of war. These casualties were more than three times the casualties in World War I, and since June 30, of course, the number has increased.
To these men and to their families the Navy and the Nation owe a debt for which there is no measure.

Admiral King, in his report of March 27, 1944 related the military operations of the Navy. I shall not attempt to reproduce or summarize his excellent report, but between the last action recorded by him and the close of the fiscal year 1944 two other military events of exceptional importance took place.

The first occurred June 6, 1944, when our invasion armies landed on the coast of Normandy, breaking into the fortress of Europe.

The second major event took place June 15, 1944, 12,500 miles from Normandy. It was our invasion of the Marianas, bringing us to the doorstep of the Western Pacific, giving us bases for the subsequent invasion of the Philippines, and making possible the bombing of Tokyo by the Army Air Forces.

These two actions, like many which preceded and followed them, demonstrate again that sea power is the foundation, though not the final element, of victory. Neither our land forces nor our air forces could be brought to bear in this war until the sea lanes to our advance bases had been secured. Our ability to reach the homelands of our enemies -- and their inability to reach us -- have depended on one factor: Allied control of the sea.
I am pleased to be able to record that by June 30, 1944, we and our Allies dominated all the oceans of the world except those seas immediately adjacent to Japan, Formosa, the Philippines, and the East Indies. Even those seas had been invaded by our submarines whose necessarily unpublicized exploits form one of the great chapters of this war.
Problem I
CREATING A LOGISTIC ORGANIZATION

The Problem
In wartime the Navy must have a logistic mechanism capable of supplying equipment and personnel to the right place, at the right time, and in the right amounts to support the fleets in their actions against the enemy. A vigorous nucleus of this mechanism must be preserved during peace.

The Solution
The solution has four parts. Two have always existed. A third is being created. The fourth has yet to be achieved. The parts are:

A. The genesis of naval logistics is the concept of a mobile fleet, one not tied to its land bases, one capable of enormous strategic range because it carries with it or creates its own support as it advances. This concept is one of the foundations of American naval strategy.

B. The raw material of logistic support is equipment and men. As Problems II and IV of this Report show, the Navy has demonstrated its ability to produce equipment and train men in the enormous volume required by this war.
C. What needs strengthening now is the link between our fleets and our production: planning to determine what is needed and when it will be needed, plus control of stocks on hand. During the 1944 fiscal year, four major developments strengthened this part of the Navy's logistic mechanism. First, the Logistic Organization Planning Unit, created by Admiral King, began its work of devising a system of over-all logistic reports. Second, the Archer-Wolf group surveyed the whole logistic field, emphasizing particularly the need for clarifying responsibilities and authority in the Navy logistic organization, which under the pressure of war had, like Topsy, just grewed.* Third, the logistic staff assigned to the Vice Chief of Naval Operations was strengthened by creation of a Deputy Chief of Naval Operations (Air) to handle aviation logistics and in other ways. Fourth, a Navy Inventory Control Office, described in Problem II, was established.

D. The fourth part of the solution -- the one still missing, which involves perpetuation of a satisfactory logistic organization -- will move higher on

* To this group of business men, headed by T. P. Archer of General Motors and George Wolf of U. S. Steel, the Navy is indebted for a helpful and comprehensive study of its logistic problems.
the Navy agenda when the end of this war becomes visible.

Discussion of the Problem

Logistics is the science of providing what is needed when it is needed where it is needed.

It embraces the supply and distribution of material and men. It involves forecasting requirements. It is the scheduling, production, assembly, storage, distribution, maintenance, repair, and replenishment of equipment. It is the procurement, training, billeting, feeding, distribution, staging, hospitalization, replenishment, and rehabilitation of personnel.

On June 30, 1944, the United States Navy, the world's largest, consisted of 1,108 warships, plus 60,191 other craft, powered by 80,000,000 horsepower. These vessels had to be constructed and must be continuously maintained, armed, fueled, and repaired.

The Navy consisted also of 34,000 planes, needing fuel, maintenance, arming, repair, and replacement.

Navy vessels and planes mounted over 220,000 guns. They had to be built, fed ammunition, repaired, and, in some instances, relined.

Fleet operations are based on over 900 shore establishments, including 300 advance bases some of
which are as large as Peoria, Illinois, or Columbia, South Carolina -- and almost all of which had to be newly built.

Most important of all, the Navy consisted on June 30, 1944 of 3,623,000 officers and men, who must be housed, fed, clothed, transported, and trained.

All of this is logistics. The problem is not new to the Navy -- but its present dimensions are. The fleet has always been kept mobile by the employment of floating repair facilities, supply vessels and means for extemporizing advanced bases. Actual experience in logistic support has been provided in the cruises incident to peace time "war problems."

But the enormous expansion of the Navy, particularly in small craft that can carry few supplies and no repair facilities, has created administrative problems of a scope never approached in pre-war days.

Now the logistic problem is complex beyond any pre-war dream. A network of over 700 depots and stations must keep stocks of over 2,000,000 kinds of items.

It is immense. In the past fiscal year the Navy trained 1,523,000 men, and sent to sea 42,000 new craft and deployed 29,000 new planes -- besides maintaining the men and equipment already in the service.
It is dynamic. The flow of men and material must be projected 3,000 miles across one ocean and 7,000 miles across another. Great fleets must be supplied at sea.

To conduct these logistic operations requires careful planning and vigorous execution.

I can best illustrate the need for planning by summarizing the preparation which was necessary to put ashore in Kwajalein after our invasion in January, 1944, one of our Navy air base units.

Orders for the critical equipment, such as generators and cranes, had to be placed in September, 1942, a year and a quarter before the invasion actually occurred.

Orders for less critical components were placed in December, 1942, and March, 1943, thirteen and ten months, respectively, before the attack on Kwajalein. These orders and those placed during the preceding September were not, of course, specifically earmarked at that time for the Kwajalein air base unit. The bill-of-materials for the Kwajalein operation was not drawn up until April, 1943. Thus, the most critical equipment had to be ordered only on the general knowledge that, when completed, it would be needed somewhere in the Pacific.
In April, 1943, the Chief of Naval Operations specified the men and material that would be required at the Kwajalein air base nine months later.

Shortly thereafter ninety-five men who were to be the skilled staff at the base began their training, and in May training of the rest of the complement began.

By August and September, 1943, men and materials began to arrive at Port Hueneme, California, and shipping preparations began to be made. The invasion still was more than four months away. Training and assembly of supplies continued.

In October Admiral Nimitz transmitted his desired shipping schedule for the air base unit.

In December the first two echelons of the unit began moving from California to Hawaii for further training.

The invasion of Kwajalein occurred January 31, 1944, and early in February both the echelons at Hawaii and those still in California set sail for the new base, a year and a quarter after their first equipment had been ordered. Of course, the air base unit was only one of many that had to be synchronized to achieve the capture and construction of our Kwajalein base -- and by the time the Kwajalein units were under way, the Marianas preparations had begun.
Without careful planning such operations may go awry. The critical materials may not be ready at the right time or in the correct amounts -- while useless surpluses of other materials may pile up. Men may not be properly trained. Shipping may be incorrectly timed.

Vigorous execution of plans is equally necessary, because the ability to fight prolonged sea battles, like those in which we now engage, depends on precise logistic support. This dependence emerges from the following rough log of the fast carrier force of the Third Fleet for two months beginning August 28, 1944. The logistic functions in the Task Force's activities are underlined. I call your attention to the fact that during these two months, while the Third Fleet was engaging in twenty-one combat actions, the carriers also had to undertake twenty-six logistic operations. This log shows that, if the right supplies had not been at the right places at the right time, the Third Fleet could never have made its sustained attack which opened up the Philippines and which provided air cover for General MacArthur's troops for almost two months.

On 28 August Task Force 38 -- the fast carrier task force of the Third Fleet -- sortied from Eniwetok.
From 30 August to 1 September Task Group 38.4 attacked Jap bases in the Bonin and Volcano Islands.

On 1-2 September Task Groups 38.1, 38.2, 38.3 fueled at sea north of the Admiralties.

During 3-4 September Task Group 38.4 fueled near Guam and rearmed at Saipan.

On 5-7 September all Task Groups of TF 38 attacked Palau, Yap, and Ulithi.

On 8 September Task Group 38.4 fueled east of Palau.

During 8-9 September Task Groups 38.1, 38.2, 38.3 struck the Mindanao area of the Philippines.

From 9 to 15 September Task Group 38.4 supported the invasion of Peleliu and Angaur (14 September).

On 10 September Task Groups 38.1, 38.2, 38.3 fueled southwest of Palau.

On 11-13 September Task Groups 38.1, 38.2, and 38.3 attacked the Central Philippines.

14-15 September, Task Groups 38.1 supported the landings on Morotai Island (14 September).

On 15 September Task Groups 38.2 and 38.3 fueled west of Palau.

16 September Task Groups 38.1 and 38.4 fueled southwest and south of Palau.

On 18 September Task Groups 38.1, 38.2, and 38.3 fueled about 400 miles northeast of Mindanao.
During 20-22 September Task Group 38.4 rearmed and reprovisioned in the Admiralties.

On 20-21 September Task Groups 38.1, 38.2 and 38.3 attacked Luzon.

22 September the same Task Groups fueled northwest of Palau.

On 23 September the same Task Groups attacked the Central Philippines.

From 25 to 30 September Task Group 38.3 fueled and rearmed in Kossol Passage, Palau.

On 26 September Task Group 38.4 fueled southwest of Palau.

During 27-28 September Task Group 38.2 reprovisioned, rearmed, and refueled at Saipan.

On 28-30 September Task Group 38.1 reprovisioned and rearmed in the Admiralties.

From 1 to 4 October Task Group 38.3 reprovisioned at Ulithi Atoll.

On 2 October Task Group 38.4 fueled northwest of Palau.

On 7 October all Task Groups fueled about 500 miles northwest of Saipan.

(NOTE: Except for this one period of fifteen days from September 23 to October 9, Task Force 38 was not out of action for more than five consecutive days during its entire cruise -- a cruise which lasted...
beyond this chronology for a total period of almost three months from the sortie date of August 28. This sustained action is possible only with adequate logistic support.)

On 9 October Task Force 38 attacked the Ryukyu Islands.

10 October Task Force 38 fueled about 350 miles northeast of Luzon, and launched minor strikes against Luzon.

During 11-13 October Task Force 38 attacked Formosa. Two U. S. cruisers were damaged by aerial torpedoes.

On 14 October Task Groups 38.2 and 38.3 fueled about 400 miles east of Luzon. Task Group 38.1 covered the retirement of damaged cruisers. Task Group 38.4 attacked northern Luzon.

15 October Task Groups 38.1 and 38.4 fueled northeast and east of Luzon, respectively.

16 October Task Group 38.4 attacked Luzon.

On 17 October Task Groups 38.1, 38.2, and 38.4 attacked Luzon. Task Group 38.3 fueled about 300 miles east of Luzon.

18 October Task Groups 38.1 and 38.4 attacked Luzon. Task Group 38.2 fueled about 300 miles east of Luzon.

19 October Task Groups 38.1 and 38.4 supported
the landings on Leyte. Task Groups 38.2 and 38.3 conducted negative searches for the Jap fleet.

On 20 October Task Groups 38.1 and 38.4 fueled about 400 miles east of Luzon. Task Groups 38.2 and 38.3 attacked the Central Philippines and searched unsuccessfully for the Jap fleet.

21 October Task Groups 38.1, 38.2, and 38.4 conducted negative searches for the Jap fleet. Task Group 38.3 fueled about 400 miles east of Luzon.

22 October Task Force 38 searched without success for the Jap fleet from positions 250 to 400 miles west of Luzon. Task Group 38.1 started for Ulithi.

On 23 October contact was made with a large force of enemy warships south of Mindoro Island in the Philippines.

(NOTE: At the time the Jap fleet was sighted on October 23 Task Force 38 had been away from its Eniwetok base for almost two months and had engaged in sixteen combat actions, ranging over 1,800 miles from north to south. Nevertheless, it was able to engage the Japanese fleet in the decisive Second Battle of the Philippine Sea, which began at this time. Its ability to do so is a dramatic illustration of the necessity for the underlying logistic support.)

Task Groups 38.2 and 38.3 attacked this force. Task Group 38.3 was attacked by many enemy planes, and the PRINCETON received damage resulting in her sinking.
Task Group 38.1 reversed course to the west to join the battle. Task Group 38.4 attacked targets in the Leyte area. In the afternoon, Task Group 38.3 search planes contacted an enemy carrier force east of Formosa. Task Groups 38.2, 38.3 and 38.4 rendezvoused and headed north to intercept the enemy force.

24 October. In the early morning, night searches from Task Groups 38.2, 38.3, and 38.4 located the enemy carrier force. These groups attacked the enemy fleet at around 0845 and sank four Jap carriers. Task Group 38.1 attacked enemy forces retiring through San Bernardino Straits.

On 25 October Task Groups 38.3 and 38.4 fueled about 400 miles east of Luzon.

26 October Task Groups 38.3 and 38.4 attacked and damaged several enemy warships in the Central Philippines. Task Groups 38.1 and 38.2 fueled about 350 miles east of Luzon. Task Groups 38.1 and 38.3 departed for Ulithi to rearm and reprovision.

During 27-29 October Task Groups 38.2 and 38.4 operated off Samar and attacked the Manila Bay area and other targets throughout the Philippines.

28-30 October Task Groups 38.1 and 38.3 rearmed and reprovisioned at Ulithi.

During these two months planes of the fast carrier task force had flown 18,266 sorties, expending
6,000 tons of bombs, 331 torpedoes, 7,752 rockets, and enormous amounts of fuel and provisions. It had lost 326 planes in combat and operational accidents, and 297 of its pilots and aircrewmen were casualties. One carrier had been lost and two cruisers damaged.

Nevertheless, the fast carrier task force was able in November to take up the aerial bombardment of Manila in support of General MacArthur's troops. These bombings continued throughout most of November, the Third Fleet's third consecutive month away from its Eniwetok base.

Conclusion

A logistic organization which has successfully supported operations like the one chronicled above obviously is in a good state of repair. What remains to be done during this war is, first, to clarify responsibility and planning along lines suggested after the close of the 1944 fiscal year by the Archer-Wolf group and the Logistic Organization Planning Unit, and, second, as Problem II explains, to tighten controls over production.

How shall we preserve an alert nucleus of this logistic organization during peace?

The answer to this question has ramifications throughout the Navy. It will determine the future of
many war-born innovations such as the dual position of Commander-in-Chief, U. S. Fleet, and Chief of Naval Operations. It will govern the role to be played in the Navy by the civilian secretariat. It will modify the course of study at the Naval Academy and the standards by which an officer's qualifications for command are measured.

In the midst of war the Navy cannot make all of the adjustments which will be necessary in order to preserve a vigorous logistic mechanism during peace. As the end of the war approaches, however, these adjustments will increase in urgency.

This is the first war in which the Navy has had to fight in a number of theatres, all of them removed by thousands of miles from our sources of supply in the United States. This war may not be the last one which we are thus required to fight. Indeed, if other wars come, I hope that we can always fight them abroad. Therefore, it is imperative that the Navy in peace continue a first-rate logistics organization -- one in which men will be trained from the time they enter the Naval Academy and in which civilian business skills will be fully used.

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Problem II

ACHIEVING PEAK PRODUCTION
and
REVIEWSING THE PROGRAM

The Problem

During the fiscal year 1944, production for the Navy presented a twofold problem. The first task was to drive production to peak levels -- peaks which, in some instances, need never again be attained. The second phase of the problem was to review this immense production program as it reached its peak, making doubly certain that the proper materials were procured in the proper quantities and at the proper time.

The Solution

Achievement of peak production was made possible by the industrial mobilization which had occurred before the fiscal year 1944 began. During that year, there remained only the work of pushing certain urgent production, particularly destroyer escorts and landing craft, at maximum speed.

The procurement review phase of the problem required establishment of new mechanisms, among which three were outstanding: the Procurement Review Board initiated by the Director of War Mobilization and the Joint Production Survey Committee which evolved therefrom, the Logistic Organization Planning Unit established
by the Commander-in-Chief, U. S. Fleet, and Chief of Naval Operations, and the Navy Inventory Control Office created by the Secretary.*  (Results of these actions are set forth under "Conclusions" on p. 30.)

Discussion of the Problem

Peak Production. By June, 1944, production for the Navy had reached a peak which probably will not be exceeded during the remainder of the war. In some fields peaks were established which will not again be equalled.

The 405,254 tons of newly constructed naval vessels completed in May, 1944, probably will stand as the highest monthly record during this war. Also, the 2,800 aircraft accepted by the Navy in March, 1944, probably will be the largest monthly total recorded. The public works program of the Navy, embracing both domestic and advance base construction,

* Assignment of credit for these innovations is impossible. However, two groups of private citizens who helped immeasurably deserve special mention. The Archer-Wolf Group described in the preceding problem laid a broad background for the recommendations of the Logistic Organization Planning Unit. The need and methods for inventory control were brought into sharp focus by J. F. Creamer, of Wheels, Inc., A. C. Romer and C. W. Cederberg, both of Montgomery Ward, whose excellent study underlies the Navy's inventory work.
reached its peak in 1943 and probably will never again attain those levels.

Offsetting these declines are increases in other Navy programs, particularly the procurement of expendable items. The ordnance program of the Navy, for example, is expected to go on increasing in volume throughout the first quarter of 1945. Similarly, the procurement of clothing, small stores, provisions, and fuel did not reach its peak until the end of the 1944 calendar year.

To sum up, by the end of the 1944 fiscal year, production of what may be called the capital equipment of the Navy -- ships, planes, guns, and bases -- had begun a gradual decline. Meanwhile, production of expendable material -- ammunition, fuel, clothing, and repair parts -- were continuing to increase with the tempo of the fighting.

The net result of these divergent trends in various Navy production programs is that over-all production for the Navy, having reached a record-breaking level in the April-June quarter of 1944, probably will not thereafter be called upon to exceed that level.*

* The index of total Navy procurement, based on the first quarter of 1944 as 100, was 115 in April-June, dropped to 106 in July-September, remained at 106 in October-December, and is expected to drop again in 1945.
The problem now is not to increase production for the Navy, but to keep it keyed to its present intensity.

Reflecting achievement of unprecedented production, the value of ships, planes, and major ordnance items delivered to the Navy rose to $12.7 billion in the 1944 fiscal year. This total shows an increase of 87% over the 1943 fiscal year figure of $6.8 billion.

Ship completions set an all-time record in the 1944 fiscal year; 42,248 naval craft, aggregating 4,483,947 tons, were finished, ready for use or, if necessary, for shakedown. Of these ships, 32,814 were landing craft, 355 were auxiliaries, 954 were patrol and mine craft, 6,887 were small boats, 560 were district craft, and 678 were combatant ships. The combatant vessels completed in the 1944 fiscal year comprise one battleship, six 27,000-ton aircraft carriers, four 11,000-ton light carriers, sixty-nine escort carriers, thirteen cruisers, 115 destroyers, 399 destroyer escorts, and seventy-one submarines.

In all classes and sub-classes these 1943-44 completions were the highest on record.

More than 29,000 planes of all types were accepted by the Navy during the fiscal year, an increase of 80% over the preceding fiscal year. Like ship completions, plane production was the highest on record.
Ordnance output for ships, aircraft, and lend-lease included over 63,000 gun assemblies of 20 mm. caliber and larger, and over 500,000,000 rounds of antiaircraft ammunition.

This record-breaking production was a solid tribute to the power of industrial America. The Navy here reiterates its gratitude to the men and women whose genius, skill and devotion made this production possible.

Three special production achievements during the 1944 fiscal year typify the drive for peak munitions production.

In the first half of the 1943-44 fiscal year the Navy, after serious delay in getting under way, met its deadline in destroyer escort construction. These vessels, designed, built, and armed to combat submarines in the Atlantic and to assist in Pacific convoy work, were the Navy's largest venture into mass production of warships. The authorized program at one time included as many as 1,005 vessels. Of this program, the Joint Chiefs of Staff had marked 300 destroyer escorts "urgent," desiring at least that many by December 31, 1943. A destroyer escort is not a simple vessel to build. It is over 300 feet in length. Its beam is 36 feet. Its speed is in excess of twenty
knots, and it carries torpedo tubes and depth charge racks in addition to guns. When the 1944 fiscal year began, on July 1, 1943, only fifty-six of the 300 "urgent" DE's had been completed. In the ensuing six months prior to the December 31 deadline, the Navy yards and private shipyards of the nation produced -- and our ordnance plants armed -- the astonishing total of 250 additional destroyer escorts, thus slightly exceeding the goal of 300. This remarkable record, completing nearly three warships every two days, is without precedent in naval construction.

The second outstanding production achievement during the 1944 fiscal year was the completion of landing craft. In anticipation of the landings in Normandy, in the south of France, and in the Pacific, the landing craft construction program of the Navy was increased at the Quebec conference of August, 1943, and was still further augmented by decisions of the Cairo conference in November, 1943. As a result of these strategic determinations, the landing craft to be completed rose from 612,000 tons in the fiscal year 1943 to more than 1,100,000 tons in the fiscal year 1944. Because the Cairo decisions came in the fifth month of the fiscal year, by far the largest part of the new landing craft program not
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only had to be superimposed on other shipbuilding programs, but also had to be compressed into the last six months of the fiscal year. The Navy was called upon to produce and arm between January 1 and June 30, 1944, almost double the tonnage of landing craft which had been produced in the immediately preceding six months. This goal was achieved with a margin to spare. A strategic deadline of May 31 had been set for the major part of the landing craft under construction. Once again, as in the destroyer escort vessels program, the Navy yards, shipyards, and ordnance plants performed an unprecedented job by turning out between the first of January and the end of June almost 20,000 landing craft of an aggregate tonnage in excess of 728,000. An average of 107 new landing craft hit the water every day for six months. They made the subsequent invasions possible.

The third outstanding production achievement during the fiscal year 1944 was the output of Navy combat aircraft. The 24,000 new combat aircraft accepted by the Navy in the 1944 fiscal year exceeded by 80% the Navy combat planes accepted in the preceding three fiscal years combined. The number of fighters and bombers accepted in the first six months of the fiscal year alone was greater than such acceptances in
the whole preceding fiscal year. This outstanding acceleration of production more than met basic operational requirements for naval aircraft during the fiscal year, and mass production of planes made possible the great naval air battles over the Philippine Sea.

These three programs -- destroyer escorts, landing craft, and combat planes -- typify a year of record production. While these and other programs were reaching spectacular levels, other types of production were falling behind requirements -- not because output declined, but because the war forced the Navy to enlarge and accelerate its requirements. By June 30, 1944, the Navy, having successfully expedited one group of programs, found itself confronting new production problems in the following fields:

1. Assault ships. Requiring greater "reach" for our amphibious strikes as Pacific distances stretched out, the Navy began to assist the Maritime Commission in constructing two new types of invasion ships: attack transports and attack cargo vessels.

2. Rockets. Producing rockets for the Army as well as itself, the Navy found it must enormously increase its output to $70 million a month.
3. High-capacity ammunition. Like rockets, high capacity ammunition has proved especially useful against shore defenses. By the end of the 1944 fiscal year, the Navy was obliged to expedite output in order to meet the fleet's needs.

4. Repair parts. Ships built to steam 50,000 miles between overhauls have steamed over 200,000. Plane engines designed to operate 800 hours between overhauls have operated 2,500 hours. Remarkable as these records are, the Navy was required by June, 1944, to emphasize production of repair parts in order to make good the wear and tear of war.

How these and other new production problems were met is a story running into the 1945 fiscal year. What is especially significant, however, is that throughout the 1944 fiscal year the Navy was repeatedly pushing some programs to record-breaking peaks, then letting them decline while pressure was applied to newly-urgent programs.

Fluidity was the order of the day. To achieve it required constant scrutiny of production schedules,
constant matching of industrial activity against battle experience.*

Program Review. The first major step in this intensified review of programs was taken by the Director of War Mobilization, Mr. Byrnes, on June 25, 1943, when he suggested to Secretary Knox the establishment of the Procurement Review Board. The work of this board has had a triple result. First, it has led to the adjustment of many specific programs. Second, it has encouraged the Navy to undertake on its own motion a tighter control of its logistic operations. Third, it evolved into the Joint Production Survey Committee, which continues to review war programs for the Joint Chiefs of Staff.

Some of the more important adjustments in individual programs which grew out of the various review activities were the following:

1. Reduction in the anti-submarine vessel programs, especially the cut-back of 440 destroyer escort vessels.

* Adjustment of production to changing needs also raised the problems of contract termination and disposal of useless surpluses. Under the leadership of Messrs. Byrnes, Baruch, and Hancock, the Navy in the 1944 fiscal year assisted in the formulation of basic policies and set up its own machinery to handle this work.
2. Curtailment of submarine production.
3. Review of aircraft attrition rates, with a subsequent downward adjustment in fighter production schedules.
4. Reduction in certain ammunition requirements, of which the most spectacular was a reduction in torpedo production schedules.*

While these adjustments were taking place in individual programs, the Navy overhauled its production-review mechanism. This improvement took four forms.

First, Admiral King undertook, at my request, to review the shipbuilding program each month in order to keep production schedules in balance with changing strategic needs.

Second, Admiral King appointed a Logistic Organization Planning Unit. This unit, working in conjunction with the Archer-Wolf group, designed a system of

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* War, however, has no respect for mathematical averages. In October, 1944, the fleet used more surface and aircraft torpedoes in combat than during all of the last six months of the 1944 fiscal year, requiring restoration of part of the torpedo cut-back. Similarly, by 1945 the Navy was restoring some of its fighter plane cut-back because the character of aerial warfare had changed and because these planes had evolved into dual-purpose fighter-bombers.
over-all reports, relating strategic plans to logistic needs, so that the Navy would have available a comprehensive statement of the materials necessary to carry out its strategic plans. The work of this unit was not completed until after the close of the fiscal year under discussion. A final report and evaluation of the Unit's work will not be made in this annual report.

The third major improvement in the Navy program-review mechanism began on May 23, 1944, when an order was signed inaugurating our long-projected war-time inventory of all Navy material on hand. Peacetime inventory and stock control procedures of the Navy had been swamped by the flood of defense and war work. They needed resuscitation. The order of May 23, which established the Navy Inventory Control Office, was the immediate result of the work of Mr. Murray Safanie, special assistant to Secretary Knox, and of a special study by three private consultants, Messrs. Romer, Creamer, and Cederberg, of Navy inventory and stock control efforts. Taking an inventory of a business as large as the Navy, which spends $26 billion a year, was an enormous undertaking. Stock taking had to occur at 700 different depots and stations scattered over the U. S., the Caribbean, the Canal Zone, and the Hawaiian Islands. Supplies of 2,000,000 kinds of items had to
be tallied. Like the Logistic Organization Planning Unit, the inventory organization did not complete its work during the fiscal year under discussion, and its results will not be included in this report, except to say that by December 31, 1944, the Navy, for the first time in its history, will have stock records that have been audited in their entirety by a physical inventory during the calendar year 1944. This inventory will be kept current.

The fourth improvement is linked to the third. It is a new system of stock control, determining on the basis of past usage plus known future needs the quantities of material which should be kept in stock. Stock control is the end to which our inventory is the means. This control system, like the inventory, is an immense undertaking, and it will not be in full operation until after the close of the 1945 fiscal year.

Conclusion

Mr. President, I submit that the Navy now is gathering into its hands the controls needed for a flexible production program. By June 30, 1944, we either had or were in the process of getting:

A. A systematic statement of logistic requirements arising out of future strategic plans.
B. An inventory to show what material is on hand.

C. A stock control system which should discourage surpluses and anticipate shortages.

D. A procurement and production organization which, on the record of its ability to achieve successive peaks in output, can be relied upon to fill gaps between logistic requirements and stocks on hand -- assuming, of course, continued over-all production and manpower mobilization.

E. A delivery service composed of the Naval Transportation Service and the Naval Air Transport Service which has, with the fine assistance of the War Shipping Administration, put the necessary equipment to the hands of our fighting forces.

What now remains to be done is to push through to maturity the planning, program-review, inventory, and stock control work already begun, developing them into the useful tools of management which they should be.

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Problem III
RESEARCH

The Problem

In peace, even more than in war, scientists owe to their nation an obligation to contribute to its security by carrying on research in military fields. The problem which began to emerge during the 1944 fiscal year is how to establish channels through which scientists can discharge this obligation in peace as successfully as they have during this war.

The Solution

The Navy believes that the solution for this problem is the establishment by law of an independent agency devoted to long-term, basic military research, securing its own funds from Congress and responsive to, but not dominated by, the Army and Navy. This agency, the Navy believes, should be authorized to use the methods of the Office of Scientific Research and Development, contracting with institutional and industrial laboratories wherever possible. Its own facilities should be kept to a minimum. The Army and Navy would continue their own research, devoted primarily to applying the results of the new agency's
fundamental research to their own particular problems.

The Navy realizes that this solution will not be possible without the cooperation of the War Department and of other agencies. However, the Navy so firmly believes in the importance of this solution to the future welfare of the country that advocacy of it will become settled Navy policy.

Discussion of the Problem

I have said that it is even more important in peace than it is in war for scientists to contribute to basic military research. Wars are fought primarily with weapons which were developed before the fighting began. Experience demonstrates that a nation at war usually does not have time to push through a new line of fundamental research and then apply that research before the outcome of the war is decided. Research requires time. Application of its result absorbs more time. Wars, long as they are, move swiftly. During war a nation has time only to improve and adapt weapons, the fundamentals of which were evolved during the preceding years of peace. It follows, therefore, that if we are to be scientifically prepared for war, that preparation must take place before, not after,
the outbreak of hostilities.*

The two most spectacular new weapons used in this war are rockets and radar. Both of them prove that, if a weapon is to be employed during a war, the fundamental research underlying it must have been conducted over a protracted period before the war.

Rockets, of course, are a very old military weapon. The records of the Navy show that an unsuccessful test firing of a military rocket was conducted at the Navy Yard in the presence of President Lincoln in 1863. Work on what might be called a modern rocket engine dates back at least to the 1920's. Every year since 1925, the Navy Department has made an annual contribution to research on rocket engines. After the outbreak of the present war, this work, having gone through a long and necessary period of trial and error, was accelerated. The beginning of successful production of modern rockets in the United States probably dates from contractual arrangements at the request of the Navy between the National Defense Research Council

* Scientific preparation for defense presupposes knowledge of weapons being developed by potential enemies. Such knowledge can not be obtained without a more adequate intelligence system than the United States has ever maintained in its history. A corollary of adequate scientific preparation, therefore, may be an expanded intelligence system.
and the California Institute of Technology in 1941. Thus, the present varied types of rockets are the final links in a chain of research and adaptation stretching back two decades.

Both among our Allies and our enemies, modern rocket development had a similar history, having been under way in Germany, according to recent reports, for some twenty years.

Radar surely will stand as the most effective new weapon in this war. It has been used by the Navy, of course, for search, identification and fire control since our entry into the war. During the fiscal year under discussion, we were able to perfect still more adaptations of radar. Among them was a lightweight radar bomb sight; a lightweight computer for firing rockets, cannons and machine guns; reliable remote control radar systems; systems for jamming enemy radar; high powered fighter director and search radar for use aboard aircraft carriers, permitting them to spot enemy planes as remote as 100 miles; special radar for amphibious operations; and further development of radar controlled craft. All of these innovations stem back to basic research which began in 1922. In September of that year, two scientists at the Naval Aircraft Radio Laboratory at Anacostia, D. C. made the first observations which led to the development of radar. Throughout
the next eighteen years, they and their associates conducted the time-consuming basic research which today makes possible our amazing and varied uses of radar -- an art in which we are far ahead of our enemies.

These examples -- rockets and radar -- are merely two of many. They show that, if we are not to fight a new war with the weapons of past wars, research on new weapons must precede, not follow, actual fighting. Our design engineers have demonstrated their ability to adapt and improve known weapons such as planes, guns, ships and projectiles. Our industrial mechanism has shown itself capable of producing the volume of munitions we need. But will we produce the right weapons next time?

To be assured that we do, the Navy is especially anxious to establish as soon as possible a research mechanism which will make available to the Army and Navy in time of peace the same excellent scientific cooperation which they have enjoyed during this war. To that end, the Secretary of the Navy, speaking for himself and the Secretary of War, on May 29, 1944, asked Mr. Charles E. Wilson, then Vice Chairman of the War Production Board, to head a committee of civilian and military scientists and technicians which would
recommended the most desirable method for continuation of military research after the war. This committee did not complete its work during the fiscal year under discussion. However, it did report subsequently that it favored creation of a new independent agency along the lines outlined under "The Solution" in this section of this report. The committee added the proviso that until this new agency could be created, the work might be carried on by the National Academy of Sciences. The Secretaries of War and Navy have requested the National Academy of Science to initiate this activity.

Like the Wilson committee, the Navy is firmly convinced that the eventual establishment of the new, independent agency devoted solely to basic military research is urgently necessary if this country is to be prepared adequately against war.

Conclusion

The uncertainty which prevailed at the close of the 1944 fiscal year about the peacetime future of fundamental military research and which the Wilson committee was to dispel still persists, despite the report of that committee. The Navy Department feels so deeply about the importance of the solution of this problem that it requests your intervention, guidance and support on this problem, which transcends the responsibility and authority of any single department.
Problem IV
TRAINING OFFICERS AND MEN

The Problem

Personnel problems during the 1944 fiscal year were analogous to production problems. The Navy was confronted with training in a single year the largest new naval force ever sent to sea in that period of time, a task comparable to attaining peak production of equipment.

At the same time, and especially toward the end of the fiscal year, the Navy was obliged to review and adjust its use of personnel -- as it was reviewing and adjusting its production program -- in an effort to stay within its personnel ceiling of 3,657,000, a limitation which shortly after the close of the fiscal year became untenable.*

The Solution

The first phase of this twofold problem -- peak-load training -- was met in four ways. First, the Navy school system was enormously expanded. Second, a new

* The 3,657,000 ceiling mentioned here includes Marine Corps and Coast Guard as well as the Navy proper. For the latter alone the ceiling then was 3,006,000.
system of "pre-commissioning" or team training for crews of Naval vessels was instituted. Third, intensified use of training aids speeded up the educational process. Fourth, training periods had to be shortened.

The second phase of the problem -- reviewing and adjusting the Navy's use of personnel -- was attacked in several ways. The Manpower Survey Committee set up by order of Secretary Knox on November 12, 1943, reviewed the complements of Naval Shore Establishments, recommending re-assignment to more urgent work of a large number of officers and men. Toward the end of the fiscal year, a diminished need for men in the Armed Guard, in coastal patrols, in some Atlantic stations, and in other activities permitted plans for shifting these men to other assignments.

All of these adjustments, however, were not sufficient to allow the Fleet to be manned under the personnel ceiling then existing, and by the close of the 1944 fiscal year, the Navy was preparing to recommend to you an increase in its authorized strength.

Discussion of the Problem

The 1944 fiscal year broke all records for induction of Navy personnel. The combined strength of the Navy, Marine Corps and Coast Guard reached 3,623,211 on June 30, 1944, an increase during the year of almost
1,420,000. This rate of expansion exceeded all previous records for the United States Navy and certainly surpasses the expansion of any navy, in any nation, at any time in history.

By the end of the fiscal year 1944, the Marine Corps, and Coast Guard had virtually reached their maximum authorized strengths and were preparing to go on schedules of inductions which would provide for replacements only. The Navy itself, however, still had ahead of it at least another year of net increase in personnel.

The Navy, excluding the Marines and Coast Guard, inducted and trained during the fiscal year 1944 approximately 1,500,000 new officers and men. This was the largest training job ever undertaken by the Navy.

The magnitude of the Navy's training task stems from the necessity for manning the world's greatest naval force predominantly with men who have had no previous seagoing experience. When our big new warships start their shakedowns, as much as 87% of the crews have never been to sea before. Of a total of 2,981,365 persons in the Navy itself on June 30, 1944, less than 12% were in the service prior to Pearl Harbor. With ingenuity and courage, young Americans of this generation have gone down to the sea, learning to
handle and fight intricate modern warships in a manner which should make the men of this Navy legendary.

The complexity of the Navy's training activities is reflected in the fact that new personnel must be trained to proficiency in more than 450 enlisted specialties and petty officer ratings which are indispensable to man, fight, and maintain the highly complicated mechanism of a modern Navy.

The measure of the Navy's training accomplishment depends upon whether men are ready and trained to man the ships and planes as they come off the ways and out of the factories. The evidence of success lies in the fact that no vessel or unit has been delayed in commissioning through lack of trained personnel. In two and one-half years ended June 30, 1944, the Navy has trained the greatest citizen naval force in history. And it has produced seasoned reserve personnel with extensive combat experience.

The training of the Navy of 1944 has been achieved by a great expansion of the naval training establishment, the channeling of aptitude by selection and classification of previously acquired civilian skills, standardized curricula, practical instruction, including the use of training aids, and intensified team training of groups ashore prior to duty afloat and abroad.
Prior to the inception of the Navy's intensive shipbuilding program in 1940, the Navy had in operation a training establishment of approximately 75 schools with an average attendance of 10,000 personnel. In addition the Navy operated two air training schools with an attendance of 865 men which produced an average of 350 pilots a year.

The Navy at the end of the 1944 fiscal year had a total of 954 schools with an attendance of 510,000. Of these schools 455 were maintained for training officers and officer candidates, 413 for training enlisted personnel, and 86 for the training of both officers and enlisted personnel.

The Navy's schools for training officers and officer candidates fall into two principal groups:

1. Six Naval Reserve Midshipmen's Schools have sent a total of 41,689 deck and engineering officers to duty assignments throughout the Naval establishment. These schools, established since 1940 for the training of officer candidates from civil life and from the enlisted ranks, are the Navy's principal source of young, seagoing officers, and 95% of their graduates are serving at sea.

2. Knowing that Selective Service would in time diminish the supply of men between 18 and 21 years upon
which the Navy could depend for additional officer candidates, the Navy on July 1, 1943, instituted the Navy College Program (V-12) for the preliminary training of young officer candidates. A year later, on June 30, 1944, the Navy College Program (V-12) was operating 264 units at 202 colleges and universities and had a current attendance of 63,000 officer candidates. Since its establishment, the V-12 program has delivered more than 23,000 qualified officer candidates to the Reserve Midshipmen's Schools, Supply Corps Schools and Marine Officer Candidates' Schools. In addition to this number, 2,600 officers were commissioned directly from Naval Reserve Officer Training Corps, now a part of the V-12 program, and the medical and dental schools have supplied the Navy with 1,400 doctors and dentists.

The Navy's training schools for instruction of enlisted personnel fall into two groups:

1. Recruit training -- or "boot" training -- is provided to new enlisted personnel at eight of these schools which had a total attendance of 224,829 at the end of the fiscal year. During the 1944 fiscal year 1,083,938 men and women completed "boot" training and were passed into service or into advanced enlisted training schools.
2. To provide advanced and specialized training for enlisted specialists, 405 schools are maintained with an enrollment, as of the end of the fiscal year, of 146,405. These schools had an output of 500,388 during the year.

During peacetime an average of four years was required to train a petty officer, third class. A young officer was not usually assigned to take a deck watch under way until he had spent two years at sea following his four years at the Naval Academy. Today, by utilizing civilian skills and by intensifying training, the Navy sends petty officers, third class, to specialized duty as soon as seven months after their first enlistment, and young officers stand watch in the vessel for which they have been qualified after an average time of six months.

The magnitude of the shipbuilding program and the urgent need for crews with maximum team training before going to sea made advisable the establishment in January 1943 of operational and pre-commissioning training activities, a development unique in naval instruction methods. Instead of sending officers and men already skilled in a specialty directly to sea after preliminary training at officers and enlisted service schools, the Navy assembled the officers and
men of a new ship's company to train as teams ashore at operational and pre-commissioning training bases.

Prior to the commissioning of a new vessel, the new crew is gathered together and becomes a ship's organization on land. Composed of a nucleus of experienced personnel drawn from the Fleet, these crews draw their remaining personnel directly from training schools, taking men with no previous sea or combat experience. Thereafter, the men of the crew live together and in all respects operate together as if in fact they were at sea. As members of teams who will later serve together in combat, officers and men are given advanced training in the scores of specialties required to master the complicated mechanism of the modern Naval vessel. The veteran personnel, brought back from the Fleet, are responsible for bringing the new men, lately from indoctrination and training schools, quickly to the high point of efficient team operation which conditions in action require. As a result, members of the new crew, when assigned to their new vessel, possess far more practical training as fighting units than was possible under previous methods of instruction ashore. By the continuation of training at sea, seasoned personnel can be developed in months rather than years. For example --
Charles William Fred, of 241 West Exchange Street, Akron, Ohio, was an eighteen-year old apprentice machinist when he reported to the Great Lakes Naval Training Station for induction into the Navy on July 7, 1943. He began his recruit, or "boot," training at the Great Lakes Naval Training Station on July 14, completing it about two months later on September 9, 1943. At that time he received the rating of fireman, third class.

Fireman Fred was assigned to the Naval Training School (Basic Engineers) at Great Lakes, Illinois, for further instruction, which he began on September 23, and which he completed on November 18, 1943, finishing with an average of 90 and standing sixteenth in his class of 222. He was advanced to fireman, second class.

Three weeks later, on December 6, 1943, Fireman Fred reported to the Nordberg Uniflow Steam Engine School at Milwaukee, Wisconsin, for a two weeks course in steam engines of the type used aboard escort aircraft carriers. Upon successful completion of this course, Fireman Fred had completed his formal schooling in the Navy slightly less than six months after he was first inducted.
On December 29, 1943, he began his pre-commissioning training at the Receiving Station, Puget Sound Navy Yard, Bremerton, Washington. Here Fireman Fred became a member of an actual ship's company ashore, working and training for a month with other members of the crew destined to serve aboard the escort carrier U.S.S. MARCUS ISLAND.

Fireman Fred reported aboard the MARCUS ISLAND on her commissioning date, January 26, 1944, seven months and nineteen days after he first entered the Navy and just one day before his own nineteenth birthday. The next month was spent learning his duties aboard ship while the MARCUS ISLAND completed her fitting out at the Puget Sound Navy Yard.

On February 21, 1944, the MARCUS ISLAND, ready for her shakedown, put to sea. Thus, Fireman Fred, a landsman who had never been to sea before, was, within eight months after joining the Navy, one of a team of men, mostly like himself, who were taking to sea a 9,000-ton aircraft carrier.

The MARCUS ISLAND's shakedown actually turned out to be a series of cruises delivering planes
to Pacific island bases, so that the crew, including Fireman Fred, had their first sea training doing actual work in the Navy's logistic operations. By July 3, 1944, the MARCUS ISLAND, with Fireman Fred now advanced to Machinist's Mate, third class, was back in San Diego for her post-shakedown check up.

At the end of this check up, the MARCUS ISLAND -- including Machinist's Mate Fred, who had been in the Navy one year and five days, and who had served at sea four months -- was ready for a combat assignment.

The name of Machinist's Mate Charles William Fred appears on the September 30 Muster Roll of the MARCUS ISLAND. Therefore, he probably was aboard her when she fought in the Second Battle of the Philippine Sea, October 23-25, 1944, eight months after he first went to sea.

Ensign Maynard James Mitchell, A-V(N), USNR, and William Clifford Pinkerton, Aviation Radioman, 3/c, USNR, are today serving aboard the aircraft carrier SHANGRI-LA as pilot and combat aircrewman. These two men are a fighting team in the Navy's air arm. The following chronology of their training typifies the
the skill and adaptability with which young men have learned their role in a sea-going air force.

Maynard James Mitchell, 2437 Highland Street, Berwyn, Illinois, was a student at Cicero Junior College when he was accepted for enlistment as an Aviation Cadet, V-5, by the Naval Aviation Cadet Selection Board, Chicago, on November 3, 1942. He was just four days past his eighteenth birthday.

Cadet Mitchell was called to active duty on December 5, 1942, and ten days later, after physical examination and indoctrination, he reported for civilian pilot training at Texas College of Mines, El Paso, Texas. Ten weeks later he began Naval pre-flight training at Athens, Georgia, where he reported on February 25, 1943. (While Mitchell was still in pre-flight training, Pinkerton, his future combat aircrewman, was entering the Navy at Harrisburg, Pennsylvania, on May 3, 1943.

On May 17 Cadet Mitchell completed his pre-flight training with a mark of 3.18 -- 4.0 is perfect -- and was transferred to the Naval Air Station, Memphis, Tennessee, for primary flight training. He probably flew solo for the first
time about the end of May, roughly five and a half months after he had first reported for training.

Completing his primary flight training in three and a half months Cadet Mitchell reported to the Naval Air Station, Corpus Christi, Texas, on August 30, 1943, for intermediate training. Here he spent his first anniversary as a member of the Navy, remaining in intermediate training until February 2, 1944. On that date he accepted his appointment as an Ensign in the United States Naval Reserve and was designated a Naval Aviator. Ensign Mitchell had earned his Navy wings within thirteen and a half months after he had first reported for training in the Navy. The following day, February 3, 1944, he was detached from the Naval Air Station at Corpus Christi and was ordered to report on February 9 to the Naval Air Station, Deland, Florida, for operational training. At Deland Ensign Mitchell met for the first time Aircrewman Pinkerton.

William Clifford Pinkerton had been in the Navy nine months when he met and teamed up with Ensign Mitchell at Deland. Pinkerton, who had been born, finished high school and found a
railroad job in Lykens, Pennsylvania, was nearing his nineteenth birthday when on May 3, 1943, he enlisted as an apprentice seaman.

He was called to active duty a week later and ordered to the Naval Training Station, Bainbridge, Maryland. On July 6 he completed eight weeks of recruit training there, advancing to Seaman second class.

On July 27, 1943 (while Ensign Mitchell was still a Cadet in primary training at Memphis) Pinkerton was transferred to the Naval Air Technical Training Center, Jacksonville, Florida, for instruction at the Aviation Radioman's School. This course lasted four months and Seaman Pinkerton, completing it on December 4, 1943, was advanced to Seaman first class (ARM) three days later. Next he received a brief ten-day course at the Aviation Radio Operator School.

Having finished his radio instruction Seaman Pinkerton was confronted with a new subject, gunnery. On December 21, 1943, he was transferred to the Naval Air Gunnery School at Jacksonville and on February 2, 1944, after successfully completing training in all types of machine guns and turrets, was recommended for
operational training in order to qualify as a combat aircrewm an. On that date he was transferred to the Naval Air Station, Deland, Florida and shortly thereafter met Ensign Mitchell for the first time.

Ensign Mitchell and Seaman Pinkerton finished their operational training together as a Navy bomber crew on April 13. Ensign Mitchell had been in the Navy sixteen months. Pinkerton, who now had a petty officer's rating of Combat Aircrewm an, ARM 3/c, had served one month short of a year.

After another month of rapid-fire refresher assignments Ensign Mitchell and Petty Officer Pinkerton reported to a new bombing squadron at Wildwood, New Jersey on May 19, 1944. For the next five and a half months the squadron trained together from its land base and Mitchell and Pinkerton, having already learned to operate as a team, now learned their part in the larger team which made up the squadron.

On November 4, 1944, Ensign Mitchell and Petty Officer Pinkerton, together with the rest of their squadron, reported aboard their new aircraft carrier for the first time. Now that
carrier is en route to its baptism in fire, bearing a pilot and aircrewman who first met less than a year ago, who joined their squadron about ten months ago, and who first set their plane down on the carrier deck three months back.

At the outset of its program to build the greatest fleet in history, the Navy had had no previous experience to indicate whether in limited time it could thus train to expert proficiency the large number of civilian reserves necessary to man the great new sea and air force. But the job is being done. The trained competence of naval officers and men afloat and their ability to learn quickly and to work and fight together with skill and courage are reflected in the victories of our Fleet.

As the 1944 fiscal year drew to a close with the personnel ceiling for the Navy (excluding Marines and Coast Guard) still fixed at 3,006,000, the Navy faced the prospect of a static number of men, but an expanding number of ships and planes. In spite of the work of the Manpower Survey Committee, suggesting the reassignment of personnel, and in spite of a review of the operating force plan, the Navy could foresee a manpower shortage within three months after the end of the
1944 fiscal year. There were two reasons why this condition had developed:

1. Since the beginning of the war, the Navy frequently had had to revise production schedules to meet changing material requirements. Amphibious warfare particularly, since it lacked established standards of measurement, imposed the necessity of reviewing and re-estimating at every important juncture the changing requirements resulting from battle experience. Shifting material production was paralleled by similarly revised calculation of required personnel.

2. While the war in the Pacific was by no means approaching an end, it had been possible by June 30, 1944 to strike at Japan's intermediate defenses sooner than was expected. We moved faster than we had anticipated. Additional personnel were needed to keep pace with the acceleration of operations. Men who might not have been needed until late in the next fiscal year now had to be drawn into service between October 1944 and July 1945 to assure successful operations on the revised time-table. For the most part the additional personnel were needed for manning new amphibious craft and auxiliary vessels going into commission in 1945.

Therefore, the Navy began preparing estimates of the additional enlisted strength which it would require
during the 1945 fiscal year. This increase was not approved by the Joint Chiefs of Staff and by the President until after the close of the 1944 fiscal year. However, by June 30, it became apparent that, even after full allowance for the prospective increase, the Navy in the 1945 fiscal year would have to train or re-train less than half of the personnel trained in the 1944 fiscal year. In other words, the peak in training activities had been reached and passed during the fiscal year which ended June 30, 1944.

Conclusion

With the great load of mass training behind it, the Navy still has the never-ending responsibility of improving its training techniques. But in the years following the 1944 fiscal year, personnel problems, other than training, will demand an increasing share of attention. Among the most important of these are the following:

A. In spite of its past efforts, the Navy has not yet solved the problem of rotating personnel so that officers and men who have served overseas for long periods may be returned to the United States on furlough. This rotation, which will become more important to morale as the Pacific war continues, deserves
and shall receive the best efforts of the Navy. It should be supported by improvement in all of our welfare and recreational work.

B. The problem of properly placing and utilizing personnel is one which is never successfully terminated. Although the Navy uses a system of tests to ascertain civilian skills adaptable to Navy work, the problem of measuring skills and of placing personnel so that they will be used to a maximum is, like the related training problem, one which will require unending attention.

C. A third problem which will become more pressing as the end of the war approaches is the proper relationship between the regular Navy and the Reserve, with particular attention to offering the most able Reserve officers and enlisted men status, opportunity and prestige in the permanent service of the Navy.

D. Preparation of a personnel demobilization plan has begun and its urgency will increase as the end of the war approaches. The Navy expects to be ready to handle demobilization by that time. Unlike the Army, however, the Navy anticipates no partial demobilization at the end of the war in Europe.
Problem V

HEALTH

(NOTE: This section has not been completed)

By the end of the 1944-45 fiscal year, the studies previously made had shown that our problem was fivefold.

A. Centralized direction of procedures, from budget making to distribution, should be established, subject to the administrative needs of the Army. Financial reports should include the political analysis of Navy operations.

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* A memo from Mr. X, dated 1945, discussing the problems faced by the Army.
Problem VI
HANDLING THE NAVY'S FUNDS

The Problem

The people of the United States, their representatives in Congress, and the executive heads of the Navy must know what the Navy does -- and intends to do -- with the public funds appropriated to it. The problem is to arrange for fiscal machinery which will provide prompt and accurate accounts of the Navy's finances, together with a critical analysis of the uses to which the money is being placed.

The Solution

By the end of the 1944 fiscal year, three reports previously made* had shown that the solution for this problem is fivefold.

A. Centralized direction of Navy fiscal procedures, from budget making through auditing, should be established, making available to the administrative heads of the Navy the financial reports which they need for critical analysis of Navy operation.

* A memo submitted February 23, 1943, to the Paymaster General by Mr. N. P. Cassidy; a report submitted by Mr. Paul Grady to the Under Secretary on April 5, 1943; the McNeil Plan, submitted to the Paymaster General November 26, 1943.
B. Overlapping accounting activities of the various bureaus must be untangled because they now result in a confusion of conflicting financial reports.

C. The 900 Navy field disbursing offices making payments to vendors must be consolidated into approximately fifteen regional offices to reduce the scattering of work and records.

D. Keeping of detailed accounts, which now is congested in Washington, should be decentralized to these fifteen regional offices, retaining only master accounts in Washington. Changes mentioned here and in paragraph C should make possible current, accurate reports on Navy commitments and expenditures.

E. Changes in appropriation structure may be necessary in order to provide better fiscal administration.

Discussion of the Problem
There are four stages in Navy financial operations. The first stage is justification to the Congress of funds and authority required by the Navy to carry out its programs and to meet contingencies as they arise.
The second stage is receipt by the Navy of authority from Congress to incur obligations for specific or approximate sums of public money. The total of these grants from Congress represents the Navy's financial ability to conduct its business. (Congressional grants may take one of two forms. Congress may first authorize the Navy to contract for a stated amount of work and then subsequently Congress must appropriate actual cash to defray these contracts. Or Congress may appropriate the cash in the first instance without a prior authorization.)

For the year ended June 30, 1944, the Navy received from Congress authorizations amounting to $28,892,000,000 and appropriations to defray these and earlier authorizations amounting to $29,386,000,000.

From July 1, 1940, through June 30, 1944, Congress has authorized a Navy program estimated to cost $118.2 billion. To finance these authorizations, Congress has appropriated $105.4 billion, leaving about $13 billion of authorizations to be financed out of future appropriations. (These totals include $21.1 billion of authorizations and $26.5 billion of appropriations for the 1945 fiscal year.)
The third stage in Navy financial operations is the commitment of these authorized funds by the Navy for the various projects in the Navy program. These commitments take many forms: contracts, letters of intent, orders, and other legal obligations, plus requisitions, unsigned letters of intent and Bureau allotments. They represent commitments of the Navy to pay out funds for goods and services.

Commitments into which the Navy has entered have risen from an annual rate of $12.7 billion in the 1941 fiscal year to a peak of $26.8 billion in the 1943 fiscal year, declining slightly to $24.2 billion in the year ended June 30, 1944.

Against the total program of $118.2 billion (see above), the Navy between July 1, 1940, and June 30, 1944, committed $86.8 billion, leaving $31.4 billion uncommitted. Included in this uncommitted balance is, of course, almost all of the $21.1 billion authorized in June, 1944, for the 1945 fiscal year.

The fourth and final stage in Navy financial operations is the actual disbursement of money to liquidate the commitments into which the Navy has
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The fourth and final stage in Navy financial operations is the actual disbursement of money to liquidate the commitments into which the Navy has
entered. This expenditure takes place as the persons performing work for the Navy submit bills, invoices, and other evidences of work done.

Since the beginning of the defense program on July 1, 1940, annual expenditures by the Navy have multiplied tenfold, rising from $2.6 billion in the 1941 fiscal year to $26.6 billion in the 1944 fiscal year.

Throughout these four fiscal years the total expenditures by the Navy have been $59.7 billion. In other words, the Navy has paid out $59.7 billion in liquidation of commitments amounting to $86.8 billion (see above). The remaining $27.1 billion of commitments has yet to be liquidated as work is completed.*

The volume of authorizations, commitments, and expenditures has risen enormously. The financial mechanism of the Navy has not handled the swollen

* The figures given here for the total Navy program as of June 30, 1944, can be summarized and broken down as follows:

- Total program - $118.2 billion has been authorized of which only $105.4 billion has been actually appropriated.
- Of its total authorizations, the Navy has committed $86.8 billion, leaving $31.4 billion available for future business. Of the $86.8 billion of commitments, $59.7 billion have been paid, leaving $27.1 billion still outstanding. (Continued on next page.)
volume with ease. The responsibilities which that mechanism must discharge can be simply stated.

1. The Navy must compile its annual budget, presenting to the President and to Congress an

These over-all figures break down into the following grand divisions:

Bureau of Ships (principally for the shipbuilding program) - $7.2 billion has been authorized of which $32.3 billion is actually appropriated. Commitments amount to $31.7 billion, so that $5.5 billion of authorizations remain unused. $21.2 billion has been paid out against the commitments, leaving $10.5 billion unliquidated.

Bureau of Aeronautics (aircraft and accessories) - $25.3 billion has been authorized of which $21.5 billion is actually appropriated. Commitments are $16.5 billion, leaving an unused balance of $8.8 billion. Disbursements against the commitments are $9.9 billion, leaving unliquidated a balance of $6.5 billion.

Bureau of Ordnance (armament, armor and ammunition for planes and ships) - $20.9 billion has been authorized of which $18.3 billion is actually cash appropriations. Commitments, amounting to $14.6 billion, leave unused authorizations of $6.3 billion. Disbursements amount to $8.8 billion, so that commitments still outstanding amount to $5.8 billion.

Bureau of Yards and Docks (public works) - $8 billion, of which $6.5 billion has been appropriated, has been authorized. Commitments of $6.3 billion have exhausted all but $1.7 billion of the authorizations, and disbursements of $5.1 billion have liquidated all but $1.2 billion of the commitments.

Bureau of Supplies and Accounts (pay, subsistence, clothing, general supplies, fuel and transportation) - $19.6 billion has been authorized -- and all of it appropriated. $12.8 billion has been committed, leaving an unused balance of $6.8 billion. Disbursements against commitments are $10.8 billion, leaving $2 billion of commitments outstanding.

Miscellaneous items (training, medical care, Marine Corps, Coast Guard) - $7.2 billion, all appropriated, has been authorized, $4.9 billion committed, and $3.9 billion disbursed.
estimate of future obligations and expenditures and a request for authorizations and appropriations.

2. The Navy must record the appropriations and authorizations received, and also record against them the commitments which are entered into, showing the uncommitted balances which are available for current and future business.

3. The Navy must next audit and disburse the funds which are actually paid out in liquidation of its commitments, keeping accurate, current records of these disbursements.

4. The Navy's final responsibility is to compile summary reports from which Congress, the President and the executive heads of the Navy can determine the pace, propriety and efficiency of Navy operations.

These responsibilities were scattered throughout the Navy at the end of the 1944 fiscal year as follows:

Preparation of the Navy's budget has been the responsibility of the Office of Budget and Reports.

The work of recording authorizations and commitments entered into against those authorizations has been scattered throughout the several bureaus of the
Navy. When a procurement officer enters into a contract, he is obligated to send a copy of the contract for accounting purposes to each of three different places. One copy goes to the Finance Officer of the Bureau in Washington for which the contracting officer works, that is, Ships, Aeronautics, Ordnance, et cetera. A second copy also goes to Washington to what is known as the Central Accounting Group of the Bureau of Supplies and Accounts. A third copy goes to one of the 900 disbursing offices, the one which will handle the disbursement of funds under the contract. Each of these three recipients of contracts attempts to keep detailed records on the contracts being entered into by the Navy. Since the Navy enters into about 10,000 contracts each month, the volume of work imposed on each of these three offices has obviously been large. Practices followed in the several offices recording contracts vary, as does the speed with which each one handles its work. Therefore, although the cognizant Bureau, the field offices, and the Bureau of Supplies and Accounts each is receiving the same basic information on commitments, reports emanating from each of them differ from the reports emanating from the other two. The result is confusion over just how much of the Navy's authorizations is committed and how much remains available for future business.
The keeping of expenditure accounts is equally complicated. Money is paid on the basis of the audited invoices received from persons doing work for the Navy. About 500,000 of these invoices are received each month. Upon payment, copies of the payment vouchers are distributed for accounting purposes. One copy goes to the financial office of the Bureau having cognizance over the appropriation chargeable. Another copy comes to Washington to the Central Accounting Group of the Bureau of Supplies and Accounts. The Central Accounting Group in Washington attempts to keep detail records compiled from these 500,000 monthly payment vouchers. The task is an enormous one, and the Central Accounting Group, besides experiencing great difficulty in its efforts to keep expenditure accounting on a current basis, makes no central use of the 'books of original entry' which exist in the 900 field offices. The result is that the Navy cannot say with certainty how much money has been spent and how much remains unspent.

These procedures deny to the top management officials of the Navy Department the summary reports which they need for control of Navy funds. Information is slow. For example, the Annual Report of Naval Expenditures for the fiscal year 1943 was not published until June, 1944, eleven months after the close of the
fiscal year. Information is cast in useless, outmoded forms. For example, the summaries in the Annual Report of Naval Expenditures, using an accounting classification devised early in this century, shows no expenditures for aviation, although the Navy has spent $10 billion for aeronautical purposes in four years.

Remedies for these deficiencies have been fairly clearly set forth, as explained under "The Solution" above, in a series of studies. The key to the remedy is the creation of a Fiscal Director for the Navy Department, empowering him to unify practices, to end duplication among Bureaus, to simplify the field office system, and to decentralize the work now in the Central Accounting Group.

Conclusion

When the 1944 fiscal year closed, plans were being drawn for action in all of these directions, and within six months thereafter the Office of Fiscal Director had been created. The Navy has in mind additional measures to strengthen its financial mechanism. What remains to be done is the enormous work of putting them into effect.

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EPILOGUE

I have said that the achievements set forth in this report can be credited to the entire Navy team. That team consists of the 3,900,000 officers and men in the Navy, Marine Corps and Coast Guard. The credit is shared by all of them. However, I wish to list below certain members of that team who, because of the responsible positions which they held during the 1944 fiscal year, stood out as leaders in the Navy organization.

Under Secretary of the Navy, Ralph A. Bard
Assistant Secretary of the Navy for Air,
Artemus L. Gates
Commander in Chief, U. S. Fleet, and Chief of Naval Operations, Admiral Ernest J. King, USN
Chief of Staff to the Commander in Chief,
Vice Admiral R. S. Edwards, USN
Vice Chief of Naval Operations, Vice Admiral Frederick J. Horne, USN
Commandant, U. S. Marine Corps, Lieutenant General Alexander A. Vandegrift, USMC
Commandant, U. S. Coast Guard, Vice Admiral Russell R. Waesche, USCG
**Fleet Commanders**

Commander in Chief, Pacific Fleet,
Admiral Chester W. Nimitz, USN

Commander in Chief, Atlantic Fleet,
Admiral Royal E. Ingersoll, USN

Third Fleet, Admiral William F. Halsey, USN
Fourth Fleet, Vice Admiral J. H. Ingram, USN
Fifth Fleet, Admiral R. A. Spruance, USN
Seventh Fleet, Vice Admiral T. C. Kinkaid, USN
Eighth Fleet, Vice Admiral H. K. Hewitt, USN
Tenth Fleet, Admiral Ernest J. King, USN
Twelfth Fleet, Admiral H. R. Stark, USN

**Sea Frontier Commanders**

Eastern Sea Frontier,
Vice Admiral H. F. Leary, USN

Gulf Sea Frontier,
Rear Admiral W. R. Munroe, USN

Caribbean Sea Frontier,
Vice Admiral R. C. Giffen, USN

Western Sea Frontier, Vice Admiral
D. W. Bagley, USN

Alaskan Sea Frontier,
Vice Admiral F. J. Fletcher, USN

Hawaiian Sea Frontier,
Vice Admiral R. L. Ghormley, USN
Moroccan Sea Frontier,
Commodore B. V. McCandlish, USN

Panama Sea Frontier,
Rear Admiral H. C. Train, USN

Commandants, Naval Districts

First Naval District,
Rear Admiral R. A. Theobald, USN

Third Naval District,
Rear Admiral W. R. Munroe, USN

Fourth Naval District,
Rear Admiral M. F. Draemel, USN

Fifth Naval District,
Rear Admiral D. M. LeBreton, USN

Sixth Naval District,
Rear Admiral Jules James, USN

Seventh Naval District,
Rear Admiral W. R. Munroe, USN

Eighth Naval District,
Rear Admiral A. C. Bennett, USN

Ninth Naval District,
Rear Admiral A. S. Carpender, USN

Tenth Naval District,
Vice Admiral R. C. Giffen, USN

Eleventh Naval District,
Rear Admiral W. L. Friedell, USN
Twelfth Naval District,
   Rear Admiral C. H. Wright, USN
Thirteenth Naval District,
   Rear Admiral S. A. Taffinder, USN
Fourteenth Naval District,
   Vice Admiral R. L. Ghormley, USN
Fifteenth Naval District,
   Rear Admiral H. C. Train, USN
Sixteenth Naval District, (in enemy hands)
Seventeenth Naval District,
   Rear Admiral A. E. Smith, USN

Chiefs of Offices and Bureaus
Office of Procurement and Material,
   Vice Admiral S. M. Robinson, USN
Judge Advocate General,
   Rear Admiral Thomas L. Gatch, USN
General Counsel, Mr. H. Struve Hensel
Aeronautics, Rear Admiral D. C. Ramsey, USN
Medicine and Surgery,
   Vice Admiral Ross T. McIntire, MC, USN
Naval Personnel, Vice Admiral Randall Jacobs, USN
Ordnance, Rear Admiral G. F. Hussey, Jr., USN
Ships, Rear Admiral E. L. Cochrane, USN
Supplies and Accounts,
   Rear Admiral William Brent Young, SC, USN
Yards and Docks, Vice Admiral Ben Moreell, CEC, USN