BUREAU OF

NOVEMBER 1943

NAVAL PERSONNEL

INFORMATION BULLETIN

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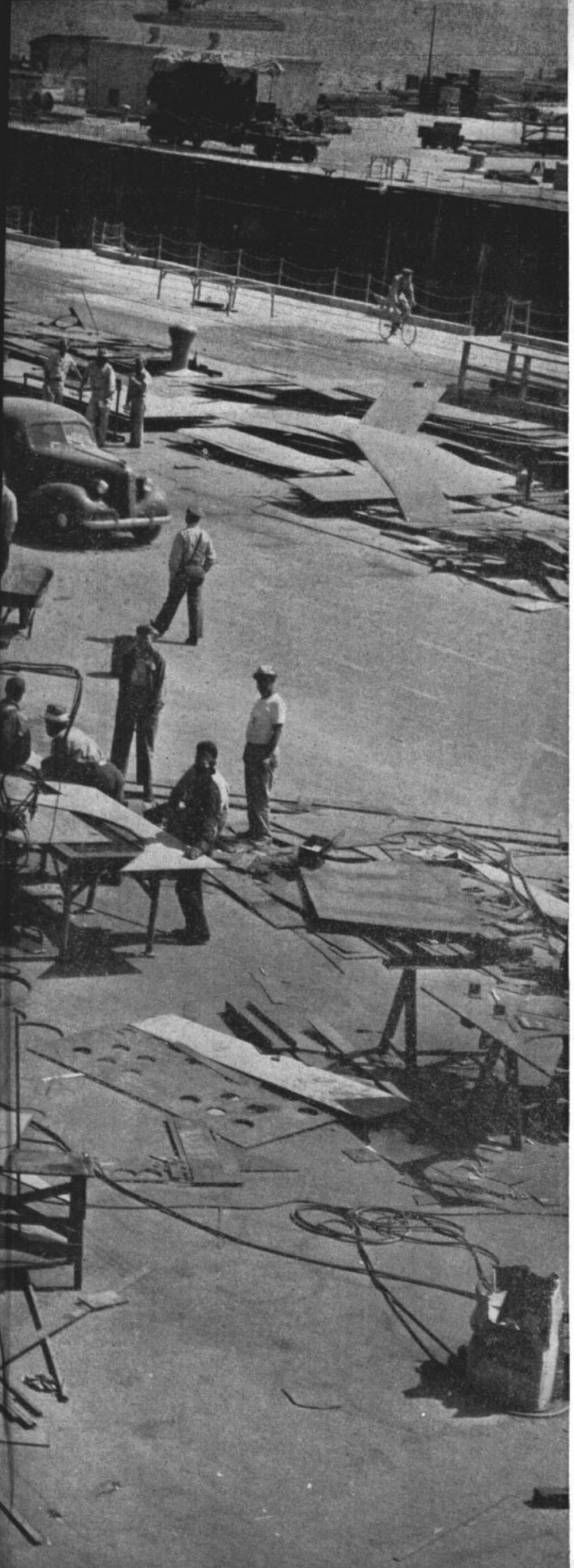
TOGETHER THEY MAKE THE NAVY

OPEN-AIR SHIPFITTERS' SHOP



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NOVEMBER 1943 NUMBER 320

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The Chief of Naval Personnel

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The Assistant Chief of Naval Personnel

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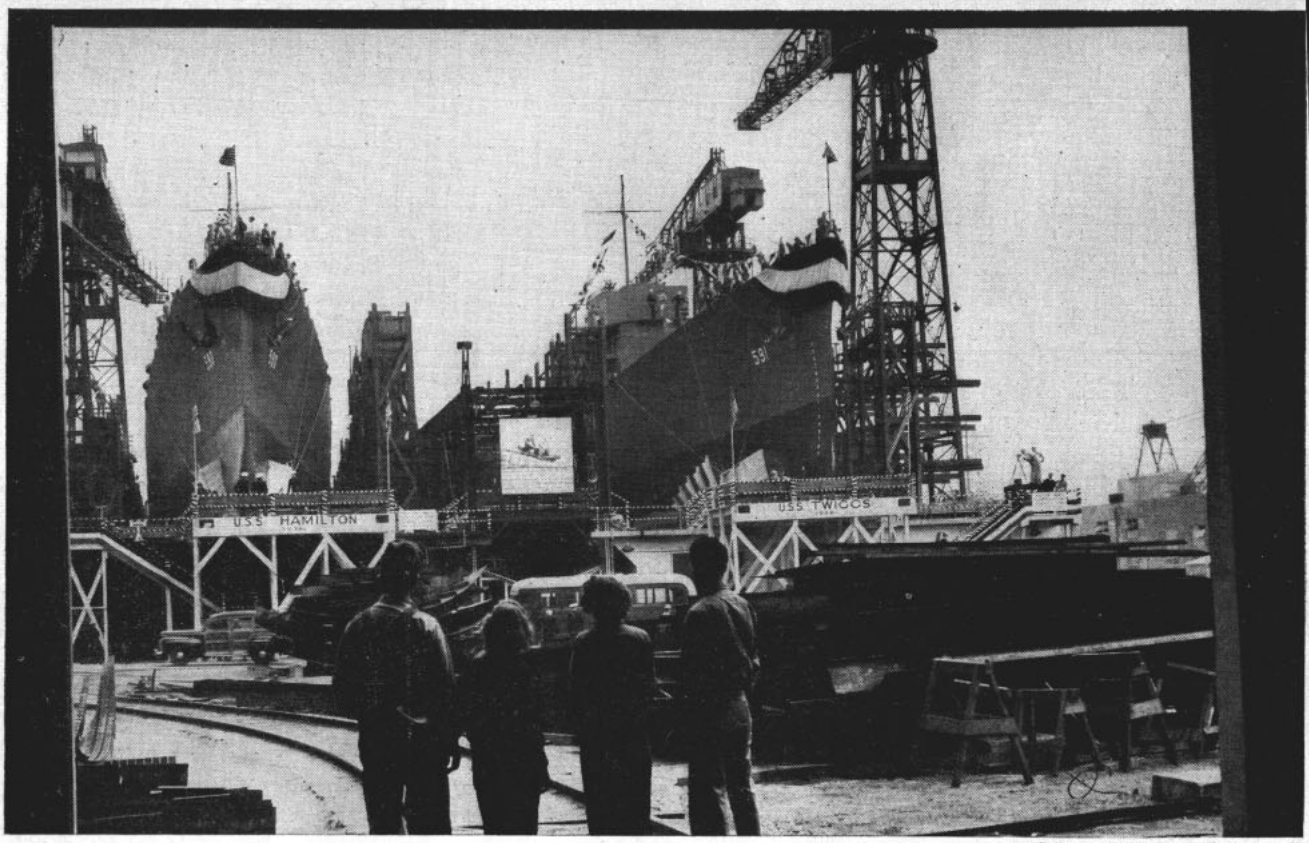


—Official U. S. Navy Photograph.

Civilian war workers watch the launching of two DE's they helped build.

America Builds World's Greatest Navy

Official Three-Year Production Report Reveals Details of Mighty Sea-Air Fleet Built by U. S.

*(Last month came official word that the United States now has the mightiest surface fleet in world history, comprising more than 14,000 vessels, and the most powerful naval air force in the world, with more than 18,000 planes. Most of this has been created in three brief years, since mid-1940. The remarkable story of that period — what was built, and where, and how—is told in the Navy's official account, "A Report on Navy Production," which is here reprinted in full.—*EDITOR.)

Modern sea-air power consists of ships, planes and shore facilities. Objective of the Navy's war production program is to obtain those instruments of power, and this report records three years' progress toward that objective.

SHIPS

The phenomenal expansion of U. S. Navy shipbuilding is unequalled in history.

In the 36 months between 1 July 1940 and 1 July 1943 the Navy completed 15,376 new ships of all types. Construction and machinery for these vessels cost over $5,300,000,000. They compose a fleet of more than 2,200,000 displacement tons.

THIS IS THE STORY of a Navy and how it grew—an expansion in ships, planes and shore facilities unequalled in history. What the men of the Navy do with those ships and planes, the Information Bulletin pictures for you every month. In this issue, on the pages that follow, you will find some of the story behind that fleet, and the men and women in work clothes who make it possible.

(Displacement tonnage, the measurement of Naval vessels, is the actual weight of the ship. Deadweight tonnage, the measurement of cargo vessels, is the carrying capacity of the vessel. A cargo vessel's deadweight tonnage is more than twice as great as its displacement tonnage.)

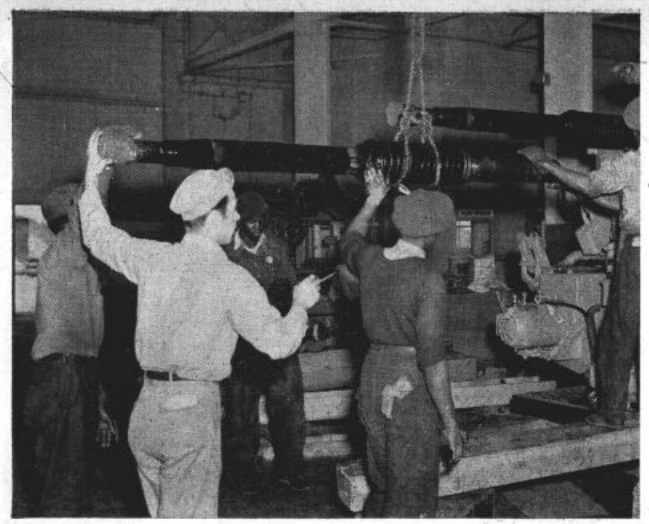
The new fleet completed since 1 July 1940—standing apart from the U. S. Navy in existence on that date—would be one of the largest naval forces in the world. It comprises:

333 combatant vessels aggregating 1,117,054 displacement tons and costing more than $3,000,000,000.

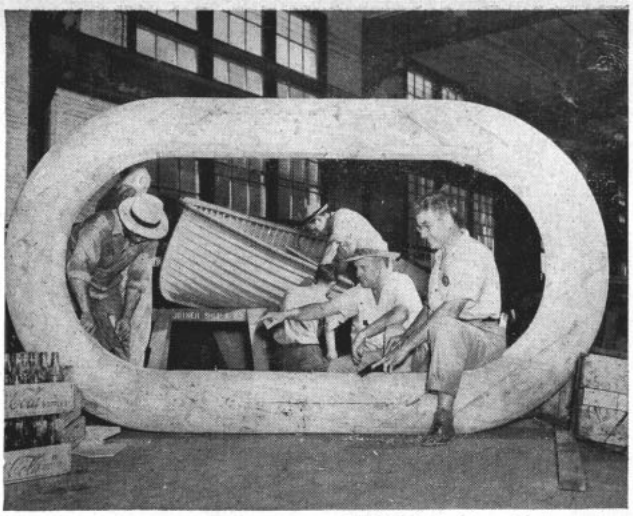
1,274 mine craft and patrol craft of 199,765 tons costing $820,000,000.

151 auxiliaries and 654 yard and district craft.

12,964 landing craft aggregating 610,781 tons and costing more than $1,000,000,000.



GUNS: Their production increased 130 per cent between the first half of 1942 and the first half of 1943. Of prime importance were anti-aircraft guns, shown under manufacture in this photograph.



—Official U. S. Navy Photographs.

SUPPLIES OF ALL KINDS: Life rafts, here being worked on by joiners of the Charleston Navy Yard, are one of thousands of miscellaneous items Navy must have. In background, other men repair a lifeboat.

Navy vessels power plants which, combined, approximate the horsepower of all hyrdo-electric facilities in the United States on that date.

About two-thirds of the horsepower in new Navy vessels is furnished by steam-driven engines. The other third is diesel propulsion.

This steep increase in production of propulsion machinery has had to be paralleled by a sharp step-up in cutting of gears, one of the most difficult industrial processes.

Ship completions measured by horsepower show the same pattern as ship completions measured in tonnage. Each six months' completions equal or exceed the completions of the prior twelve months.

WORK IN PLACE: *Completion of ships is the harvesting of the crop, the fruition of enormous prior work.*

Best measure of current work and best forecast of future harvests is the value of new construction-in-place. "New construction-in-place" means the new ships still on the ways—unlaunched—and still in the finishing basins—uncompleted. They are the ships which will appear in future completion reports.

A comparison or construction-in-place, therefore, will reflect a rise or decline before a comparison of actual completions. For example, the increase of construction-in-place from $1,800,000,000 on 1 July 1942, to $3,000,000,000 on 1 January 1943, foreshadowed the enormous increase in ship completions which is taking place during 1943-44.

Similarly, the relatively small increase in construction-in-place during the first six months of this year foretells a levelling out in the ship completion trend. Total naval shipbuilding is approaching its peak—as planned.

It has not yet achieved that peak, however. The fact that construction-in-place increased from $3,000,000,000 on 1 January 1943, to $3,200,000,000 on 1 July 1943, shows that, despite its tremendous size, the naval shipbuilding program still moves upward.

In fact, several segments of the program are moving ahead at an unabated pace. Combatant ship construction-in-place increased by almost $300,000,000 in the first half of this year, its second-largest increase. Mine craft, patrol craft and yard and district craft construction-in-place jumped from $347,000,000 on 1 January 1943, to $481,000,000 on 1 July 1943, the largest increase on record for these categories.

Landing craft construction-in-place, which skyrocketed from less than $4,000,000 on 1 January 1942, to $504,000,000 one year later, temporarily dropped back during the first six months of 1943, thereby becoming the principal reason for the slackened rate of increase in total naval construction-in-place.

BUILDING TIME: *Speed is a requisite of war production. Time required to build Navy fighting vessels of each class has dropped to record loss since Pearl Harbor.*

The aircraft carrier *Essex*, a 27,000-ton ship completed in December, 1942, was built in 20 months compared with nearly 46 months required for the carrier *Enterprise*, a 19,800-ton vessel completed in May, 1938.

The new 27,000-ton carrier *Yorktown*, which was completed in 30 per cent less time than the original 19,800-ton *Hornet*, was built in 17½ months or about half the pre-war building time for a destroyer.

The 45,000-ton battleship *New Jersey* was completed in 26 per cent less time than the 35,000-ton *Washington*. Their building periods were 33 months and 45 months, respectively.

The heavy cruiser *Wichita*, completed in 1939, required 41 months to build while the larger *Boston* completed in 1943, was built in 24. The 1939 light cruiser *Helena* was built in 36 months; the 1943 light cruiser *Biloxi* in less than 26. The destroyer *Niblack*, turned out in August, 1940, required 24 months, the *Gatling*, completed in November, 1942, took 7¼. Between the *Drum* in 1941 and the *Aspro* in 1943, submarine building time was cut 48 per cent.

The Navy's mass-production fighting ships are the destroyer escorts. To complete the first 10 of these vessels at the Bethlehem-Hingham and Consolidated Steel Yards required an average of 302 days each. The average for the most recent 10 from the same yards was 206 days, a reduction of almost one-third.

MAN-HOURS: *Speed has not been achieved by an extravagant expenditure of labor. Yards building Navy ships have made substantial reductions in the labor which they require to complete a vessel.*

The New York Shipbuilding Corporation, an old established builder of cruisers, has reduced the man hours needed to build one of these vessels by 25 per cent. The light cruiser *Cleveland*, completed in June, 1942, required 7,600,000 man hours. The light cruiser *Santa Fe*, completed in November, 1942, required only 5,700,000 man hours, a saving of 1,900,000 man hours.

The Bath Iron Works is one of the most efficient builders of de-

3-4 not rec'd.

—Official U. S. Navy Photograph.

LST's massed at a North Africa port in preparation for an invasion.

stroyers. Between destroyer *O'Bannon,* which was completed in June of 1942 and destroyer *De Haven,* which was completed in September of the same year, the Bath Iron Works cut the man hours required from 1,600,000 to 1,150,000, a reduction of 28 per cent. Consolidated Steel Company has reduced by 34 per cent the man hours which it required to build destroyers. The Bethlehem Steel Company Yard at San Pedro, California, has reduced its destroyer man hours by 21 per cent.

Landing craft construction was new for all of the shipyards which went into this program early in 1942. A large infantry landing craft completed by George Lawley and Sons in October, 1942, required 155,000 man hours to build, whereas a similar craft completed by the same yard only two months later had been cut to 84,000 man hours, a saving of 46 per cent.

AIRCRAFT

Navy aircraft production is the fastest expanding segment in the nation's air-power building program.

In the 18 months between 1 January 1942 and 1 July 1943, production of Navy planes quadrupled. In the 12 months of 1942, production of Navy *combat* planes doubled—and redoubled. Then in the first six months of 1943 it approximately doubled again.

No other portion of the great aircraft program has moved ahead so swiftly.

In the 36 months between 1 July 1940 and 1 July 1943 the Navy completed 15,567 planes of all types. (All these totals exclude planes which have been turned over to the Navy after being built under Army cognizance. They are planes built under the Navy's own supervision.) Their combined airframe weight is almost 64 million pounds.

In addition to the 15,567 Navy-built planes, the Navy has received during three years about 8,300 planes built under Army cognizance of which 7,800 were trainers and utility planes, 450 were combat aircraft.

IMPORTANCE TO STRATEGY: *Airpower is the spearhead of attack.*

Navy fighters and bombers covered the first American landings against the Axis at Guadalcanal, Morocco and Attu.

Navy bombers struck telling blows against Nazi submarines during the summer of 1943.

In the early months of the war, including the Battles of Coral Sea and at Midway, Navy bombers drove home the attacks which stopped Japan's expansion.

To replace the Navy planes lost at Midway would have required half a year at the 1940 rate of production. By June, 1942, when the battle was fought, the losses could have been made up in two weeks. Now they could be restored in less than four days.

In the air, as on the sea, therefore, one of America's great strategic advantages is its power to build—and to continue to build—the weapons of attack.

TREND OF COMPLETIONS: *Navy has concentrated on combat planes, obtaining most of its non-combat aircraft through the Army. Therefore, this section of the report will be confined to the output of Navy fighting planes.*

Following a pattern which runs through all Navy programs, production of Navy combat planes in each six months beginning 1 January 1941, has equalled or exceeded the output of the preceding 12 months. Against the 1598 Navy combat planes produced in all of 1941, 1,911 were delivered in the first *half* of 1942. The entire 1942 combat plane production was exceeded in the first *half* of 1943.

The rise in Navy combat plane production has been so steep that the deliveries in the single month of June 1943, account for 10 per cent of all the planes turned out in the three years between 1 July 1940, and 1 July 1943. No other part of the American aircraft program has shown so rapid a rate of growth.

Navy combat aircraft range from big four-engine patrol bombers to fighters.

Recent emphasis has been on

bombers. Torpedo bomber production in the first half of 1943, for example, was larger than during the preceding 30 months of the Defense Program combined. Production of dive bombers and patrol bombers in the first six months of this year approximates total production in the preceding 2½ years.

One of the special achievements has been the production of a new war-inspired, carrier-based fighter capable of matching performance with the world's best land-based fighters. Contracts for the first two experimental Navy Hellcats were let in August, 1941. First production contract for Hellcats was signed 4 December 1941, three days before Pearl Harbor. War-taught lessons were embodied in the plane as its production proceeded, and the first Hellcats were delivered late in 1942. In the first six months of 1943, monthly production has multiplied 18 times over total 1942 production, and the number of planes covered by the first three contracts has been delivered.

ORDNANCE

Firepower is a Navy ship's or a Navy plane's reason for being.

New Navy fighter planes fire in one minute five times the weight of projectiles that their 1940 predecessors fired. A modern battleship's antiaircraft fire power is 100 times what it was three years ago.

Naval ordnance production, therefore, has filled a compound demand: arming an unprecedented number of new ships and planes—and arming each ship and plane to an unprecedented degree. In addition, it has rearmed the old fleet and much of the merchant marine.

To meet these demands more than $2,500,000,000 of naval guns and mounts, ammunition, torpedoes, mines, depth charges, bombs and fire control devices have been produced since 1 July 1940. This output is without parallel in Naval history.

Rate of production has increased 24-fold. From $46,000,000 in the last six months of 1940, production of these major Naval ordnance items shot up to more than $1,000,000,000 in the first six months of 1943.

Like ship completions, ordnance production in each six months has surpassed the record of the preceding 12 months. Against $275,000,000 produced in all of 1941, $378,000,000 was produced during the first half of 1942. In turn, the 1942 total of $1,086,000,000 was surpassed in the first half of 1943 when production climbed to $1,099,000,000.

Four great subdivisions make up more than three-quarters of the Naval ordnance production program. They are:

Guns and mounts, including fire control.

Ammunition.

Underwater ordnance — torpedoes, mines and depth charges.

Aviation ordnance — bombs, fuses and aviation fire control.

GUNS AND MOUNTS: *Of all Naval ordnance programs, the largest is for guns, their mounts and their intricate fire control devices.*

Nearly half of the $2,500,000,000 spent on the four major Naval ordnance items has been for gun-and-mount assemblies. Their production increased 130 per cent between the first half of 1942 and the first half of 1943, rising from $208,000,000 to $482,000,000.

By the first half of 1943 four gun-and-mount assemblies made up 97 per cent of the dollar value of total gun-and-mount production.

They are:

20-mm antiaircraft guns
40-mm antiaircraft guns
3″/50 cal. double purpose guns
5″/38 cal. double purpose guns

They are the great mass-production Naval guns of this war. They are the principal armament of destroyers and destroyer escorts, the two types of vessels now being completed in the greatest numbers. They make up the secondary and antiaircraft batteries of cruisers, carriers, and battleships. They are responsible for the enormous antiaircraft firepower of surface vessels, enabling the batteries of Battleship *X* and *Enterprise* to shoot down 62 Jap planes in the Battle of Santa Cruz.

More than 66,600 of these guns (counting number of barrels) have been produced since the defense program started. Firing together, these new guns would throw 4,600 tons of projectiles per minute against the enemy.

The 5″/38 cal. double purpose gun, a standard weapon against surface craft and now the heaviest antiaircraft weapon, was developed by the Navy. Therefore, it was in production in small volume when the Defense Program started. Because both 20-mm and 40-mm antiaircraft guns were new in this country, their production did not start until 1941 and 1942, respectively. Production of dual purpose 3″/50 cal. guns also began in 1941.

Output of each of these guns has doubled and redoubled several times. In the first six months of 1943, for example, the Navy produced almost as many 3″/50 gun-and-mount assemblies as it did during the preceding 18 months.

AMMUNITION: *Modern guns devour ammunition. Therefore, among the four major ordnance programs, ammunition has become steadily more important as fighting intensifies, rising from 22 per cent of the total in the first half of 1942, to 36 per cent in the first half of 1943.*

The rate of production has increased abruptly. Between the first half and second half of 1942, Naval ammunition production trebled in value. In the first half of 1943 production was 170 per cent of the output in the last half of 1942. About $725,000,000 of Naval ammunition has been produced in the 18 months ending 1 July 1943.

Eighty-six per cent of the Naval ammunition produced in the first six months of this year was for 20-mm, 40-mm, 3″/50 cal. and 5″/38 cal. guns.

(*Continued on Page 58*)

And a BIGGER Navy to Come!

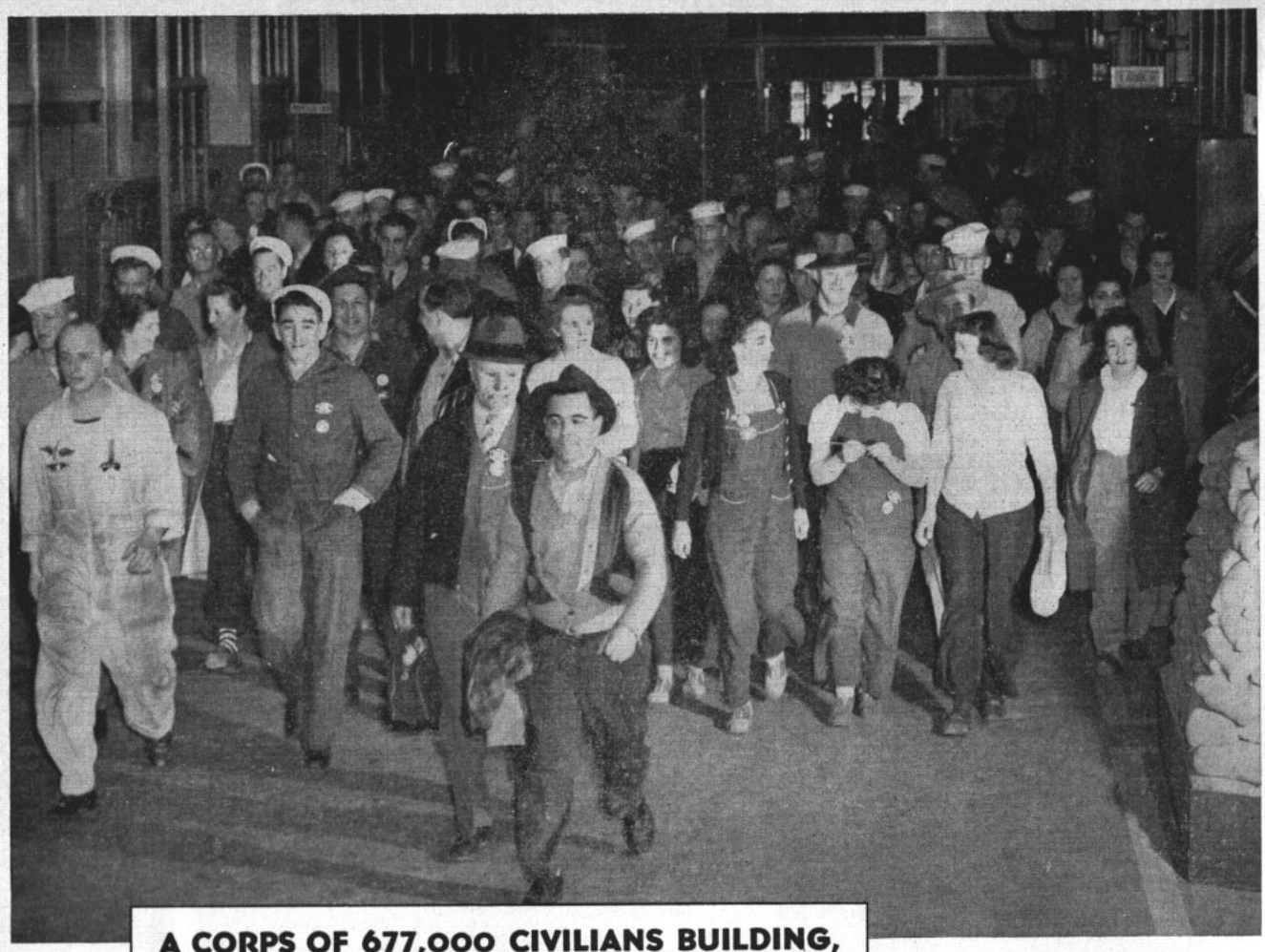
By the end of 1944 the Navy will have the unprecedented total of 41,179 vessels of various types and sizes, as compared with its strength at the end of 1939 of 1,091 vessels. This figure has just been disclosed in an address by Senator David I. Walsh of Massachusetts, chairman of the Naval Affairs Committee of the Senate. Other contrasts covered by Senator Walsh:

PERSONNEL: Naval personnel on 30 June of this year was almost 14 times larger than on 30 June 1939. At the current rate, every three months we turn out as many men from naval training schools as constituted the entire active strength of the Navy in 1939.

SHIPS: In September 1939 the shipbuilding program planned construction of 17 combatant vessels. Today's program contemplates the construction of between 1,000 and 2,000 combatant ships.

NAVAL AVIATION: On August 1 of this year the aeronautic organization of the Navy was three times larger than it was at the same time last year. The Navy at present is operating on a training program with an input of 30,000 pilots and 100,000 enlisted men a year in aviation schools.

SHIPYARD WORKERS: In September 1939 there were approximately 50,000 workers engaged in naval shipbuilding. Today, exclusive of ship-repair workers, there are more than 600,000.

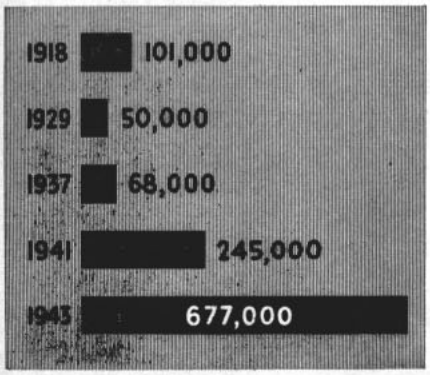


A CORPS OF 677,000 CIVILIANS BUILDING, SERVICING AND REPAIRING THE FLEET—

. . . . They're In The Navy, Too

Behind the mighty sea-air force revealed in the Navy's three-year report on production *(page 2)* stands one of the largest civilian organizations of workers in the world— 677,600 men and women . . . more than 13 times as many as the Navy had in peacetime. If all these workers were in one community, they would be the tenth largest city in the country, on the basis of 1940 census figures.

NAVY CIVILIAN EMPLOYMENT



Through all wars civilians have helped to make the Navy. The Navy's policy has been to use civilian personnel to the maximum extent possible; to regard the man in uniform as primarily a man of the fleet, using him ashore only so far as might be necessary for the more efficient employment of the Navy and for purposes of directing and supervising activities of civilian personnel.

At the end of the last war, in 1918, civilian personnel of the Navy numbered 101,000. At the "mid-point" of 1929—halfway between our entrance into the first World War and Pearl Harbor—this number had dropped to a peacetime level of 50,000. Now, at the end of almost two years of war, it has mounted until more than two-thirds of a million people are working directly for the Navy, exclusive of the hundreds of thousands in other industries whose work contributes to the Navy's war effort.

Who are these people behind the ships? What do they do, and where do they do it? What's their "chain of command"? What are *their* battle stations in this war?

They're workers, mechanics, builders, technicians. They range from unskilled labor through the various classifications of helper and journeyman. They're supervisory personnel, clerical and administrative workers, sub-professional and professional workers. They can be found in some 546 naval establishments throughout the country, and at bases abroad— 20,000 of them, for instance, at Pearl Harbor.

At the top, not only of civilian personnel but of the entire Navy, is the SecNav: Frank Knox. Under Mr. Knox, and in direct supervision of civilian personnel activities of the Navy is Ralph A. Bard, Assistant Secretary of the Navy. His is the responsibility for the Navy's labor supply; the management of its internal personnel; labor relations; training

of civilian workers; and, in general, the whole business of procurement and use of the Navy's civilian personnel.

Other top civilians of the Navy are James V. Forrestal, Under Secretary of the Navy, who numbers among his responsibilities the procurement of Navy materiel; and Artemus L. Gates, who, as Assistant Secretary of the Navy for Air, heads up activities of the world's largest naval air force.

Below these four men are some 677,596 others, with by far the largest number of them located in the Navy yards, helping to carry on the greatest naval building program in history. Here they build the ships. Here they nurse the ships when they come back, repair their wounds, make them good as new again.

Countless other thousands can be found at naval air stations, where they convert and repair the planes of the fleet, service a carrier's planes while the carrier herself is in dry dock, overcome obsolescence of planes by fitting them with the latest equipment and building new improvements into them, convert aircraft to certain specific tasks, and maintain the patrol planes that cover our coasts.

At naval ammunition depots they see that the powder is manufactured, the shells loaded, the fuzes installed. At naval supply depots they supply the fleet with everything it needs, and at operating bases these supplies are put aboard the great ships, in for provisioning.

At naval torpedo stations they manufacture a large part of the torpedoes used by fleet, aerial and submarine forces, and at the naval aircraft factory they help in developmental and experimental work on new planes and on conversion of others. At naval training stations they perform the continuing storekeeping and clerical functions which keep a training station a going concern.

There are civilian inspectors who spend their days going into plants that sub-contract for the Navy, and reporting their findings to inspection officers of the Navy. There are civilian guards, and thousands of workers in the Navy's administrative offices in Washington and elsewhere in the country.

In all these assignments that are necessary to a war, civilians are under the direct supervision and control of Navy personnel, making them truly part and parcel of the Navy's own organization.

The Importance of Civilian Personnel

To the American public, the Navy means ships and planes at sea manned by officers and men in uniform. Through communiques, the public learns of decisive actions such as Savo Island and Midway. Behind the officers and men of the fleet, behind the ships and planes in action at sea, however, are comparatively anonymous men and women not in uniform, but in the working clothes of civilian employes of Naval Shore Activities. Without these people, recent victories and ultimate mastery over the enemy would not be possible.

These civilians build and repair the ships, planes, and equipment of the Navy. Most of them have a deep personal interest in their work. Many older workers are ex-Navy. Many are wives, brothers, fathers, sisters, mothers or sweethearts of men of the fleet, and thus have uncommon interest in what they do and in its relationship to their loved ones, to their safe and victorious return.

Enormous growth of shore activities to their full wartime role has engendered many difficulties of labor supply, training, supervision, and related problems of expansion. Despite these difficulties, the Navy afloat and ashore is proud of its civilian employes and their production record, proud of their deep interest in the fleet, proud of their love for the ships they have built and maintained, and proud of the exemplification of democracy by these civilians, who in contrast with the slave labor of our enemies, are building and maintaining a Navy destined for victory because free men and women have put their hearts into our equipment, ships and planes.

Frank Knox

SECRETARY OF THE NAVY

When a Captain "Mike" Moran runs into a fleet of Jap ships and says, "Pick out the biggest one and fire,"—these are the people who make it possible . . . who built the ship and forged her guns, protected her with armor and gave her engines and electrical controls, who built the shells that went into the guns, so that they would go fast and true.

These are the people you will read about in this issue: how they salvage and repair the Navy's ships (page 10); how they help keep our air force in the air (page 16); how they supply the Navy (page 20); their part in the victories of "Battleship X" (page 22); what kind of people they are, and their stake in the Navy (page 24); how some of their ideas are helping to shorten the war (page 26); the Army-Navy 'E's they have won (page 30); the dull jobs that have to be fought at desks (page 32); what women are doing on the production front (page 33); how they built the landing craft that made invasion possible (page 36); and what the Chief of Naval Personnel has to say about them (page 40).

CIVILIANS WORK MIRACLES OF SH

Salvage and Repair Crews Put Crippled Craft Back on Duty

Into Philadelphia one day came the 314-foot USS *Blakeley*, an old four-stack destroyer, with more than 60 feet of her bow blasted away by a torpedo. She had made her way 2,000 miles north from the Caribbean, navigating by old style magnetic compass. A stubby false bow had enabled her to push through the sea.

In the Philadelphia drydock, the *Blakeley's* crew saw that they had tied up bow to bow with an identical old destroyer, the USS *Taylor*. A sister ship of the *Blakeley*, the *Taylor* had been rescued from the junk basin for just such a transfusion as was promptly attempted.

Pneumatic drills clattered and welding torches flared as civilian workers cut and sliced at the *Blakeley's* torn bow. Meanwhile, in the same drydock, other workmen, calculating their work to the fraction of an inch, were cutting off the bow of the *Taylor*.

Finally 60 feet of the *Taylor's* bow had been removed. Huge cranes deposited the *Taylor* bow forward of the *Blakeley*. The two hulls moved together. They fitted to the fraction of an inch.

The *Blakeley* put back to sea. She had some other new fittings, too, including a regulation anchor to replace the makeshift anchor she had used on the trip home. The makeshift anchor had consisted of a truck axle and differential housing fastened at right angles to a length of railroad track.

The story of the *Blakeley*, an epic in itself, is only a minor miracle in comparison to many other salvage and repair jobs performed by naval civilian personnel in World War II. Pearl Harbor and the *Lafayette* (ex-*Normandie*) were jobs of immense complexity. There were also the *Boise*, the *San Francisco*, the *Shaw*. There were jobs for the British Navy, too.

Results to date? Only three of the ships sunk or damaged at Pearl Harbor are not afloat today. The *Lafayette* is afloat. Many a British warship is back in action. The re-

—Official U. S. Navy Photograph.

DAMAGE: This cruiser, battered in battle, was repaired by civilians in a navy yard.

P SURGERY

sults so far show that the salvage and repair facilities of the U. S. Navy, facilities largely staffed by civilian personnel, are a major factor in the war potential of the United Nations.

While the oil fires still burned at Pearl Harbor, the Navy asked for civilian volunteers from its shipyards throughout America. Electricians, shipfitters, welders, divers —these and a hundred other types of experts went out from the mainland.

Civilians and navy divers worked side by side over the submerged hulls in Pearl Harbor. Measurements were taken and executed for coffer-dams and patches. Underwater concrete was poured. Pumps were manned.

The USS *Oklahoma* was 150 degrees over, or almost upside down. On the shore concrete anchors, or "dead men," were sunk in the ground. A complicated system of leverage was worked out. Inch by inch the *Oklahoma* was pulled upright.

The USS *California* had huge quantities of gasoline stored forward. The salvage crews had promised themselves that she would be afloat and in drydock on a Wednesday. The preceding Sunday her gasoline exploded. With sinking hearts, the salvage experts watched her bow settle. As soon as they could, they went back to work. The *California* was in drydock on Wednesday.

Capt. H. N. Wallin, USN, maintenance officer who planned and supervised much Pearl Harbor salvage, explained:

"We couldn't pump her out, so we worked out a way of balancing her by letting more water in."

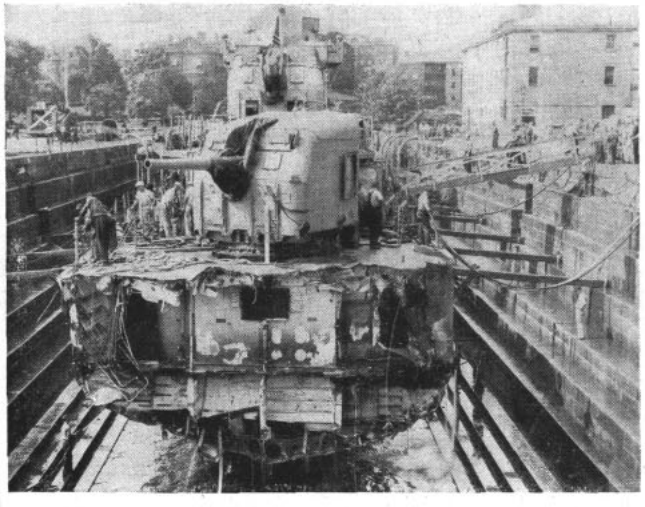
—Official U. S. Navy Photograph.

INSIDE THE USS LAFAYETTE, formerly the Normandie, salvage experts examine water-soaked machinery in the turbine room.

But even after the ships had been raised from Pearl Harbor, the role of civilian salvage and repair workers was nowhere near complete.

"From Pearl Harbor many of the ships put into Puget Sound," Captain Wallin continued. "There they were completely rewired, refitted and modernized by civilian Navy Yard experts. These men have received very little credit or recognition for their work. But when they turned these ships back to sea each one was doubtless a better and more modern piece of fighting machinery than it had been before the disaster."

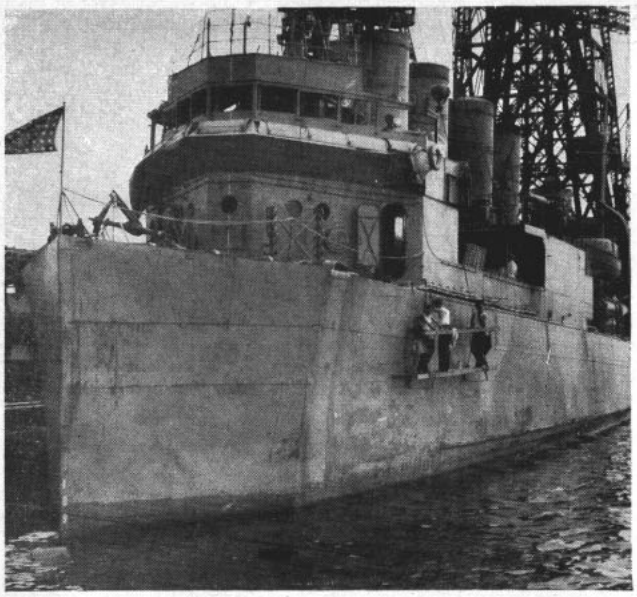
One ship salvaged at Pearl Harbor was the USS *Shaw*. There she was rent by three heavy bombs, warped by fire and practically torn in half. A false bow was fitted to her and, on a voyage similar to that of the *Blakeley*, she put out for a West Coast port. Soon, with a new bow, she sailed again.

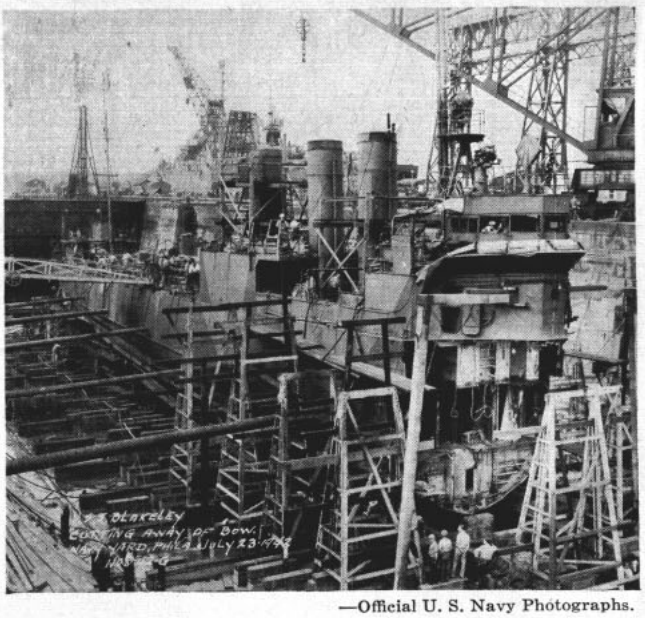


THE USS BUCK has her shattered stern trimmed away almost to the aft turret in Boston Navy Yard after a nearly fatal collision.

—Official U. S. Navy Photographs.

Workmen complete the new stern section. Soon the Buck *was back at sea. Last month she was lost in the Mediterranean.*





—Official U. S. Navy Photographs.

1 *The* USS BLAKELEY *arrives at the Philadelphia Navy Yard. Note the foreshortened false bow and makeshift anchor. Original bow was sheared off by a torpedo.*

2 *The false bow is removed and the* BLAKELEY *trimmed to be fitted with the bow from the* USS TAYLOR, *a sister ship reclaimed from a junk basin for her parts.*

There were new and unexpected dangers in salvage operations at Pearl Harbor. Civilian divers braved them along with naval personnel. Toxic gases were generated in the polluted water. Sewer gas killed a Naval officer and a CPO in the USS *Nevada*. Thereafter, experts in industrial gases worked out test and counter measures. A system of underwater ventilation was also developed.

Despite the dangers, Navy and civilian divers at Pearl Harbor, before they were through, made more than 3,000 dives totalling more than 9,000 hours—or more hours than there are in a year. Safety precautions made it possible for them to do all this without a single fatality.

Meanwhile, halfway around the world, veteran civilian salvage workers had been called in by the Navy to study the *Lafayette*. Virtually every porthole and cargo hatch had been wide open when workers aboard her fled the fire that was to capsize her into the Hudson River mud. It was necessary to shut and seal each of these leaks, buried deep in mud, from the outside. There was no way to burrow into the rock ledge on which the *Lafayette* lay and thus work from the outside. Once the water had been pumped out the pressure from without would have torn off the inside patches.

From this there was to develop the Tooker Patch, an invention that not only helped raise the *Lafayette* but will doubtless help raise many ships in the future.

A salvage expert named Capt. John I. Tooker, from the firm of Merritt, Chapman, and Scott, tackled the problem of sealing the *Lafayette's* portholes. Tooker made a few rough drawings, went to his workbench, and within a short time brought to Naval officers a rough working model.

Basically, the Tooker Patch is a measured and fitted patch which can be folded to resemble a broken barrelhead, inserted through the porthole from the inside of a sunken ship, and secured to the outside as a watertight seal.

Small Tooker Patches closed 356 open air ports embedded in mud and water. Bigger patches secured 16 open cargo hatches. The Tooker Patch was one of the main answers to the raising of the *Lafayette*.

"Although Naval officers supervised the job and the Navy used the ship as a diving school," said an officer connected with the *Lafayette* salvage work from the beginning, "the actual work was all done by civilian salvage experts. And what we learned from them will be of value to us forever."

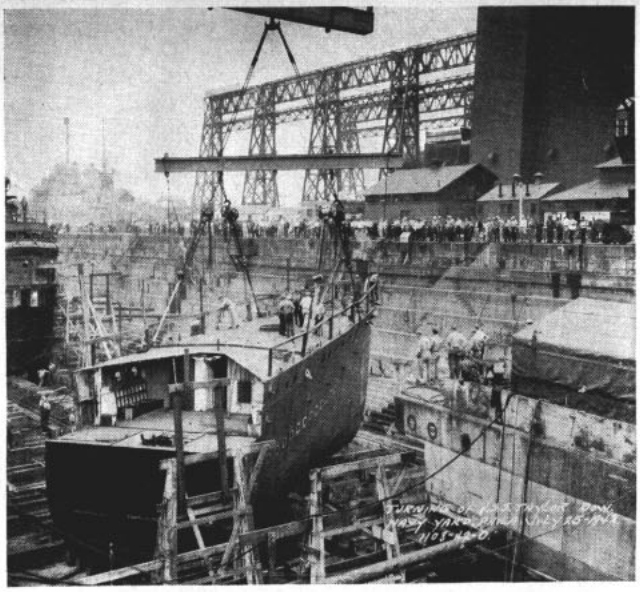
Civilian carpenters, riggers, electricians, and technicians are also given full credit by the Navy for making the work of the divers possible. Lighting, ventilation, the construction of watertight bulkheads, the underwater work—all were done by civilians. Most underwater work, incidentally, was done *by feel* since no lights could pierce the murk, muck, and slime within the submerged hull.

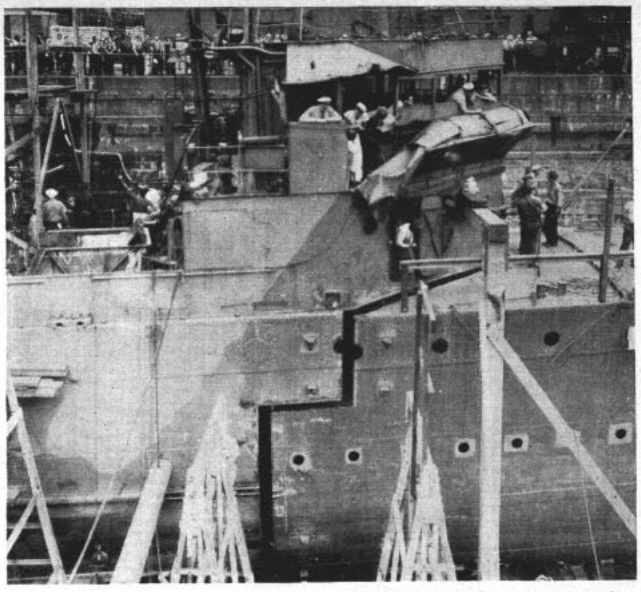
Both at Pearl Harbor and New York the value of specially equipped salvage tugs and boats was evident. So evident that the Navy has turned over to Merritt, Chapman, and Scott a fleet of sturdy small ships, which

180 Vessels Reclaimed in Year By Salvage Crews

More than 180 sunken or crippled vessels have been reclaimed in one year by Navy civilian salvage contractors, Capt. B. E. Manseau, Navy supervisor of salvage, revealed last month.

Already 125,000 tons of scrap have been salvaged and shipped direct to mills for conversion into war materials. Scrap from the Pacific area, reclaimed from sunken or crippled vessels, is concentrated at Pearl Harbor and shipped to the mainland. The scrap is collected by Salvage Reclamation Units working at advanced Navy bases everywhere.





—Official U. S. Navy Photographs.

3 *Overhead cranes swing the severed bow of the* TAYLOR *away from her own hull and carry the bow to the trimmed after section of the* BLAKELEY.

4 *Fitting to the fraction of an inch, the* TAYLOR'S *bow is spliced to the* BLAKELEY'S *hull. Soon after this picture was made, the* BLAKELEY *was back at sea.*

the firm has equipped for salvage work. These are manned by 350 civilian salvage experts and today are ready to take on any assignment. They also tow in battered ships that have remained afloat but are in varying stages of helplessness.

During these big and complicated salvage operations, civilian workers at other Navy yards were writing their own stories of ship salvage and repair. Into these yards sailed crippled vessels of not only the U. S. Navy but also of other Allied nations.

To one of the yards came HMS *Argonaut,* a ship that had taken one torpedo at the tip of her bow and another at the stern. Her useless rudder and shaft were twisted down and out, so that she caught on mud banks in reasonably deep channels. Makeshift shorings and bulkheads were all that held out the sea.

But her measurements were available, and with modern salvage experts measurements are about all that is needed. The shipyard workers trimmed down the *Argonaut's* scars, built her a new bow and stern, made other repairs, and sent her back to sea.

A salvage record was recently set by the Charleston, S. C., Navy Yard in the reconstruction of a British cruiser all but sunk on her way to Malta. British shipyards estimated that it would take two years to repair this ship. At Gibraltar superstitious Spanish workmen had refused to enter her hold, saying it was death laden, and British sailors themselves had to carry out bodies of 62 comrades who had died in action. One-fifth of the port side had been completely blown away. Armor plating had been forced upward under the main deck. The inner compartments were a mass of tangled wreckage.

Three American Navy yards sent salvage experts to study the patched ship when she arrived here. All agreed that she could be reclaimed. Charleston made the lowest time estimate—eight months. Although unfamiliar with British design, the Charleston workers rebuilt the cruiser from the inside out. Over 500 tons of steel were replaced and 35 miles of wiring installed. The cruiser is in a war zone today.

Civilian salvage experts also turned their attention to enemy craft. In the South Seas Navy divers raised a two-man Japanese submarine and sent her to Mare Island.

As salvage continues at Pearl Harbor and other bases, lessons are learned daily which will be of invaluable use in future and even current operations. The process of rolling over the *Oklahoma* with cable leverage will be repeated on the *Utah,* which is believed not nearly so serious a salvage problem. The coffer-dams, patches, air-pressure and underwater experiments which refloated most vessels at Pearl Harbor have already been improved upon by both civilian and Navy experts.

Even the USS *Arizona* has been drawn upon for some reclaimed material. She has given up some of her turrets, guns, ammunition, and machinery. Salvage crews believe that the after half of the *Arizona* can be refloated and removed. The rest must be picked out piecemeal.

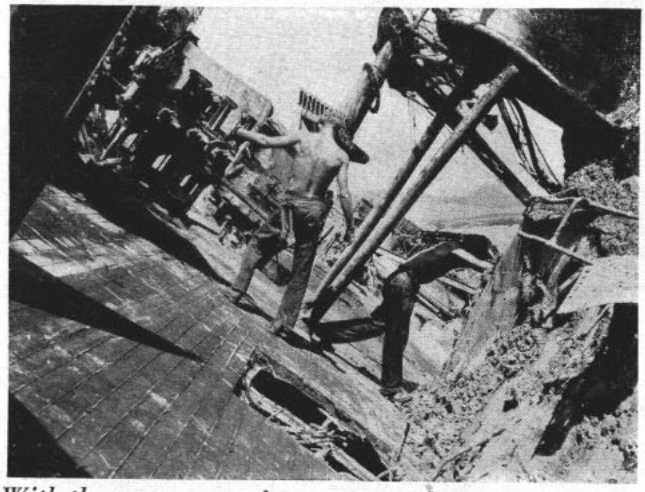
Strangely, but fortunately, a problem of marine salvage seems to whet the imaginations of civilians all over, both professional and amateur. Navy officers working on the *Lafayette* studied more than 5,000 letters from persons who thought they had revolutionary plans for raising her. From sound procedure the letters ran to such suggestions as that the *Lafayette* should be pulled up by dirigibles or yanked up by cables attached to the George Washington Bridge.

But out of the welter of trial and error, experiment and innovation, have come salvage measures which in the course of the war may save many a Navy ship.

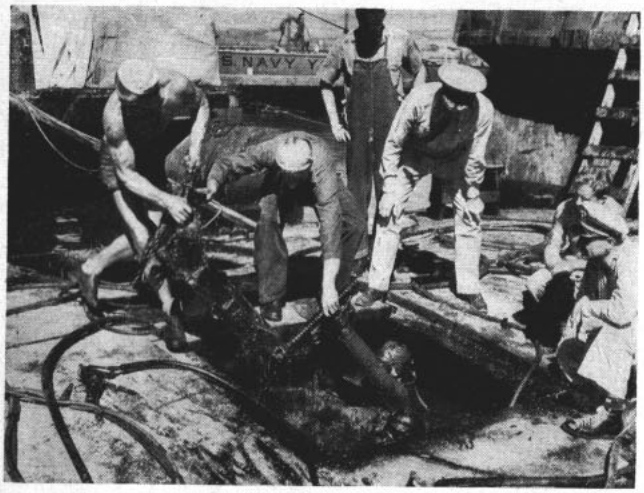
"If a ship goes down in an unknown location, or goes down in deep water," says Captain Wallin, "there isn't much we can do about it. But if we know where she is, and can get at her, we've got an excellent chance to reclaim her under salvage conditions today. And I repeat, no credit is too great for the contributions and work performed by civilian experts."

Pearl Harbor Was Biggest Salvage Job . . .

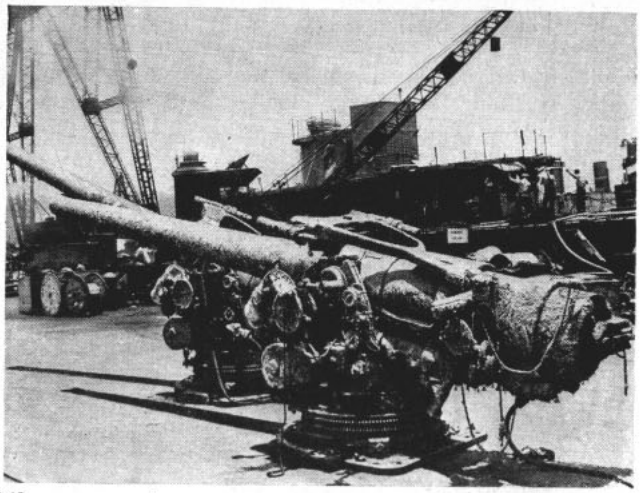
THE OKLAHOMA slowly comes upright as a new system of cable tension is utilized to raise the stricken battleship. Guns and decks are covered with barnacles.



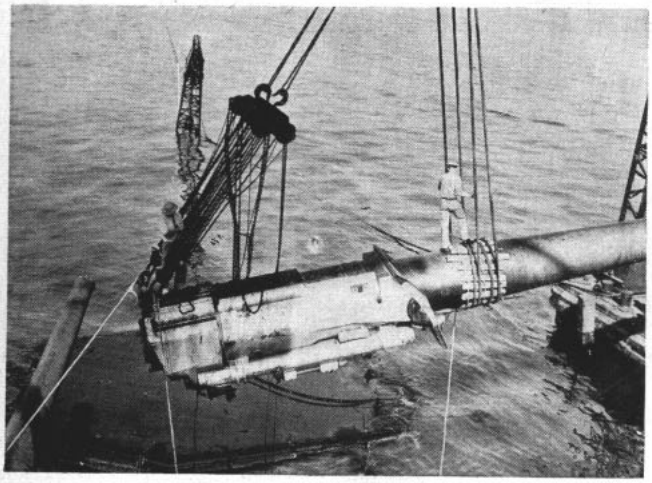
With the OKLAHOMA *almost on even keel, salvage workmen cut through her decks to tackle the problems of mud, oil and wreckage.*



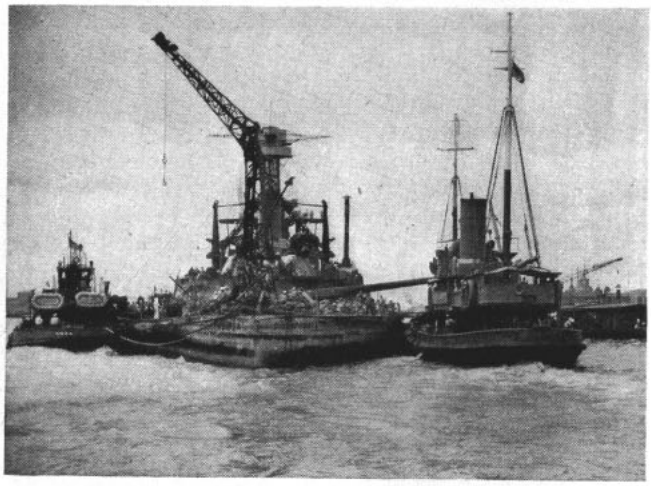
THE ARIZONA, which is beyond total salvage, gives up her fittings for war use elsewhere. Above, divers emerge from a flooded hold with reclaimed machinery.



The ARIZONA'S *guns may yet see service although the battleship eventually will be broken up. One barnacle-covered battery (above) was reclaimed.*



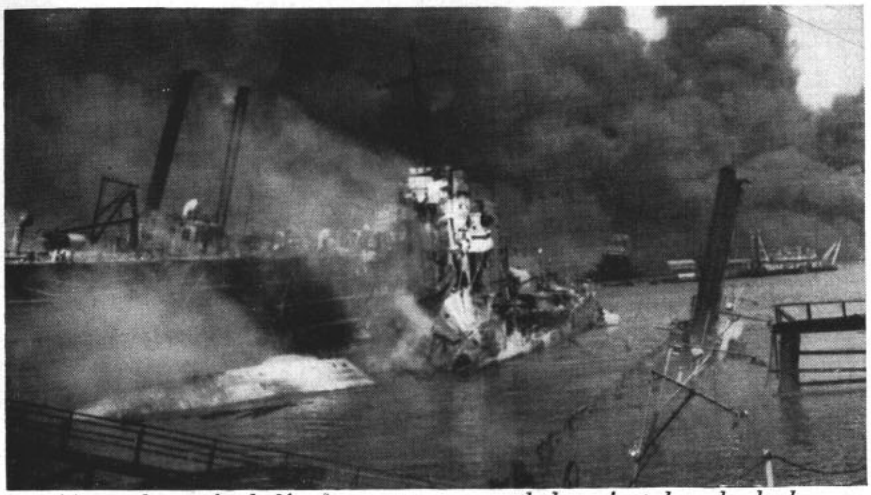
THE CALIFORNIA, almost submerged, first gives up her big guns and fixed weights prior to refloating operations. Above, a turret gun is removed.



—Official U. S. Navy Photographs.

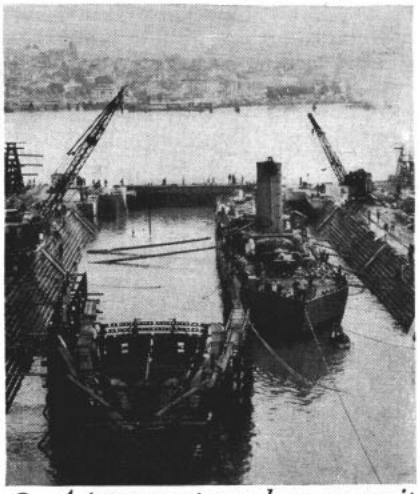
The CALIFORNIA *herself is next reclaimed. Here the 32,600-ton battle wagon is being towed off to drydock after being raised by means of cofferdams.*

. . . *Shaw*, Sunk There by Japs, Comes Back

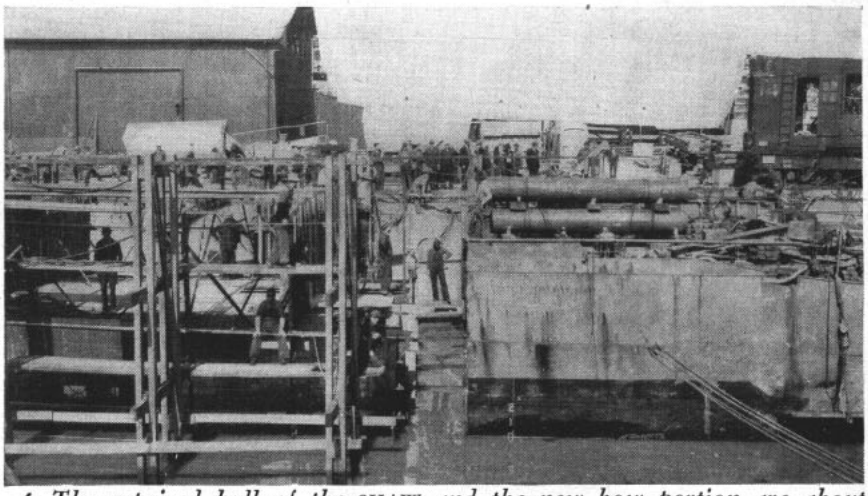


1 *Torn almost in half, the* USS SHAW *settled against her drydock soon after Jap bombs apparently knocked her out for good. Her severed bow can be seen against a background of blazing oil.*

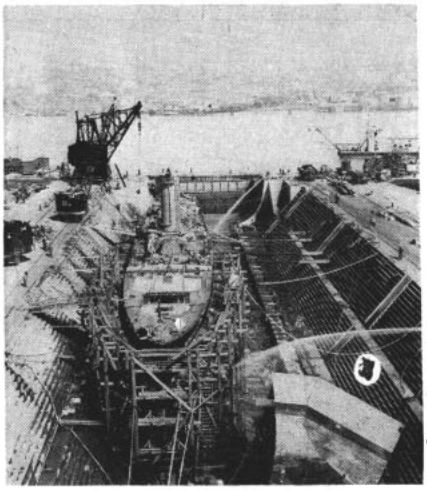
2 *A temporary false bow was fitted to the* SHAW *after salvage. Then she reached Mare Island.*



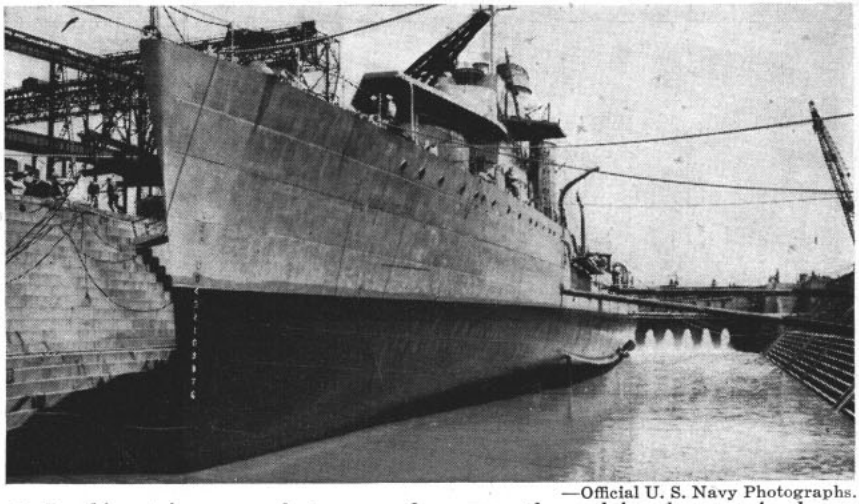
3 *A permanent new bow was waiting for the* SHAW *as the destroyer was slowly winched into drydock.*



4 *The repaired hull of the* SHAW *and the new bow portion are about to be fitted. Salvage workers line the drydock as the two "halves" of the destroyer are edged carefully together.*



5 *Still in a cradle of supports, the two parts of the* SHAW *are finally made one. Old false bow at right.*



—Official U. S. Navy Photographs.

6 *Looking trimmer and stronger than ever, the reclaimed* SHAW *is shown above shortly before she steamed forth for frontline duty. At this stage she was better fighting machinery than before Pearl Harbor.*

A 'Ground Crew' 93,000 Strong

Before War Most Didn't Know a Spark Plug From a Carburetor . . . Now They Help Keep Navy in Air

IDEA MAN: Jerry Rippeteau, of Corpus Christi NAS, won $200 for a material-saving suggestion and parlayed it into $4,684 for Navy relief.

—Official U. S. Navy Photographs.

SHE CARRIES ON as an inspector at the Philadelphia NAMC for her husband, Ens. J. M. Anderson, killed in line of duty in the crash of a Navy plane.

Naval aviation alone now employs nearly twice as many civilians as those who worked for the Navy in all shore establishments during the period midway between World War I and World War II. A total of 92,773 men and women—not counting the thousands employed by private plants producing for the Navy—is today not only keeping Navy aircraft flying but actually building planes in the Navy's own factory.

Even though it is not widely realized that the Navy itself builds planes, it is a fact that, of all naval air establishments, the Naval Aircraft Factory at Philadelphia is the largest employer of civilians: 10,125 on 1 August 1943.

After that come the Naval Air Training Center at Corpus Christi, with 8,026 civilians; the Norfolk Naval Air Station, with 7,437; Pensacola Naval Air Training Center, 7,613; Jacksonville Naval Air Station, 5,441.

Seventy-seven thousand of the more than 92,000 civilians employed in naval aviation are stationed at Navy establishments within continental United States—57,915 of them at naval air stations. Three thousand five hundred sixty-eight more are inspectors of naval aircraft and material at domestic plants, and 11,526 are on foreign duty.

The Naval Aircraft Factory is one of four separate commands grouped together by the Secretary of the Navy on 14 July 1943, to form the Naval Air Material Center at Philadelphia. Others are the Naval Aircraft Modification Unit, the Naval Air Experimental Station and the Naval Auxiliary Air Station.

The Philadelphia factory's production of planes and engines—it's the only plant in the country that builds both—is primarily for the accumulation of cost data to be used by the Navy in establishing fair prices to be paid for contract work.

In addition, Navy civilians at Philadelphia develop and manufacture many items of aviation equipment not produced by private aircraft plants. There, for instance, catapults for launching planes from ships were developed. One laboratory now is constantly developing and testing aeronautical engines. Others experiment with materials, conduct deck-landing tests, develop navigational instruments.

Besides building Navy planes, thousand of civilians in Assembly and Repair Departments of naval air stations keep 'em flying. And most of those thousands are men and women who didn't know, two years ago, the difference between a spark plug and a carburetor.

A good example is the Quonset NAS, where civilians had to be trained from the ground up—as often was the case elsewhere, too. Out of marshes and sandhills, thickets and summer camps, where gulls had undisputed possession of the upper air, Quonset in two short years has grown to be a major operating and repair base for Navy planes—a vast, flat stretch of territory striped with runways and spotted with huge hangars, barracks and all the other installations necessary to a naval air base in wartime.

Skilled manpower had already become scarce when Quonset came into the market. As a result, it was able to beg or borrow only an extremely small nucleus of aircraft artisans from other plants and bases. Most of its personnel has been built up from persons unskilled or skilled in crafts remote from the aircraft industry. Yet today upward of 2,000 civilians — technically qualified — work day and night in Quonset's A. and R. Department.

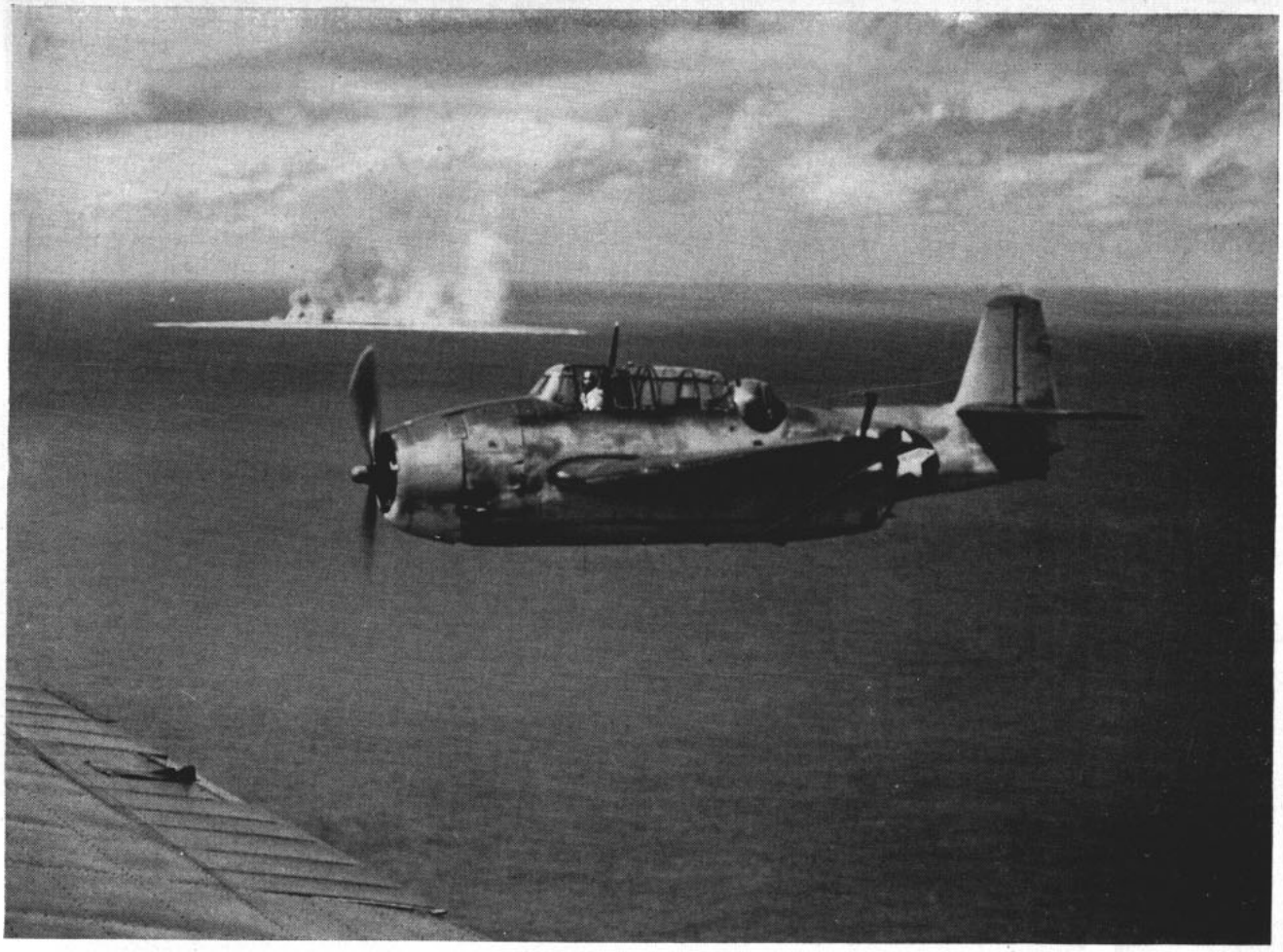
No standardized assembly-line procedures ease their task; for dozens of types of planes must be maintained, serviced and repaired. Anything from an SNJ to a huge Coronado bomber may come through the

NAS Man Is 4.0 In 36 Years' Service

Not a day's sick leave in 36 years' service.

That's the record of William F. Hansen, foreman of the paint and fabric shop at Pensacola Naval Air Station. Hansen ran away from his home in Denmark when 14 years old and sailed in Danish, Norwegian and English ships before coming to this country. After serving eight years in the U. S. Navy he went to work in a Navy Yard. He has been employed at Pensacola since 1914.

Hansen has seven brothers and two sisters in Denmark, from whom he hasn't heard since Germany invaded that country.



—Official U. S. Navy Photograph.

FOR CIVILIANS, AS FOR THE NAVY, the battle is the payoff. Smoke rises from burning Japanese installations on Marcus Island as a Grumman Avenger torpedo bomber returns to its carrier. This is the goal for which more than ninety thousand Navy civilians on the home front are working at air stations, supply depots and training centers. A U. S. task force on 1 September destroyed about 80% of the installations on this island base, which is only 990 miles southeast of Tokyo.

hangar doors for overhaul, repair, incorporation of changes or installation of improved equipment.

About half of Quonset's A. and R. civilian employees are women. They, alongside men, climb in and out of fuselages, wield oxy-acetylene torches and automatic riveting hammers, dismantle and assemble engines and propellers. Many of them are wives and daughters of Navy men in active service. Most others —16 to 66 years old—have husbands, sons, brothers or fathers in the Army, Navy, Marine Corps or Coast Guard.

To develop skilled hands for its A. and R. Department the Naval Air Training Center at Pensacola, Fla., has a special Pensacola Vocational School. The A. and R. Department, through its vocational training officers, not only assists in planning the courses but furloughs highly skilled mechanics to the school as both full-time and after-work instructors. Courses are offered in metalsmith and general aircraft mechanic's work, welding, machine work, engine overhaul, instrument shop practice and fabric and paint shop work.

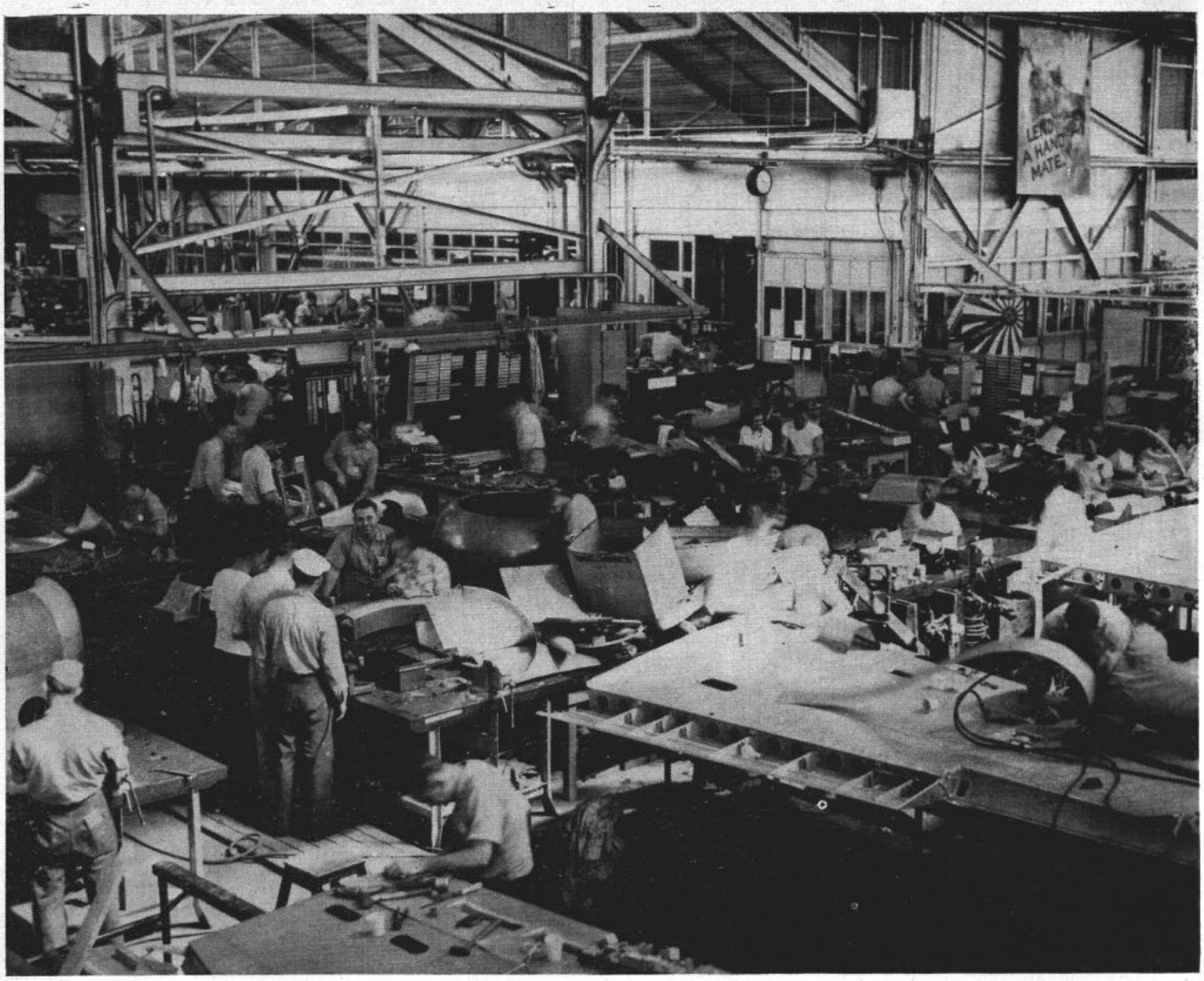
Another important civilian role in naval aviation is the supply of spare parts. Navy planes do fly home on "a wing and a prayer"—tails all but shot off, holes in fuselages, wings clipped or mangled. The titanic task of furnishing parts and accessories to planes on battle fronts around the globe falls on the Aviation Supply Office at Philadelphia.

The ASO supply lines run out from three main depots—at Clearfield, Utah, Mechanicsburg, Pa., and Philadelphia—and two annexes, at Norfolk and Oakland. From these the network of distribution carries the material by air, rail, highway and water to 17 widely flung supply points which, in turn, supply shore and fleet air units.

More than 1,100 civilians are employed by the ASO in Philadelphia alone. Among them are a wounded Army veteran of five major battles in Africa, the widow of a Navy flyer, the former president of a large corporation, a one-time chorus girl, a debutante from one of Philadelphia's old-line families—and three civilian women who were Yeomanettes in the last war.

Nor is it always easy for civilians to hold down these jobs. Housing conditions often are inadequate and transportation problems are difficult. At the Marine Corps Air Station, Cherry Point, N. C., 90% of the civilians must drive more than 20 miles to work. Many live at Greenville, N. C., 65 miles away—which means they must get up at 0400 to make it to work on time.

Many of the male civilians at naval aviation establishments are men too old for military service, boys too young and Navy and Army veterans of this war itself, who have been released from active duty because of wounds received in action. Ex-Navy airmen with medical dis-



—Official U. S. Navy Photograph.

AT JACKSONVILLE NAVAL AIR STATION, where civilians and bluejackets work side by side. . . .

charges, particularly, are filling more and more civilian jobs at naval aviation establishments where, though no longer able to stand the rigors of combat action, they can give to the Navy the benefit of the skills it taught them.

And more than a third of all civilian employees on naval air stations are women. Most of them are forsaking, for the time being at least, the gentle art of homemaking for the rougher but more urgent task of repairing and assembling Navy planes. For well they know—these mothers, sisters, sweethearts of American fighting men—that every rivet they drive is another blow for the victory that will bring their loved ones home or make sure that the sacrifice of their lives has not been in vain.

There's Mrs. Lillian Anderson, inspector at the Naval Aircraft Factory. Her husband, Ensign J. M. Anderson, was killed in line of duty while searching for a missing plane last March. Their baby son was born after his father's death. So Mrs. Anderson carries on the two jobs of mother and war worker.

Mrs. Mayme Tyndall, clerk-typist in the A. and R. Department at Pensacola Naval Air Training Center, has her husband with her now—but neither will ever forget what they've been through since 7 December 1941.

At Pearl Harbor, Tyndall was serving in a ship berthed close to the USS *Arizona* when she blew up and sank during the Japanese raid that started our part in this war. Sent back to California on a short leave, he wired Mrs. Tyndall to meet him there. On the trip out she was stricken with appendicitis, and Tyndall had to rejoin his ship while she still was critically ill.

Later, as a fireman in a hospital ship, he saw many young Americans suffering from wounds inflicted by the Japanese. Finally he was ordered to duty back in the United States, and there became ill and was given a medical discharge from the Navy. Doctors said the shock of what he had seen and done at Pearl Harbor and in the South Pacific had been too much.

With a citation for his outstanding work with the wounded, Tyndall is now a painter in the A. and R. Department at Pensacola—where his wife still pounds her typewriter.

A more pleasant story, equally revealing of the spirit that sparks civilians in naval aviation, concerns Jerry Rippeteau, mechanic in charge of the A. and R. Department's rubber and tire shop at the Corpus Christi Naval Air Station.

Jerry developed a new rubber weld process that makes possible a stronger, neater job on the repair of inner tubes with a fifth of the rubber required in the old patching process—and thereby won a $200 prize in a contest for production ideas.

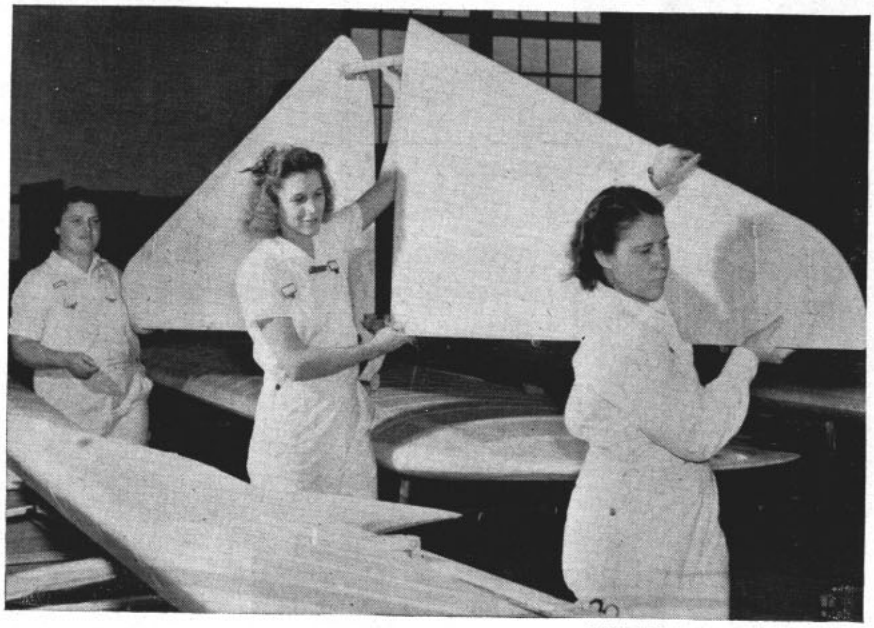
The story might end happily enough with Jerry, good patriot,

. . . Men and women together smooth up propeller blades in the Assembly and Repair Department.

buying war bonds with his $200. It does not. Instead, Jerry put the money and several weeks of his spare time into promoting a rodeo. Result: a check for $4,684.29 to the station's commanding officer for use in relief activities.

Such resourcefulness in the interests of the Navy is typical of the civilians in Corpus Christi's A. and R. Department. For more than 4,000 of them Labor Day, 6 September 1943, was just what its name implies. Instead of taking labor's traditional day of rest, they were on the job an hour earlier than usual and contributed an hour's production without extra pay.

During that one hour a shop of the Aircraft Electrical Division, under the direction of Quarterman C. C. Wyatt, set a record by wiring a trainer from stem to stern in 60 minutes. And in the Overhaul Department, by refusing to punch the time clock even at the end of his extra hour's work, Henry L. Handey contributed his whole Labor Day pay to the Navy.



—Official U. S. Navy Photographs.

TAIL ASSEMBLY of a naval training plane is handled by women civilian employes who have just finished stitching it in the Assembly and Repair Shop of the Naval Air Station at Corpus Christi, Texas.

PASSING THE

Navy Employs To Make and Supplies Nee

Besides the civilians who build and maintain the sea and air fleets, more than 100,000 others are producing and distributing the supplies that a fighting navy has to have.

In Navy ordnance plants and the gun factory, at ammunition depots, in net depots and torpedo stations, civilians are at work manufacturing the sinews of war. In supply depots scattered throughout the land, thousands more are helping to distribute supplies to ships and advance bases.

Most of these plants and supply activities have sprung up since the war started. There were just six major supply activities, wholly under the cognizance of the Bureau of Supplies and Accounts, for example, in December, 1941. Today there are sixteen. Those six employed 2,855 civilians. Today the sixteen and the Naval Clothing Depot at Brooklyn employ 34,519 persons.

Global war has required establishment of numerous naval advance bases throughout the world to support our widely-dispersed naval forces afloat. When the Chief of Naval Operations directs that a repair base for landing craft is to be established in the South Pacific, for example, hundreds of civilians of various talents in the Advance Base Section of the Naval Supply Depot at Oakland commence assembling the many items required.

Assembling and maintaining overseas bases is a major operation. The majority of material sent to overseas bases is handled through a West Coast port. The tremendous job performed by civilians there is indicated by the fact that equipment valued at $10,000,000 monthly is shipped from the supply depot.

Civilians at other depots do similar work. Maintenance material for ships and planes in the Pacific theater is transshipped through a naval overseas freight terminal on the west coast. Supply depots on the east coast are assembling, packing, and shipping the advance base material requirements of the European and North African theaters.

Without civilians in these various supply activities, overseas bases could not be established or maintained and our fighting fleet would lack the support it needs.

CARTRIDGE CASES, light dancing across their highly polished surfaces, are given a final inspection at the Naval Gun Factory.

AMMUNITION

Over 100,000 Ship Out All led by Fleet

More than 35,000 uniform garments for enlisted men are manufactured daily at the Naval Clothing Depot in Brooklyn, N. Y. This is in addition to the huge volume of clothing manufactured on contract and shipped to the depot for distribution. Nearly 6,000 civilians are employed now at the depot, compared to the 1,709 employed there at the outbreak of the war.

Besides supplying clothing, the depot has a coffee-roasting plant which supplies all East Coast ships and stations, and a laboratory which tests all the Navy's dry provisions.

Seagoing armament is manufactured in fifteen naval ordnance plants. Ammunition is manufactured, loaded and handled in 33 depots and magazines. The Navy has several plants which produce armorplate for its warships, and several which manufacture bombsights, rangefinders and other optical equipment.

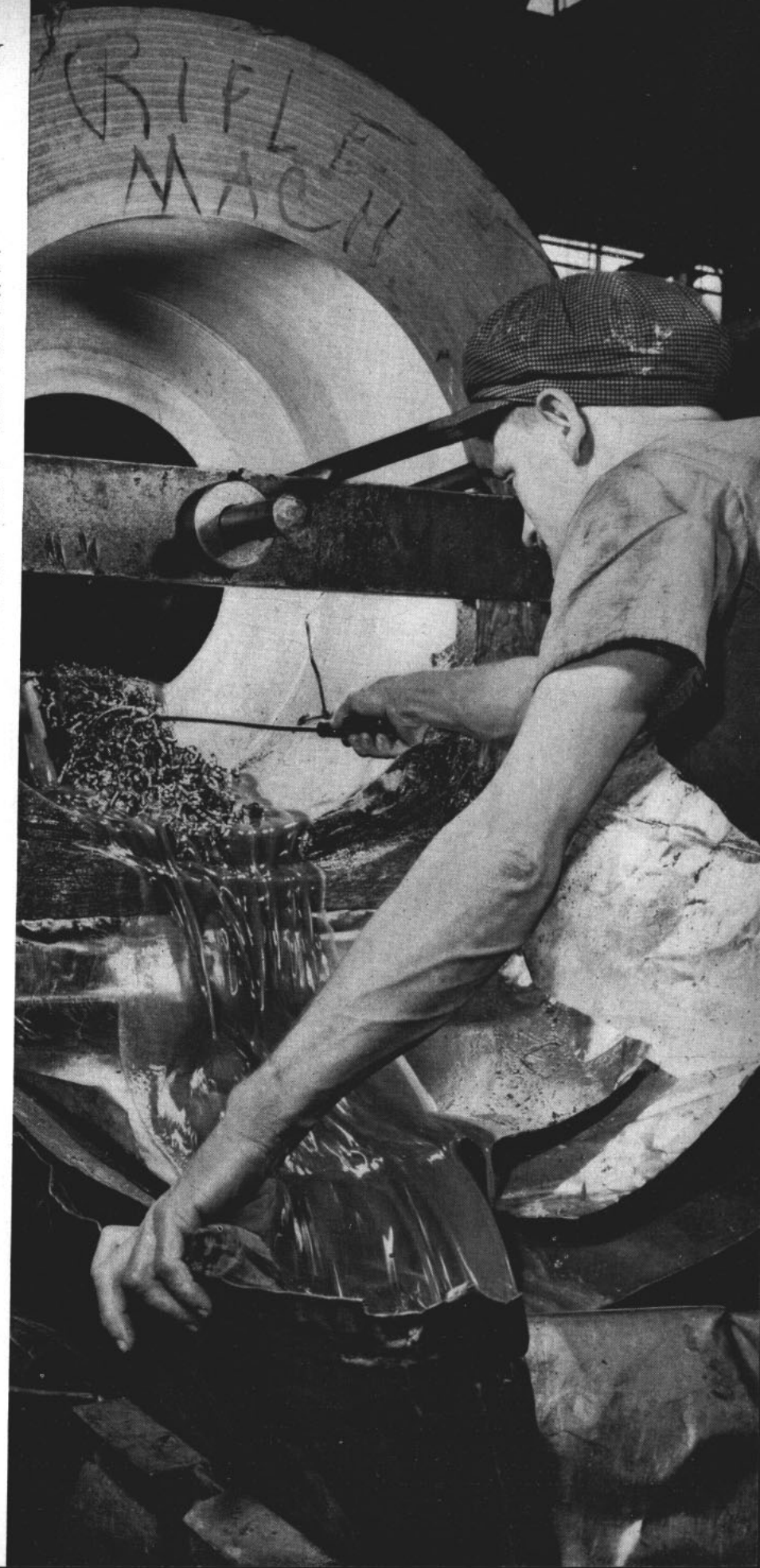
Although there are 1,800 prime contractors and 25,000 subcontractors working on naval ordnance, Navy plants furnish a large part of the Navy's ordnance requirements. These comprise guns of all calibers.

Navy civilians also are manufacturing various kinds of torpedoes, for destroyers, cruisers, PT boats, submarines, airplanes; bombs and bombsights; mines of various types; depth charges, nets and booms for protecting a naval anchorage; flares and rockets and other pyrotechnics. In other words, they are building everything which is thrown at the enemy by ships and planes, the weapons which do the throwing, instruments for improving their accuracy, and many of the protective devices to parry the enemy's blows.

One of the largest Navy plants is the Naval Gun Factory in the Washington Navy Yard. There, many of the large-caliber guns are tooled and assembled. The factory also has a large optical department which turns out delicate devices, such as gun directors and range-finders.

As in other branches of the Navy, women play an important part in ordnance manufacture. Of the 75,000 civilians employed, about 20,000 are women.

—Official U. S. Navy Photographs.



A BIG GUN barrel is rifled by a workman at the Naval Gun Factory, Washington Navy Yard.

—Official U. S. Navy Photograph.

When the SOUTH DAKOTA *and her 16-inch guns turned up unexpectedly off Savo Island, three Japanese cruisers "never knew what hit them."*

The Story Behind 'Battleship X'

Workers Who Built *South Dakota* Ahead of Schedule Had a 35,000-Ton Secret to Keep

"Battleship X," famous for blasting three Japanese cruisers to the bottom in one southwest Pacific engagement and downing 32 Jap planes in another, last month was identified by the Navy as the USS SOUTH DAKOTA, first of a new class of 35,000-ton battleships.

The SOUTH DAKOTA would not have been in the Pacific at all, in time to shatter a carefully laid Japanese trap, had it not been for civilian shipbuilders at the New York Shipbuilding Corp. yard in Camden, N. J.

During both engagements (Battle of Guadalcanal and Battle of Santa Cruz Islands, INFORMATION BULLETIN, February 1943 et seq.) the SOUTH DAKOTA was commanded by Capt. Thomas L. Gatch, USN—now Rear Admiral and Judge Advocate General. In praising the ship he said: "Her battle record reflects the skill, energy and devotion of the men and women who built her."

Through their efforts "Battleship X" was launched 13 months ahead of schedule. And despite the fact that thousands of men and women had worked on her, the secret of the ship and her power were well kept.

Thus, when three Japanese cruisers wheeled around the point of Savo Island, to spring a trap they had set for U. S. forces, they walked into something. "They weren't expecting *us*," said Admiral Gatch earlier this year in describing the battle. "They had set this trap for foxes and we didn't think it would hold bears."

All three cruisers were sunk before their own guns were within the range of the battleship, and Admiral Gatch was able to report: "They never knew just what sank them."

Similarly, when Japanese fliers spotted the battleship at Santa Cruz Islands, they had visions of a second REPULSE and PRINCE OF WALES, and dived in confidently, expecting to blast her apart. But of the first wave of 20 dive bombers, all 20 were shot down. The SOUTH DAKOTA downed 32 planes that day.

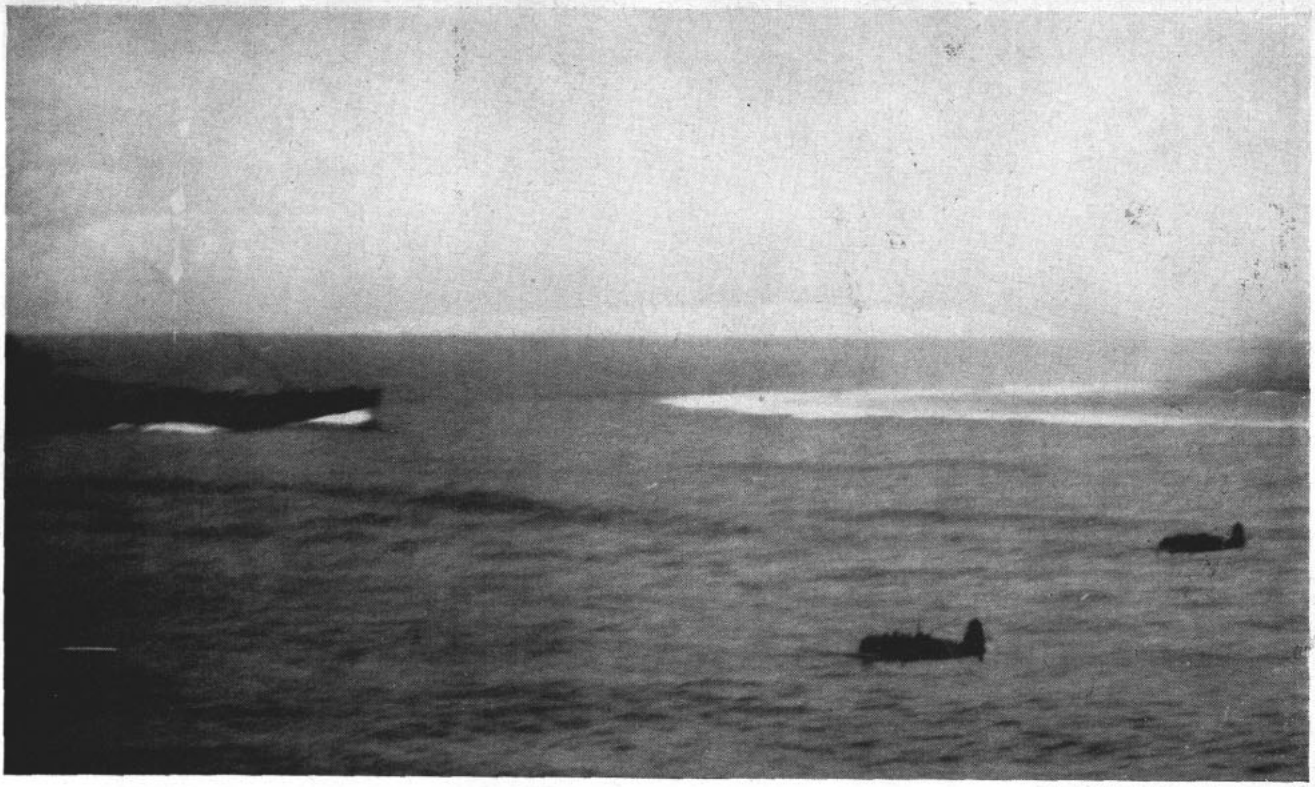
Because she was the first of a new class of battleships bearing new armament and possessing greatly increased firepower, it was decided at the time not to identify "Battleship X" as the USS SOUTH DAKOTA and thus give the enemy confirmed information on the new class. Sister ships of the SOUTH DAKOTA are the USS MASSACHUSETTS, USS INDIANA and USS ALABAMA.

Keeping a 35,000-ton ship "confidential" is no easy matter, when thousands of people work either on her or near her day after day. In the case of the SOUTH DAKOTA there were some complications that made it doubly difficult, and which tested greatly the loyalty of the workers involved.

For one thing, there is around any shipyard a great feeling of pride in the ships they turn out. This was perhaps more so in the case of a yard working on something as new and impressive as the SOUTH DAKOTA. It's a natural temptation to voice pride in such a ship—and it is also hard to hold one's tongue under provocation. And the Camden shipbuilders occasionally had plenty of provocation.

A reporter riding on the Camden-Philadelphia bus struck up conversation with another passenger, and asked what people thought of the vast shipyard there. "Hmmph," was the answer. "Just like in the last war. It's Fort Dodge," which was a pointed crack at what many people thought, mistakenly, to be true—that shipyard workers there were, as in the last war, given blanket deferments.

Actually, the real situation was vastly different.



—Official U. S. Navy Photograph.

Expecting a pushover, Jap torpedo planes skim in for "the kill" — an error that cost them 32 planes. The SOUTH DAKOTA *got 20 of the first 20.*

Speaking with the heavy Scotch burr which is a natural sound around that yard of ship craftsmen, a marine shipfitter explained what often happened. "A lad gets to yearning to serve in the ship he's built. Some young lads barely finish a ship than they hustle down to the Recruiting Office to get the Navy to let 'em serve in it."

The yard lost 25% more workers this way than through selective service! But people didn't know this. Another thing they didn't know was that the yard had worked out a replacement schedule of its own with the full cooperation of Selective Service, and that it had worked so successfully that it became a model.

"Draft boards are not shipbuilders," said one of the men. "They wouldn't know the difference between a tack welder and a hull welder. You can train the tack welder in a couple of months, but a hull welder is a rare jewel of an artist. Draining off too many of the 'jewels' may break the backbone of a plant, and jam production."

Today every man's record is studied by a joint committee representing labor and management at the plant. They know how well he has worked, his production, his absences, his attitude toward his work; they know how his job rates in importance and whether it would be difficult or easy to replace him. And if he doesn't measure up in the eyes of his fellow-workers, heaven help him. For those men are the toughest of all judges—dour Scotsmen for the most part, lovers of ship and believers in a firm sort of "joostice" for all.

So well is the system working that, although the committee was originally composed of two men from the workers, two from management, and one (Colonel Henry F. Rhodes) from Selective Service, the Selective Service representative has been able to withdraw from active participation in it, convinced that the job the men are doing is far and away better, fairer and more productive than any selective service mechanism could ever make it.

But, people didn't know that story, and up to now it hadn't been told. The men couldn't say, either, that they were working on something bigger and more powerful than anyone knew. Nobody *could* know how big she was, or what she was, or how powerful. Nobody in the town knew anything about it. (And that's only part of the story. These men were working on the landing craft program, too, and couldn't tell about that, either.) So they just "took it" —and buttoned their Scotch lips tightly.

Another good reason for keeping mum was the fact that so many of their own boys were in those ships, and the men would never have done anything to endanger the life of a single one.

An example of their devotion to the job that can now be told is the story of what happened when Admiral Gatch went to the yard to bring them the story of "Battleship X" and her exploits, so they would know what a fine ship they had built. Instead of holding a giant rally, as might be expected, the men had another idea. They sent their leaders—the men of the joint labor-management committee — to hear Admiral Gatch. "To take all the men off their work for a rally would mean time lost on the ships," they said. Let Admiral Gatch tell his story to the men's leaders, and they in turn would pass it on to the men on their own time. And that's what happened.

James McKissock, hull welder and representative of the workers on the yard's labor-management committee, adds a final note: "The morale in this yard is now higher than an eagle's dandruff."

It's men like these who are turning out the ships. Admiral Gatch has said of them: "The men and women of the New York Shipbuilding Corporation can be proud of the accomplishments of the battleship SOUTH DAKOTA . . . a fine fighting ship built by free American workers."

WHO ARE

They Back Up Fleet And Air Arm With What It Takes to Win

One common denominator runs through all the more than half a million civilian employes in the Navy's hundreds of shore establishments: intimate ties of blood and comradeship with America's fighting men. Only a few typical cases are pictured on these pages; other scores-times-scores could have been chosen with equal justification.

Take, for example, W. O. Shelton, a civilian inspector of naval materials at Tulsa, Okla., who cherishes a letter on White House stationery:

"My dear Mr. Shelton," it begins. "Hearty congratulations to you and Mrs. Shelton. I was delighted to receive your letter of August twelfth accompanying that picture of your seven stalwart sons—six of them already in service in defense of the Nation. You should be proud, as your country is grateful, that you can make such a splendid contribution."

It concludes, "Very sincerely yours, Franklin D. Roosevelt."

Or George Beckwith, supervisor in the joiner shop at the New York Navy Yard. As a chief carpenter's mate in the Navy in World War I he was cited by Admiral William S. Sims and awarded the Conspicuous Service Cross. One Beckwith son, an SF2c, was killed at Pearl Harbor. Another, a CBM, received the Purple Heart for wounds received in action in the aircraft carrier *Wasp*.

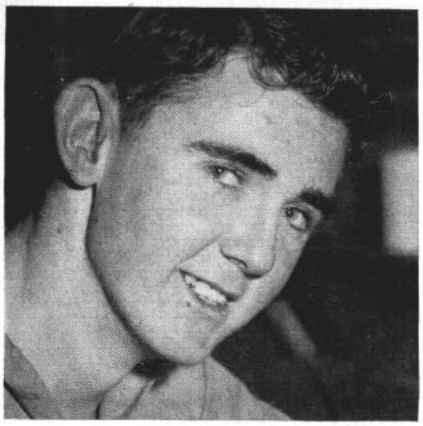
Or John J. Doherty, of the pipe shop at the Boston Navy Yard, for whose son, Ensign John J. Doherty, Jr., killed in action in the aircraft carrier *Enterprise* during the first attack on the Marshall Islands, a destroyer escort has been named. Or L. H. Snider, shipfitter at the Norfolk Navy Yard, who has seven sons in service; or H. J. Dickinson, chief quarterman of the Charleston Navy Yard paint shop, who has a son in

(*Continued on Page* 68)

—Official U. S. Navy Photograph.

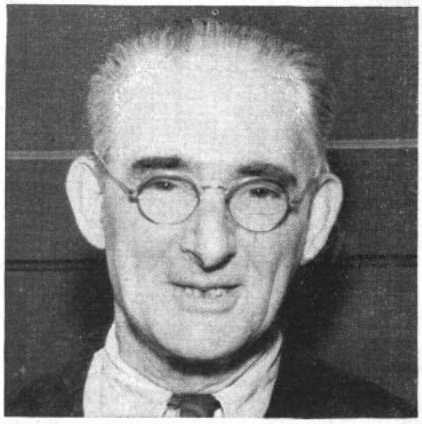
AT LEFT, Mrs. Betty Brown (Philadelphia Navy Yard), chauffeurette, receives the Navy Cross for her husband, Major Robert S. Brown, USMC, killed in action on Guadalcanal. The boy is their son, 10-year-old Robert S. Brown, Jr.

CIVILIANS WHO WORK FOR NAVY?



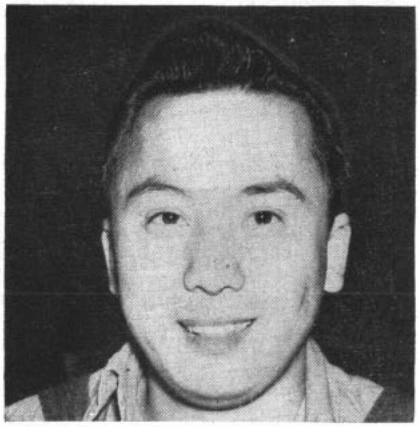
HERO: Charles Driscoll (Boston Navy Yard) was honorably discharged from the Navy after receiving Purple Heart at Guadalcanal.

MOTHER: Mrs. Ruby Buchner (Mare Island Navy Yard) has four sons in the Navy and another in production work near her at Mare Island.



FATHER: John Hayden (Norfolk Navy Yard) has a son in the Navy. A second, an Army captain, was killed in action in September.

SISTER: Rose Picciani (Philadelphia Naval Air Material Center) has one brother in Army, one in Navy, one missing in action with Navy.



INTERNEES' SON: George Lee (Mare Island Navy Yard) recently received word his parents, Chinese civilians, are Jap prisoners.

WIDOW: Mrs. William Barnes (Charleston Navy Yard) is the widow of a signalman lost with a ship built in yard where she works.

SIXTEEN-YEAR-OLD: Don Lay (Norfolk Navy Yard) joined the Army before Pearl Harbor but was discharged when his age was discovered.

WIFE: Mrs. Winifred Fuller (Portsmouth Navy Yard), an electrician's helper, has a husband and two sons who are serving in the Navy.

—Official U. S. Navy Photographs.

VETERAN: Ray Faust (Norfolk Navy Yard) was decorated for service in a destroyer that sank a U-boat in the first World War.

—Official U. S. Navy Photograph.

Six Mare Islanders put their ideas together and came up with this "million dollar doughnut" machine. Its pre-packed cable stuffings save the yard hundreds of man hours and thousands of dollars on each ship.

Ideas That Shorten The War

An Engineer's Hobby, A Janitor's Suggestion, An Anonymous Tip — Multiplied, They Win Battles

By JOHN A. THOMAS
Lieutenant (jg), USNR

When the historians get around to writing the final story of World War II, they may find that, for all its quiet, unwarlike tone, one of the most important sentences spoken during those years was by a civilian and began: "I suggest. . . ."

Because a marine engineer had a hobby, production time on a certain ship job has been cut 80%. A parachute worker found out how to make a sewing machine a war weapon. A gasburner looked at a pendulum—and saved his Navy yard thousands of man hours.

A janitor walked around his plant and saw something that gave him an idea. He brought it to the attention of his bosses. It's saving 40,000 gallons of oil a year in that one plant alone.

A laborer put a few planks together—and cut loading time for barges by 50%. An 84-year-old bulletmaker celebrated his third war by winning a suggestion award. Six men in a Navy yard created a "million dollar doughnut" that jumped production 20 times.

There are thousands of such ideas all over the country. They are used in Navy yards and in naval supply depots, at the naval aircraft factory and the naval gun factory and naval ordnance plants. Suggestions pour in to private shipyards and ordnance plants and aircraft factories.

Some of them are apparently small in themselves; many represent fabulous savings. All help to shorten the

Civilians at War: The Blood-Plasma Front

The Navy's civilians have taken every chance to contribute their blood to the Red Cross for shipment as plasma to the battle fronts.

One example, typical of all, is that of the Washington Navy Yard, where more than 2,700 employes donated blood between 15 February and 15 September, an average of 385 donors a month.

Mobile units of the Red Cross blood bank have found navy yards all over the U. S. a fertile field. One unit collected 1,105 pints of blood during a five-day visit at a navy yard.

Civilians at War: The War-Bonds Front

The Navy's civilian employes always have been enthusiastic purchasers of war bonds. How enthusiastic they are Admiral Ernest J. King made clear last month, when he pointed out that 90 per cent are investing a portion of their pay each month in war bonds.

In September 1943, Navy civilians raised their purchases of bonds to the highest peak since the program was started in October, 1941. Total sales in September were $30,477,763, compared with the previous record of $27,783,065 in July, 1943. Under payroll allotment plans, civilians purchased $13,971,094 worth while uniformed personnel of the Navy bought $9,617,150 of bonds.

war, and thus save lives of fighting men.

To get in ideas like these and channel them into productive use, a procedure known as the Beneficial Suggestions System has been established by the Secretary of the Navy for all naval activities. Through this system, new ideas and new ways to help win the war get prompt and thorough consideration at each naval establishment, and the best of them are passed on to headquarters in Washington for further dissemination to other yards and plants. In addition, the 48 largest naval shore establishments have War Production Committees which provide continual stimulus to the business of building not only ships and planes and guns, but ideas.

This suggestion program dates back to the last world war, to 1918, making it one of the oldest such systems in the country. After that war, of course, the impetus for short cuts and conservation naturally dropped and the program languished. In 1942 it came to life again and has since produced results in a big way.

In a period of two weeks at one yard, 900 suggestions were received!

In addition to these Navy workers, there are many other workers enrolled in suggestion plans in industries directly contributing to our war production. There are almost a million of them in Shipbuilding and Ship Parts, and close to another million in Ordnance. About 650,000 idea men are in the Aircraft and Aircraft Parts industries. More than 600,000 of them produce Iron and Steel, and a third of a million work on Engines and Engine Parts.

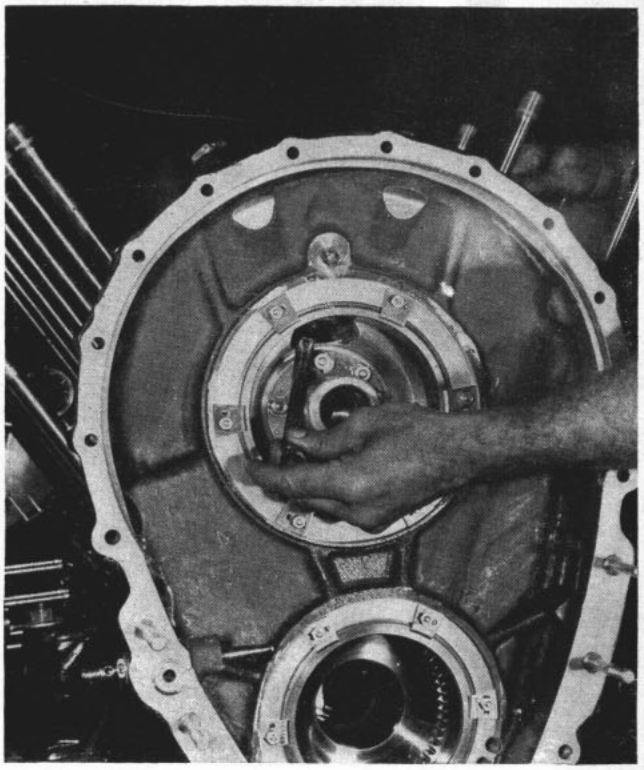
Added to the 677,000 workers in naval establishments, they swell the total of "thinkers up" to almost 6,000,000.

All these workers are bound together in the idea pool through their Labor-Management Committees, enrolled under the War Production Drive. Their suggestions are assured consideration by a committee at their own plant. Best suggestions again flow toward Washington to War Production headquarters, and are considered for Awards, Certificates, or Citations of Merit. These are publicized in a weekly paper which goes out to all plants, so that the winning ideas are spread around.

In one week, workers in California shipyards won 41 production awards for their suggestions. The estimated saving from those suggestions adds

Winner of a War Production award for his suggestion to speed up production of bullets, John McGrail, 84, bullet-maker through three wars, is congratulated by his son, Lt. Comdr. Clifford E. McGrail, CEC, USNR.

Because this worker refused to be satisfied with the old 4-hour way of tightening the lifting eye on these gears . . .



. . . he suggested and developed a special wrench, cut the time to 15 minutes. Result: a 3¾-hour saving per engine.

Reward for an "idea soldier": Gertrude Lawrence expresses thanks to a shipyard worker for a good ship-building idea.

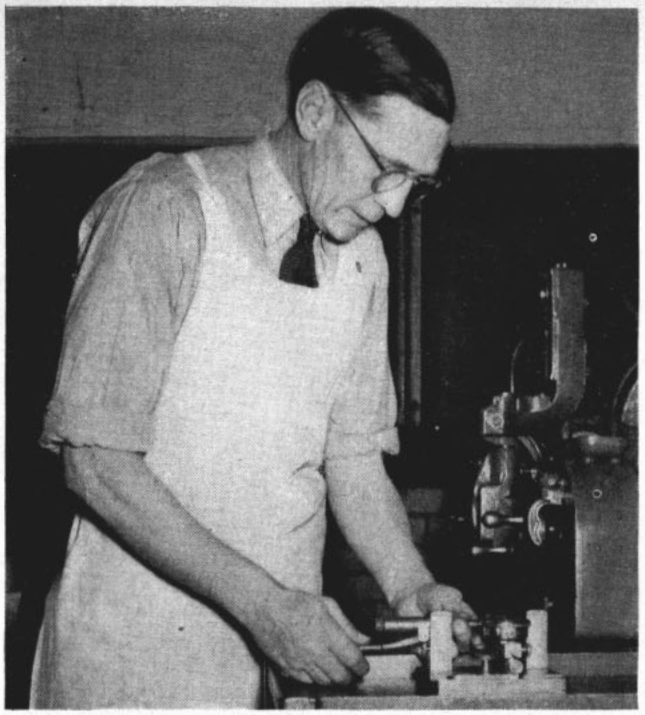
up to 7,847 man hours *per ship.*

The way an idea gets born is pretty unpredictable. Andrew Caton, for example, sorts and stacks metal tubing, which comes in varying lengths. Not a hard job, but a slow one. As each load of tubing was dumped on his work table, he separated the lengths one at a time. And while he was sorting them, he did a little thinking. He placed metal strips crosswise on his table over the marks indicating the desired tube lengths. The tubing is dumped on top. Then, by simply lifting the metal strips, those above 93 inches in length all come up together; those of 82 inches do likewise. A simple idea—but it ran his production up from 146 pounds of tubing per hour to 516.

For something on a bigger scale, there is the tool invented by Frederick J. Kratchman, quarterman toolmaker at New York Navy Yard. Confronted with the problem of drilling and tapping holes in armor plate for fighting ships, he developed a new tool—"a mechanism for milling internal buttress threads for armor bolts." That's a pretty technical mouthful but what it adds up to is this: it reduces seven operations to one. It takes only one-fifth as long. It saves about 17 minutes per hole—an aircraft carrier, for instance, has about 2016 holes in its armor plate, the saving in man hours of labor can be pretty sizable.

But that's only the beginning. The tapping and recessing tools formerly used are now no longer needed, thereby saving tool costs and critical materials. A co-worker of Kratchman's developed a portable drill head to go with this thread miller, eliminating the necessity for bringing armor plate into the shop. This released cranes and expensive tools for other work. The drilling can now be performed in any convenient place by bringing the tool to the armor, instead of vice versa. All in all, the savings at this one yard are already estimated at $30,000, and the idea can be used at other yards and plants throughout the country. As a result, a lot of big ships are going to hit the water months ahead of schedule.

People who worry about the scarcity of oil should meet Edgar Gaston, who did something about it, thus proving that a janitor gets to the bottom of a lot of things beside buildings. There is a machine which uses great quantities of heavy lubricating oil. The waste shavings were carted off to the smelter covered with this valuable oil. Though the metal was saved, the oil was wasted —until Gaston, a janitor in the plant, made a suggestion. Put perforated false bottoms in the shavings truck. The loaded trucks stand a while, the oil seeps off the shavings and is drained from the bottom for future



—Official U. S. Navy Photographs.

Seven of the nine ideas modestly submitted by this man under the name of "Mr. X" won plant awards before his identity could be discovered. He turned out to be . . .

Joe Kautsky, 63-year-old machinist. His "anonymous" ideas won national recognition and a trip to Washington, where he received a citation at the White House.

use. Gaston's idea saves 40,000 gallons of oil a year in this plant alone.

Savings in all of the "big four" of war production—time, money, materials and manpower—were achieved by George A. Barnes of Shop 17, Naval Gun Factory, Washington, D. C., who suggested and designed a new drilling and tapping machine for ordnance material. This has (a) increased production, (b) saved $12,000 in the past year, (c) permitted its substitution for expensive jigs and fixtures and (d) released personnel for other important work.

A hobby turned into a war weapon when John F. Fox, head marine engineer at New York Navy Yard, put it to a new use. In all our fighting ships it is necessary to have thousands of label plates, most of which must be engraved on special plastic or bakelite surfaces. This is a costly procedure, involving the use of many precision engraving machines.

Being interested in photography, Engineer Fox felt that a photographic method might possibly be applied to the manufacture of these plates. Upon investigation it was found that processing special prints from a photographic negative with a plastic material would result in clear, distinct, hard-surface plates. As a consequence, work which formerly required many engraving machines is now being performed by an unskilled woman worker. The cost of the plates was reduced to one-fifth the original cost, and heavily burdened engraving machines are released for other important work.

If you step into a lifeboat next year it may be safer because of a suggestion passed along by Philip Batchelor, of the Philadelphia Navy Yard. He noted that the copper tanks used as buoyancy units in those boats were vulnerable to gunfire concussion, machine-gun bullets and corrosion. A collapsed buoyancy unit wasn't very buoyant, and anyway, copper was scarcer than hen's teeth.

Batchelor remembered having seen a piece of cellular hard rubber made from reclaimed rubber and containing small individual air-cells. Weather resistant, it was relatively unaffected by bullets, which passed through but did not affect its buoyancy. Nor did these units collapse under gunfire concussion, as did the copper ones. So now a highly critical material is being replaced with a less critical one, and the seaworthiness of small boats is greatly increased.

Six workers at Mare Island Navy Yard combined to create a war-winning idea known as "the million-dollar doughnut." This is a prepacked bulkhead tube packing, in hollow cylindrical form, used to seal individual cable stuffing tubes in bulkheads to make them watertight. The idea started with one man in Shop 51; four co-workers contributed to the construction of it, and a naval officer helped develop it. The "doughnut" increases a worker's production from 20 packings a day to 400.

Parachutes owe a couple of improvements to Flora Wurster and Alva F. Starr, both of the Naval Aircraft Factory in Philadelphia. Miss Wurster found a way to conserve webbing used for parachute harness by getting two jobs done where one was done before, through a simple marking device of her own.

As for Starr, it is strongly suspected that he is a family man who knows the home uses of a sewing machine. At any rate, he noticed that pilot chute suspension line eyes were being laboriously hand-sewn. He developed a method of using a sewing machine for the same purpose. That touch saves 2,400 man hours per year at the Naval Aircraft Factory alone and is now being used by outside manufacturers.

Putting a couple of planks together doesn't sound too technical, but things happen when it gets done the right way. Clyde A. Rigsbee, leadingman laborer at Naval Supply Depot, Oakland, Calif., saw that loading a barge was not only difficult and dangerous because of the rise and fall of the tide, but time-consuming in the method of handling. He devised a simple loading platform of non-rationed lumber, to project over the edge of the dock. By this method, he reports, "we now load a barge in 50% of the time, and use less than 50% of the men originally used."

Ideas don't have to be big ones. "One man," according to Donald Nelson, war production chief, "figured out how to cut five pieces out

(*Continued on Page* 70)

FOUR ARMY-NAVY "E" PENNANTS, one for each of its four plants, have been awarded the Raytheon Manufacturing Co., of Newton, Mass.

Winning 'E' Pennants—a Navy Tradition

Today, Navy Plants Win the Production Award; Yesterday, Ships Won 'E' For Best Gunnery

Navy yards and private plants working for the Navy have won the Army-Navy "E" over and over as a by-product of their efforts in building the world's greatest Navy.

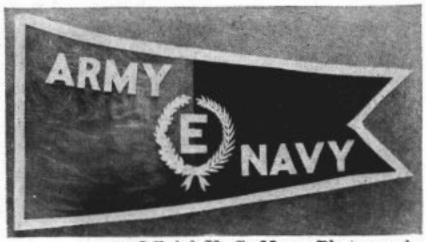
All plants engaged in war production and construction work are eligible for the Army-Navy production award. There is equal opportunity for governmental as well as private plants, those engaged partly on war work as well as those engaged fully on war work, subcontractors as well as prime contractors.

Actually, only about 2½% of all plants engaged in war production have won the "E" pennant. Of the 1,910 plants so honored, 1,188 were nominated by the Army and 722 by the Navy. Proportionately, Navy yards have won more than their share.

Just what does it take to win an Army-Navy "E" pennant?

The standards are extremely high, with Navy plants judged just as strictly as private firms. Many factors are considered, but principally the quantity and quality of production in the light of available facilities.

Other factors considered in awarding the "E" are: (a) overcoming of production obstacles, (b) avoidance of stoppages, (c) maintenance of fair labor standards, (d) training of additional labor forces, (e) effective management, (f) minimum of accidents, high standard of health, sanitation and plant protection, (g) utilization of subcontracting facilities, (h) conservation of critical and strategic materials, (j) low absenteeism.



—Official U. S. Navy Photograph.

PRODUCTION BADGE OF MERIT: This is the "E" flag, awarded by both Army and Navy, to plants with an outstanding production record. The word "Army" appears on a red background, and "Navy" on the blue. Letters and border are white.

Size of the plant has no bearing whatever on the awards. A Brooklyn inventor, sole owner and operator of a small machine shop in the basement of his home, turns out precision parts for Navy machine guns on a subcontract. The Navy awarded him his original "E" in December, 1941, and his production record has entitled him to a renewal of the award every six months since that time.

All navy yards now fly the "E" pennant, as well as many other naval activities which are engaged in production work. Certain yards have a pennant with stars, each star indicating that the yard has maintained the same high standard for an additional six-month period.

Army and Navy have separate Boards to determine "E" Awards. The Navy board is comprised of Admiral C. C. Bloch, USN(Ret),

chairman; Rear Admiral George H. Rock, (CC) USN(Ret); Rear Admiral W. T. Cluverius, USN(Ret), with Lt. (jg) James S. Copley, USNR, as secretary. The board meets about every five weeks to pass upon the nominations, which usually originate with the Navy inspectors in the various plants. Navy nominations are passed on by the Army, and vice versa, thus making it a joint award.

The Navy first instituted its "E" in 1906, as an award to vessels of the fleet for excellence in gunnery. Before Pearl Harbor the Secretary of the Navy, with the approval of the President, inaugurated the present system of awarding the Navy "E" to plants showing marked superiority in the production of naval equipment. From this evolved the new pennant.

Army-Navy "E" pennants have been awarded the following naval establishments:

WITH THREE STARS

Navy Yard, Boston, Mass.
Navy Yard, New York, N. Y.
Navy Yard, Norfolk, Va.
Naval Ammunition Depot, Mare Island, Calif.
Naval Ammunition Depot, Puget Sound, Wash.
Naval Ammunition Depot, St. Juliens Creek, Va.
Naval Gun Factory, Washington, D. C.
Naval Mine Depot, Yorktown, Va.
Naval Ordnance Plant, Baldwin, L. I.
Naval Powder Factory, Indian Head, Md.
Naval Proving Ground, Dahlgren, Va.
Naval Supply Depot, Norfolk, Va.
Naval Torpedo Station, Alexandria, Va.
Naval Torpedo Station, Newport, R. I.

WITH TWO STARS

Navy Yard, Mare Island, Calif.
Navy Yard, Philadelphia, Pa.
Navy Yard, Pearl Harbor, T.H.
Navy Yard, Portsmouth, N. H.
Naval Ammunition Depot, Iona Island, N. Y.
Naval Ammunition Depot, Oahu, T.H.
Naval Ammunition Depot, Hingham, Mass.

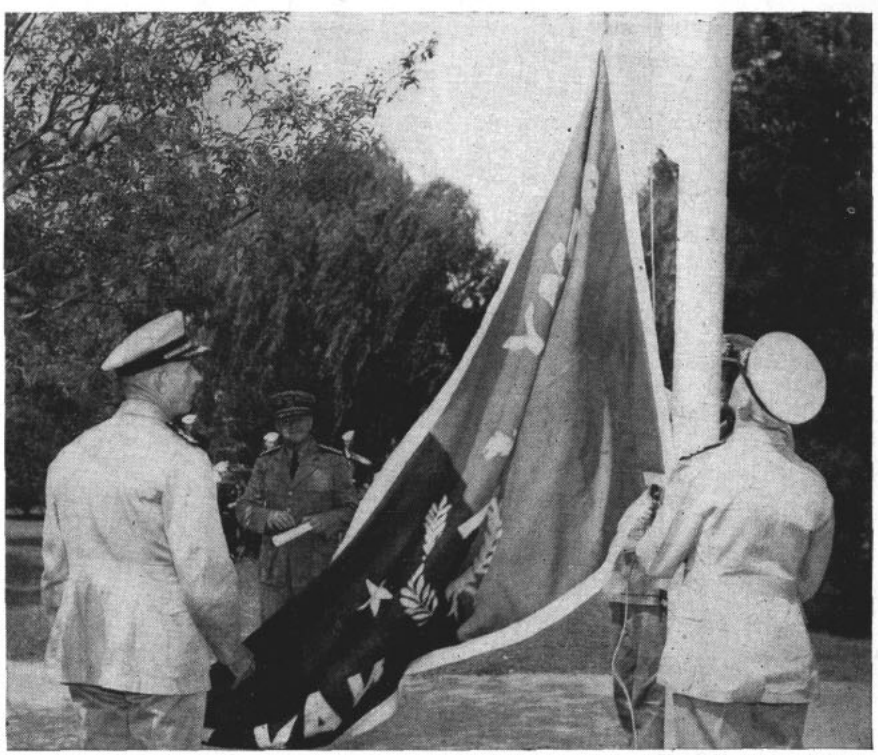
WITH ONE STAR

Navy Yard, Charleston, S. C.
Navy Yard, Puget Sound, Wash.
Naval Ammunition Depot, Fort Mifflin, Pa.
Naval Ammunition Depot, Hawthorne, Nev.
Marine Corps Depot of Supplies, Philadelphia, Pa.

FIRST PENNANT

Naval Clothing Depot, Brooklyn.
Naval Ordnance Plant, Louisville, Ky.

HOME FRONT SOLDIER DECORATED: Rear Admiral C. H. Woodward, USN (Ret), chief of the Industrial Incentive Division of the Navy Department, decorates a worker with the Army-Navy "E" lapel pin that goes to employes of companies that win the pennant.



—Official U. S. Navy Photographs.

THREE STARS IN NORFOLK FLAG: The Army-Navy "E" pennant is hoisted at Norfolk Navy Yard, signifying outstanding speed and excellence in production for the fleet. It has three stars, which indicate the yard has maintained its record for 18 *months since the original flag was awarded. Every Navy Yard holds the "E" pennant.*

—Official U. S. Navy Photograph.

Typists and filing clerks make up a large part of the Navy's 150,000 *civilian office workers.*

The People Who Do the 'Little' Jobs

Without Typewriters and Filers, You Not Only Can't Fight a War—You Can't Even Keep Track of One!

The girl at the typewriter and the little old lady at the filing cabinet may seem a long way from the battlefronts of this war, but the connection is a strong one for many of the 150,000 civilian employees of the Navy who do its clerical, office and other desk jobs.

Typical of all is one who came from the far west to work in the Navy Department at Washington, D. C. There were plenty of jobs nearer home for a girl these days, but the motive came out in a letter from her father. "My two sons were lost at Guadalcanal," he wrote. "She's all I have to give, now."

Another girl volunteered for work with the proviso that it be with the Marines. Word had just come that her brother had been hospitalized. She wanted to work for the same branch which he had served.

In Washington alone, some 20,000 civilian workers help the Navy in the vast and intricate job of running a war on the "desk" front. They're typists and mail clerks and stenographers; accountants and bookkeepers and purchasing officers; engineers and draftsmen and professional technicians. About 71% of them are women—including an 18-year-old from the Dakotas who had been elected "wheat queen" by Army harvest hands, and a white-haired elderly lady of 74, known to her fellow-workers as "Admiral Whitecotton," who came to work last year as a junior clerk!

There are men with honorable discharges from the Army or Navy, and women whose menfolk are in the service. Wherever possible, all other things being equal, preference is given to both these groups in employing civilian personnel for the Navy.

In quiet, unspectacular fashion they do the million and one little unglamorous jobs on which a war depends. They keep the records of all enlisted and officer personnel; receive, verify and maintain muster rolls; account for the whereabouts of every man in the Navy.

They receive all incoming mail, sort it, route to the proper person. Much mail comes to the Navy Department for naval personnel whose station or ship is not known to the sender; this is re-routed, properly addressed, forwarded to him.

They type the military orders, and the specifications for ships and planes; distribute navigation charts to fleet and air force; transcribe medical histories of naval personnel. As engineering draftsmen, some of them design and redesign ships and guns and planes, basing their work on performance reports from the fleet.

They keep the accounts, watch the ledgers, prepare the purchasing orders; drive the cars, deliver the messages, examine the claims. Now that the President has signed the bill amending the Servicemen's Dependency Allowances Act, increasing allowances and extending them to all seven pay grades, an enlarged staff of workers will be busy going over claims and reclassifying enlisted records to extend the benefits of the bill as fairly, efficiently and promptly as possible.

Civilian workers for the departmental service of the Navy are now being actively recruited in 36 states, excepting only the "labor-tight" West Coast, which needs all its own. Naval personnel who have wives or relatives able and willing to serve in clerical positions for the Navy can refer them to Navy Department, Washington, D. C., or to any local establishment of the Federal Civil Service Commission.

WOMAN'S PLACE IS IN THE SHOP

Industry Finds Her Dependable Worker In Difficult Tasks

In navy yards, supply depots and air stations from New Hampshire to Pearl Harbor women today make up more than 52,000 of the employed personnel—a figure that has leaped nearly 800% from the 6,000 women working for the Navy in 1939.

As pipefitters, welders, crane operators and truck drivers, as machinists, woodworkers, lathe operators and precision workers, these American women have freed men to fight—and, more than incidentally, have turned the clock of history far ahead in proving woman's right to an important role in industry.

For industrial experts agree that women, properly trained, are the most dependable of workers. They can invariably be trusted to do a job exactly as they were taught to do it. Said a directive of the Shore Establishment Division on 12 August, 1943: "Within the limits of physical ability, training and experience, women have shown themselves to be as efficient as a similar group of men with the same backgrounds."

And well it is that women are proving so efficient in their new role; for more and more, as the Army and Navy expand toward the goals set for victory, the job of supplying the men in uniform must fall on their mothers, daughters, wives and sweethearts.

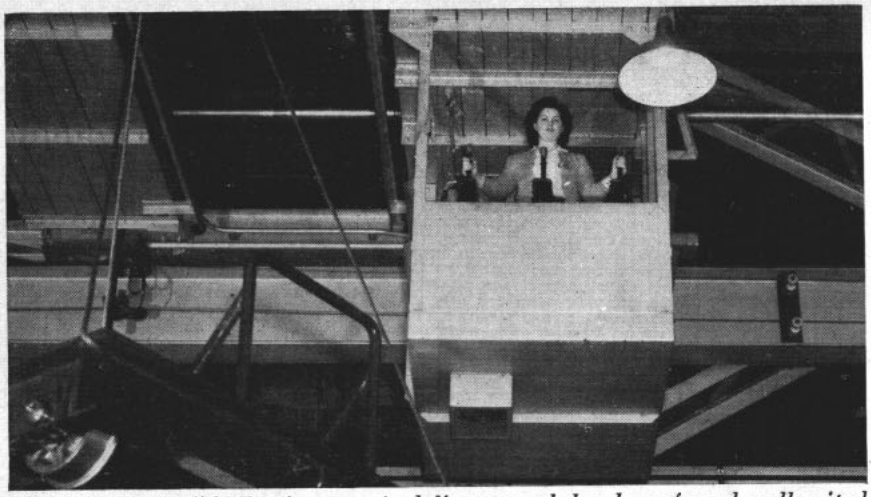
Not that there were no problems in the absorption of women into heavy, high-speed industry. There were—but problems, mainly, not of what women could and could not do, but rather those arising from industry's inexperience in handling these new workers.

Women's supposed physical handicaps, which had kept them from many types of work for generations, turned out to be much less serious than had been expected. While a woman's lifting strength is only half a man's, her pulling strength is two-thirds of his. And a woman will brace herself and use her muscles differently from a man, but not necessarily less effectively. Her thrust on a rivet gun, for instance, was found to be adequate if delivered from the waist rather than the chest.

In most cases, the physical factor proved no real problem when industry adjusted itself to the woman rather than expecting her to act just like a man. Vultee Aircraft, for one, has developed new electrical tools, vises, wrenches, etc., designed to save strength as well as time. With them women are able to do heavy work

—Official U. S. Navy Photograph.

ONE OF NEARLY 4,000 women employed at the Charleston Navy Yard, Mrs. Bertha Bell, a helper trainee, was commended for efficiency by the commandant of the Sixth Naval District.



CRANE OPERATOR: A woman's delicate touch has been found well suited to such work. This one, at Philadelphia Navy Yard, is jockeying a large rolling pallet along an assembly line.

MODEL MAKER at Taylor Model Basin builds a miniature of the Tirpitz for aerial identification.

formerly allotted to men only. Similarly, standard tools used for years by men have been modified and redesigned for women.

How to adapt working conditions to women's psychological differences from men also was worked out by research and experiment. A Navy research bulletin defined the problem rather bluntly: "A woman's highstrung sensitivity will break under discipline or criticisms which a man takes in stride. . . . They are more easily discouraged. In many cases, they actually fear machines and are allergic to noise, vibration and confusion."

The solution was not difficult: industrial counsellors and sympathetic supervisors. Grouping of women of similar backgrounds and tastes also proved effective. Older women were spotted among youngsters as a stabilizing influence. Good housekeeping in the shop and personal cleanliness were found invaluable to morale here as everywhere.

On the positive side, woman's natural curiosity makes her want to know just what she is doing and why. Told, she does it efficiently. And in operations that require suppleness and quick motion or manipulation, it has been found, women often are faster and more accurate than men.

What she is doing, and how well, are best told in official figures from navy yards. Portsmouth, N. H., today has 2,000 women workers against 49 in 1939. They are helpers to blacksmiths, electricians, shipfitters, sheetmetal workers, pipefitters; they operate acetylene torches and gas welders.

Of 5,000 women at the Philadelphia Navy Yard, 838 are employed as mechanic learners and 300 more work on drill presses, grinders, and other machines. Washington Navy Yard's 4,498 women include 500 who are rated as ordnance workers. These specialists bevel, trim, clean, inspect and measure precision eyes for rangefinders, one of the most delicate instruments used by the fleet.

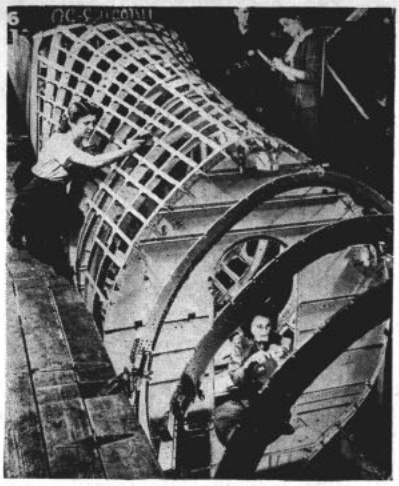
In Charleston Navy Yard there was a shortage of men to load and unload supplies. There were women who were willing but not strong enough. Fork lifts and cranes were designed, and today a number of Charleston's 4,000 women workers have replaced the male stevedores. Others are busy at everything from turret lathes to drillers.

Hired as unclassified Civil Service employees, the Navy's women workers first are instructed in a program of "In Service Training." Experts drill small groups in the technique of varied jobs. Often individual workers get special instruction directly at the new machine or new assignment. Programs of supplementary after-hours training are available for specialists.

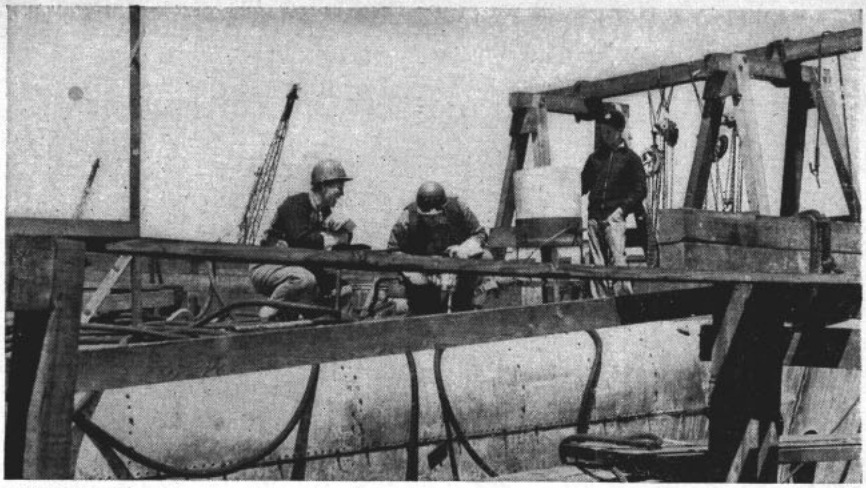
Local schools and colleges now have courses sponsored by the United States Office of Education, the Civil Service Commission and the Navy Department. Such courses

SALVAGE CREW: Native Hawaiian girls at Pearl Harbor Navy Yard cut away twisted steel in the salvage of ships sunk by the Japanese sneak raid on 7 December 1941.

BOAT BUILDER: She's a former Broadway dancer, now working at Philadelphia Navy Yard.



RIVETER AND INSPECTORS: The skeleton they're working on will soon be a Navy patrol plane.



DRILLERS: In the prescribed headgear of the Navy's civilian production corps, these women do a man's job on a submarine under construction at Groton, Conn.

as Vocational Training for War Production and Engineering Science Management War Training offer free studies in drafting, engineering and mechanics.

Many war jobs are dangerous. Safety rules and precautions have had to be revised and streamlined to protect the unfamiliar woman worker.

A woman is a special safety risk for many reasons, including her dress, hair and habits. As a consequence standard clothing rules have been adapted in most yards and factories. The wearing of jewelry, open toed shoes, stylish but flopping slacks, flowing sleeves and other decorative frills is prohibited on safety grounds.

Many naval establishments have special clothing shops on the premises for women. Rest periods are standard at most stations and required by local law at some. Women who for years have led normal daytime lives need special safety and health instruction when they turn to nightshift work.

Near the Mare Island Navy Yard, the Vallejo Housing Authority opened its first nursery for working mothers more than a year ago. Three more have since been added. One operates seven days a week, the others 11 hours a day six days a week. At these nurseries more than 125 children are cared for daily. Without them, many of the mothers would doubtless be forced to give up their jobs.

As the ensuing months bring more and more discoveries as to woman's adaptability to war jobs, the many facets of feminine personality have been utilized to advantage.

Once it was learned that a woman works better when her curiosity as to the meaning and needs of her job is satisfied, this curiosity was put to good use. At Charleston one crew of women was first assigned to the keel work of a DE. As ship construction progressed, it was moved to work on the hull, then to the installation of equipment. By this method the women learned how one job hinges on the other.

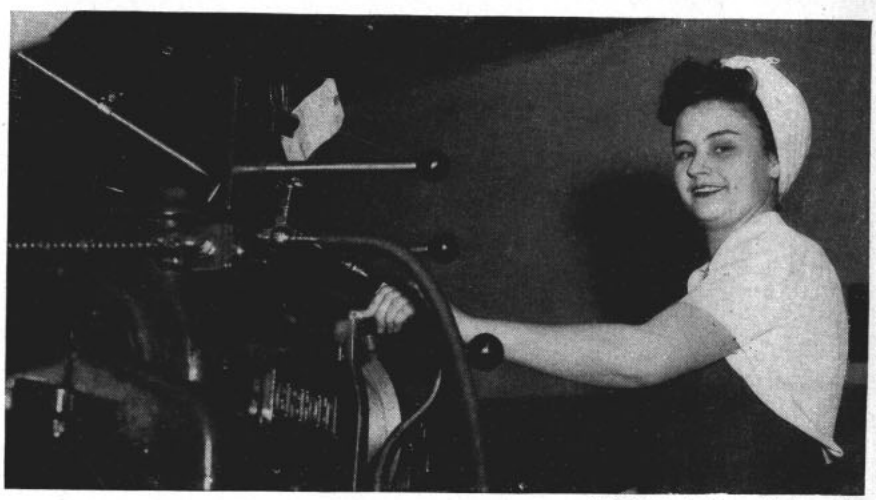
Also, although for some time women past 45 years of age were rarely accepted for war work, age is no longer a barrier. Older women, when they can qualify physically, are often found to be the best workers in a unit or entire section.

With most of the problems now solved, the woman worker sticks to her job once she has mastered it. Figures prove that once a woman gets past the first two months of unfamiliar work she rarely leaves it.

The recent report to the Assistant Secretary of the Navy sums up:

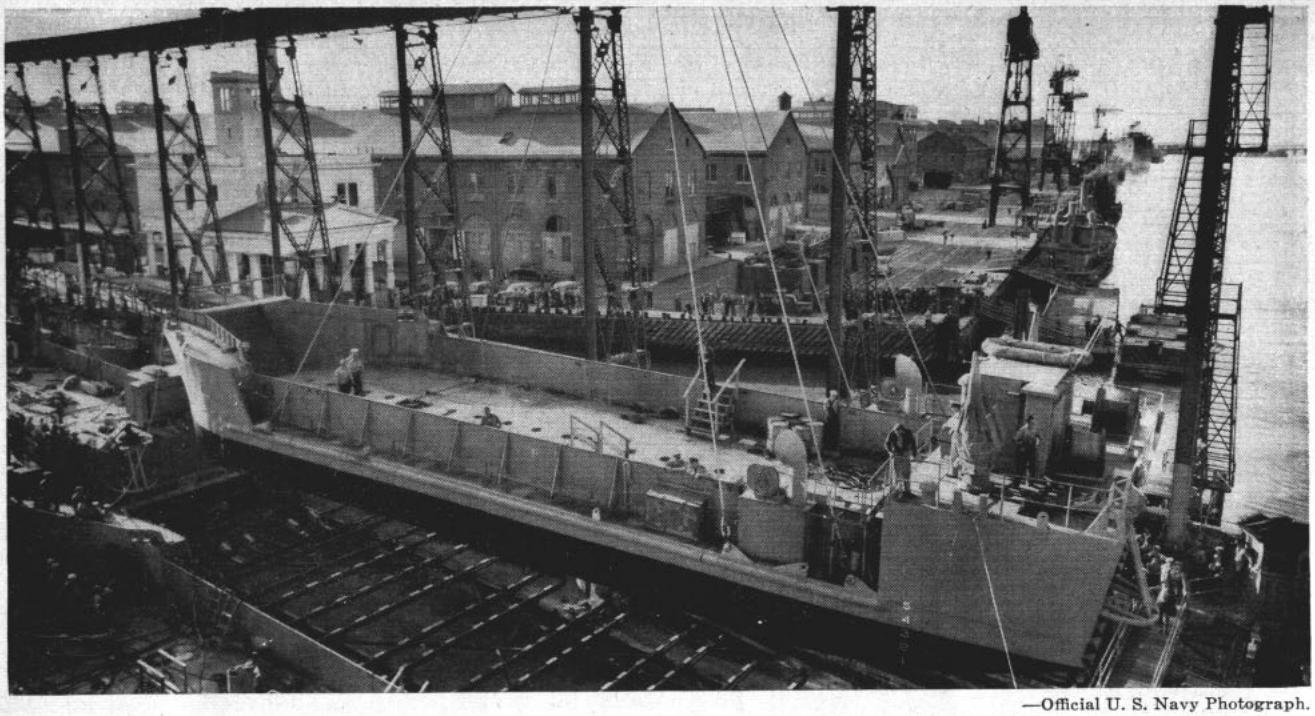
"An experienced woman, well adjusted to work in the plant, needs no more special consideration than such a man. Indeed, where women are receiving man's pay for man's work, there would be no logic in their being treated with special ceremony."

CHART MAKER: Elsie Stavely plots soundings and positions at the Navy's Hydrographic Office.



—Official U. S. Navy Photographs.

MACHINIST'S HELPER: A former West Coast stenographer, now employed at the Puget Sound Navy Yard, grips the handles of an electric grinder as expertly as she once handled a typewriter.



—Official U. S. Navy Photograph.

Floating a finished LCT off the ways was too slow at Mare Island Navy Yard. The craft was lifted by a 150-ton floating crane.

Building Door-to-Door Invasions

Workers, Managers, Naval Officers Together Rushed Through Huge Landing Craft Program

In reporting the achievements of the building program that made "door-to-door invasion" possible, the Navy Department used the following words: "That sufficient landing craft were ready to more than fulfill the operations requirements set down by the Allied Joint Chiefs of Staff is a tribute to the hundreds of thousands of American workers—men and women—who faced seemingly impossible schedules and met them on time, and to the hundreds of Naval designers, design agents, planners and coordinators who all cooperated in this gigantic effort."

Swarming ashore in the Aleutians, Solomons and Mediterranean, "invasion boats" have discharged their fighting cargoes all over the world in recent months. Now that the story behind their production can at last be told, it appears that a problem which became famous 32 centuries ago, and which stumped the Spaniards in 1588, was solved for this war just in time—thanks to a small miracle of production.

Some of the craft that made these invasions possible were the giant tank landing ships—LST's—which were used for the first time. Less than 20 months previously these craft had existed only in the minds of military and naval experts.

Hundreds of large infantry landing craft—LCI(L)'s—were also used. An urgent transatlantic dispatch had started development of these only 16 months previously.

Yet at Kiska, Attu, Rendova, Sicily and Italy, the landing craft were able to write new chapters in the history of invasion, by carrying invasion from door to door.

For months the press and radio of the country, recognizing what was developing and its strategic implications, maintained a strict voluntary censorship on the landing craft program. As the program developed and security permitted, certain portions of the story were unveiled. Now that these craft have been in action with the enemy, the full story behind their development can be told.

The idea of a "portable door-to-door invasion" isn't exactly new, but some historic attempts have been disastrous. The most successful (before 1943) was probably the oldest, for it took in the Trojans more than 3,000 years ago.

The Greeks had laid siege to Troy for ten years before someone thought up the "Trojan Horse," a large wooden affair in which several warriors could be hidden.

The Greeks sailed away, apparently giving up the siege as a bad job and leaving the wooden horse as a parting gift. When the Trojans took it into their city, the hidden Greek warriors stole out at night, unlocked the gates and admitted the returning Greek army.

On land, at least, the Greeks had found a method of transporting an invasion successfully to the enemy. The business of doing it by sea still remained a problem, as Philip II of Spain found out centuries later.

Philip sent 130 vessels and 30,000 men against England in 1588. But the English fleet outmaneuvered him, and between the seagoing Britishers and severe storms that came up, Philip's vast Armada was shattered and broken, about half of the original ships reaching home. Successful "door-to-door" invasion was still a long way off.

Today, ships that can land their own troops are a prerequisite to invasion, and the huge armadas that stream toward the enemy's coasts are heavily composed of landing craft developed especially for this warfare.

The story of landing craft, 1943 model, began in the winter of 1935-36 when the Bureau of Construction and Repair, later part of the Bureau of Ships, initiated designs of various types of personnel landing craft, to be carried in boat davits on troop transports and auxiliary vessels, and

to be used for landing troops and cargo where pier facilities were unavailable. The first of these craft were tested in the fall of 1936.

Testing, development and improvment led ultimately to the standardized models LCV, "Landing Craft, Vehicle"; LCP, "Landing Craft, Personnel"; and LCR, "Landing Craft, Rubber," large numbers of which subsequently were ordered.

About the same time the Navy undertook the development of "tank lighters," designed to carry one light Marine Corps tank, to beach in shallow water, and to permit the tank to run ashore over a ramp. Detailed plans were completed in June 1937, and the lighter tested in landing exercises a year later.

As war clouds gathered, it became apparent the role of the tank would be increasingly important. The LCM(3), "Landing Craft, Mechanized (Mark III)", was accordingly developed. By the latter half of 1941 it was also apparent that provision must be made for carrying heavy tanks. This called for a tank lighter which would be larger than any previously conceived, capable of crossing ocean areas under its own power. It would be impossible to launch landing craft this large from other ships.

The British, who had an extensive landing-craft program of their own had come to similar conclusions. Their early plans were for Commando raids. Now the pattern of invasion was widening, calling for larger landing craft.

In November 1941 a small delegation from the British Admiralty arrived in America to work with the Navy Department on preliminary design of such craft, and to arrange, under the then recently enacted Lend-Lease Act, for their construction in the United States.

As a result of these conferences it was agreed that BuShips should develop the LST, "Landing Ship, Tank," a giant vessel to be capable of transporting and landing hundreds of tons of tanks. Also developed during these meetings were the LCT(5), later LCT(6), "Landing Craft, Tank (Mark V or VI)". This was conceived as an intermediate landing craft, smaller than the LST but larger than the LCM—one that could be carried on cargo ships (in sections) or on LST's; could transport a limited number of tanks or other equipment, could land on shallow beaches, and offered the additional advantage of easy dispersal.

A month later, of course, came Pearl Harbor. The need for ocean-going tank-carrying craft was greater than ever. The need for all kinds of landing craft skyrocketed.

To see what happened in America then, it is necessary to visualize the immensity of the problems facing planners of the landing-craft program. What was the first step? What had to be decided? How was the program to develop? Who should do what? What obstacles had to be met, and how were they to be overcome?

Having the basic problem before them, BuShips design officers went ahead to determine the major characteristics of these ships: their speed, displacement, cruising radius, armament, load-carrying capacity, structural strength, stability, seaworthiness and major arrangement features. Tests were arranged at the David Taylor Model Basin.

Soon after construction started, the British tossed another problem into the works. An urgent dispatch from them pointed out the need for a larger type of infantry landing craft. This led to the development of the LCI(L), "Landing Craft, Infantry (Large)".

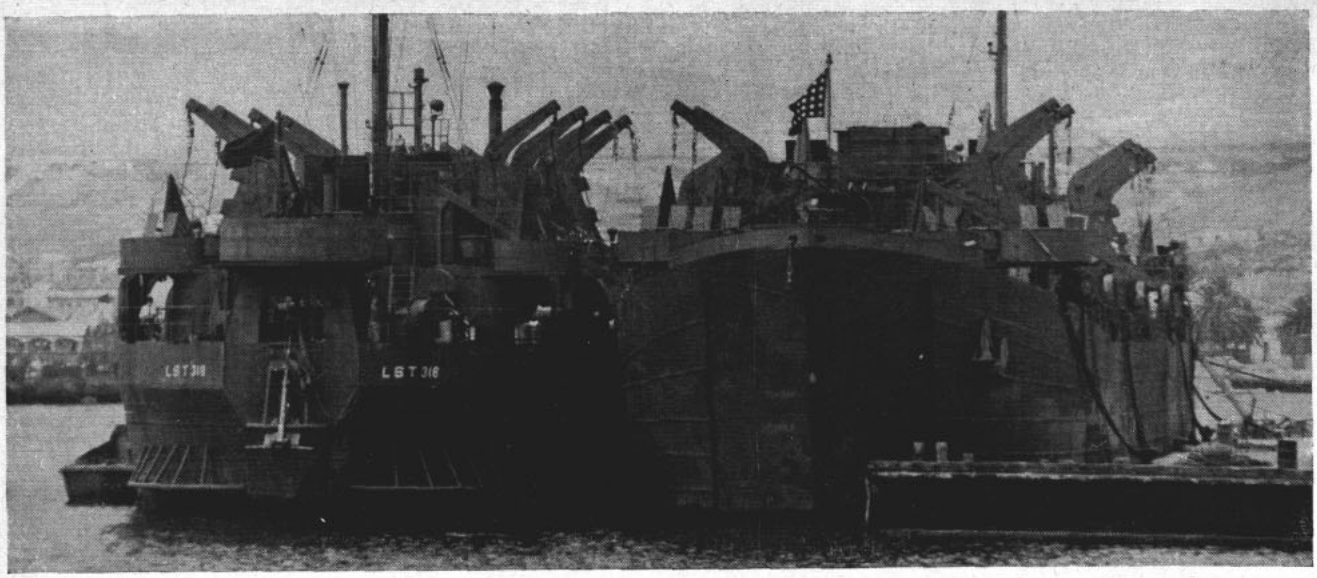
Once BuShips had developed the basic designs for all these, design agents were appointed: Gibbs and Cox, Inc., of New York, for the LST; New York Shipbuilding Corp., of Camden, N. J., and Manitowoc Shipbuilding Co. of Wisconsin, for the LCT. Shipbuilders were called in, shown the basic plans, given explanation of the tremendous task to be assigned them.

Faced with definite deadlines set by the Joint Chiefs of Staff, BuShips rushed out preliminary orders verbally, by telegrams or by brief air-mail letters.

New sources of shipbuilding had to be found. Already the Navy's own building program was in full swing, yet the landing craft program had to be superimposed. In many instances the Navy turned to heavy industries along the inland waterways. For example: former bridge builders, experienced in working with iron and steel products but totally inexperienced in ship construction.

—Official U. S. Navy Photograph.

The gaping jaws of an LST open wide and an American tank heads toward shore. These ships made history at Attu, Rendova, Sicily, Kiska, Munda and New Guinea.



This photograph of two LST's anchored side by side discloses some of the unusual bow-and-stern features of the "ugly ducklings" of the fleet.

New facilities were constructed practically overnight in former corn fields, in vacant lots, in land along rivers and inland streams. Thousands of people who had never before built ships, most of whom had never even seen a Navy combatant vessel, were hired, trained quickly, and put to work. Every workman was informed that he was helping to make invasion boats, and told why it was important. Some contractors, lacking buildings, started prefabricating in tents.

Even this was not enough. Five U. S. Navy Yards (Boston, New York, Philadelphia, Norfolk and Charleston) and the Newport News Shipbuilding Co., turned over part of their enormous facilities.

An entirely new Navy-owned shipyard at Hingham, Mass., managed by the Bethlehem Steel Co. (Shipbuilding Division) turned in an outstanding production record in building landing craft before the yard itself was completely created out of a marsh. The Bethlehem management, whose historic Fore River yard three miles away built Navy combat ships for many years, including small craft and the original aircraft carrier USS *Lexington*, poured all its know-how into the Hingham landing-craft program.

The Maritime Commission assisted by contracting for and supervising the construction of landing craft in certain yards used for merchant shipbuilding.

Next problem was materials, the growing scarcity of which was affecting almost every war program. To eliminate frequent production hold-ups, BuShips organized in mid-1942 a Materials Control Agency regarded as the most complete materials coordinating system ever achieved by a Naval shipbuilding program.

At the request of BuShips, Bethlehem Steel Corporation provided a number of key men for the agency. They formed an organization of several hundred persons to work with Naval Inspection Service throughout the country in tracing bottlenecks and expediting production of parts for the program.

Despite these efforts, certain parts still could not be obtained because of previous priority commitments. With the cooperation of the War Production Board, the Navy was given the right of issuing overriding priority orders for materials needed for landing craft. Despite the fact that this program totalled more than one billion dollars, the Navy's overriding priority had to be used for less than four million dollars' worth of equipment — less than three-fourths of one percent of the purchase orders.

As the vessels were turned over to the Government, organizations were set up to take deliveries. Throughout the nation, landing craft converged upon ports from which convoys sail. They're still converging.

Landing craft are writing new chapters in the development of war, by fulfilling their main mission—transporting tanks and troops to the scene of action and landing them.

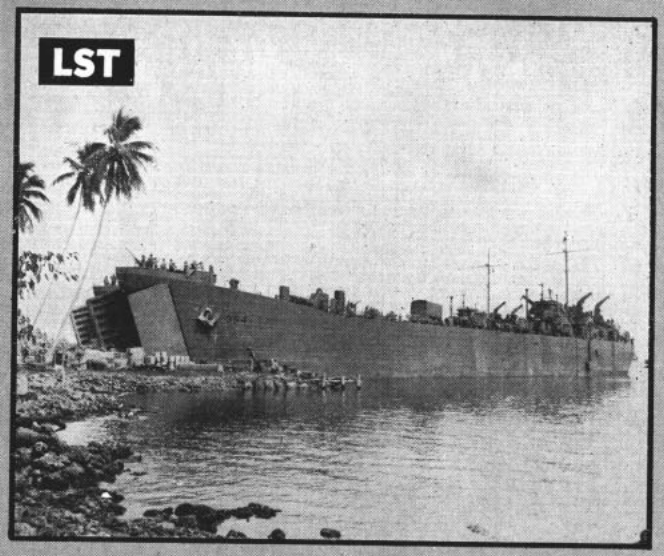
Fighting on the invasion shores of the world, landing craft are proof that a whole new kind of armada can be created in record time, and that the "door-to-door" invasion which the Greeks carried out on a small scale, and the Spaniards flopped at on a big scale, can be accomplished if you have U. S. production to put behind it.

Types of U. S. Navy LANDING CRAFT

LST	Landing Ship, Tank
LCI(L)	Landing Craft, Infantry (Large)
LCVP	Landing Craft, Vehicle, Personnel
LCM(3)	Landing Craft, Mechanized (Mark III)
LCT(5)	Landing Craft, Tank (Mark V)
LCT(6)	Landing Craft, Tank (Mark VI)
LCC	Landing Craft, Control
LVT	Landing Vehicle, Tracked (Unarmored)
LVT(A)	Landing Vehicle, Tracked (Armored)
LCR(L)	Landing Craft, Rubber (Large)
LCR(S)	Landing Craft, Rubber (Small)

Terminology: "Landing Ship" designates largest models, designed for landing; "Landing Craft" designates vessels smaller than ship; "Landing Vehicle" refers to amphibious vehicles.

Landing Craft: Main Types Now in Service

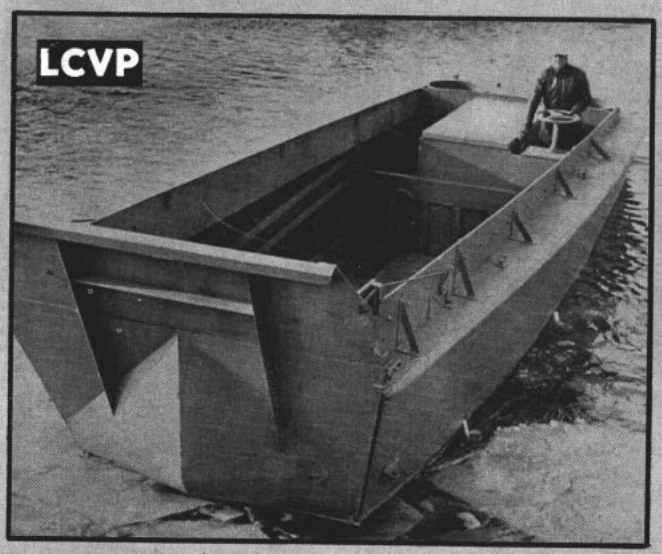


LANDING SHIP, TANKS: BIGGEST USED, CROSSES OCEANS.

LANDING CRAFT, INFANTRY (LARGE): TROOP TRANSPORT.

LANDING CRAFT, TANKS: FOR LIGHT TANKS, SUPPLIES.

LANDING CRAFT, MECHANIZED: MOBILE GUNS, TRUCKS.



LANDING CRAFT, VEHICLE-PERSONNEL: SHIP TO SHORE.

—Official U. S. Navy Photographs.

LANDING CRAFT, RUBBER: RAFT WITH OUTBOARD MOTOR.

BUREAU OF
NAVAL PERSONNEL
INFORMATION BULLETIN

This magazine is published for the information and interest of the Naval Service as a whole, but opinions expressed are not necessarily those of the Navy Department. Reference to regulations, orders and directives is for information only and does not by publication herein constitute authority for action. Articles of general interest may be forwarded to the Editor.

NOVEMBER 1943 NAVPERS-0 NUMBER 320

"Thanks for a Fine Job"

When the last shot is fired and our task force limps home to survey the damage inflicted by enemy shells and bombs, the battle is just beginning for the Navy civilians on the home front.

Those thousands of Navy Yard workers, from Portsmouth to Pearl Harbor, who bind up the wounds of our battle fleet, don't consider themselves heroes. They're just doing a job. When the war is over they will wear no campaign ribbons on their chests—Fourth of July orators will never extol their virtues to the skies.

All they will have is an inner satisfaction in knowing that they did their part toward bringing the war to a speedy and victorious close. They know a ship in the yard for repairs is just as useless as a ship at the bottom of the ocean. It's their job to patch up the scars of battle and send those ships back to the fleet without the slightest unnecessary delay. They must build ships, and more ships, turn out bombs, torpedoes and shells by the thousands. How well they responded after the Pearl Harbor disaster was a miracle of maritime history and an omen of what was to follow.

Navy civilians are not supermen or superwomen. They're just plain folk, many of them fathers, uncles, sisters, sweethearts, wives, mothers—yes, grandmothers—of Navy men. Some could make more money or find easier jobs elsewhere, but they have a personal interest in the Navy and they are glad to make the sacrifice.

When they have worked on a ship, she becomes their "baby." They follow her, so far as censorship will permit, through the vicissitudes of war. If she participates in a raid on Wake Island they talk about it for days, and if the ship is sunk, they feel a profound personal loss as though a member of the family had passed away.

We of the Navy know and appreciate how much we owe our civilian coworkers. In dedicating this issue of INFORMATION BULLETIN to Navy civilians, we salute them: "Thanks for a fine job. Keep up the good work."

RANDALL JACOBS,
Rear Admiral, USN,
The Chief of Naval Personnel.

Quotes of the Month

Seabees in the Aleutians: "The snow comes at you so hard that it blows up your pants and out your neck instead of down your neck and out of your pants."

Comdr. Victor W. Buhr (CEC) USNR: "At one weather station here in Newfoundland the wind averages 70 knots and rarely falls below 30 knots. We had one gale of 140 knots and the local birds were seen to be flying backwards."

General Marshall: "When you have a man on the run, the important thing is to keep him running. You must cut him down when he is off balance. Battle hazards in the Pacific will increase because we are going to expose ourselves to hazards, having the means to do it."

Secretary Knox: "The war in the Pacific is the greatest Naval war ever fought by the United States or England."

LETTERS TO THE EDITOR

This column is open to unofficial communications from within the Naval Service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from the local commanding officer in all possible instances. Answers to correspondence addressed to the Editor will be through this column only.

TO THE EDITOR:

In the May 1943 issue of the Bureau of Naval Personnel Information Bulletin, page 37 (Insignia of the U. S. Navy), the illustrations showing the "Enlisted Cuff Stripes" do not agree with the U. S. Navy Uniform Regulations, unless they have been officially changed.

Your illustrations indicate that a Fireman Second Class would wear three and a Fireman Third Class would wear two cuff mark stripes on the cuff of the sleeve of the dress jumper, whereas the Uniform Regulations specify two and one.

A part of Chapter VIII, Article 8-6, Uniform Regulations (1943), page 28, is quoted as follows: ". . . Nonpetty officers . . . of the second class, two stripes; and of the third class, one stripe."—E. B., Y2c, USN.

ANSWER: The Bulletin is (or was) right because a fireman third class was "of the second class", etc., but the question is now academic. See page 72 for a BuPers Manual change which establishes third class ratings in the Artificer Branch, makes a fireman first class equal to a seaman first class, a fireman second equal to a seaman second and drops the designation fireman third class.

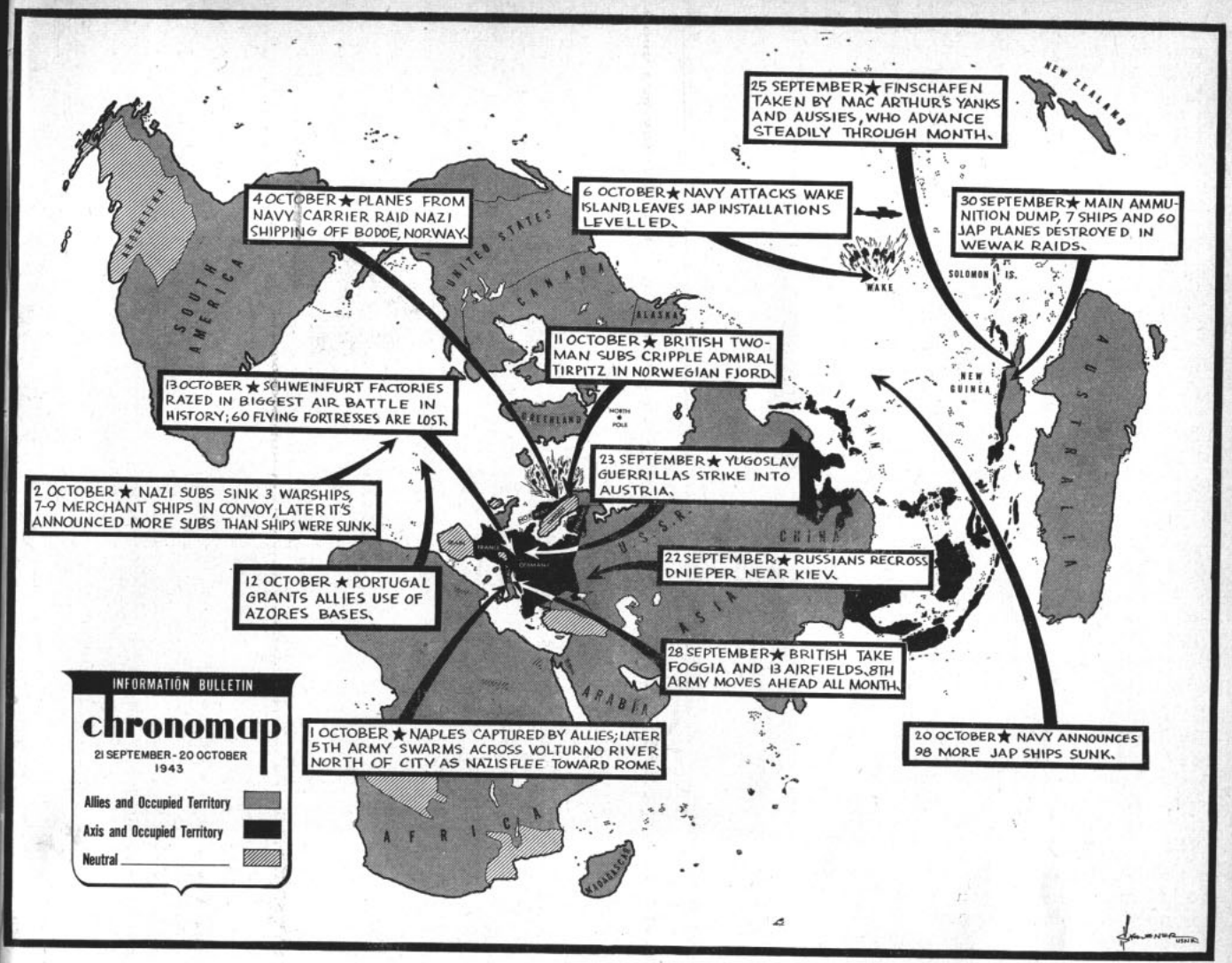
TO THE EDITOR:

Regulations have been issued concerning the length of time members of the Navy V-12 college training program are to remain in college. It is my understanding that these regulations do not govern the length of training of members of the NROTC. At the present time we do not know when we will be commissioned or receive college degrees.

I have completed two semesters of NROTC training prior to the inception of the V-12 program. I am not an engineering student. I would appreciate any information that could be released concerning commissioning and the receipt of college degrees as applicable to those of my status in the NROTC.—J. H. T., A/S V-12.

ANSWER: NROTC members are covered by V-12 regulations as

(Continued on Page 76)



THE MONTH'S NEWS:

(Period of 21 September through 20 October)

Allies Push Toward Rome; Central Solomons Retaken; Navy Blasts Japs On Wake

The War

The Allies struck crippling blows at widely scattered points last month. The American and British armies rolled back the Germans south of Rome. At Wake Island, the Navy blasted Jap installations. At Alten Fjord, Norway, midget British subs torpedoed the vaunted Admiral Tirpitz.

On 15 October an American and British air armada fought what was termed the greatest air battle in history over Schweinfurt, Germany. When the battle was over, the vast ball bearing factories at Schweinfurt were reported demolished. The raid cost 60 Flying Fortresses, heaviest loss to date.

A Navy carrier joined British surface units for a raid on enemy shipping in Norwegian waters off Bodoe, 4 October. The Navy fliers scored hits on an 8,000 ton vessel and others. It was the first time a Navy carrier had participated in a raid on the European coast.

The biggest Allied airfleet ever assembled in the Pacific smashed at Rabaul on 12 October. Results: 177 Jap planes and 123 Jap ships destroyed or disabled in two hours.

The heralded Moscow conference of three great powers opened. Secretary of State Cordell Hull held his first conference with British Foreign Secretary Anthony Eden and Soviet Foreign Commissar Vyacheslav Molotoff on 20 October.

Tension and unrest in Europe were growing hourly. Yugoslav guerrilla armies, apparently using modern equipment and ordnance, were capturing towns and annihilating Nazi garrisons. On 29 September the Yugoslav People's Army of Liberation under General Tito reported their first actual invasion of German soil. This army entered Austria north of Murska Sobota in a thrusting raid.

Elsewhere the fighting forces of

conquered countries were striking, too. Fighting French and freed Italians cleared the Nazis from the island of Corsica, birthplace of Napoleon. These patriots, according to General Giraud, ranged in ages from 15 to 75 years and were uniformed only with an arm brassard proclaiming them "Franc-Tireurs" or guerrilla fighters. They had been organized and armed by Capt. Colonna D'Istria, native Corsican secretly landed on the island by a French submarine months previously.

There was worry for the enemy in the Pacific, too. Starving and unable to receive supplies, the Japanese evacuated their Vila base on Kolombangara Island after an air siege by General MacArthur's combined Australian and American forces. MacArthur's Aussies had taken Finschafen in New Guinea and his air arm was blasting the Jap base at Wewak.

One surprise raid on the roadstead at Wewak bagged seven Japanese ships and 60 planes. In another, Liberators scored a bull's-eye on the main ammunition dump.

Scarcely had the Navy announced that Admirals King, Nimitz and Halsey had conferred at Pearl Harbor when a strong task force under Rear Admiral Alfred E. Montgomery launched a heavy attack on Wake Island.

South of Hawaii, the Navy landed a Marine force on Nanumea 29 September and met no opposition. This coral isle is in the Ellice group and brings Navy striking power to within 525 miles of the Jap base at Tarawa in the Gilberts.

In Russia, the Red Army recrossed the Dnieper River, scene of 1941 battles, and refused to let the seasonal rains interfere with further advances. By 20 October, the Red Army threatened entrapment of the German armies in the Dnieper bend and in the Crimea.

On 2 October it was learned that the Nazis had resumed their Atlantic submarine war with undersea craft often equipped with new anti-aircraft weapons. A convoy from Canada fought a ten-day running battle with a wolf pack. Ten ships were lost. Later it was announced the Nazis lost more U-boats than they sank ships.

Within Germany, the Nazis executed citizens for "defeatist utterances" and peace talk although neutral sources, possibly prompted by German propaganda, continued to rumor official German peace feelers.

—Official U. S. Navy Photograph.

OFFICERS of a Navy escort carrier question one of 65 prisoners hauled (half naked) from the Atlantic after Lt. Robert Pershing Williams, USNR, sent three German subs to the bottom and damaged a fourth in a four-day running battle with an Atlantic wolf pack. Lt. Williams flew a Grumman Avenger bomber with Morris C. Grinstead, ARM1c, and Melvin H. Paden, AMM2c, as crew. It was after this battle that the Navy announced that the Nazi subs, equipped with new deck guns, are now staying on the surface and attempting to shoot things out with attacking planes.

The Navy

Secretary Knox, back from his Salerno inspection told Americans: "What the men with landing craft accomplished there was an epic. I have brought home a new conception of landing operations." The Secretary, complimenting Navy men for their work in the invasion, told a story of a youth who took time to perform an emergency amputation on a comrade with a penknife without abandoning or delaying operations of his landing craft.

The Secretary later revealed that the Navy had sunk 98 Jap merchant ships not previously announced and damaged another 50. Total Jap ships sunk or damaged by U. S. subs since Pearl Harbor: 460.

The Navy disclosed that Japan had assembled a huge fleet near Truk for a showdown battle last January. The

CASUALTY FIGURES

Casualties among naval personnel through 20 October totalled 30,671. The totals since 7 December 1941:

	Dead	*Wounded*	*Missing*[1]	*Prisoners*[1]	*Total*
U. S. Navy	9,569	2,808	8,448	2,249	23,074
U. S. Marine Corps	2,085	2,537	626	1,941	7,189
U. S. Coast Guard	305	61	41	1	408
Total	11,959	5,406	9,115	4,191	30,671

[1]A number of personnel now carried in missing status are undoubtedly prisoners of war not yet officially reported as such.

Japs evaded joining battle after a series of defeats in trying to reinforce their troops at Guadalcanal.

The Navy's largest transport plane, the Martin Mars, in an endurance test last month stayed in the air more than 32 hours, travelling 4,600 miles in an area bounded by Baltimore, Norfolk, Cap Cod and New York.

The fishing trawler Adelaide T., operating off the eastern tip of Long Island, was trolling slowly. The crew finally noticed that she was trolling very slowly indeed. So slowly, in fact, that she was going backwards. The crew was still trying to guess what sort of a monster had been netted when a smoke bomb emerged from the water. The next thing that emerged was a United States submarine.

Foraging inland on Sunday souvenir hunting, two Guadalcanal Seabees met a dirty, dishevelled man carrying a Jap rifle. "What'll you take for it?" they yelled. The frightened character dropped the rifle and fled into the bush. The Seabees realized they had collected a souvenir but missed a Jap prisoner.

"Utmost expediency" was the order last summer when a patrol squadron reported to an East Coast Naval Air Station for major changes and overhaul. Some 375 workers (naval personnel and civilians) were put to work on the planes in a hangar about a mile from the dispensary. On his own initiative, Glen H. George, PhM2c, USNR, established a local dispensary in the hangar. Result: An estimated 700 to 1,000 man hours of work saved by eliminating transportation to the main dispensary.

Seabee Maintenance Detachments to operate and maintain Navy advance bases are being created. Organized into a headquarters detachment, maintenance and operating company, each new unit contains approximately five officers and 270 men.

The name of the Naval Airship Training Command has been changed to Naval Airship Training and Experimental Command and the title of the commander to Chief of Naval Airship Training and Experimentation, in order to express more clearly the functions of the command.

Officers and men of a major ship of the British Navy last month made "hearty acknowledgment of the unfailing courtesy and assistance extended to them on all occasions" while their ship served actively under United States command. The British Admiralty in a message to Cominch said: "The efficiency not only of operating units of the Fleet, but also of U. S. shipyards and all co-ordinate services made a deep impression, and the British vessel returned from her period of duty improved both in equipment and battle efficiency." In its own behalf, the Admiralty expressed its gratitude and the hope that "it may be possible for other units of the British Fleet to operate under similar conditions."

In operation in the Southwest Pacific are several huge Marine Corps trucks that stand out from hundreds of others of the same type because they bear tiny reproductions of the Rising Sun flag painted on their hoods. The machine guns on these trucks assisted in bringing down a Jap plane. Lashed to the top deck of a convoy ship, the trucks were en route to the Southwest Pacific. The convoy was attacked by five Japanese planes. Manning the machine guns, Marine and Seabee truck drivers held their fire until one of the planes peeled off and dropped a bomb about 400 yards to the starboard. Then (along with the guns of a destroyer) they opened up. The plane crashed in flames.

Rear Admiral Thomas Leigh Gatch, telling of the performance of the USS *South Dakota* (Battleship "X"): "She shot down 32 enemy dive bombers while maneuvering at better than 27 knots. She put up such a hail of steel that our own aircraft commander ordered his men to stay well away from her. The *South Dakota* is the greatest ship in the world, including the much vaunted *Admiral Tirpitz*. She ran as quietly and efficiently as a sewing machine and the crew loved her. It usually takes a year for a new crew to learn to handle a ship in battle. Her crew did it much faster. In her first action she proved that the battleship—with air coordination—rules the seas." (A story on the building of the *South Dakota* appears on page 22.)

Famous throughout the Navy for his food and service, Cezar Del Valle, CSt (PA), USFR, last month was parted from the ship on which he had spent more than 21 years building a legend of culinary incomparability. Wrote his commanding officer, Capt. J. A. Roberts, USN, com-

—Portland (Me.) Telegram Photograph.

NEW DESTROYER NAMED AFTER ADMIRAL SCOTT: The widow, two Navy sons, and a brother of the late Rear Admiral Norman Scott, USN, *were in the launching party when a sleek, new destroyer named in his honor slid down the ways at Bath, Me. Admiral Scott, posthumously awarded the Medal of Honor, was killed in the Battle of Guadalcanal while leading a task force against the Japanese. In the party (left to right) are Capt. William G. Ludlow, on the staff of Rear Admiral Morton L. Deyo,* USN, *Commander, Destroyers, Atlantic; Holman Scott, brother of Admiral Scott; Mrs. Webb C. Hayes, Washington, D. C., wife of Captain Hayes, Director of Recruiting and Induction, BuPers; Admiral Deyo; Comdr. Charles Belknap,* USN *(Ret.), St. Louis; Ens. Norman Scott, Jr.,* USN; *Mrs. Deyo (behind Ensign Scott); Mrs. Belknap; Mrs. Marjorie Scott, Washington, D. C., sponsor of the destroyer; her younger son, Michael Scott, of the Navy V-12 Unit at Yale; Captain Hayes; Miss Lila Deyo, daughter of Admiral and Mrs. Deyo; Capt. Russell S. Hitchcock,* USN, *supervisor of shipbuilding for Maine; and Archie M. Main, vice-president of the Bath Iron Works Corp.*

mending Del Valle as he left the USS *Henderson* because of its decommissioning: "You have become more than just a steward and have practically developed into an institution."

Visit of a Navy insurance officer to the Submarine R-12 just 72 hours before the craft was lost off the East Coast has meant that families of the officers and men aboard will receive $178,000 for their future support. If it had not been for the insurance officer's timely entrance, these Navy men undoubtedly would have remained uninsured. When the officer left the sub, all hands were insured for $10,000 each except one yeoman who felt he could afford only a $5,000 policy. (An announcement in June 1942, said the R-12's loss was due probably to accident and not enemy action. The R-12 had a normal complement of 28 men and was engaged in training exercises.)

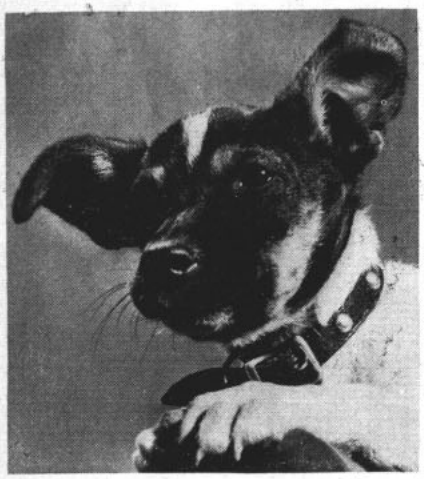
More than 90 per cent of naval personnel are now protected by Government life insurance as against less than 85 per cent (at most naval activities) prior to 12 April 1943. Average individual coverage now amounts to more than $9,000.

On 27 November Army and Navy will meet in comparative privacy for their annual football classic, at the Military Academy's 12,000-seat Michie Stadium. Cadets, and those fans lucky enough to live within 10 miles of the Point (and fortunate enough to have a ticket), will be the only spectators. Navy won last year's game, 14-0, which was played at Annapolis before the midshipmen and Annapolis residents.

Army Corporal George K. Henderson, serving with a Marine Raiders ambush party on New Georgia, confidently used his tommy gun and a hand grenade to dispose of five of an eight-man Japanese patrol. Turning to see what his Marine companions were doing, he discovered he was alone. He had failed to get the order to withdraw. He bedded down for the night, and walked into camp in time for morning chow.

Still in service somewhere in the South Pacific is "The Bug," two full war years behind her, 1,100 hours in the air, and more than 250,000 miles on her log. "The Bug" is a Navy OS2U Kingfisher scouting seaplane. She spotted the raft containing one of the survivors of Capt. Eddie Rickenbacker's plane. "The Bug" flew out, landed, and took Rickenbacker and two of his companions aboard for the trip to a Navy base. Rolled off the assembly line in mid-summer of 1941, "The Bug" was at Pearl Harbor on 7 December 1941. Although hit by enemy shells, she was repaired and went Jap-hunting that night.

During an attack on Viru Harbor, Sergeant Lowren W. Scholfield, 22, USMC, was hit by enemy fire and thrown 15 feet through the air. He landed on the ground beside Chaplain Paul J. Redmond. "I'm hit father," Scholfield gasped. Examining him, the chaplain found that the bullet had been deflected by a hand grenade he was carrying. Only injury: loss of breath.

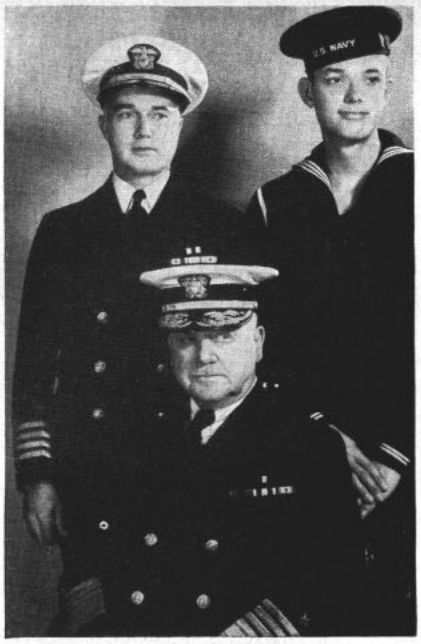


"Scuttlebutt" is dead. The long-eared, mongrel pup who joined the crew of a Navy minesweeper when he was only 10 days old (via a San Diego bar and a ship's cook) died "on the beach" in a veterinary hospital while his shipmates were at sea. Loved by all hands, "Scuttlebutt" (INFORMATION BULLETIN, August 1943, page 33) was registered in the ship's log, given a special Navy identification badge and rated ship's cook, second class. Famous among sailors in the San Diego area, his achievements included learning to hate a caricature of Tojo and to bark upon sight of it.

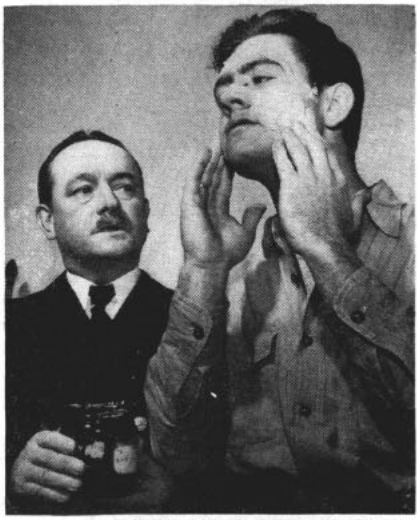
Home Front

OPA spokesmen on 22 September predicted that civilians will ultimately be cut to two pairs of shoes per year under new rationing because of increased needs for military services.

New York newspapermen were introduced to the "tanker champion of World War II" last month. This Norwegian ship has made 45 Atlantic crossings and carried enough gas for 39 bombing raids of 500 planes each. The tanker has never contacted a submarine but, early in her career, suffered slight damage from a mine. She was built in Hamburg, Germany, by German workmen using German materials in 1939 and sold to the Norwegian government.



THREE GENERATIONS IN NAVY: Three generations of the McVay family gathered in Washington, D. C., recently and posed for this picture. They are: Admiral Charles B. McVay, Jr., USN (Ret.), of Washington, D. C.; Capt. Charles B. McVay, III, USN, on duty in Washington with the Chief of Naval Operations; and Charles B. McVay, IV, S2c, USN. Seaman McVay, stationed outside of Washington, was on leave when the picture was made.



—Official U. S. Navy Photographs.

FLASH BURNS, ranking second to gunshot and shell fragmentation wounds as a cause of Navy and Marine Corps battle casualties, are prevented by a new skin cream perfected by Lt. Comdr. Gordon B. Fauley (MC), USNR, who in photo shows Mayo Pittman, PhM2c, how to apply it.

—Official U. S. Navy Photograph.

The 5 October attack on Wake Island is recounted under date of 6 October.

THE OFFICIAL

WAR AT SEA

(20 September to 20 October)

NAVY DEPARTMENT COMMUNIQUES

Supplemented by pertinent excerpts from other communiques

(Navy Department communiques are indicated by number and are separated by dashes from the excerpts of other communiques.)

20 SEPTEMBER

Allied Headquarters in the Southwest Pacific, Northeastern Sector, New Ireland (Kavieng): A South Pacific reconnaissance unit east of Kavieng attacked and set on fire a small enemy cargo ship. New Ireland (Cape St. George): Our heavy reconnaissance units damaged a 2,000-ton enemy cargo vessel. New Britain: Our night reconnaissance units destroyed two barges in Rein Bay. In Vitiaz Strait our naval patrol craft strafed buildings on Rooke and Ritter Islands and destroyed two troop-laden barges off Blucher Point. New Guinea (Hansa Bay): One of our medium reconnaissance units at night attacked and destroyed a 1,200-ton enemy cargo vessel.

London, Air Ministry: Aircraft of the Fighter Command on offensive patrols over France today attacked and damaged two minesweepers off Brest.

21 SEPTEMBER

Navy Department Communique No. 468

South Pacific: (All dates are East Longitude). 1. On 19 September, in the early morning, several enemy planes bombed Guadalcanal Island. Slight material and personnel casualties were sustained.

London, Admiralty: While on patrol off the Dutch coast near Ijmuiden early yesterday morning, light coastal forces of the Royal Navy encountered an enemy supply ship of large size accompanied by a strong escort of patrol vessels, armed trawlers and minesweepers. His Majesty's ships attacked by torpedo. Two hits were scored and the vessel sank. Heavily-armed enemy escorts also successfully were engaged. One trawler was left with her stern awash, afire and in a sinking condition. A second enemy escort ship was seen to burst into flames. All His Majesty's ships returned safely to harbor.

22 SEPTEMBER

Pearl Harbor, United States Pacific Fleet and Pacific Ocean Areas Communique 13: Attacks were made by carrier-based aircraft and by land-based Army and Navy aircraft from various bases in the Central and South Pacific areas. More than 200 sorties were carried out by our planes against Tarawa, Makin and Apamama slands in the northern Gilberts and Nauru Island, west of the Gilbert group.

Damage to the enemy included: At Tarawa: Airdrome facilities heavily damaged, eight bombers destroyed on the runway, one small vessel sunk; at Makin: airbase damaged, three four-engined seaplanes and one other patrol plane destroyed; at Apamama: enemy camp installations heavily hit; at Nauru: damage to installations.

In addition to destroying aircraft on the ground, our forces shot down six Zeros, probably destroyed four others and damaged eight more fighters and shot down two medium bombers. Our losses totaled four planes.

Allied Headquarters in the Southwest Pacific, Northeastern Sector, New Ireland (Kavieng area): One of our heavy units of reconnaissance bombed and strafed a 6,000-ton freighter transport.

Moscow, Midnight Communique: Our airmen in the Barents Sea sank an enemy patrol ship and damaged three transports. The Red Banner Baltic Sea Fleet Air Arm sank six and damaged 12 high-speed troop-carrying barges.

Chungking, A Fourteenth United States Air Force Communique: B-25's of the Fourteenth United States Air Forces bombed docks and shipping installations at Kiukiang. A direct hit was scored on a 225-foot destroyer.

Berlin, Nazi Broadcast: In the waters of the North Cape, German fighters and bombers in conjunction with the antiaircraft defenses of a convoy, shot down 21 out of a formation of 38 attacking enemy planes.

In the Mediterranean region, the German air force repeatedly attacked marching columns and enemy positions and destroyed two large speedboats.

Near Gibraltar our submarines have sunk three enemy destroyers. They torpedoed a strongly protected cold storage vessel and destroyed a freight sailing ship, as well as an enemy airplane.

In the Tyrrhenian Sea units of the Navy have sunk a steamer of the Badoglio Government of 14,500 gross registered tons when it was going over to the enemy and damaged another large ship, as well as a minelayer and some other small warships.

In the Aegean Sea a submarine chaser destroyed the Greek submarine Katsonis, which was in British service, and took prisoner part of her crew.

Tokyo, Japanese broadcast: Imperial headquarters has confirmed the recently reported sinking or damaging of seven enemy ships on the Upper Yangtse.

23 SEPTEMBER

Navy Department Communique No. 469

South Pacific: (All dates are East Longitude.) 1. On 20 September, during the early morning, six Japanese planes bombed the vicinity of the air strip on Guadalcanal. Light damage to material and installations was sustained. No casualties were suffered.

2. On 21 September, in the morning, about 12 or 16 enemy bombers were over Guadalcanal. Light damage and some casualties were sustained. Two of the enemy planes were shot down by one of our fighters.

Alexandria, Egypt, Royal Navy communique: In addition to acting in close cooperation with the Army and the RAF in Dodecanese operations, Allied light naval forces have recently destroyed two enemy convoys in the Aegean, sinking the escort of one convoy and damaging that of the other. No Allied naval casualties were incurred.

24 SEPTEMBER

Allied Headquarters in North Africa: On the night of 21-22 September a force of motor torpedo boats entered the bay of Valona on the east side of the Strait of Otranto. A medium-sized merchantman laden with ammunition, together with a smaller vessel, were sunk. Two other vessels were hit. Shore batteries opened fire on the motor torpedo boats during their retirement, causing some damage to one. The force returned to base without any casualties in personnel.

The ships and men of the Allied navies continued to land troops and their supplies on the beaches in the Salerno area, where the build-up was proceeding according to program.

The enemy's air attacks against shipping have been on a reduced scale. Further south the Eighth Army is being supplied across the Strait of Messina.

Allied Headquarters in the Southwest Pacific, Northeastern Sector, New Ireland: A reconnaissance unit north of Kavieng attacked a small enemy cargo ship, leaving it afire and abandoned and sinking. New Guinea (Vincke Point): Our light naval craft on night patrol sank an enemy motor vessel. (Finschhafen): As our naval units were withdrawing, a force of 20 to 30 bombers, covered by 30 to 40 fighters, attacked. Our fighter cover intercepted with complete success, not a ship or passenger being damaged or injured. In a fight lasting 25 minutes, during which our ships' antiaircraft batteries participated, 40 enemy planes were destroyed and five probably destroyed. We lost three planes, saving one pilot. Solomons (South Pacific Forces), Choiseul Island: Our fighters in two sweeps along the coast burned four enemy barges, damaged five others and left a cargo vessel burning in the water.

New Delhi, India, RAF: Along the Irrawaddy, between Prome and Magwe, a 200-foot steamer and many other river craft were damaged and a 100-foot oil barge was set on fire.

Algiers, A French communique on Corsica: Two ships loaded with war supplies and four barges have been sunk, several ammunition dumps and numerous tanks lying on the quayside awaiting embarkation have been destroyed. Rail traffic from Bastia to the south is interrupted. French naval forces are playing an important part in Corsican operations. They include cruisers, destroyers, torpedo boats and submarines.

Moscow, a Broadcast: Airmen of the Black Sea Navy sank six self-propelling barges with German troops. In addition, five barges and three patrol cutters of the enemy were damaged.

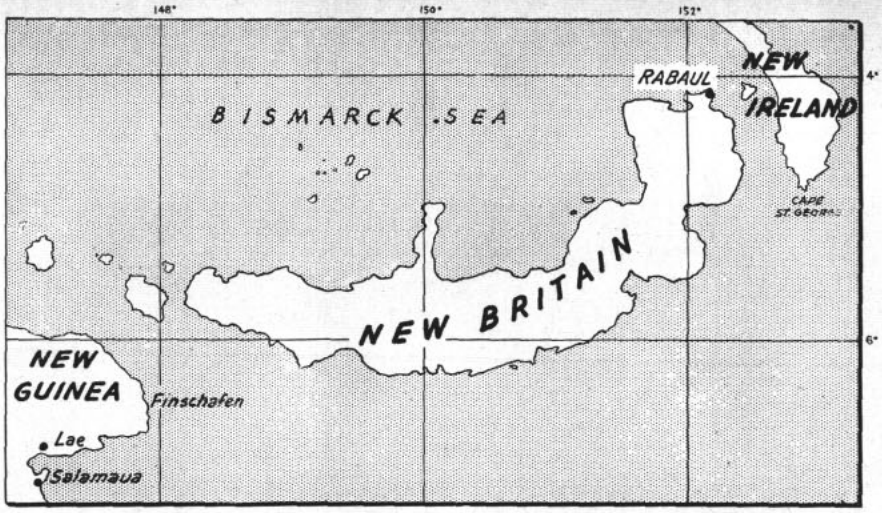
Berlin, Nazi Broadcast: On 22 September British submarines of the smallest type attempted to enter the Norwegian island district. They were intercepted and destroyed before they had been able to achieve a success. Several members of the crew were taken prisoner.

After several weeks' interruption, German submarines made a surprise attack on enemy convoy traffic in the North Atlantic. One fighting group of submarines succeeded in intercepting a convoy, bound for America, which was strongly escorted. The attacks, therefore, were directed against the extraordinarily high numbers of destroyers protecting the convoy.

The German submarines achieved an outstanding success. During several days of stubborn and embittered fighting, 12 enemy destroyers were sunk and three others torpedoed. The total loss of these three destroyers is probable.

Heavy fog impeded continuation of the operations. Nevertheless, nine steamers totaling 46,500 gross register tons were sunk out of the convoy and another two were torpedoed.

Helsinki, Finland, a Broadcast: Naval Activity—Last night, a small enemy detachment tried to reach a small island in Lake Aanis but was driven off by our artillery.



The Big Raid on Rabaul was reported 14 October.

26 SEPTEMBER

Cairo, Egypt, A Middle East Air Communique: Beaufighters attacked a destroyer aground at Cape Prasso, Rhodes, yesterday, scoring cannon strikes and starting small fires on the vessel which appeared to be badly damaged.

Allied Headquarters in the Southwest Pacific, Northeastern Sector, New Ireland (Kavieng): Our heavy reconnaissance units bombed and sank a 2,000-ton enemy cargo vessel. Solomons (South Pacific Forces), Bougainville (Buka): Our reconnaissance units at night bombed three medium cargo vessels west of Cape Henpan and an enemy cruiser southeast of Cape St. George with unknown results. Choiseul Island: One of our night reconnaissance planes strafed two enemy barges off Cape Alexander, leaving them beached and on fire.

Allied Headquarters in the Southwest Pacific, Northeastern Sector, Solomons (South Pacific Forces), Bougainville (Faisi): Our fighters strafed and destroyed a small enemy cargo vessel. Choiseul: Our fighters strafed and destroyed two oil-laden barges.

New Delhi, India, A Tenth United States Army Air Force communique: On Friday, medium bombers attacked shipping on the Upper Irrawaddy at Katha. A direct hit was made on one large river boat and several near misses were observed on four others.

New Delhi, India, RAF: River craft of the Irrawaddy, north of Prome . . . were heavily attacked [by RAF Beaufighters] and damage was inflicted on a large steamer, more than 35 sampans and various other craft.

Moscow, Broadcast: The Air Force of the Black Sea Fleet sank 11 fast landing barges, three cargo barges and five pontoons.

Significant Victory Lies Behind Communiques

Communiques reporting sinkings of enemy barges may not seem spectacular individually, but as was the case recently in the Central Solomons they can add up to a significant victory.

President Roosevelt pointed this out to a press conference by calling special attention to almost daily reports of destruction of Japanese wooden and steel barges. While not large, the barges constituted the principal means of transportation for the enemy evacuating positions in the Solomons area.

Berlin, Nazi Broadcast: In the Mediterranean sector the Luftwaffe yesterday shot down six enemy airplanes and destructively hit a merchant ship of 3,000 gross tons by bombs. In the night preceding 25 September German speedboats attacked British patrol ships off the English coast, one of which was sunk. In order to relieve their hard-pressed patrol forces, British speedboats joined the fight. One of the latter was rammed by a German speedboat when the weather turned hazy. The enemy boat sank immediately. A German speedboat was severely damaged in this action. It was scuttled by its own crew.

To the southwest of Den Helder British torpedo and destroyer airplanes unsuccessfully attacked a German convoy. Six enemy airplanes were shot down on this occasion.

27 SEPTEMBER

Cairo, Egypt, A Middle East Air Communique: Beaufighters left a merchant vessel smoking after an attack in Syros Harbor in the Aegean Sea.

London, A joint British Admiralty and Royal Netherlands Navy communique: During an offensive patrol off the French coast last night, units of the Royal Netherlands Navy, supported by light coastal forces of the Royal Navy, intercepted a large, fully laden and heavily escorted enemy supply ship. Our forces immediately closed in on the enemy, torpedoing the supply ship, which sank. A second explosion was heard and it is believed that one of the enemy escorts was also hit. All Allied vessels returned safely to harbor.

Allied Headquarters in the Southwest Pacific, Northeastern Sector, New Ireland (Kavieng Area): Our heavy units on reconnaissance made attacks on four small cargo vessels. Solomon Sea: Our medium units on reconnaissance bombed and strafed a 1,000-ton cargo vessel and two launches west of Buka. Solomons (South Pacific Forces), Vella Lavella: Enemy aircraft bombed a small Allied vessel off the coast causing damage and casualties. Choiseul: Our reconnaissance units bombed and strafed three small coastal vessels, one of which was left sinking.

London, Air Ministry: Typhoon bombers, escorted by Typhoons, two of which are missing, attacked enemy shipping at the mouth of the Scheldt this morning. Two small vessels were sunk and several others were damaged.

London, Admiralty: Several groups of enemy E-boats were intercepted off the east coast by patrols consisting of trawlers, light coastal forces, corvettes and destroyers. Several enemy craft were severely damaged and at least one was sunk. During the action which ensued, the trawler Franc Tireur was torpedoed and sunk.

Meanwhile, two motor launches under the command of Lt. J. O. Thomas, RNVR, and Lt. R. F. Seddon, RNVR, sighted a large number of E-boats retreating eastward at high speed. Lieutenant Thomas put over his helm immediately and rammed the second boat in the enemy line. As this boat drew clear both motor launches engaged it with small guns. Lieutenant Seldon then rammed the enemy craft with his motor launch and further fire from both motor launches set it ablaze. Burning and abandoned by her crew, the vessel blew up.

One motor launch sustained some damage from the gunfire of the enemy and the bow of the other motor launch was damaged in

ramming the E-boat. Both these craft returned safely to harbor with one officer and one man slightly wounded.

Another group of E-boats were intercepted and engaged at close quarters in conditions of bad visibility by the corvette *Puffin*, and His Majesty's destroyer Pytchley. Two E-boats were seen hit but it was not possible to observe the full effect of our gunfire. No damage or casualties were suffered in this encounter.

London, Admiralty: His Majesty's submarines inflicted substantial losses on the enemy during his attempts to evacuate troops and material from Bastia (Corsica) by sea. Four small supply ships, a Siebel Ferry, and two landing craft were sunk by gunfire and two other landing craft and a small auxiliary vessel were damaged.

A large supply ship and two small supply ships were torpedoed and sunk and a small supply ship was damaged by torpedo. One large tanker was torpedoed and seen to be beached. Another large tanker was torpedoed.

28 SEPTEMBER

Allied Headquarters in North Africa, 28 September: Units of the United States Navy are maintaining patrols in southwestern Italian waters adjacent to attacked areas, protecting shipping and standing by in readiness to lend support with their gunfire to ground operations.

Allied Headquarters in the Southwest Pacific, Northeastern Sector, New Guinea (Wewak area): In the harbor, a newly-arrived convoy was struck in mast-high attacks which left three tankers afire and sinking and four merchant vessels ranging up to 5,000 tons sunk or destroyed. In addition, 29 barges and luggers were sunk or severely damaged.

New Delhi, India, RAF: At Henzada, on the lower Irrawaddy, damage was inflicted on three steamers, a barge, about 25 smaller rivercraft and two more lorries by RAF Beaufighters. Hurricanes attacked sampans in the vicinity of Borong-ga Island sinking six and damaging others.

London, Admiralty: Light coastal forces of the Royal Navy operating off the French coast north of Havre encountered three heavily-armed enemy patrol vessels. Undetected by the enemy, His Majesty's ships approached within close range and attacked with torpedoes and gunfire. The return of gunfire by the enemy, who was taken completely by surprise, was ineffective.

During this short but successful action one patrol vessel was blown up, a second was severely damaged, and the third was left burning fiercely. All His Majesty's ships returned safely to harbor.

29 SEPTEMBER

Cairo, Egypt, A Middle East air communique: Shipping and the port of Syros in the Aegean Sea were bombed yesterday, explosions occurring among the warehouses. A small coastal vessel was sunk.

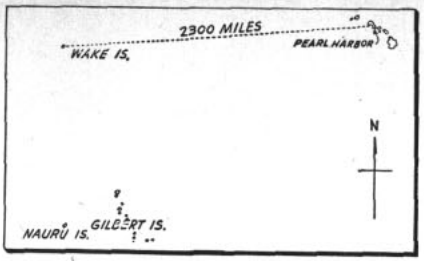
Chungking, China, A Fourteenth United States Air Force communique: B-25's of the Fourteenth United States Army Air Force, on 27 September, ranged the Gulf of Tonking in search of enemy shipping. A 200-foot Japanese tanker was bombed. Three near misses were scored and another bomb exploded beneath the vessel. The tanker's crew were seen to abandon the sinking ship.

Allied Headquarters in the Southwest Pacific, Northwestern Sector, Celebes (Pomela): Our medium units at night strafed the town and shipping, damaging two oil barges and an 8,500-ton freighter and starting fires in the wharf and barracks area. Northeastern Sector, New Ireland (Kavieng): Our heavy reconnaissance units attacked and damaged an enemy gunboat and a medium freighter-transport. New Britain: Our long-range fighters destroyed nine loaded barges at Lolobau Island, Solomons (South Pacific Forces), Bougainville (Choiseul): Our fighters strafed and sank three loaded barges off Taro Island and a 100-foot boat filled with enemy troops off Sasamunga.

30 SEPTEMBER

Moscow, Midnight Communique: The Red Banner Baltic Fleet Air Force sank a 5,000-ton German transport in the Baltic Sea.

Berlin, Nazi Broadcast: U-boats, in a fight against an enemy landing fleet in the Mediterranean and enemy supply communications in the Atlantic, have sunk six ships totaling 42,000 tons and one destroyer. German naval forces and flak of merchantment and naval flak destroyed 121 aircraft between 1 September and 30 September. Rumanian flak artillery played a prominent part in a successful defense against an enemy air raid on the harbor of Constanta.



Relation of Wake and Nauru to Pearl Harbor.

1 OCTOBER

Navy Department Communique No. 470

South Pacific (All dates are East Longitude): 1. During the morning of 27 September, a U. S. reconnaissance plane engaged five Zero fighters in the vicinity of Nauru Island. One Zero was destroyed and one other was probably shot down.

Berlin, Nazi Broadcast: In the Black Sea a submarine has sunk an enemy steamer of 800 gross tons. In the Mediterranean the German Air Force scored bomb hits on two enemy naval vessels, damaging them severely. In this action fighter escorts shot down three enemy planes.

The navy and air force have sunk one battleship, three cruisers, 20 destroyers, three torpedo boats, 13 E-boats, a submarine, several midget submarines, two minesweepers, two patrol boats, and 20 landing barges during September. Damaged were a battleship, 18 cruisers, 17 destroyers, a torpedo boat, eight E-boats, 15 landing barges and five other naval craft.

In addition, 55 merchant vessels aggregating 315,700 gross tons and one transport ship were sunk or destroyed, while an additional 133 vessels aggregating more than 600,000 gross tons were damaged. Damage to numerous naval and merchant vessels is so severe that the destruction of a part of the damaged craft must be reckoned with.

2 OCTOBER

Navy Department Communique No. 471

The minelayer USS SKILL was sunk on the morning of 25 September 1943 as the result of an underwater explosion in the Gulf of Salerno. Next of kin of all casualties in the SKILL have been notified.

Allied Headquarters in the Southwest Pacific, Northeastern Sector (Buka): One of our heavy reconnaissance units strafed and set on fire a small enemy cargo ship west of Buka passage. Solomons (South Pacific Forces), Bougainville Strait: Our night reconnaissance bombers sighted and attacked an 11-ship enemy convoy attempting to run our blockade. Several direct hits were scored on each of four different vessels. One ship was destroyed by a large explosion, followed by fires visible 20 miles. Another vessel, when hit, capsized and sank. A destroyer exploded after four direct hits and a fourth large vessel received two direct hits on the stern.

Allied Headquarters in the Southwest Pacific, Northeastern Sector, New Ireland (Kavieng Area): Our reconnaissance units attacked and damaged a 2000-ton freighter. Solomons (South Pacific Forces), Vella Gulf: Our naval surface units in night actions sank nine enemy barges and destroyed or severely damaged five others attempting to run the blockade between Choiseul and Kolombangara. An escorting enemy plane was shot down.

London Admiralty: While on convoy duty in the Mediterranean, His Hellenic Majesty's destroyer Pindus, in company with His Majesty's Easton attacked and sank a German U-boaot off Pantelleria.

The submarine was forced to the surface by the combined depth charge attack of the two destroyers and tried to escape at slow speed. His Hellenic Majesty's destroyer Pindus opened fire with all guns and the U-boat finally was rammed by His Majesty's Easton and sank within a few minutes. Five officers and 38 men were picked up by the destroyer and made prisoners of war.

3 OCTOBER

Navy Department Communique No. 472

South Pacific: (All dates are East Longitude) 1. On the night of 30 September, a U.S. reconnaissance plane engaged nine Zero fighters fifteen miles north of Nauru Island. One enemy plane was shot down.

Cairo, Egypt, A Middle East Air Communique: RAF Beaufighters left a sailing vessel smoking after an attack near Scarpanto Island in the Aegean Sea.

Cairo, Egypt, a Middle East Air Communique: Early this morning the enemy launched a sea and air-borne attack against the recently-occupied island of Kos. Necessary counter measures have been taken.

New Delhi, India, RAF: Yesterday RAF Beaufighters carried out a sharp and concentrated attack on a large paddle steamer which had been used by the Japanese on river work up the Irrawaddy. The vessel was found at Myingun, some miles below Magwe, and was subjected to intensive machine-gun fire and left with smoke pouring from its whole length.

5 OCTOBER

London, Admiralty: The Home Fleet carried out an operation against enemy shipping in Norwegian leads (waters between the mainland and an outlying fringe of islands) in the Bodoe area early on 4 October. In the force were a number of United States ships including an aircraft carrier.

So far only preliminary reports have been received, but it is clear that United States carrier-borne aircraft obtained hits with bombs on a number of large enemy merchant ships, including an 8,000-ton tanker. Three of the aircraft were shot down by anti-aircraft fire, and it is possible that some of their crews have been captured by the enemy.

Later two enemy aircraft, one a Heinkel 115 and one a Junkers 88, endeavored to shadow the fleet and were shot down by fighters from the aircraft carrier. No other enemy opposition was encountered.

Allied Headquarters in the Southwest Pacific, Northeastern Sector, New Britain: Our units bombed enemy shipping south of Cape St. George, supply and bivouac areas at Cape Hoskins, the building area at Gasmata, the airdrome and barge centers at Cape Gloucester and installations on Garove Island. New Guinea: (Sio): Six of our light naval units attacked and destroyed three enemy barges, inflicting many casualties among enemy troops on shore and causing large fires. Solomons (South Pacific Forces), Buka Area: Our reconnaissance units, in separate night attacks, damaged a large enemy vessel, destroyed a barge and caused a large explosion on a destroyer by a direct hit.

Choiseul: Our medium, dive and torpedo bombers with fighter escort bombed the enemy barge depot at Kakasa, causing fires and explosions. Vella Lavella: Enemy dive bombers and fighters twice raided the area, causing moderate damage and casualties. Five planes were shot down by our fighters and ship anti-aircraft. Kolombangara: Our heavy units bombed the supply and bivouac areas at Villa, starting fires. In two night actions our warships intercepted large flotillas of barges escorted by gunboats attempting to evacuate enemy troops from the island. More than 40 barges were sunk or badly damaged and one gunboat destroyed and several others damaged. Enemy planes caused light casualties on one of our vessels. One of our fighters strafed and burned two enemy barges.

London, Netherlands Admiralty: H. M. submarine Dolfijn, operating with the Royal Navy in the Mediterranean, has torpedoed and sunk an emeny transport of 9,000 tons and has destroyed two German transport barges by gunfire.

London, a Greek communique: The Commander in Chief of the Royal Hellenic Navy regrets to announce that the submarine Katsonis has been sunk.

Berlin, Nazi Broadcast: On 3 October, landing operations in the eastern Mediterranean against the island of Kos, north of Rhodes, were started. Army, navy and air forces are engaged in this operation. In two days' fighting enemy resistance was broken and the island was occupied. Six hundred men of the British garrison and 2,500 Badoglio troops were taken prisoner, and forty guns, twenty-two aircraft, and one vessel were captured. Operations to clear the island of the last enemy troops are going on.

German submarines sank seven vessels of 59,000 gross tons and one destroyer of escorted

enemy convoys in the Mediterranean off the North African coast. Bomber formations raided an enemy convoy in the same waters and heavily damaged eight large vessels, according to reports available so far.

6 OCTOBER

Navy Department Communique No. 473

1. The U. S. Coast Guard patrol craft, *Wilcox*, formerly a fishing vessel, foundered in a storm off the Atlantic coast on 30 September, 1943, and was lost. One crew member is missing, and his next of kin has been notified.

Pearl Harbor, Pacific Fleet Communique 14: A strong Pacific Fleet task force commanded by Rear Admiral Alfred E. Montgomery, USN, heavily attacked enemy-held positions on Wake Island with carrier aircraft and ship bombardment commencing at dawn on 5 October 1943 west longitude date.

Allied Headquarters in the Southwest Pacific, Northeastern Sector (New Ireland-New Britain): Night reconnaissance units bombed a 1,500-ton cargo vessel near Cape St. George and attacked a smaller cargo ship near the Vitu Islands, forcing it aground on a reef. Our medium units bombed and strafed enemy small shipping and shore installations on Garove Island and Unea Island, damaging or destroying a motor launch and five barges, and destroying shore installations, starting fires. They attacked enemy supply dumps and bivouacs at Cape Hoskins, Gasmata and Lindenhafen. Our fighters destroyed barges in Wide Bay.

Solomons (South Pacific Forces), Vella Lavella: Kolombangara: Our torpedo and dive bombers, followed by medium units, struck at the enemy barge depot at Hambert Cove, starting large fires. Our fighter coastal patrols strafed and destroyed four enemy barges during the day, while naval units sank two more in night operations off the north coast.

Berlin, Nazi Broadcast: Fast German bombers effectively attacked enemy tank and vehicle concentrations and sank three large landing craft totalling more than 5,000 tons.

In the already reported attack against an enemy convoy off the North African coast, German air formations scored bomb and torpedo hits on a total of sixteen ships, aggregating 130,000 gross tons, according to the final reports. Part of the ships may be assumed to have been destroyed. Strong German air formations raided an enemy base in the eastern Mediterranean and set fire to a medium-sized freighter in the Aegean Sea.

London, Admiralty: The Admiralty regrets to announce that the trawler *Meror* has been lost.

While escorting an important and valuable convoy in the vicinity of Algiers several weeks ago, the destroyer HMS *Inconstant*, detected a German U-boat. The enemy at the time was in a favorable position to make an attack on one of the ships in the convoy, a transport of about 17,000 tons. HMS *Inconstant* at once interposed herself between the transport and the U-boat and carried out a series of attacks on the enemy with depth charges.

The U-boat was apparently blown to the surface and appeared about 800 yards on the destroyer's starboard quarter. Sixty feet of the enemy's bow rose vertically, then slid back into the water and disappeared.

Later, the U-boat emerged again, this time with the bow at an angle of about 30 degrees. HMS *Inconstant* opened fire with every gun which could be brought to bear.

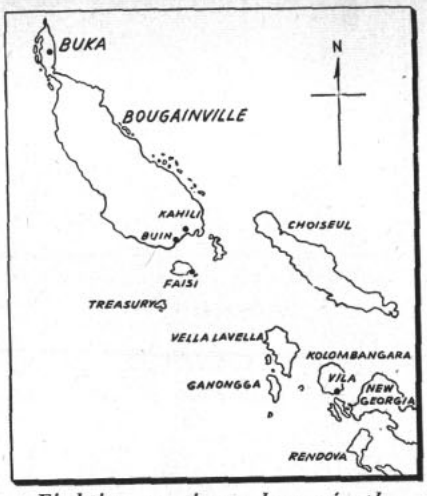
Within half an hour the destroyer gun crews scored three hits on the enemy. One shell penetrated the base of the U-boat conning tower. Another blew away the conning tower's afterend and Oerlikon gun and also started a fire. A third shell struck the U-boat's casing just abaft the main armament, which was being manned.

In all, twenty of the enemy were killed or wounded. The U-boat sank a few minutes later. A number of survivors were picked up and made prisoners of war.

7 OCTOBER

Allied Headquarters in the Southwest Pacific, Northeastern Sector (New Britain-New Ireland): At Kavieng our reconnaissance units bombed an enemy light cruiser. Solomons (South Pacific Forces): Our fighters destroyed enemy barges off the northwest coast of Choiseul and our reconnaissance units bombed enemy shipping off the east coast of Bougainville Island.

London, Admiralty: His Majesty's submarines, continuing their offensive against German and German-controlled shipping in the Mediterranean, sank a total of six ships and damaged two others.



Fighting continues heavy in the Solomons.

Algiers, Admiralty: There has been considerable naval activity on the right flank of the Eighth Army on the Adriatic Coast of Italy. On 6 October two British destroyers bombarded the railway and military targets northwest of Termoli to dislocate enemy attacks in that area.

8 OCTOBER

Allied Headquarters in the Southwest Pacific, Northeastern Sector (New Ireland): Kavieng Area: One of our heavy reconnaissance units attacked and set on fire a 1,000-ton enemy cargo ship. (New Britain): Our long-range fighters destroyed three barges and a launch at Lolabau Island. Our medium units on a coastal sweep from Eleonara Bay to Cape Busching destroyed or severely damaged three enemy patrol boats and four barges. A heavy unit bombed Garove Island.

Tokyo, Japanese Broadcast: On 6 and 7 October a powerful enemy force attacked Otorishima [Wake Island] carrying out aerial and ship bombardments. Imperial army and navy units on the island engaged and repulsed the enemy.

9 OCTOBER

Allied Headquarters in the Southwest Pacific, Northeastern Sector, New Guinea (Finschhafen): Light enemy air raids of inconsequential effect were made against our positions and surface craft near Finschhafen and Morobe. Solomons (South Pacific Forces), Choiseul: Our heavy units strafed barges along the coast, destroying two and damaging others. One of our reconnaissance planes shot down an enemy medium bomber. Vella Lavella: The enemy was frustrated in an apparent attempt to evacuate remnants of his defeated ground forces. Our naval units at night intercepted and engaged an enemy force consisting of one light cruiser and four destroyers. A cruiser and one destroyer exploded and sank as a result of gunfire. One destroyer was sunk by torpedo action, while the remaining two destroyers were damaged and fled. Two other groups of ships to the rear reversed their course and retired at high speed. Our losses were moderate.

Solomons (South Pacific Forces), Choiseul: Our fighters destroyed or damaged eighteen barges along the coast. One of our heavy reconnaissance units was intercepted by six enemy fighters, shot down one in flames and damaged another. Our light naval units at night sank a small enemy gunboat.

Kolombangara: The cutting of supply lines supporting enemy forces at Vila, accomplished several weeks ago by our surprise occupation of Vella Lavella to the north, thus outflanking all sea-supply routes, has forced the enemy to attempt to evacuate his troops from Kolombangara. Vila and the southern part of the island apparently have already been abandoned by troops moving toward the northern shore. For the past several nights by barge and small warship the attempt at evacuation has been progressing. Many barges have been sunk with great loss of enemy life, and some of his troops undoubtedly escaped to safety. The enemy's struggle to evacuate continues.

London, A European Theatre of Operations communique: Strong formations of Eighth Air Force Fortresses and Liberators in their deepest penetration inside Germany, attacked the submarine slips and shipbuilding yards at the former free city of Danzig, actively engaged in the construction of U-boats, and the harbor installations and docks at Gdynia (Poland) now extensively used by the German Navy.

Berlin, Nazi Broadcast: A formation of British cruisers protected by destroyers made several attacks on a small German convoy in the Aegean Sea in the morning hours of 7 October. Several small German transport vessels which had been set afire by shells were abandoned by their crews. Thereupon the British ships opened fire on the German sailors drifting in the water.

Two British cruisers were damaged heavily by German dive-bombers on their way back. Anti-aircraft guns of the German merchant vessels shot down five British bombers off the island of Kos.

10 OCTOBER

Pearl Harbor, United States Pacific Fleet and Pacific Ocean Areas communique 15: Supplementing Pacific Ocean Areas communique 14, the following information is available concerning our operations against Wake Island:

The initial heavy and protracted attack made by carrier aircraft and ship bombardment beginning at dawn on 5 October (west longitude date) was followed late the same afternoon by an attack by a group of Navy Liberator bombers led by Commander John K. Hayward, USN, and on the morning of 6 October, by a further carrier aircraft bombing by the force commanded by Rear Admiral Alfred E. Montgomery, USN.

In the extended attack our planes dropped 320 tons of bombs. An intensive bombardment by the ships combined to inflict considerable damage to enemy installations on Wake, Peale and Wilkes Islands. Enemy defenses were so neutralized in the initial bombardment that the heavy bombers encountered only weak and ineffective anti-aircraft fire and no air opposition in their altitude bombing attack in the late afternoon of 5 October.

Our forces destroyed 30 or more enemy planes in the air and 31 on the ground. Many fires were started in the plane dispersal area, shops, barracks and storage areas throughout the three islands. Two small vessels, one loaded with gasoline, were destroyed. Damage by enemy action to our ships and ships' personnel was negligible. We lost 13 planes in combat.

Allied Headquarters in the Southwest Pacific (Northeastern Sector, New Ireland): One of our heavy reconnaissance units bombed and damaged a 10,000-ton enemy transport. Solomon Islands (South Pacific Forces), Choiseul: Our fighters strafed five barges off the coast.

London, A European Theatre of Operations communique: Strong formations of United States Eighth Air Force Flying Fortresses and Liberators bombed submarine slips and shipbuilding yards at the former free city of Danzig and harbor installations and docks at Gdynia. Good results were reported.

11 OCTOBER

London, Admiralty: His Majesty's midget submarines have carried out an attack on main units of the German Battle Fleet in their protected anchorages in the Alten Fjord in nothern Norway, inflicting underwater damage on the battleship Tirpitz.

This involved hazards of the first order. The attack was made 22 September. Two days later a German official communique announced that an attack by submarines of the smallest type had been repulsed and that prisoners had been taken.

Insufficient evidence was available at that time to assess the results of the attack, as operations were still proceeding. Interrogation of the crews of the midget submarines which took part in the exploit, and subsequent photographic reconnaissance, now leave no doubt, despite enemy claims to the contrary, that the attack met with success.

Air photographs taken after the attack show that the Tirpitz, which has not moved from her anchorage, was surrounded by thick oil which covered the fjord where she lay and which extended more than two miles from her berth. The photographs also show a number of small unidentified craft alongside the battleship, possibly repair ships or ships to provide power and light.

Personnel who took part in the operation report that on 22 September, while still in the immediate vicinity of the anchorage, they heard a series of very heavy detonations at the time expected for the units to be attacking.

Three of His Majesty's midget submarines have so far not returned from these operations and must be presumed lost, but in view of the German claim that prisoners were

taken it is not unlikely that some of the personnel from these vessels are in enemy hands. Next of kin have been informed.

To give some idea of the magnitude and difficulties of this remarkable achievement it must be remembered that Alten Fjord, in which the Tirpitz lay, was 1,000 miles from the nearest base. The midget submarines were set the task of penetrating a highly-defended base where the enemy ships had thought themselves safe. They had to pass through mine fields guarding the approaches to the anchorage, and, after negotiating the intricate fjord, always vigilantly patrolled by the enemy, they had to carry out the attack in strongly protected and confined water where the ships were moored. Finally, to regain their base, the same obstacles had to be overcome.

The Admiralty considers that the crews of these midget submarines displayed the highest qualities of courage, enterprise and skill.

Allied Headquarters in the Southwest Pacific, Northeastern Sector (New Ireland): Our reconnaissance units attacked an enemy cargo vessel south of Cape St. George and a heavy cruiser north of Kavieng. New Britain: Our long-range fighters destroyed three enemy barges at Wide Bay and a reconnaissance unit bombed Cape Hoskins airdrome. Solomon Islands (South Pacific Forces): Choiseul: One of our heavy reconnaissance units sank an enemy barge off the coast.

12 OCTOBER

Chungking, China, Fourteenth United States Air Force: B-24's, B-25's and P-40's of the Fourteenth Air Force carried out widespread missions against Japanese targets in Yunnan, French Indo-China and off the coast of China.

On 9 October Mitchell bombers attacked shipping near the China coast. Our bombers scored two direct hits on a 50-foot tanker. The vessel sank in two minutes. Another flight of B-25's bombed a 100-foot patrol ship with the bombs bracketing the boat. A 200-foot freighter was also bombed, scoring several near misses. The ships spun in circles and it is believed they were damaged.

Allied Headquarters in the Southwest Pacific, Northeastern Sector, New Ireland (Cape St. George): Our reconnaissance units bombed and fired a 6,000-ton freighter-transport and sank or seriously damaged a 2,000-ton cargo ship.

13 OCTOBER

Allied Headquarters in the Southwest Pacific, Northwestern Sector, Dutch New Guinea: Our heavy reconnaissance units bombed the ports of Manokwari, Bira and Fak Fak. Two direct hits on a small tanker at Fak Fak destroyed the vessel and started oil fires, which spread to other harbor craft. Northeastern Sector, New Britain-New Ireland: Our night patrol units attacked an enemy convoy off Cape St. George and bombed enemy installations on Garove Island. Solomons Islands (South Pacific Area), Choiseul: Our medium bombers and fighters attacked enemy barge concentrations along the coast, destroying three and damaging others.

Cairo, Egypt, Middle East Air: Last night medium and light bombers attacked enemy shipping off the island of Kos. A medium-sized merchant vessel was hit, and when our aircraft left it was stationary and smoking. The harbor of Kos also was bombed.

14 OCTOBER

Navy Department Communique No. 474

North Pacific: 1. On 13 October, ten Japanese bombers flew over Massacre Bay, Attu Island, at great height and dropped bombs without causing damage. There was no damage to the U. S. intercepting fighters or to enemy planes.

Mediterranean Area: 2. The USS *Buck*, destroyer, was sunk off Salerno on 9 October, as the result of an underwater explosion.

3. The USS *Bristol*, destroyer, was sunk in the Mediterranean on 13 October, as the result of an underwater explosion.

Allied Headquarters in the Southwest Pacific, Northeastern Sector, New Britain (Rabaul): In the assault on the enemy's shipping our heavy bombers with 1,000-pound bombs sank or destroyed three destroyers, two merchant ships of 5,800-tons each, one of 7,000 tons, 43 sea-going cargo vessels ranging from 100 to 500 tons and 70 harbor craft. In addition, they hit and severely damaged a submarine and a 5,000-ton tender, one 6,800-ton destroyer tender and one 7,000-ton cargo ship. (Cape Gloucester): Our night reconnaissance units bombed and scored a direct hit on the stern of an 8,000-ton cargo ship which was stranded on a reef. New Guinea (Cape Cretin): Our light naval craft fought off intermittent air attacks during the night, shooting down one bomber.

'Advance to the Rear'

An action north of Kiev, as described by the German news agency, DNB:

"Parts of the attacking (Russian) formations were able to penetrate to the rear of German positions, but German tank grenadiers were able to restore the rearward communications by energetically reversing the fighting direction."

15 OCTOBER

Allied Headquarters in the Southwest Pacific (Northwestern Sector), Banda sea: Our heavy units bombed and damaged a medium-sized freighter transport. Flores sea: Our night reconnaissance units strafed and damaged a small schooner near Sumba Island.

Kupang: A 1,000-ton ship in the harbor was damaged. All our aircraft returned. Delhi: Our medium units at night bombed Tibessa, Lahane and Comoro, starting fires. Cape Laival: Our night reconnaissance units strafed an 800-ton merchant vessel, which was left smoking at the stern and heading toward shore.

Northwestern Sector (New Ireland): Our medium units on night patrol bombed and strafed shipping east of Cape St. George.

Tokyo, Broadcast: On the morning of 12 October enemy planes numbering about 200 attempted to raid Rabaul, New Britain, but our naval air force and army and navy ground units successfully repulsed the enemy attempt.

In an aerial engagement eight enemy planes were shot down and four others were damaged, while ground batteries shot down five planes. Fifteen Japanese planes were lost in air battles or set afire on the ground. One Japanese vessel was sunk.

South Pacific Forces, Solomon Islands (Bougainville). Matchin Bay: Our medium units on night reconnaissance bombed from masthead height two large enemy cargo vessels south of Buka Passage, scoring hits on both ships, which were badly damaged and believed sinking.

Berlin, Nazi Broadcast: German U-boats in heavy fighting against British-American convoys sank 11 ships totaling 74,000 gross tons and two destroyers. Two other enemy ships and a destroyer were severely damaged by torpedo hits.

Algiers, a United Nations Naval Communique. In the early hours of Wednesday, 13 October, successful operations were carried out north of the Volturno River by landing craft of the Royal Navy. Targets in the same area were later bombarded by light naval forces.

16 OCTOBER

Allied Headquarters in the Southwest Pacific (Northeastern Sector), New Ireland: One of our reconnaissance units attacked a 4,500-ton freighter transport north of Lorengau. New Britain, Cape Gloucester: Our medium units swept the coast from Gloucester to Sag Sag, bombing and strafing enemy-held villages and destroying or damaging five barges. Rook Island: Our light naval craft sank an enemy coastal vessel and strafed enemy shore installations, destroying or damaging eight beached barges at Tuam Island. Solomon Islands (South Pacific Forces): Our reconnaissance units bombed enemy barges off Buka passage.

Algiers, a United Nations naval communique: During the night of 14-15 October British destroyers operating in the Adriatic intercepted two Italian ships carrying German armed guards. One, laden with 500 tons of bauxite, was set afire by the Germans and sunk by our forces. The other, a medium-sized tanker, was captured and taken into harbor.

17 OCTOBER

Allied Headquarters in the Southwest Pacific, Northwestern Sector, Ceram: Our heavy reconnaissance units bombed Bula and Taberfane in the Aru Islands and attacked shipping off Geser Island. Northeastern Sector, Solomon Islands (South Pacific Forces), Choiseul: Our light naval units shot down an enemy float plane at night.

18 OCTOBER

Allied Headquarters in the Southwest Pacific, Northeastern Sector, New Britain (Rottock Bay): Our reconnaissance units sank or wrecked five enemy barges off the coast and destroyed a power launch in John Albert Harbor in the Vitu group.

New Guinea, Wewak: A coastal vessel in the Mushu Straits was damaged. Madang: Two barges were destroyed by medium units with fighter escort. Finschafen: One of our night reconnaissance planes bombed and strafed a small enemy vessel off the coast. Oro Bay: A large group of enemy dive bombers and fighters attempting to attack our shipping and installations were intercepted by our fighters and virtually annihilated before any damage could be done. Solomon Islands (South Pacific Forces), Bougainville (Buka): One of our night reconnaissance units attacked and destroyed an enemy barge.

19 OCTOBER

Navy Department Communique No. 475

According to latest information, U. S. submarines operating over wide areas and carrying the war to the enemy's closest home waters have sunk a total of 319 Japanese ships, have probably sunk 36, and have damaged 105 others since 7 December, 1941.

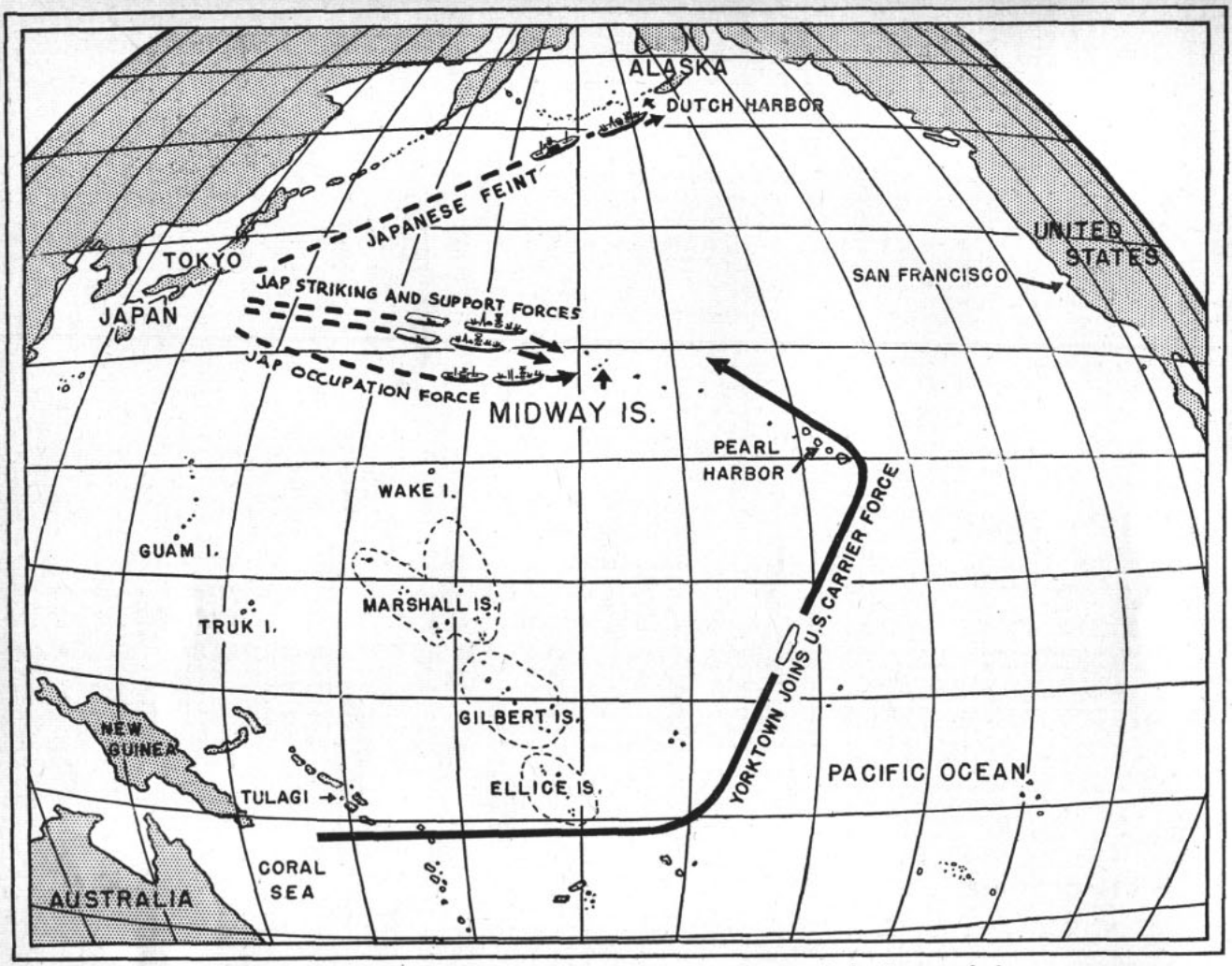
In previous Navy Department communiques, the sinking of 221, the probable sinking of 31, and the damaging of 60 enemy vessels were announced. To bring the score of damage inflicted on Japanese shipping by U. S. submarines up to date, the following additional details of results are reported for the first time by types:

Sunk: 6 large tankers, 17 cargo supply ships, 45 medium-sized cargo-supply ships, 3 large transports, 2 medium-sized tankers, 5 small cargo-supply ships, 20 miscellaneous vessels. Total: 98. Probably sunk: 5 medium-sized cargo vessels. Damaged: 4 large tankers, 2 transports, 2 large cargo-supply vessels, 31 medium-sized cargo-supply vessels, 5 miscellaneous vessels, 1 small cargo-supply vessel. Total: 45.

Allied Headquarters in the Southwest Pacific, Northeastern Sector, New Ireland (Kavieng Area): One of our heavy reconnaissance planes has bombed and damaged a 7,000-ton cargo vessel. New Britain: One of our heavy reconnaissance units at minimum altitude attacked and sank an enemy submarine chaser north of Ataliklikun Bay, scoring four direct hits with 500-pound bombs. Cape Beechy: Our long-range fighters strafed enemy barges. New Guinea (Wewak): A direct bomb hit was scored on a patrol boat off Mushu Island. (Oro Bay): Another enemy attempt to avenge his Rabaul losses by an attack on our shipping was frustrated by our fighters. Solomon Islands (South Pacific Forces), Bougainville, (Buin): At midday our fighter patrols swept the harbor at Tonotel, destroying a troop-laden barge and coastal vessel, and strafed other small shipping.

20 OCTOBER

Allied Headquarters in the Southwest Pacific, Northeastern Sector, New Ireland (Kavieng Area): One of our heavy units from our South Pacific Forces scored a direct hit on an 8,000-ton enemy transport crowded with troops and heading south near Nassau Island leaving the vessel afire and sinking. One of our heavy units attacked and damaged two 1,000-ton cargo ships off New Hanover. New Britain (Rabaul): A strong force of medium units, in adverse weather and without fighter protection, executed a low-altitude bombing and strafing attack on enemy airdromes and shipping. A destroyer gunboat and a 6,000-ton cargo ship were damaged and possibly sunk in a series of mast-high attacks. Solomons (South Pacific Forces), Bougainville: Our reconnaissance units bombed and strafed three enemy barges near Empress Augusta Bay, forcing two aground, and attacked three barges west of Buka.



BEFORE THE BATTLE OF MIDWAY: The approach to battle of the Japs and the YORKTOWN

The Mysteries of Midway

The Story Behind a Great Naval Battle on Which the Japs Staked an Empire

By FLETCHER PRATT

Author of "Sea Power and Today's War," "Fighting Ships of the U. S. Navy" and "The Navy Has Wings."

The Battle of Midway should have been reported by Plutarch. He would have used it to exhibit once more that divine law of compensation which causes men to be destroyed by their own successes. It abounds in the antithesis and paradox of which he was so fond. He would have enjoyed recording that the greatest naval battle in three years of war took place without any vessel sighting an enemy; and that the Japanese leaders, who spend so much of their effort in depriving their fighting men of all human emotion, themselves gave way to fear of the unknown, lost all their skill, and with it lost an empire which they stood to gain if their plan had succeeded.

BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

REPRINT OF THE MONTH

It will always seem, until we have positive evidence to the contrary, that the Japanese plan at Midway was at least partly an improvisation. Doubtless there was more than one scheme for the capture of Hawaii filed away in the Imperial archives; and doubtless the best plans included the capture of Midway as a stepping stone, with a simultaneous move against the Aleutians. These would be dictated by the simple military consideration of dividing the defensive forces and gaining some advantages regardless of where the defense chose to concentrate.

But the timing was all wrong, in the sense that the Japanese push into the central Pacific should have been the climax of a victorious campaign in which Japan had everywhere else rendered herself invulnerable and had so damaged our forces afloat that they were incapable of anything but a desperate defense. The Japanese knew this. But in their strategy at this time there was an element of compulsion. At the Coral Sea they had lost a good deal more than the carrier *Ryukaku,* an invasion convoy, and the opportunity of extending their empire of the islands southeastward; they had lost face, or some portion of their belief in themselves—an important factor in war. They had also lost time, all the time spent in assembling that gaudy armada whose fragments went slinking home from Misima Island,

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and they were conscious that our production lines had not in the meanwhile been idle. Their war was in fact one in which all the great gains would have to be made early and then defended.

Thus from every point of view they were urged to a great and daring stroke that should make good the losses of Coral Sea. Probably they were counting on our expecting them to make another major effort toward the southeast, toward Port Moresby and Tulagi Harbor. Possibly they believed, on the evidence of Pearl Harbor, that an unexpected attack would always catch us napping.

No one can say whether they might not have been right at another time or against another officer, but in the actual case these were errors of enormous proportions. Admiral Halsey, the vigorous leader of the carrier forces that were our main arm (while the old battleships which had been hit at Pearl Harbor were still mostly under repair and the new, fast battleships were still unready) was ill; and his place was being filled by Rear Admiral Raymond A. Spruance, the cold, exact, emotionless tactician known as "the human machine" in the fleet, a man without any psychology at all in the sense the Japanese were trying to use it, who believed nothing but evidence and always acted on that. He was a member of that little kitchen cabinet of the fleet air arm which gathered round Halsey and included Admiral Fletcher, Captain Sherman of the *Lexington*, and Admiral Fitch, who had headquarters aboard her: the men who had been at sea when the enemy came down on Pearl Harbor and who did not believe that was the disaster it seemed, since it not only left intact the striking force of the carriers, but also promoted the the carriers to the first line of national defense.

It is possible that in such company Admiral Spruance was a voluble man. To the rest of the world he had little to say, seemed always behind an aquiline face and rhadamanthine brow to be thinking, thinking—not cleverly, with a bridgeplayer's mind, like Admiral Yamamoto, who was planning the operation against him, but precisely, with the mind of an astronomer who must measure the weight of a star two hundred light years distant by the variation of a line not quite as wide as a hair.

The First Mystery

The material for thought, both by Admiral Spruance and Admiral C. W. Nimitz, the little man with the brushcut, was a series of reports that ran in during the early part of May, following the Battle of Coral Sea. These reports came from MacArthur's land-based planes, from our own scouting submarines, and from one of our carrier cruiser task forces. They no more than mentioned the date and place where some enemy ship had been seen, and the identification was often doubtful, but in them there was a line so consistently repeated, with small variations, that it could not fail to draw the attention of both Admiral Spruance and Admiral Nimitz—"Course 315."

This meant that most of the Japanese ships were steaming northwest, toward their home islands. Where they would go after that was anybody's deduction. Perhaps a little better than deduction; for at this point we reach the first of the mysteries of Midway. On 7 June, just after the battle, the papers of the McCormick group (Chicago Tribune, Washington Times - Herald, New York News) carried a story saying the Navy had known the exact strength and disposition of the Japanese forces almost since they had left their bases. According to this story there were three separate Japanese squadrons to make the usual Japanese attack like the clutching outstretched fingers of a hand.

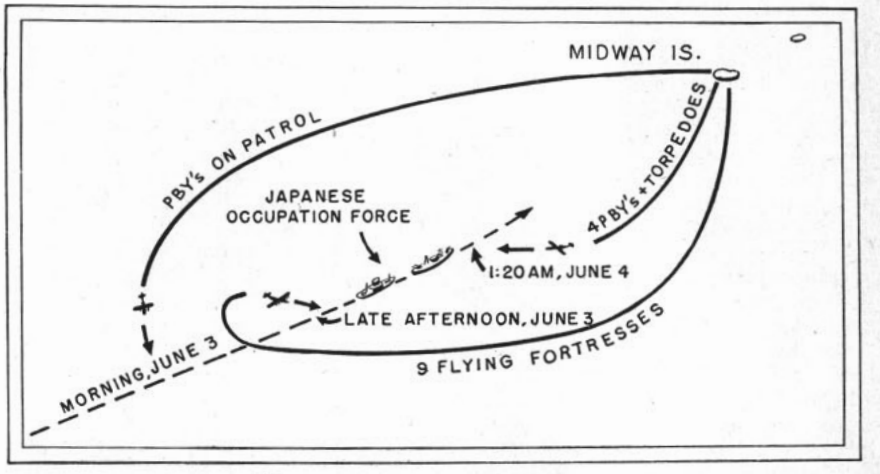
One was a support force, all fast ships and powerfully gunned, with the moderate complement of aircraft from the small carrier *Ryujyo* to accompany them. This squadron (according to the story) consisted of two battle cruisers of the Kirishima class in addition to the carrier, the four big light cruisers of the Mogami type "armed with fifteen guns of 6.1 cal.," a smaller light cruiser, and ten big destroyers.

One was an occupation force expected to land troops; it comprised two armored transports, six troopships, eight to twelve supply vessels, twelve destroyers, and ten submarines, in addition to four cruisers—*Chakas, Myoko, Chitore, Choda* (again quoting the story)—with 6.1-inch guns.

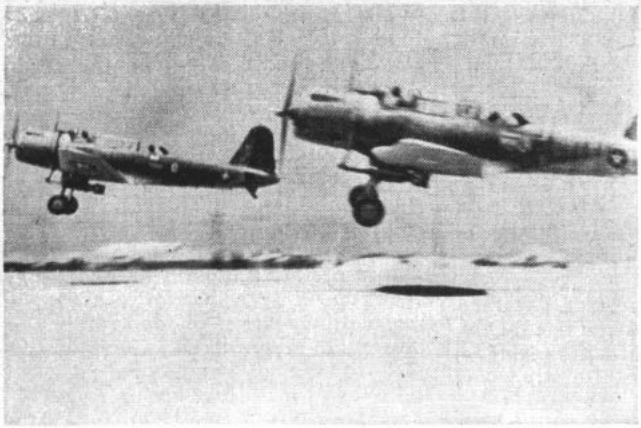
The third, or striking force, intended to smash up opposition at the point of attack, contained the other two Kirishima class battle cruisers, two cruisers, of the Tome class (new ships with 6.1-inch guns), twelve destroyers, and four big aircraft carriers—*Kaga* and *Akagi* (the ships that had bombed Pearl Harbor) and the recent *Hiryu* and *Soryu*.

There were some very striking inaccuracies in this account—including misspellings like "Choda" for "Chioda" and an understatement of the size of the Mogami-type cruisers' guns—and it did not list half enough Japanese ships. But when the Midway communique of 14 July came out (one of the finest pieces of prose ever seen in an official document) it gave the strength and organization of the Japanese forces substantially as they had been listed in this press account, though without so many names. The fact that some weeks later the government haled the heads of the McCormick press before a grand jury (unsuccessfully) on a charge of having published information from official sources without official permission, and so having broken the censorship laws, permits the deduction that the Navy did know, and well in advance, what it was going to fight. Other evidence also indicates that it knew when and where the attack would come.

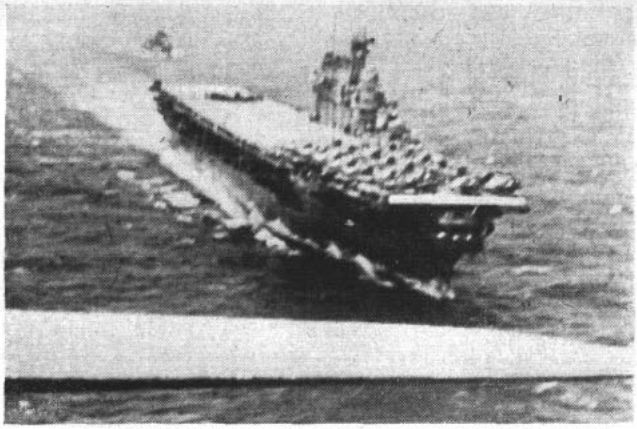
Part of this is furnished by the presence of the carrier *Yorktown*. She had been in the Coral Sea action with the *Lexington*, and on the evening of 8 May was steaming southwest and away from that deadly contact with a bombhole in her deck and 44 men dead. Presumably she would have to refuel somewhere, replace planes lost or damaged in the battle, and get repairs that at least implied a visit to a port for spare parts. Yet she showed up at Midway less than a month later, after a run of well over 5,000 miles.



The Opening Phase of Midway.



Marine planes take off from Midway.



—Official U. S. Navy Photographs.

U. S. carrier just before her planes attacked.

She must have gone like the fabulous bat out of hell, and hardly anything but positive information on the strength and intentions of the enemy could have led the Navy to take their carrier from the active front in the South Pacific and send her on so furious a journey.

Locating the Attack

So much for the dating of the Japanese attack. Now as to the placing of it. On straight strategic grounds Alaska was a far more attractive target for the Japanese forces than Midway. The distance they would have to cover was shorter, and much of it was through fog-bound seas that would make surprise easy. The Japanese had every reason to believe that the local defenses of Alaska, both ground and air, were not so good as those of the islands to the south. There was thus every reason for our Navy to suspect the Aleutians as the true enemy objective in the absence of positive information, and to rush our mobile defenses, the forces afloat, off in that direction. The Japanese apparently thought we would do that, and to encourage us in the idea they sent a fourth squadron toward the Aleutians and made a semi-feint there just before the big attack at Midway.

But Nimitz and Spruance never reacted at all to the Alaskan fake; they kept their ships in the region of Midway. That is, they knew. Some have advanced the theory that they got their information by the same means the British used in discovering there would be a German fleet off the coast of Jutland at the end of May, 1916—through intercepting the enemy's radio messages and breaking down his code.

But even if Nimitz and Spruance knew what the Japanese meant to do there was no guarantee that they would be able to prevent it. For our forces were inferior. From its slender store of available planes the Army sent a handful of fast B-26 bombers to reinforce the air defense at Midway Island; and Flying Fortresses were hastily flown out to Hawaii, whence their immense range would enable them to cover the area. There were a couple of formations of Marine dive bombers, none better in the world, at Midway; and one formation of Navy torpedo planes, the reserve of Torpedo 8, the Hornet's squadron. The ground defenses were put in as good order as a truly desperate shortage of anti-aircraft guns would permit. There were some PBY's, big flying boats, scouts whose military characteristics are described by the fact their pilots called them "The Commuter Command; out by plane and back by rubber boat after being shot down." What chiefly worried Lt. Col. Ira L. Kimes, in charge of Marine aviation at the island, was that his aerial defense consisted exclusively of Fighting 221-25 planes, ancient Brewsters and quite obsolescent.

There was no time to reach Midway with anything better, for it is beyond flying distance of a fighter plane even from Honolulu. There were no battleships fast enough to close on the Kirishimas. The submarines that had been ordered to the scene might not get there in time. And there were no PT's for close-in work.

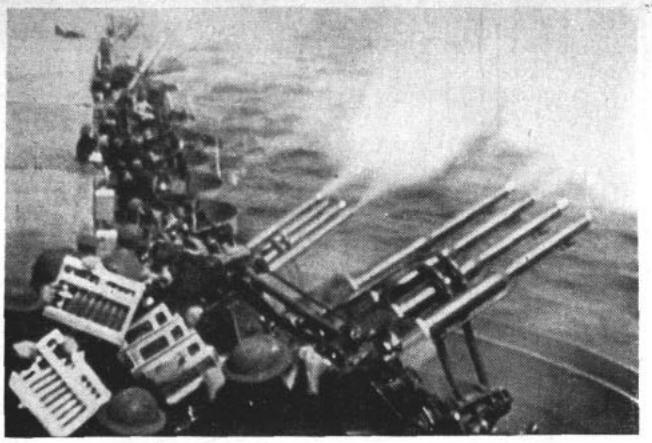
But there was Spruance with the carriers.

Just at daybreak on 3 June, when the *Yorktown*, at the end of her furious journey, was running fast along the chain of reefs that stretches from Hawaii to Midway, there came a radio flash from Nimitz to the fleet: "Enemy planes attack Dutch Harbor." Twelve hundred miles from the ship and the Admiral who were to be the central figures in it, the Battle of Midway had begun.

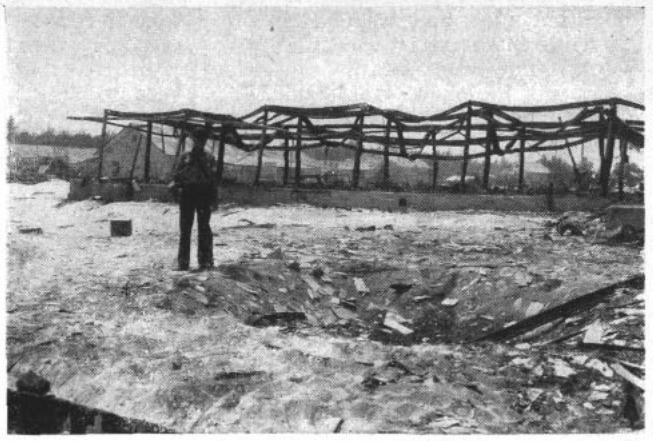
First Move: Dutch Harbor

The Japanese who made that attack on Dutch Harbor were one of the normal invasion groups that had previously climbed down the ladder of the South Pacific islands. They had two or three cruisers, eight destroyers, a pair of seaplane tenders, and two carriers—one of them a regular navy ship, the other a converted merchant job. (One of the minor mysteries of Midway is whether this regular carrier was the *Ryujyo;* she was identified both here and with the Midway support force.) They had transports; and they had ridden without detection thus far along the Aleutian chain, more than half its length, under a fog which probably lay along the eastern edge of a great weather front which was covering their advance toward Midway far to the south.

In Dutch Harbor lay a Coast Guard cutter, an Army transport, three of the old four-piper destroyers, and a minesweeper. At least one of the destroyers had been converted to a tender for the PBY flying scouts by removal of half her boilers to make space for the food, ammunition, and men of her attached air squadron. Possibly the minesweeper had been converted also; many of them are. All the PBY's but one were out quartering the mist for the Japanese, whose appearance, in the restrained words of the communique, "was not entirely unexpected." That remaining plane was on the water near the tender, about to take off for the States with a load of mail. The antiaircraft stations were manned, the ships all had steam up, when three Mitsubishis stuck their noses through the low frosty clouds round Mount Ballyhou and dived to attack. Three more followed and another three-five threes all told in 20 minutes. The gun crews were green and had no help aloft; the attack was well enough delivered to smash a few wooden barracks and burn up the big mail plane, which could not get unstuck before they hit her. But not one of the ships was touched, nothing vital on shore was touched; and when the Japs went upstairs into their cloud again they left two of



Carrier guns in action against Jap planes.



—Official Navy Photographs.

Damage to installations on Midway Island.

their own bombers blazing on the slopes of Ballyhou, a high percentage of loss.

Everybody at Dutch Harbor expected them back with a lot of their friends, for this was ideal bombers' weather. On the heels of that first attack—obviously intended to disjoint the defense by surprise—Japanese reconnaissance planes began to come over, ducking in and out of the clouds all day long. Now the Japs knew what we had: not very much, no strong naval vessels, no fighter planes, not enough to keep them from landing troops under the combination of air bombing and naval shelling which had been so effective in the southern islands. The Army disposed its troops from Fort Mears. Dutch Harbor tightened belts through an anxious day and night of stand-to, preparing to be another Wake Island, and — nothing happened.

A Surprise for the Invader

It is possible that the report of his bombers and the scouts that followed it convinced the Japanese task-force commander that he had all the time in the world to clean up this operation, and he wished to scout the position thoroughly, doing the job with no casualties which he could avoid. It is possible that out there in the fog so thick you could stuff sofa cushions with it he had some accidents in taking in his planes and decided to wait for the clearing weather that comes with dawn before undertaking the major attack. He must have been counting on there being no other American base within 800 miles, so that out there where he was, 70 or 80 miles from Dutch Harbor, he could expect no aerial opposition except from the PBY's. Their pilots would doubtless come in valiantly, but with valor futile against the heavy barrage and fast Zero fighters he could put up.

He waited for daylight; and at daylight, with his Zeros in the air to cover the launching operation, he was just about to get his bombers away and clean house on Dutch Harbor when he was jumped by a formation of American P-40 fighters, escorting some of those wonderful two-motored bombers which can outrun any pursuit ship the Japanese have. Land-based planes—some of which carried torpedoes and all of which came from behind him, from the direction of Japan. It was a touch-and-go raid by a few planes that shed their cargoes of death and were off again like a flash into the mists, not waiting to see whether they got any hits.

We do not know—maybe shall never know—how much material damage was done, but the moral damage was fatal to the Japanese enterprise. The enemy admiral had first to spread his ships, put up defensive patrols, and send out scouts to see what hornet's nest had spawned this brood. Toward afternoon one of the scouts succeeded in following the third or fourth wave of attack home and located their field on Umnak Island, seventy miles west of Dutch Harbor, where no air base had any business being, according to Jap intelligence reports. At this news the enemy admiral pulled himself together enough to get off a squadron of bombers with heavy fighter escort for a damage raid on Dutch Harbor and another for the surprise base at Umnak. They hit both places about 5 p.m. At Dutch Harbor they set fire to an old wooden ship that had been run on the beach as a carpenters' barracks; at Umnak they found the P-40's waiting for them and lost two planes out of nine without any damage for our side. Then these Japs steamed away out of the area and the story.

For all they knew there were half a dozen other bases hidden along the island chain. They had no way of telling that the one at Umnak had only just been achieved by the gigantic efforts of a brilliant engineer colonel, Benjamin Talley, working against ice and 70-mile gales since Pearl Harbor, taking his materials from cases marked for an imaginary Blair Fish Packing Company that had been invented to keep news of the project from leaking out through espionage.

Nor had the Japs any way of knowing either that Representative Magnuson would stand up in the House two months later to say that Army bombers from another secret field near Dutch Harbor had failed to take off and smash up the whole Jap force because they had no orders from their own service and would not accept suggestions from the Navy. Is it true? Another mystery.

The Warning

Three hours after the Dutch Harbor attack, while the *Yorktown* was running through bright sunny weather approaching Midway, Ens. Jewell Reid, flying a PBY patrol plane very high 700 miles west by south of Midway Island, saw many objects on the water, dead ahead and far away, looking like ants on a distant polished floor. He flashed a warning—the PBY boys always do this, for they may not last long enough to get home with a full story (on this operation one of them sent the message, "Dogging enemy, please notify my next of kin"). Then Reid moved closer, swinging out abeam of the formation, very high up, to get a count. Eleven big vessels; Reid thought there were two battleships among them, but he came no nearer than was necessary to check their course and speed. Presumably what he saw was actually the Japanese occupation force, with nothing bigger than a cruiser to cover it.

The effective attack range of torpedo and dive-bombing planes is 200 miles. They would not do for this job. Back at Midway curly-haired Lt. Col. Walter Sweeney, Jr., took off with nine Army Flying Fortresses, which regard a 700-mile trip as an average run.

None of their crews had ever been

in action; when they located the convoy late in the afternoon one of the young pilots remarked on the great beauty of the antiaircraft fire which seemed to drift slowly up toward them. They circled and came in out of the glare of the western sun at medium altitude through spotty clouds. They made it 20 ships in five columns, which broke up, dodging and weaving in fantastic patterns of wakes. Antiaircraft jarred and rolled the big bombers, but they had no fighter opposition, the Japs apparently not having imagined anything could strike at them as far out as that. Colonel Sweeney swung over the biggest concentration of biggest ships and gave the signal; down came the bombs in pattern, on the Army system.

Only the tail gunners got a glimpse of results and they were talking about battleships again as the B-17's stuck their noses into the clouds and pulled for home. The Navy, which questioned the men and collated their reports, reported one cruiser and one transport badly hit and left burning, with damage from near-misses from other ships. First surprise and first score for our team.

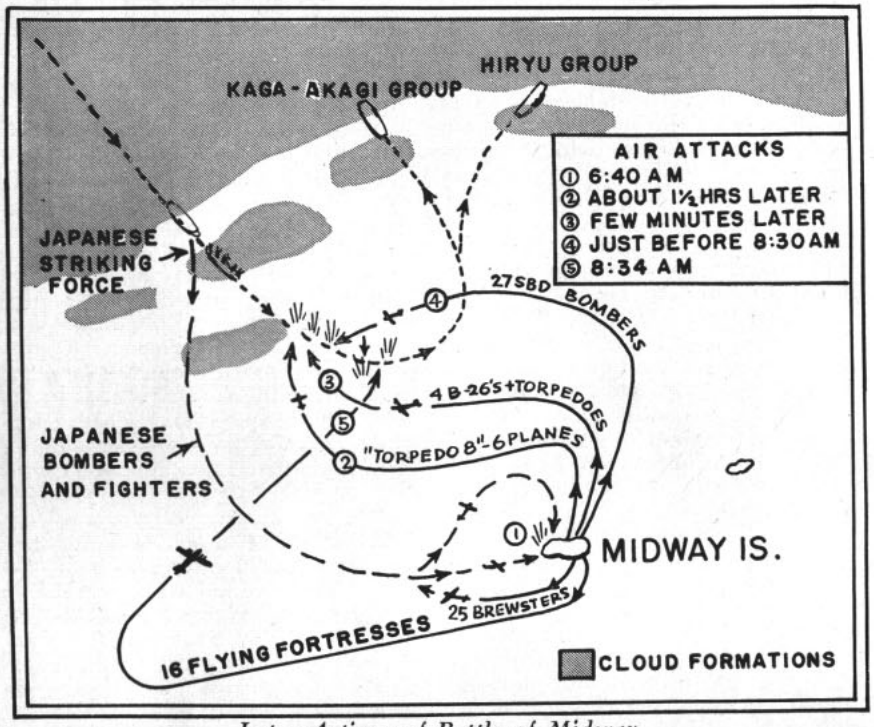
It was followed by another surprise and score.

Improvised Bombers

That evening Capt. C. T. Simard, commander of the island's Naval Air Station, and Capt. Logan Ramsey, Chief of Operations, produced one of the happy improvisations which are the specific excellence of Americans in battle—why not send those hulking PBY's, slowest and most vulnerable of planes, into the night with torpedoes? Dark would give them cover, but the thing had never been tried and the crews were tired because they had been out all day on patrol; so Captain Ramsey called for volunteers.

Every man offered; crews for four planes were chosen from those who showed the least evidence of fatigue and were placed under command of Lieut. William Richards, with torpedoes under their wings, attached there where torpedoes had never been before by a minor marvel of mechanical improvisation.

They took off after dark. Richards found his target all right at 1:20 in the morning. The Japanese ships were now in a night protective formation of two long columns of big ships with antisubmarine craft on the flanks, steaming steadily and lightless. Richards circled once, widely, to make sure the other PBY's had picked up the enemy, observing that only one plane of his flight of four was still with him. No matter; he ran down the column till the moon-path on the water made a clean line to the largest of the enemy ships and came in on a glide. Because of its high silhouette the Army men in the afternoon had thought this vessel a small carrier; but just as he let his fish go Richards saw it clearly outlined against the moon as a big cargo vessel. Then he became intensely busy putting his machine into a sharp right climbing turn as star shells, flares, and antiaircraft fire cracked out all along the line below. His co-pilot and the rear gunners saw a double flash and a rolling pillar of smoke against the moon as they turned away. Hit!



Later Actions of Battle of Midway.

Ensign Davis in plane 2 was caught by the lights; he was not hit, but the ship he was aiming at had time enough to make a sharp turn away from his torpedo. Plane 4 lost the others in the night, never picked up contact again, and got back to Midway toward morning with its last drops of gas.

Ensign Propst in plane 3, who had also lost contact with the leader in some clouds 20 minutes before Richards' attack, picked up the trail and spotted the convoy just about the time it quieted down after the first blow. He too used the moon-path and made a hit. As he climbed away from the uproar a Jap plane came after him and, though it did no damage, the high speed and turns he was forced to use in the getaway took a lot of fuel. The quartering he had done after getting lost in the clouds took more, so plane 3 was still far short of Midway when her tanks went dry and she had to come down at sea. The crew stayed with her till they were picked up by a destroyer, two days after the battle, but by that time their machine was a goner. Still, we could afford to swap one plane (and no casualties) for a big enemy ship (the Navy doubts whether the other went down).

The Attack

4 June. Before the day broke, the PBY's were out west and northwest of Midway, flying the edge of the weatherfront under which the Japanese striking force was moving toward conquest. The self-confidence of the Japs was undimmed by what must have seemed to them just the sort of partial and ineffective counterattacks with weapons of occasion that a surprised enemy might make. Ens. Howard Ady found them first, an hour after dawn, as he was flying through rain squalls along the edge of the doubtful area, two hundred miles from Midway. He saw first a float plane, low down and at some distance, but clearly identifiable as a cruiser's observation machine, not of American make. Then he caught a glimpse of the cruiser that had presumably shot it off; a cruiser with the low raking funnel and pagoda bridgework of a Jap. But she ducked under the clouds again and Ady was hunting bigger game, so he kept his radio closed.

Then the PBY burst through another rain-fit and her crew could see a display of Jap ships lining the whole horizon, with the squall they had just left behind them—two big carriers in the van; giant shapes that would be battleships; cruisers; and "a lot of destroyers. From their position, running into the wind, I believe they had either launched their planes or were getting ready to do so."

—Official U. S. Navy Photograph.

A Japanese bomber scores a direct hit on the USS YORKTOWN, *aircraft carrier, despite a tornado of antiaircraft fire.*

As a matter of fact they had already launched them. It was not more than a minute or two from this time that Lieut. William A. Chase in another PBY sighted over a hundred Jap bombers with fighter escort, flying fast and in tight formation for Midway. He opened up his long-range voice radio, and not bothering to use code, shouted the news. The two reports told Colonel Kimes and Captain Ramsey back at our base all they needed to know. Every plane at Midway took the air at once.

The six machines of Torpedo 8 were the first away. The Flying Fortresses went up—16 of them, which for our purposes can be called the 2nd attack group. So did four Army B-26's under Capt. James F. Collins, armed with torpedoes in another experiment like that of the PBY's at night; they can be called the 3rd attack group. Scout-Bombing 241 (the 4th attack group) went up in two parts, 16 SBD's in one formation under Maj. Lofton B. Henderson, 11 in another, under Maj. Benjamin W. Norris. These were the last away; as they picked up formation and headed in the direction Ady had given, the rear gunners looked back in time to see the Jap bombers come in on Midway and our antiaircraft open up.

It fired a beautiful pattern, just 1,000 feet short of the attackers—all but one shell with a defective fuse, which went on up, and by one of the accidents of battle, exploded square on the nose of one of the onrushing bombers. The machine fell apart and one wing, with a bright pennon of flame streaming from it, drifted zig-zag down and down like an autumn leaf. This was the last thing Norris' men could see as they flew west to make their attack.

The Brewsters going out to face the Japanese bombing force, with its escort of Zeros, had met it 20 miles west of Midway. It was the enemy first team, the best they had, who yielded nothing to our Marines in determination, and but little in skill. Four or five of them came down; the rest, so vastly superior in number, swung round to the north away from the area where the Brewsters and Zeros were hammering at each other and came in on Midway from that side, big waves of from 40 to 60 planes each till one observer made the total of 180. The Jap bombers had a 500-pounder apiece, which they dropped mostly from 10,000 feet; then they came down to 1,200 to plant their lighter bombs and to make strafing runs in company with the Zeros.

Too many had no opposition except from the ground antiaircraft fire, and their skill was high—one Jap plane drawing exclamations of admiration from the Marines themselves as it did beautiful slow rolls on the tail of Lieut. D. D. Irwin, whose landing gear had jammed down and who could do no more than try to lead the enemy into ground fire. "It was definitely hot," said the Marine ground captain, Gene Buckner; the men in the pits were glad when silence fell after 20 minutes and what was left of the enemy moved off to the southwest.

Colonel Kimes radioed his fighters to come in (only 12 of the 25 did; the others were all gone, two of them machine-gunned as they drifted down in parachutes) and crawled out from his dugout command post to survey the damage. There were dead men and wounded men all over the island. The administration building was hit, hangars were hit and burning; over on the westerly Sand Island an oil tank was on fire. A machine shop was hit, the canteen had been blown to matchwood, and all the mess halls were destroyed, so that until new equipment came from Pearl Harbor everyone had to live on slumgullion cooked in big kettles under the sky.

Down through the air as the colonel emerged there were still drifting fragments of the Mitsubishi that had blown up so violently that the marines at first thought these bits were propaganda leaflets. All over the north end of the island marines were happily scrambling for single cigarettes; by a freak of physics the explosion in the canteen had stripped not only the cartons but also the wrappers from all the smokes in the building. And down behind that building one of the classic remarks of the war was being uttered. When the canteen was hit a marine in an emplacement beside it clutched his stomach with both hands and rolled

over. After the storm had passed two others pulled his hands away to see what they could do for the poor fellow. Out rolled a can of beer, which had delivered a perfect solar plexus punch.

"I—just—can't take beer on an empty stomach," he gasped and grinned.

His aplomb was symptomatic, for the attack as a whole was a failure; it had damaged the gun emplacements little, the plane service establishments hardly at all. The runways had not been touched—perhaps, it has been suggested, deliberately, because the Japs wanted to use them themselves. Forty-three machines had been shot down, or so many that only genuine destruction of the defense plant would have been an adequate return.

Counterattack

Meanwhile our four attack groups were over the Japanese ships. The six planes of Torpedo 8 got there first. They found the main enemy striking force in a tight formation, a swarm of Zeros outside like flies round a garbage can, then cruisers and destroyers masking the big ships. "Get the carriers" had been the briefing down from Admiral Nimitz; the men of Torpedo 8 dived over the escort toward them into a storm of AA fire, small stuff with direct laying, big shells from the cruisers, fired to throw up waterspouts that would tip the planes into the sea or smash a prop; for at such speed spray can be as resistant as granite. Zeros courageously followed into the fire of their own ships. The communique said: "It is believed that this group scored one hit on an enemy ship," but added: "Only one of these six planes returned to its base."

Captain Collins with the four B-26's of the 3rd attack group came next; his men had thought they were on a scouting mission. Radios on battle-frequency picked up their exclamations of surprise as they burst through the clouds and saw the Japanese fleet laid out in a panorama not 25 miles away, with the flight of the six torpedo planes going on around it. A flight of Zeros detached itself to meet this new American menace; Captain Collins watched as they flew straight for his formation, and at the ultimate moment before they opened fire gave the word and dived. The Zeros shot past. Sergeant Gogoj in one of the planes remembers a twinge of disappointment when he failed to get a shot at them from the forward gun position; "then I heard Ashley start shooting his gun from the tail. I swung around, and there about 500 feet away was a Jap pursuit"—from another formation which had come out of the cloud to ride them in. Tracer and pompom went past; Collins' landing gear was wrecked; on Lieut. James B. Muri's plane the rear gunner was killed. Both turrets were disabled, and the machine set afire. He dodged between cruisers and destroyers, turned sharp, and headed for the nearest and biggest carrier, which had itself just executed a turn. Collins, Muri and the other two dropped their fish and pulled up, shooting over the big ship's bow through a curtain of antiaircraft, then went into an almost vertical climb. One of them, too badly hit to make it, fell off into the sea; but down below the huge pillar of water from a hit rose beside the Jap carrier.

It must have been the *Akagi* that was hit. Apparently the Japs had just begun to break up their tight formation, scattering their valuable carriers under the cloud banks and concentrating their defense in the air. When Major Henderson's dive bombers of the 4th attack group, only a few minutes later, dropped through a high overcast and rough air into a parade of Japanese ships, the new carrier *Soryu* was the center of the picture, as impressive a sight as the *Lexington's* men had witnessed at Coral Sea.

But this was not Coral Sea, it was nothing like it; the Americans now had no torpedo planes to help out the bombers, no fighter cover and no surprise. "I counted 63 ships in the few minutes before the attack," says a rear gunner of Henderson's formation. "Then we began to get all kinds of flak, very accurate, and any number of Zeros you want to name. I was scared to death; I never saw such a trip, and if I ever do again I probably won't live through it." Scared to death; but he did live through it to be decorated for bravery and presence of mind in the 13-minute action at the edge of the clouds.

Full half of them did not live through it. Major Henderson was one; his plane was heavily hit just as he peeled off for the dive. It staggered and caught fire, but he held on course straight for the *Soryu* and with his plane and 1,000-pounder smashed into the island superstructure of the carrier.

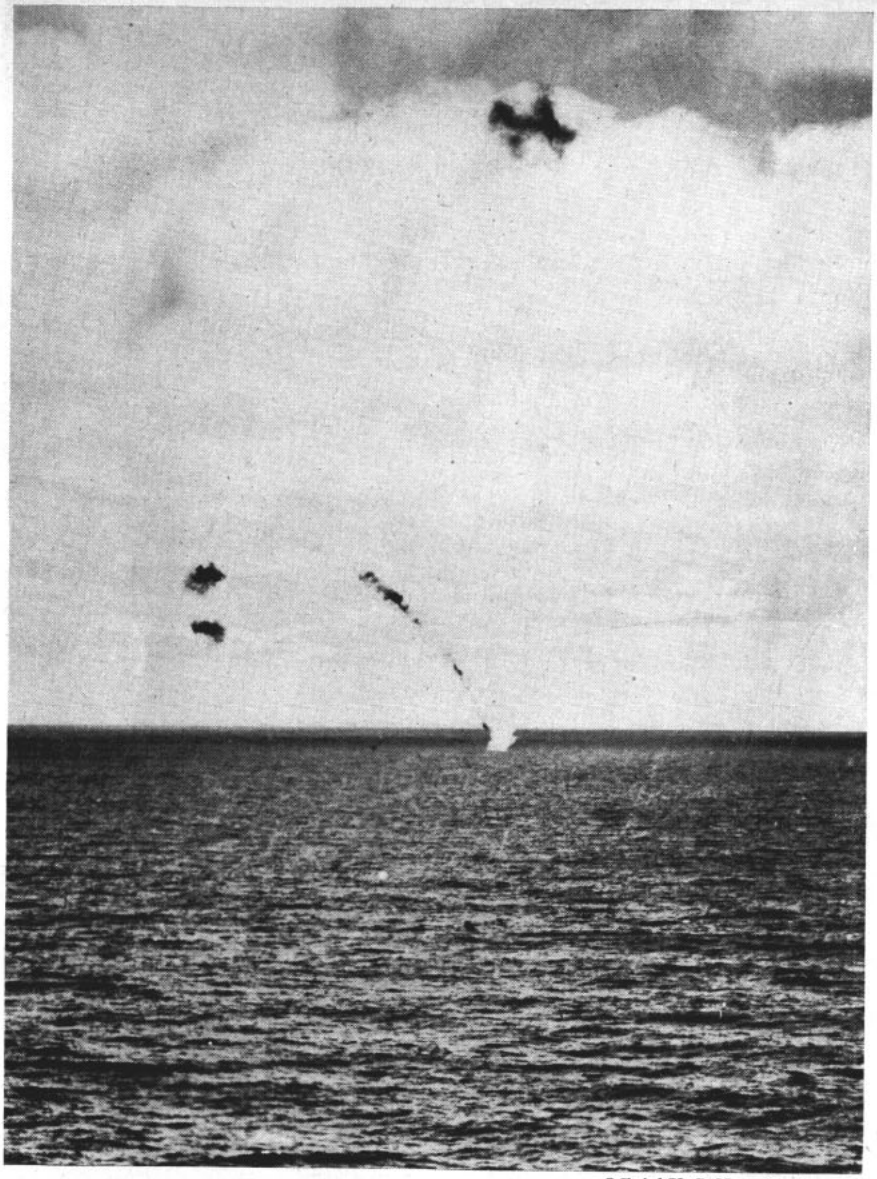
Behind him the other planes came down through the flak onto the wildly twisting carrier. Three times the big bombs went right into her deck and columns of smoke leaped up. But as each bomber pulled out of its dive a section of Zeros pounced on it, and the experience of Captain Blain's bomber was typical, as Private McFeely, the rear gunner, tells it:

"We were all alone except for eight Zeros, but I managed to riddle three of them so I got to feeling pretty good. But then another Zero got on our tail and sent tracer bullets into our ship and then cut loose with his 20-mm. cannon. I was hit in the right leg. The slipstream was blowing blood over my goggles so I could hardly see. Our plane had a hole in the stabilizer big enough for a man to crawl through. My radio had been shot off, my throat microphone, cockpit, and instruments were shot up, with blood all around. I didn't have much else to do so I took over the wobble pump, which kept sticking. Finally the gas pressure stopped and the motor quit. We hit the water with a crash but the plane floated and we got out the life-raft"—on which they floated 48 hours till a PBY found them, after the battle.

Major Norris and his second echelon of the 4th attack group came through the worsening weather at an angle that would have required them to run through the AA and Zero opposition of the whole fleet to reach the carriers; so they picked out a "lovely battleship" and came down on her through a terrific blaze of fire. Two hits, square on the fantail, where the screws and rudder have but little armor, left the battleship burning enthusiastically.

It was now near 8:30 in the morning. The main Japanese striking force had split into two, one group with the giant carriers (*Kaga* and *Akagi*, one of them with a torpedo hole under her ribs), one with the *Hiryu* and damaged *Soryu;* while the support force began to move in to lend its guns and float planes to the help of the main body. The 16 Flying Fortresses from Midway had taken off in the morning under orders to go for the occupation fleet with its transports—but now new orders had reached them: to switch to the main enemy striking force, against which nothing could be too much. The change in direction and the relative slowness of the B-17's (if anything that travels over 250 miles an hour can be called slow) brought this second group of planes to leave, last to strike, onto that striking force just after the Marine whirlwind had blown itself out, about 8:34.

Beneath broken clouds they found "a big battle line, with destroyers outside, cruisers, and then battleships, and away back the carriers, which we picked out for our targets." All the ships they could see looked in good shape, which probably means they came on the *Kaga-Akagi* group, whose wounds would be invisible. The flak was thick, well directed, and well calibrated; all the big bombers took punctures and on at least two of them tail men or belly-gunners were killed. But the Zeros were neither numerous nor very earnest about



—Official U. S. Navy Photograph.

Like a skyrocket, a burning Japanese plane plummets into the sea off Midway.

pressing home their attacks on the oncoming Fortresses.

Colonel Sweeney cleverly led his Fortresses down an easy gradient on their run. Beneath them the Jap ships were firing furiously, now mostly overs—"They couldn't seem to get it through their skulls to shorten range"—and weaving in the complex pattern of avoidance. But 16 Flying Fortresses can lay bombs over a wide area. One carrier was hit on the port bow, flame and fragments leaping up to join the flame and shells from her guns aft. A battleship was hit, and another ship, never clearly identified, probably a big destroyer. One Fortress came down, but not in the battle area, and her crew too got picked up later, all but one man.

End of Round 2

The second phase of the battle was over. The Japs had been hurt, but back at Midway things looked none too good. Returning American planes limped and reeled down the runways with their injuries and many dead; there were gaps in all the formations. "Millions of them out there!" cried one overwrought young Flying Fortress pilot as he pulled off his helmet. And the Marine gunner who had counted said, "Sixty-three ships; hell's bells, we're through." Henderson was gone, and more than half his men; more than half the fighter pilots; half the B-26's. The remaining planes were pretty well shot up and the repair facilities in none too good shape. The PBY's were out doing their duty of tracking, but we were losing some of them, too; every now and then one would go silent, shot down, or report itself low on fuel and landing among the waves. The aerial defense of Midway was in fact near breaking point, which is to say that the island now had precious little left to keep the enemy at arm's length, and prevent him from moving into range of his battleship guns and shelling all hell out of the place under cover of another aerial attack.

But if the situation looked lowering at Midway—if a hard-boiled Marine could pat a gun breech and murmur grimly that all he asked was one more crack at those bastards before they tipped him over—there must have been something like a case of funk on the bridge of the Japanese flagship.

The Japs had probably not expected to repeat the complete tactical surprise of Pearl Harbor; but they must have counted on achieving strategic surprise, on catching Midway with only a small permanent garrison on the job. The presence of the Flying Fortresses indicated either that this surprise had failed or that the permanent party at Midway was far stronger than had been anticipated. The Japanese themselves had suffered a couple of nasty tactical surprises in the torpedo attacks by night of the PBY's and by day of the B-26's, and they did not know how many more like that we had up our sleeves. One of their carriers was in bad shape; at least one more and a battleship had been hit hard enough to make them something less than fully maneuverable. By this time their destroyers were certainly sending in reports of American submarines in the neighborhood. And the losses in Japanese aircraft had been extremely heavy.

Anyhow, the Jap occupation force was ordered to spin round on its heel and speed back in the direction of Japan; and the Jap striking force turned a couple of points west of north to get deeper under the front of heavy weather with its damaged carriers. All the Jap planes except the ordinary patrols were taken in for refueling and rearming. The support force now apparently closed the gap from the rear and added its strength to the damaged striking force. If all went well the Jap admiral could perform on a large scale the maneuver adopted by his planes at Midway on a smaller one—circle to attack the American base from another direction. His reshuffle was completed sometime between 8:34 and 9:30 that morning—the morning of June 4th.

It seems certain that he had no idea of the approach of Admiral Spruance and the American carriers, which had been hurrying past Midway in a northwesterly direction through the Pacific haze on that eventful morning, as has been mentioned before.

(Mr. Pratt's account of the Battle of Midway will be concluded next month.)

Navy Production

(*Continued from P. 7*)

Output of these types of ammunition has kept pace with the mounting production of the corresponding guns. In all, the Navy has received 390 million rounds of 20-mm ammunition, 23 million rounds of 40-mm ammunition, 2.5 million rounds of 3″/50 cal. ammunition and 2 million rounds of 5″/38 cal. ammunition.

UNDERWATER ORDNANCE: *Underwater ordnance consists of torpedoes, mines and depth charges.*

About $46,000,000 of underwater ordnance was produced for the Navy in the first half of 1942. The second half of 1942 showed an increase of ten per cent to a total of about $51,000,000. The first sharp increase came in the first half of 1943 when production doubled to a total in excess of $101,000,000.

The most spectacular recent increase has been in the production of torpedoes. When the defense program began the Navy had one torpedo plant turning out about three torpedoes a day. By June, 1943, the Navy had seven torpedo plants producing scores of torpedoes a day.

Each semi-annual period beginning in July, 1940, has shown a steady increase in torpedo output. From the last half of 1940, to the first half of 1941, production increased 64 per cent. An increase of similar size was registered in the second half of 1941. Thereafter, the rate of increase began to move up more steeply. In the first half of 1942, almost as many torpedoes were produced as during all of 1941, and in the second half of 1942 production shot up another 70 per cent.

—Mare Island Grapevine

A six-fold increase in torpedo production between the last half of 1940 and the last half of 1942, is especially remarkable because it was achieved by two plants. Throughout 1940 the Navy torpedo plant at Newport, Rhode Island, was the only manufacturer. It continued to carry the bulk of the burden during the first half of 1941 as the Navy's Alexandria plant got into production. In the ensuing year and a half these two plants pushed production up 258 per cent.

The sharpest increase of all, however, came in the first six months of 1943 when five privately-managed plants came into production.

Indicating continued momentum and bigger production to come, August torpedo production was two and one-half times the monthly average for the first quarter of this year, and approximates the total torpedo output during all of World War I.

AVIATION ORDNANCE: *Reflecting the growth of Naval air power, production of Naval aviation ordnance has increased in size and relative importance.*

In the first half of 1942, aviation ordnance production amounted to $40,000,000. It increased to $71,000,000 in the second half of 1942 and stepped up to $112,000,000 in the first half of 1943, becoming the third most important ordnance program. Of the $223,000,000 of aviation ordnance produced in the past 18 months, more than half was turned out in the last six months. (Aerial torpedoes and mines valued at $25,878,526 are included in "Underwater Ordnance.")

ARMOR: *Although armor is not one of the four major ordnance programs discussed above, the expansion of armor production to match the accelerated ship program presented special difficulties.*

The 48,793 gross tons of armor produced in the first half of 1943 is 20 times the tonnage produced in the 1940 fiscal year.

FACILITIES CONSTRUCTION

The Navy facilities construction program showed a decline in the first six months of the current year, in keeping with the national policy of curtailing construction. This decline followed a series of phenomenal increases in the value of work done in each succeeding semi-annual period since 1 July 1940. The smallest of these period-to-period increases was 58 per cent and the largest 87 per cent.

(Navy facilities construction, in this report, consists of all projects which have been placed under Navy commitment, including Navy projects financed by Defense Plants Corp. It also includes, in addition to the cost of construction per se, the cost of machinery and equipment, the entire floating drydock program, and advance base facilities.)

As in the shipbuilding and ordnance programs, the value of work done during each six month period through 1942 was more than equal to that done in the preceding 12 months.

From 1 July 1940, to 30 June 1943, a total of $8,100,000,000 of facility construction work was scheduled and committed for by the Navy. The value of work done in this period has amounted to $6,500,000,000 or 81 per cent of the work scheduled.

Navy construction program falls into two grand divisions which in turn have ten subdivisions.

The smaller of the two grand divisions is the one covering industrial facilities. Industrial facilities construction scheduled since 1 July 1940, amounts to $3,200,000,000, and 81 per cent of it—or $2,600,000,000—was completed by 1 July 1943.

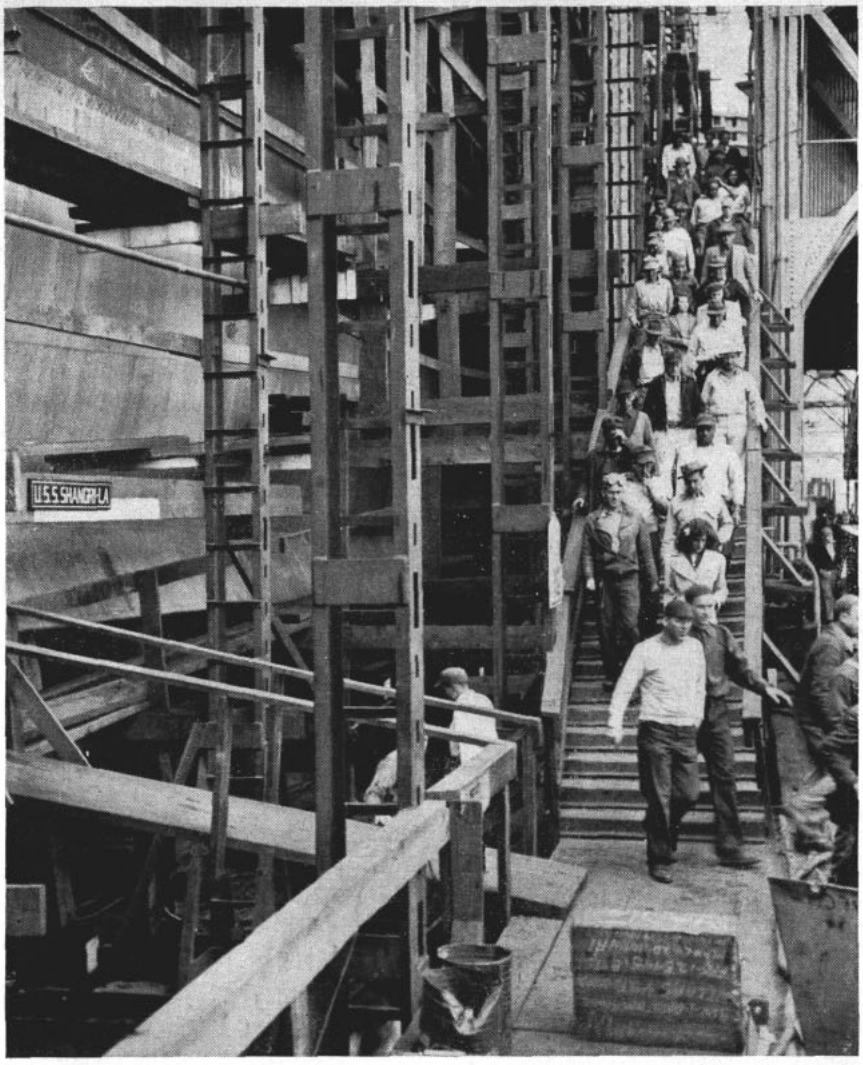
Sixty per cent of Navy industrial facilities construction was for shipbuilding and repair. The other 40 per cent was divided about equally between ordnance and aircraft.

In the second grand division of the facilities construction program—non-industrial facilities—the Navy has scheduled $4,800,000,000 of work since 1 July 1940, and here again 81 per cent of the work or $3,900,000,000, had been completed by 1 July 1943.

Almost 30 per cent of the money spent for non-industrial facilities has been for naval aviation shore facilities. These facilities make up the largest single subdivision in the Navy's non-industrial facilities program. The other subdivisions in the order of their importance are: advance bases, structures for naval personnel, storage, ordnance depots, fleet facilities and miscellaneous facilities. Of these various subdivisions only the advance base program is less than 75 per cent complete.

DIRECT NAVY WORK: *Of the construction completed by 1 July 1943, about $4,600,000,000 comprises the Navy's direct shore construction program. Work on this huge program has been five times as fast as normal peacetime construction under Federal auspices. In fact, this entire Navy program has progressed as rapidly as the fastest 5 per cent among the peacetime projects.*

Large graving docks — the big permanent, excavated drydocks in which battleships and cruisers can be overhauled—are one of the most difficult shore installations to build. Prior to Pearl Harbor construction of these docks averaged 50 months each. Since Pearl Harbor the average has been cut to 22 months.



—Acme Photograph.

CIVILIAN WORKERS building the aircraft carrier USS SHANGRI-LA, *named for the mythical base from which General Doolittle's airmen raided Tokyo, file off the vessel as the lunch whistle blows.*

Building a new Naval air station was a three to four year job before the war. In fact, the Alameda (California) Air Station, begun in 1938, required 39 months to complete. The Kaneohe Air Station in Hawaii, which was begun in 1939, required 19 months. In 1940, speeding up, the Corpus Christi, Texas, station was completed in 8½ months. In 1942, after the outbreak of war, Hutchinson, Kansas and Norman, Oklahoma fields were hurried through in 2¼ and 2¾ months; Memphis, Tennessee (with 4 million cubic yards of earth to be moved) in 4 months and Barbars Point (another station in Hawaii) in 8 months.

Two war-born types of construction are floating drydocks and pontoons.

Floating drydocks enable the fleet to take with it, across the vast distances of the Pacific, its own overhaul facilities. Construction of these docks, some of them capable of handling the largest battleships, began late in the Defense Program. In the first half of 1942 docks with a lifting capacity of 6,000 tons were completed. A year later, in the first half of 1943, docks with a lifting capacity of 255,000 tons were turned out.

Steel, sectional, floating pontoons are a new development of amphibious war. At invasion points they can be used as lighters or fuel barges, or—like building blocks—they can be coupled into piers, bridges, drydocks and other waterfront facilities. The Navy produced 1,920 pontoons in the first half of 1941. Two years later, in the first half of 1943, fourteen times that many—27,924—were completed. In all, 84,361 have been produced.

SUMMARY

Modern sea-air power consists of ships, planes and shore facilities. Success of the Navy's war production program, therefore, depends upon its ability to deliver these instruments of power.

In July, 1940, the Navy received five newly completed vessels; in June, 1943, almost 1,200.

In July, 1940, the Navy received 25 new airplanes; in June, 1943, almost 2,000.

Between those two dates the Navy built 2,200,000 tons of ships. It added to its air arm 23,000 planes. It completed $6,500,000,000 of shore facilities.

Three years ago, when the defense program began, the Navy had a fleet of 1,076 vessels displacing 1,875,000 tons. Of this fleet, 383 vessels were warships; battleships, carriers, cruisers, destroyers, submarines. The weight of this fighting fleet was 1,313,000 tons.

During the intervening three years the Navy has lost 53 warships: a battleship, four carriers, nine cruisers, 32 destroyers, 12 submarines. It has transferred to other nations or converted into non-combat vessels 129 other warships. In all, it has lost or given up 484,521 tons of fighting ships—a small navy in itself.

But at the end of three years the United States has the mightiest surface fleet in world history. Against the 1,076 vessels of three years ago the Navy now has 14,072. Their combined tonnage is almost 5 million tons against 1,875,000 tons for the fleet of mid-1940.

In the new fleet the Navy, despite its losses, has 613 warships compared with 383 three years ago. Their tonnage — 2,217,982 tons — exceeds that of the 1940 fighting ships by 70 per cent.

On July 1, 1940, the Navy air arm consisted of 1,744 planes of which 1,197 were fighters and bombers.

Since that time the Navy has lost or written off as obsolete 6,800 planes. It has transferred 2,100 to other agencies. The Navy air arm of mid-1940 has been erased more than five times over.

But the United States now has the most powerful Naval air force in the world. Where there were 1,744 naval planes three years ago, on 31 July 1943 there were 18,269, a ten-fold net increase.

In the midst of war, the United States has built its Navy into the greatest sea-air power on earth. Its size is dwarfed only by the size of the task which confronts it.

EDITOR'S NOTE: *Ship and plane totals in the above summary cannot be derived from figures in the preceding sections because (a) the summary totals include ships converted into Navy Auxiliaries or small craft whereas preceding figures do not; (b) the summary totals allow for the large numbers, but comparatively small tonnage, of landing craft, small craft and auxiliaries which have been lost or transferred, and (c) the summary totals include July 1943 production.*

DECORATIONS and CITATIONS

Mother of Famous Flyer Receives His Medal of Honor

A grief-stricken mother whose son was lost after sinking a Japanese carrier and other warships in the Coral Sea received his Congressional Medal of Honor recently from Admiral Royal E. Ingersoll, USN, commander of the Atlantic Fleet.

Her son, Lt. John J. Powers, USN, of New York City, who sank or damaged four Japanese ships before his plane was shot down, was extolled by President Roosevelt more than a year ago in a radio talk. The flyer's last words were: "I'm going to get a hit if I have to lay it on their flight deck."

In three attacks on enemy warships 4 May 1942, Lt. Powers scored a direct hit which instantly demolished a large gunboat or destroyer, a near miss which severely damaged a large aircraft tender, and another damaging a 20,000-ton transport. He strafed a gunboat, which left a heavy oil slick in its wake and was beached.

On 7 May Lt. Powers led his attack section of three divebombers against a carrier, diving in the face of heavy fire to an altitude barely above the ship in order that he might obtain a hit on a vital part.

This bomb hit caused a tremendous explosion, and the carrier sank.

As he left the ready room the next day, Lt. Powers expressed his determination to get a hit in the words of his now-famous quotation. A few minutes later, without fear or concern for his own safety, he led his divebombers down from an altitude of 18,000 feet—almost to the very deck of an enemy carrier, and did not release his bomb until certain of a direct hit. When last seen Lt. Powers was attempting recovery from his dive only 200 feet above the water, amid a terrific barrage of shell and bomb fragments, smoke, flame and debris from the stricken carrier.

The flyer's parents, although they had been told that their son was missing, first heard of his gallantry in the Presidential broadcast. His father never fully recovered from the blow of his son's death, and died recently. His mother has never completely recovered her health, which also was impaired by the shock.

Lt. Powers was graduated from the Naval Academy in 1935 and served five years in the USS *Augusta* and the USS *West Virginia*. He finished flight training at Pensacola in January, 1941.

—Official U. S. Navy Photograph.

Lt. John J. Powers

Nine Latin American Officers Honored

Nine South American naval officers have been awarded the Legion of Merit in various degrees for outstanding contributions to hemispheric defense and the promotion of continued friendly relations between the two Americas.

Decorations went to Vice Admiral Julio A. Pinto, commander-in-chief of the Chilean Navy; Rear Admiral Juan R. Sepulveda, commander-in-chief of the Chilean Fleet; Capt. Carlos C. Jullian, Chilean naval attache at Washington, D. C.; Capt. Juan F. Anda y Maldonado, head of the Ecuadorean Navy; Comdr. Cesar A. Mogollon y Cardenas of the Ecuadorean Navy; Lt. Col. Hernando Mora A., director-general of the Colombian Navy; Rear Admiral Frederico D. Dulanto, Peruvian minister of marine and aviation; Rear Admiral Roque Salidias, of the Peruvian Navy; and Capt. Marlano H. Melgar C., commander-in-chief of the Peruvian Fleet.

Captain Briscoe Decorated Twice

The Legion of Merit and a Gold Star in lieu of a second Legion of Merit for meritorious conduct in two actions about a month apart have been awarded Capt. Robert F. Briscoe, USN, of Centreville, Miss.

The first medal was for operations against Japanese forces in the Solomons area when as commander of a task group Captain Briscoe skillfully directed the destroyers under his command through almost continuous combat for two months, including bombardment of troops and installations, engagement in four air actions and on three occasions the repulse of attacks by 18 to 20 hostile dive bombers.

On 5-6 March 1943, in the same area, Captain Briscoe conducted a fierce bombardment of enemy positions at Munda Point, directing his operations so efficiently that his task group incurred no loss of life or material casualty.

Torpedo 8 Wins Two Unit Citations

Torpedo Squadron 8 has become the first unit in the Navy to receive two Presidential Unit Citations.

Cited the first time by President Roosevelt for its heroic air attack on the Japanese fleet during the Battle of Midway, it now shares in a citation which went to the First Marine Division, Reinforced. Torpedo Squadron 8 served with this Marine organization during the capture of Guadalcanal and the fighting to retain the island against repeated Japanese thrusts.

Between 7 August and 17 November, 1942, the squadron executed 40 attack missions—17 against ship targets and 23 against ground installations. Fourteen ships were hit with torpedoes—1 battleship, 5 heavy cruisers, 4 light cruisers, 1 destroyer, 1 cargo ship, and 2 aircraft carriers. A heavy cruiser and a light cruiser were bombed.

GOLD ☆ STAR

In Lieu of Second Navy Cross

Lt. Cdr. William E. Hank, USN, Norfolk, Va. (missing in action): As commanding officer of the USS *Laffey*, Lieutenant Commander Hank boldly engaged a Japanese force of two destroyers and a cruiser off Cape Esperance, Solomon Islands, on 11-12 October 1942. Under his direction the *Laffey* sank one destroyer, damaged another, and assisted in sinking a cruiser.

NAVY CROSS

Rear Admiral Glenn B. Davis, USN, Norwalk, O.: Commanding a warship in the battle off Savo Island, Admiral Davis skillfully maneuvered his ship through perilous waters and

repeated torpedo attacks against numerically superior Japanese forces. Gunfire from his ship is credited with sinking one enemy ship and damaging others. His own ship came through the engagement undamaged. (14-15 November 1942.)

☆

Capt. Anthony L. Danis, USN, Washington, D. C.: as commanding officer of the USS *Kearny* when she was torpedoed by an enemy submarine on 17 October 1941, Captain Danis skillfully utilized every item of equipment to the greatest advantage and succeeded in keeping his ship afloat and in restoring her fighting efficiency.

☆

Capt. Independent W. Gorton (SC) USN, Everett, Mass.: When, off Savo Island 14-15 November 1942, his battle station in a warship was struck by shells which started fires and killed all other men in that area, Captain Gorton remained at his post although faced with almost certain death from a broken steam line. He removed wounded from inside the superstructure tower and worked incessantly toward their evacuation and care.

☆

Comdr. John B. Taylor, USN, Churchville, Pa.: As commanding officer of the USS *Benham* in a battle with Japanese naval forces off Savo Island, Commander Taylor inflicted severe damage on superior forces before his own ship was struck by torpedoes. With his ship badly buckled by the terrific force of explosions and the bow completely gone, he fought grimly to keep her afloat until heavy weather forced him to abandon her. Then Commander Taylor managed to save every man aboard. (14-15 November 1942.)

☆

Comdr. Charles E. Tolman, USN, Concord, Mass. (missing in action): As commanding officer of the USS *DeHaven,* Commander Tolman operated his ship as group leader during bombardment of enemy-held plantations on New Georgia Island and was directly responsible for demolition of important buildings and large fires and explosions in adjacent munition dumps. Later, when eight Japanese dive bombers viciously attacked his ship and dropped a bomb on the navigating bridge, Commander Tolman courageously carried on until two internal explosions destroyed the *DeHaven.*

☆

Lt. Comdr. John B. Fellows, Jr., USN, Fitchburg, Mass.: As commander of the USS *Gwin* during the battle off Savo Island, Lieutenant Commander Fellows directed his ship with such courage and determination that severe damage was inflicted upon the enemy. Despite the partial disability of his ship, he kept her in action and rescued the entire crew of a friendly sinking vessel. (14-15 November 1942.)

—Official U. S. Navy Photograph.

ADMIRAL HEWITT DECORATED: For his meticulous planning and successful execution of the landing on Sicily, Vice Admiral Henry K. Hewitt, USN, of Hackensack, N. J., has been awarded a Gold Star in lieu of a second Distinguished Service Medal. He was in command of the U. S. Naval Amphibious Forces which transported troops to the landing beaches and covered the landing operations.

☆

To Lt. Comdr. John N. Ferguson, Jr., USN, Waynesville, N. C., and Lieutenant Norman C. Smith, USNR, Windsor, Conn.: As executive officer and engineer officer, respectively, of the USS *Dallas* during the assault on Port Lyautey, French Morocco, they performed their duties efficiently and coolly under fire of hostile artillery, bringing the ship across a treacherous bar into the shallow Sebou River where Army raider troops, supported by gunfire from the ship, captured the airfield.

☆

Lt. Comdr. Stephen N. Tackney, USN, Colorado, Calif.: While commanding a warship escorting supply ships in the Solomon Islands area, Lieutenant Commander Tackney located a Japanese submarine in the vicinity. He made persistent attacks on her for four hours until oil and wreckage convinced him the submarine had been destroyed.

☆

Lt. Comdr. Peyton L. Wirtz, USN, Mt. Washington, Md.: While his ship was returning from delivering torpedoes and aviation gasoline to Tulagi, she was attacked by three Japanese destroyers. Lieutenant Commander Wirtz without hesitation engaged the enemy and inflicted considerable damage on the superior force before withdrawing to continue his voyage.

☆

Lt. John M. Eaton, Jr., USNR, Concord, Mass.: As a ground officer of Patrol Squadron 21 temporarily based at Midway Island during the attack by Japanese naval forces on the night of 7 December 1941, Lieutenant Eaton organized a crew of untrained civilian workmen and ingeniously directed the launching of heavily overloaded Catalinas after enemy gunfire had damaged or destroyed several of the flying boats, the hangar, and other installations.

☆

Lt. Frederick L. Edwards, Jr., USNR, Kingston, N. C.: As boarding officer from the USS *Eberle* when an enemy blockade runner was intercepted on 10 March 1943, Lieutenant Edwards was the first to board her in the face of spreading fires and explosion of demolition charges. Only after several explosions had rocked the ship and she was sinking did he dive into the sea, from which he was rescued later.

☆

Lt. (jg) Hugh B. Davis, USNR, Houston, Tex.: Serving in the USS *Astoria* during the Battle of Savo Island, Lieutenant (jg) Davis supervised the moving of personnel to a safer location after enemy shells set fire to a fuel tank. Finding men trapped in the engineroom and suffocating from heat and smoke from fires on the upper decks, he entered the blazing mess compartment, forced open the water-tight door, and guided the men to safety. (9 August 1942.)

☆

Ens. Kenneth H. Muir, USNR, Pelham, N. Y. (missing in action): As Armed Guard officer in a merchantman which was torpedoed and sunk in the Caribbean Sea, Ensign Muir disregarded his own severe injuries and ordered three men near him to jump clear of the ship, then rushed back to help more men escape. He was still urging his gunners over the side when the ship went down.

☆

Philip A. Donahue, CBM, USN, Lawrence, Mass.: While a member of a repair party in the USS *Boise*, Donahue dived into a flooded compartment, undogged an escape scuttle in the deck and attached a line to the scuttle. Swimming to the surface, he assisted in pulling the scuttle open and releasing a man

trapped in the lower compartment (11-12 October 1942, off Cape Esperance).

☆

Robert Halperin, CSp, USNR, Chicago, Ill.: While in charge of a scout boat during the assault on Mehdia, French Morocco, Halperin took his boat in complete darkness from the transport area seven miles off the coast into a position to locate and mark landing beaches. When all had landed he assisted the shore party in locating roads inland, and personally captured two enemy officers. (8 November 1942.)

DISTINGUISHED SERVICE MEDAL

Col. Perry K. Smith, USMC, Coronado, Calif.: As commanding officer of a Marine aircraft group in the Southwest Pacific, Colonel Smith instituted flights to Guadalcanal when the airfield was under heavy siege, set up his own schools for the training of personnel, and evacuated casualties to base hospitals. Undeterred by darkness and tropical squalls, his vital air transport contributed materially to the defense of Guadalcanal.

LEGION OF MERIT

Vice Admiral Charles S. Freeman, USN, Brooklyn, N. Y.: As commander of the Northwest Sea Frontier from the time of our entry into the war until 1 December 1942, Admiral Freeman "devised sound and comprehensive measures in combating enemy encroachment in that territory."

☆

Rear Admiral Robert B. Carney, USN, Coronado, Calif.: As commander of a warship, Admiral Carney's brilliant leadership contributed to successful operations against Kolombangara Island and the sinking of two Japanese warships in Kula Gulf (5-6 March 1943).

☆

Rear Admiral Aaron S. Merrill, USN, Natchez, Miss.: As a task force commander during an engagement with Japanese forces in the Solomons Area on the night of 5-6 March 1943, Admiral Merrill directed the intercepting and sinking of two enemy warships and the subsequent bombardment of installations on Kolombangara Island. His task force withstood heavy opposition and came through unscathed.

☆

Capt. Edmund W. Burrough, USN, Washington, D. C.: While commanding a warship during bombardments of Kolombangara Island and the occupation of Russell Island, Captain Burrough directed his ship with superb skill. Encountering a group of Japanese warships in Kula Gulf, he assisted in sinking two of them.

☆

Capt. Gerson de Macedo Soares, Brazilian Navy: While serving as Chief of Staff to the Commander Brazilian Naval Units Under the Fourth Fleet, Capt. Soares contributed greatly to the increased efficiency of these units and to the successful conduct of the war in the South Atlantic.

☆

Capt. Leighton Wood, USN, Riverside, Conn. (posthumously): While commanding a warship in action against Japanese forces in the Solomons, January-March 1943, Captain Wood directed his ship with superb skill in a heavy attack by Japanese torpedo planes. Later, his ship assisted in sinking two of a group of warships encountered in Kula Gulf, and participated in the devastating bombardment of defenses on Kolombangara Island and the occupation of Russell Island.

☆

Comdr. William D. Brown, USN, Annapolis, Md.: As operations officer and senior aide to a task force commander, Commander Brown's intimate knowledge of the locality was of invaluable service during the fierce engagement in Kula Gulf, 5-6 March 1943, where two Japanese ships were sunk, and in the devastating bombardment of enemy defenses on Kolombangara Island.

—Official U. S. Navy Photograph.

KEPT PLANES FLYING: Capt. Henry R. Oster, USN, of Washington, D. C., was presented the Legion of Merit by Secretary of the Navy Frank Knox recently for his tireless work in keeping planes of the Pacific Fleet overhauled and in repair. Captain Oster, from June, 1940, to October, 1942, was material officer for various groups in the Pacific area.

Comdr. Charles F. Flower (MC), USN, Berkeley, Calif.: As medical officer of the USS *Astoria* during the battle of Savo Island, 9 August 1942, Commander Flower improvised a dressing station while a severe fire raged about it. Later, when the wounded were transferred to a destroyer, he supervised the installation of temporary operating stations and continued administering treatments.

☆

Comdr. David C. Gaede (MC) USN, Loma Linda, Calif.: As medical officer for a Marine aircraft wing in the South Pacific, from 22 September 1942 to 15 April 1943, Commander Gaede organized facilities for evacuation of casualties by air, maintained constant training and indoctrination for all flight surgeons and medical personnel, and provided rest homes and recreational leave for combat pilots.

☆

To Comdr. Lawrence E. Tull (CEC) USNR, Washington, D. C., and Lt. Comdr. Robert E. Clausen (CEC) USNR, Los Angeles, Calif.: As commanding and executive officers of a construction battalion, they supervised the erection of an important airdrome in the South Pacific Area although hampered by extremely adverse weather and heavy enemy bombings.

☆

Comdr. Ralph E. Wilson, USN, Salem, Oreg.: As naval liaison officer at Army headquarters on Guadalcanal during January and February 1943, Commander Wilson displayed extraordinary ability and judgment, and was invaluable in coordinating joint service details of technical and administrative nature.

☆

Lt. Comdr. Andrew J. Hill, USN, Poplar Bluff, Mo.: As commanding officer of a warship in the Solomons, Lieutenant Commander Hill directed his ship in continuous antisubmarine patrols, bombardments of enemy shore positions, and participation in hazardous landing missions. On one escort assignment when his vessel was attacked by eight dive-bombers, the gunfire from his ship destroyed or damaged six of the hostile planes.

☆

Lt. Comdr. Frank L. Johnson, USN, Delaware City, Del.: As commanding officer of a warship in the Solomons, Lieutenant Commander Johnson helped disrupt numerous air attacks and attacked and sank a submarine. In two night bombardment operations against Munda, his ship led the task group into position. He brought his vessel through a series of fierce engagements without damage.

Lt. Comdr. Donald J. MacDonald, USN, New York, N. Y.: While commanding a warship in the Solomons, Lieutenant Commander MacDonald participated in three night bombardments of Guadalcanal, New Georgia and Kolombangara Islands, and on two occasions was attacked by low-level bombers. During several night patrols his vessel was of invaluable service in fighting off air attacks.

☆

To Lt. Comdr. Desmond K. O'Connor, USNR, Newport, R. I., and Lt. Edward C. Hines, Jr., USN, Wilmington, N. C.: As officers attached to the USS *Cole* during the assault on Safi, French Morocco, 8-11 November 1942, they contributed in large measure to the success of the operation. Lieutenant Commander O'Connor, in charge of the deck force, directed the disembarking operations of Army and Navy patrols, while Lieutenant Hines, as navigator, employing the limited data available, laid an accurate course to the Safi breakwater.

☆

Commissioned Warrant Officer M. Ines Harper, Royal Australian Naval Reserve: While on temporary duty with Amphibious Force, South Pacific, July-August 1942, in the Solomons, Warrant Officer Harper piloted the leading transport in action against Japanese forces. Through his familiarity with the waters in the vicinity of Guadalcanal and Tulagi, he piloted ships through extremely hazardous channels and assisted in refloating and bringing to safe harbors those damaged in action.

☆

Joseph P. F. Hartney, SM1c, USN, New Britain, Conn.: After the USS *Juneau* was sunk some distance from San Cristobal Island, 13 November 1942, Hartney swam a considerable distance through shark-infested waters to obtain a life raft dropped by plane. He then set out with two comrades, including a seriously wounded officer, to obtain medical attention and expedite the rescue of shipmates left behind. Although both his companions were irrational at times and could give little assistance, Hartney took his flimsy craft through terrific storms and hazardous coral reefs without food or water for seven days, until he finally brought them to an island and subsequent safety.

GOLD ☆ STAR

In Lieu of Second Silver Star

Lt. Comdr. Roy M. Davenport, USN, Kansas City, Kan. As commanding officer of a submarine, Lieutenant Commander Davenport took full advantage of every opportunity to attack enemy shipping and sank a number of Japanese ships.

☆

Lt. Comdr. Vernon L. Lowrance, USN, Catawba, N. C.: While commanding a submarine during a successful patrol in Japanese-controlled waters, Lieutenant Commander Lowrance succeeded in sinking a large amount of enemy shipping.

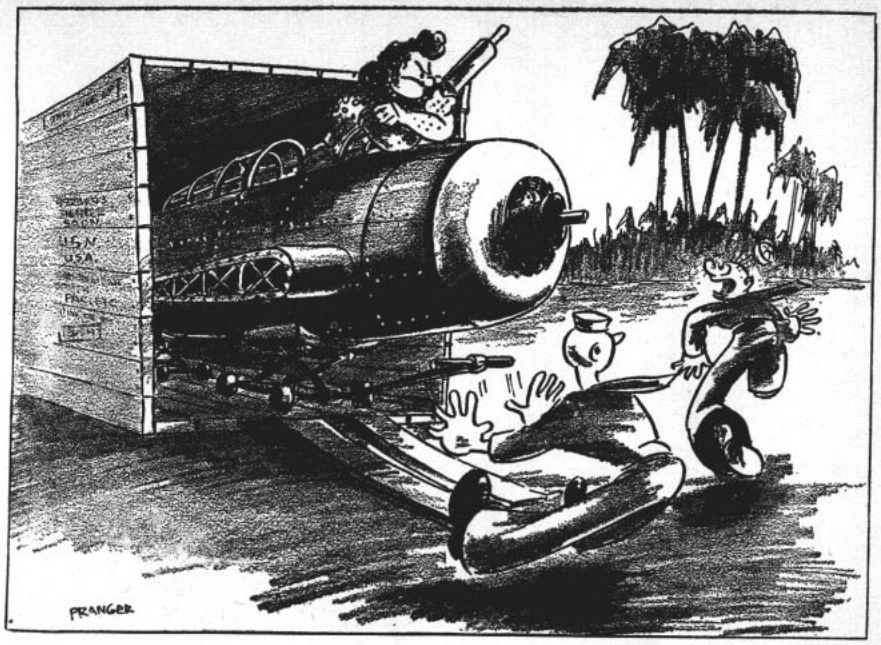
☆

Lt. Daniel S. Baughman, Jr., USN, Madison, Wis.: As commander of a motor torpedo boat division in the Southwest Pacific, Lieutenant Baughman made repeated attacks on small Japanese ships and severed a valuable enemy line of communication. He commanded a patrol which sank an enemy submarine.

☆

Lt. (jg) Theodore F. Bruno, USNR, Pensacola, Fla.: As commanding officer of a torpedo boat in the Southwest Pacific, Lieutenant (jg) Bruno launched an attack at close range against a surfaced submarine, which broke in half and sank. Although his torpedoes and depth charges were exhausted when he was attacked by a second ship, he maneuvered so skillfully as to avoid four torpedoes fired at his boat.

—The Duster (NAS, Clinton, Okla.)



—The Hoist (NTS San Diego.)

"Ye Gads! My wife!"

SILVER STAR

Capt. Archibald E. Uehlinger, USN, Long Beach, Calif.: As executive officer of a warship during action against Japanese naval forces off Savo Island on the night of 14-15 November 1942, Captain Uehlinger remained at his post after his battle station had been struck by shells which killed or wounded most of the men in that area. He carried on despite the danger of scalding from ruptured steam lines and fires which had cut off all chance of escape.

☆

Capt. G. V. B. Faulkner, British Navy: During the attack on Sicily 10–12 July 1943, Captain Faulkner, as commander of a British warship, maneuvered his ship near shore and put out of action strong points of resistance, thus facilitating the seizure of beaches by a division of the U. S. Army.

☆

To Lt. Comdr. Moore P. Huffman, USNR, Bedford Hills, N. Y., and Lt. Randall T. Boyd, Jr., USN, South Weymouth, Mass.: As first lieutenant and gunnery officer, respectively, of the USS *Dallas* during the assault on French Morocco 8-11 November 1942, their efficient conduct and courage under heavy fire from shore batteries contributed materially to the capture of the Port Lyautey airfield by Army raider troops.

☆

Lt. Comdr. Frank L. Johnson, USN, Delaware City, Del.: While commanding a warship, Lieutenant Commander Johnson established sound contact with a submarine after

—The Hoist (NTS, San Diego.)

"If those are monkeys in them trees, whyinell they wearing horn-rimmed glasses?"

a patrol plane had located it. He skillfully dropped a pattern of charges and shortly afterward three violent explosions erupted large quantities of debris to the surface as positive evidence the submarine had been destroyed.

☆

Lt. Comdr. Richard D. Shepard, USN, San Diego, Calif.: When his ship was badly crippled and set afire in action with a Japanese cruiser in the Solomons, Lieutenant Commander Shepard organized a fire-fighting party, formed a bucket line and brought raging fires under control. Later, he entered a flooded compartment by swimming through a jagged shell hole in the vessel's side, and made repairs so that water could be pumped out and a great deal of the ship's list corrected.

☆

Lt. William S. Farrel, USN, Chula Vista, Calif.: As damage control officer in a warship during an engagement with Japanese forces off Guadalcanal on 7 August 1942, Lieutenant Farrel entered a burning compartment to remove explosives and assist in extinguishing the fire. His prompt action helped keep the ship in action and undoubtedly prevented further dangerous explosions.

☆

To Lt. Robert J. Hauge, USNR, Bryant, S. D.; and Lt. Lenard O. Reichel, USN, Los Angeles, Calif.: As patrol plane pilots in the Solomons December-January 1943, they participated in many hazardous operations despite extremely unfavorable weather. On twelve occasions they assisted PT-boat squadrons by illuminating evasive hostile targets in the face of heavy anti-aircraft fire.

To Lt. Willard Y. Howell, USN, Los Angeles, Calif.; Lt. (jg) Spencer E. Robbins, USN, Wellesley Hills, Mass.; and Lt. (jg) William R. Brewster, Jr., USN, College Park, Ga.: While serving in the USS *Bernadou* during the occupation of Safi, French Morocco, Lt. Howell and Lieutenant (jg) Robbins led a volunteer party ashore at night to take over all craft in the harbor. Lieutenant (jg) Brewster, as gunnery officer, silenced the enemy main shore defenses, thereby aiding the assault troops to carry out their mission virtually without casualties.

☆

Lt. Joseph M. Kellam, USN, Biscoe, N. C.: As a patrol plane pilot in the South Pacific Area 24 August 1942, Lieutenant Kellam sighted a Japanese carrier and its supporting force. Despite the danger of fighter planes and antiaircraft fire, he closed in and obtained valuable information regarding composition, course and speed of the enemy force. After transmitting a complete report to his base, he sighted his own carrier force to which he communicated his information.

☆

Lt. Charles P. Roberts (MC) USNR, Atlanta, Ga.: Serving as medical officer with a beach party from the USS *Edward Rutledge* during the invasion 8-11 November 1942 of French Morocco, Lieutenant Roberts coolly cared for his patients amid frequent strafing, bombing and shelling attacks. On one occasion he continued to administer intravenous plasma to a severely wounded soldier while hostile planes flew overhead, dropping bombs and strafing the open field.

Lt. (jg) James M. Boone, USN, San Diego, Calif.: When fires were raging on his warship during a battle with Japanese forces off Savo Island 14-15 November 1942, Lieutenant (jg) Boone, then a chief boatswain's mate, led the way in extinguishing nearly every fire on the weather decks. He put out several fires unaided, and rapidly controlled all threatening topside fires.

☆

To Lieut. (jg) William H. Deibler, Jr., USN, Selinsgrove, Pa., and Lieut. (jg) William S. Rent, USNR, Haverhill, Mass.: As gunnery officer and junior officer of the deck, respectively, in the USS *Cole* when she entered the harbor of Safi, French Morocco, to land Army assault troops 8-11 November 1942, they skillfully performed their duties under enemy fire.

☆

Lieut. (jg) Ralph L. Richards, USNR, Glen Ridge, N. J.: As commanding officer of a PT-boat in action against Japanese forces near Savo Island on 1-2 February 1943 Lieutenant (jg) Richards ordered his crew to abandon ship after it was bombed, strafed and set afire during the night by enemy aircraft. Although wounded by shrapnel, he attempted to save a seriously wounded man who was strapped to his back, and fought off repeated attacks of sharks with his hands, feet and pistol. The injured man finally died and was cut loose, but Lieutenant (jg) Richards continued to battle sharks the remainder of the night until rescued by a searching PT-boat.

☆

Carpenter Charles L. Carter, USNR, Peoria, Ill.: When a hostile plane was shot down and exploded on board the USS *George F. Elliott* (off Guadalcanal 8 August 1942) Carter cut through bulkhead over oil ranges to rescue comrades who were trapped in the machine shop. Then, despite flame and suffocating smoke, he cut his way through a deck to the chief petty officers' quarters to continue fighting the fires.

☆

To Joseph C. Nicholson, CCM, USN, Port Orange, Fla.; and Robert W. Berglund, BM1c, USNR, Streator, Ill.: While serving in the USS *George F. Elliott* in action against Japanese forces off Guadalcanal on 8 August 1942, an enemy plane was shot down and exploded on board the ship. Nicholson and Berglund risked their lives to carry a fire hose down to No. 3 hold and fought their way back up through flaming, smoke-clogged passageways to the main deck.

☆

Frederick D. Mann, BM1c, USCG, Ellerson, Va.: When the USS *George F. Elliott* was transformed into a blazing torch by a Japanese plane which exploded on board (off Gua-

dalcanal 8 August 1942), Mann carried a fire hose into No. 4 troop ammunition magazine to flood the compartment. Later, he re-entered the compartment, recovered the hose and continued his valiant efforts to control the flames in that part of the ship.

☆

Robert M. Shockley, CM1c, USN, Indianapolis, Ind. (posthumously): Boarding an enemy blockade runner on 10 March 1943 when it was intercepted by the USS *Eberle*, Shockley disregarded fires and explosions of demolition charges. As he started aboard an explosion blew him into the sea, from which he was rescued later.

DISTINGUISHED FLYING CROSS

Comdr. Norwood A. Campbell, USN, West Lafayette, Ind.: As commanding officer of a carrier scouting squadron, Commander Campbell directed daring attacks against enemy shore installations despite desperate opposition and contributed greatly in inflicting on the Japanese extremely heavy damage and personnel losses in the Solomon Islands.

☆

Comdr. John Hulme, USN, Boston, Mass.: Leading his torpedo bomber squadron in three daring flights, Commander Hulme launched attacks on 20 Japanese destroyers, the well-fortified airfield at Munda Point, and upon ground installations in the Kahili-Ballale area 4 February to 1 March 1943.

☆

Comdr. Charles H. Ostrom, USN, Miami, Fla.: While commanding a fighter squadron in the Solomons from 2-20 February 1943, Commander Ostrom directed attacks on shore installations at Munda Point and on 20 Japanese destroyers. On the latter occasion his squadron shot down seven enemy fighters, enabling our bombers to carry out their attacks unmolested and score two direct hits on two destroyers.

☆

Lt. Lowell L. Davis, USNR, Vina, Ala.: While on a patrol flight, Lieutenant Davis sighted a surfaced submarine at a considerable distance. Taking advantage of clouds to conceal his approach, he brought his plane down and accurately dropped a large depth charge, while his gunners countered the anti-aircraft fire of the U-boat. Following the explosion the submarine disappeared beneath the surface, leaving several men floundering amid the oil and debris on the surface—convincing evidence of the probable destruction of the vessel.

To Lt. MacGregor Kilpatrick, USN, Southampton, N. Y.; Lieut. (jg) Edward L. Feightner, USNR, Elida, O.; and Lieut. (jg) Roland R. Witte, USNR, Hollywood, Calif.; While in a combat patrol over the USS *Chicago* 30 January 1943 east of Rennell Island they intercepted a force of twelve Japanese torpedo bombers which were preparing to raid the cruiser. In the ensuing engagement, Lieutenant Kilpatrick shot down two Japanese planes before they could release their torpedoes. Lieutenant (jg) Feightner downed three. Lieutenant (jg) Witte got two and probably a third.

☆

Johannas S. Heldoorn, AMM1c, USNR, Los Angeles, Calif. (posthumously): Although subjected to intense anti-aircraft fire as machine gunner of a torpedo plane in the Battle of Coral Sea, Heldoorn participated in a determined attack on a Japanese carrier. On the same day his squadron shot down two fighter planes. Heldoorn has been missing since 8 May 1942, and is now presumed to be dead.

☆

Forest G. Stanley, ARM2c, USN, Ridgeway, Mo. (missing in action): While serving as a rear gunner in a scout bomber of the USS *Lexington* Squadron during the Battle of the Coral Sea 7 May 1942 Stanley's plane made a dive-bombing attack on an enemy carrier. He shot down an attacking Japanese fighter, preventing the almost certain destruction of his own plane.

—Official U. S. Navy Photograph.

RESCUED MAN FROM BURNING PLANE: Lloyd H. Bloomingdale, Ptr2c, USNR, Troy, N. Y., is congratulated for his heroism by Commodore R. S. Wentworth, USN, commandant of the Naval Operating Base, Iceland. Bloomingdale recently won the Navy and Marine Corps Medal for helping pull an Army sergeant from a burning plane.

NAVY and MARINE CORPS MEDAL

To Capt. Oliver O. Kessing, USN, Indianapolis, Ind.; and Comdr. Elmore S. Pettyjohn, USNR, Ann Arbor, Mich.: When enemy bomb hits started a raging fire in a supply and ammunition dump, they organized a fire-fighting party and made their way, under constant danger of further air attack, to the dump. Working in a blazing inferno of exploding ammunition, they finally extinguished the fire.

☆

To Lt. Comdr. Lloyd M. Johnson, USNR, Brighton, Mass.; and Lt. Joseph F. Kilduff, USNR, Boston, Mass.: Boarding a tanker which had been set afire in a collision, they led a party which fought continuously for 25 hours to control and extinguish the fire. When hot metal threatened to ignite a stream of gasoline, the officers crawled along the deck in stiffling heat to plug up the broken line with bars of soap.

☆

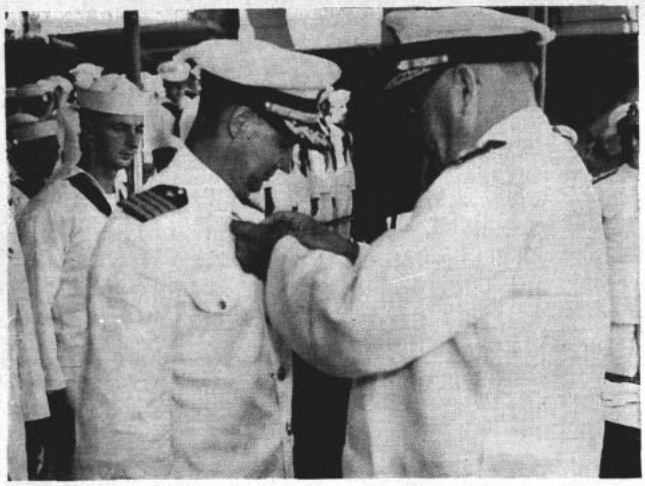
Lt. Comdr. Emil E. Napp (MC), USNR, New Rochelle, N. Y.: As regimental surgeon in the First Marine Division at Guadalcanal, Lieutenant Commander Napp repeatedly exposed himself to terrific fire in order to evacuate wounded comrades. On the night of 13–14 October 1942, he voluntarily abandoned his shelter at the height of a bombardment and worked his way through an intense barrage to give medical aid to the injured.

☆

Lt. Comdr. Richard R. Smith, USCG, Piedmont, Calif.: While supervising the rescue of personnel from a U. S. ship which was wrecked on the rocks, Lieutenant Commander Smith made repeated trips to the stranded ship in a power boat, through mountainous seas and treacherous waters. He rescued about 45 men, while other boats under his command saved 155 more.

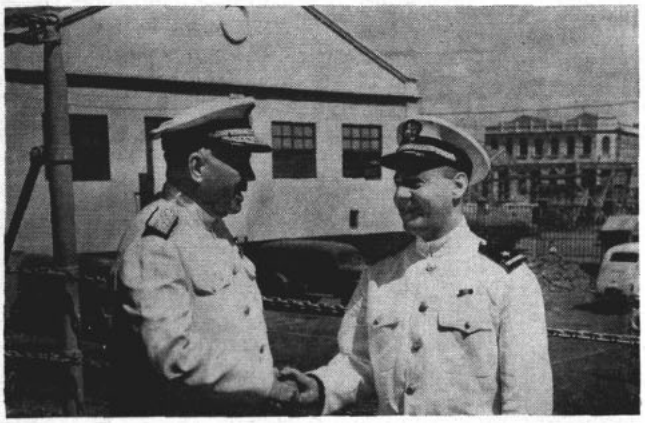
☆

Lt. James W. Henderson, USN, Pensacola, Fla.: When gales and rough seas threatened to destroy seaplanes at his base, Lieutenant Henderson swam out to a plane, ingeniously effected temporary repairs, and flew it safely to another area.



Capt. William N. Thornton, USN, Atlanta, Ga.

Lt. (jg) H. B. Luckett, USNR, Washington, D. C.



Ens. Donald V. Mulcahy, USNR, East Weymouth, Mass.

J. J. Murphy, PhM2c, USN, Malden, Mass.

—Official U. S. Navy Photographs.

Four Win N&MC Medal for Heroism in Fire

The Navy and Marine Corps Medal was presented three officers and an enlisted man recently by Vice Admiral Jonas Ingram, USN, Commander, South Atlantic Force, for heroism on a burning merchant ship in a Brazilian harbor. The four men boarded the blazing ship in the face of danger from gasoline explosions, assisted in fighting the fire, and cast off the mooring lines so that the vessel could be towed away and would not endanger a U. S. warship, shore establishments, and other ships. In the photographs, each of the four men receives his medal from Admiral Ingram.

Lt. William F. James, USNR, Richmond Heights, Mo.: When his ship, the USS *Joseph Hewes,* was torpedoed and sunk 11 November 1942 off Fedala, French Morocco, Lieutenant James supervised the lowering of the sick and wounded over the side and directed the men at the rail in abandoning ship. Just as the ship was making her final plunge, he turned back and assisted in freeing a soldier who was pinned under a mass of debris.

☆

Lt. Alvin C. Wilson, Jr., USNR, Baltimore, Md.: When a pilot crashed in the sea in the vicinity of Florida Island, Lieutenant Wilson dived overboard without a life jacket and swam to the wrecked plane, knowing that his ship might not be able to stop and pick him up. He brought the pilot's head above water and held him up until a rescue boat arrived.

Lieut. (jg) John T. Pigott, Jr., USNR, San Francisco, Calif.: During the 15 September 1942 rescue of survivors from the USS *Wasp,* Lieutenant (jg) Pigott brought a whaleboat close to the ship's listing hull, despite constant danger from blazing oil and intermittent explosions of ammunition and gasoline, in a search for stranded and helpless personnel. He undoubtedly saved the lives of many who might otherwise have perished.

Lieut. (jg) Herbert E. Van Meter (ChC) USNR, Moline, Ill.: Hearing the cries of distress from a companion being swept into the sea by the strong current near the mouth of New River, N. C., Lieutenant (jg) Van Meter plunged in and went to his assistance. Realizing the futility of attempting to swim against the current, he and a Marine kept the victim afloat until help arrived (20 July 1943).

Lieut. (jg) Lars Wanggaard, Jr., USN, Racine, Wis.: As ship's boat officer aboard the USS *Laffey* 15 September 1942 during the rescue of survivors from the torpedoed USS *Wasp,* Lieutenant (jg) Wanggaard brought his boat close to the burning and exploding carrier innumerable times to rescue exhausted survivors. He swam to the assistance of many who were in a weakened condition and brought them to safety.

☆

Vernon A. Boyd, GM3c, USNR, Charles City, Iowa: As a member of an Armed Guard, Boyd plunged overboard 29 June 1943 and swam through treacherous currents to rescue a seaman who had been rendered unconscious when his small boat overturned.

☆

Wallace B. Hamilton, PhM3c, USNR, Fort Worth, Tex.: Although

wounded himself while administering aid to front-line casualties 13 January 1943 on Guadalcanal, Hamilton remained on duty to assist in caring for the wounded, despite the fact that he was limited to the use of only one arm.

☆

Charles R. House, S1c, USN, Rome, Ga.: When a boat loaded with troops capsized near Fedala, House voluntarily plunged into the dangerous surf and gallantly rescued men struggling in the water. (During occupation of French Morocco, 8–11 November 1942.)

☆

Milton L. Knudsen, S1c, USN, Polo, Ill. (killed in action): While serving in the USS *Laffey* 15 September 1942 during the rescue of survivors from the torpedoed USS *Wasp*, Knudsen dived over the side of his ship many times to swim considerable distances with a line to rescue survivors, many of whom were completely exhausted.

☆

Henry B. Kulczak, S1c, USNR, Chelsea, Mass.: Pulling alongside a United States vessel, Kulczak and other members of a boat crew noticed that a nearby ship had caught fire. Despite exploding ammunition and gasoline, he and other members of his party took their boat to the burning vessel and rescued their shipmates from the water. (During occupation of French Morocco, 8–11 November 1942.)

☆

Robert W. Harden, S2c, USNR, Darden, N. C.: When a boat loaded with troops capsized near Fedala, Harden voluntarily plunged into the dangerous surf and assisted in rescuing men struggling in the water. (During occupation of French Morocco, 8–11 November 1942.)

GOLD ☆ STAR
In Lieu of Third Air Medal

Eduardo P. Brown, CPhoM, USN, Chula Vista, Calif.: While attached to Commander Aircraft, South Pacific Force, Brown took part in numerous flights over enemy territory. He obtained aerial reconnaissance photographs often while under fire from Japanese planes and anti-aircraft batteries.

GOLD ☆ STAR
In Lieu of Second Air Medal

Joseph F. Muller, PhoM2c, USNR, Seattle, Wash.: Attached to Commander Aircraft, South Pacific Force, Muller participated in numerous flights over enemy territory and successfully obtained aerial reconnaissance photographs, often while under fire from enemy planes and anti-aircraft fire.

—Skyscrapers (NAS, New York, N. Y.)

AIR MEDAL

To Comdr. James H. Flatley, Jr., USN, Green Bay, Wis.; Lt. (jg) Robert T. Porter, USNR, Waco, Tex.; Lt. (jg) Russell L. Reiserer, USNR, Redwood City, Calif.; and Lt. (jg) Lynn E. Slagle, Jr., USNR, Ventura, Calif.: As commander and pilots, respectively, of a fighting squadron, they intercepted twelve Japanese torpedo planes maneuvering into position to attack the USS *Chicago* (30 January 1943 east of Rennell Island). Diving from 14,000 feet, Commander Flatley shot down one bomber in flames and drove another into range of a wingmate's guns. The other pilots each accounted for one plane.

☆

To Comdr. Robert E. C. Jones, USN, Marquette, Mich.; Lt. Comdr. Mario A. Guerrieri, USNR, Stockbridge, Mass.; Lt. Comdr. Ralph M. Jones, USNR, Savannah, Ga.; Lt. Comdr. Rhodam Y. McElroy, Jr., USN, Lebanon, Ky.; Lt. Comdr. Ero G. Poutinen, USNR, Dallas, Tex.; and Lt. Comdr. George H. Wigfall, USN, Pikesville, Md.: As flight and division leaders, they carried out two important missions in the Solomons area, in the face of blinding searchlights and concentrated anti-aircraft fire.

☆

Lt. Comdr. William H. Keighley, USNR, Huntington Park, Calif.: As pilot of a torpedo plane 1 February 1943 in a group sent to intercept a task force of Japanese destroyers about 125 miles from Guadalcanal, Lieutenant Commander Keighley daringly maneuvered his plane in a curtain of anti-aircraft fire to score a direct hit on one of the enemy vessels.

Flight Lt. R. S. Duncan, Royal New Zealand Air Force: As a member of a flight group in the Solomons, Flight Lieutenant Duncan intercepted a Japanese fighter, closed in dead astern to fifty yards, and opened fire. His deadly stream of fire severed the tail section of the Zero and sent it crashing into the sea.

☆

Flight Lt. D. A. Grieg, Royal New Zealand Air Force: While operating with a group of our fighters over the Russell Islands, Flight Lieutenant Grieg observed a Zero closing in on the tail of a friendly plane. He launched a furious attack, following the plane down in an almost vertical dive, until it crashed in flames.

☆

Lt. Frank J. Hill, USN, Bruceville, Ind.: On an aerial flight in the South Pacific, Lieutenant Hill sighted an enemy submarine on the surface about three miles away. He quickly attacked with two depth charges shortly after the craft had crash-dived, and probably damaged or destroyed it.

☆

Lt. Delbert M. Minner, USN, Dover, Del.: Locating survivors of an Army bomber which had been forced down at sea, Lieutenant Minner made a precarious landing in the midst of threatening swells 5 March 1943, took aboard the stranded crew, and made a successful take-off despite high winds and excessive weight.

☆

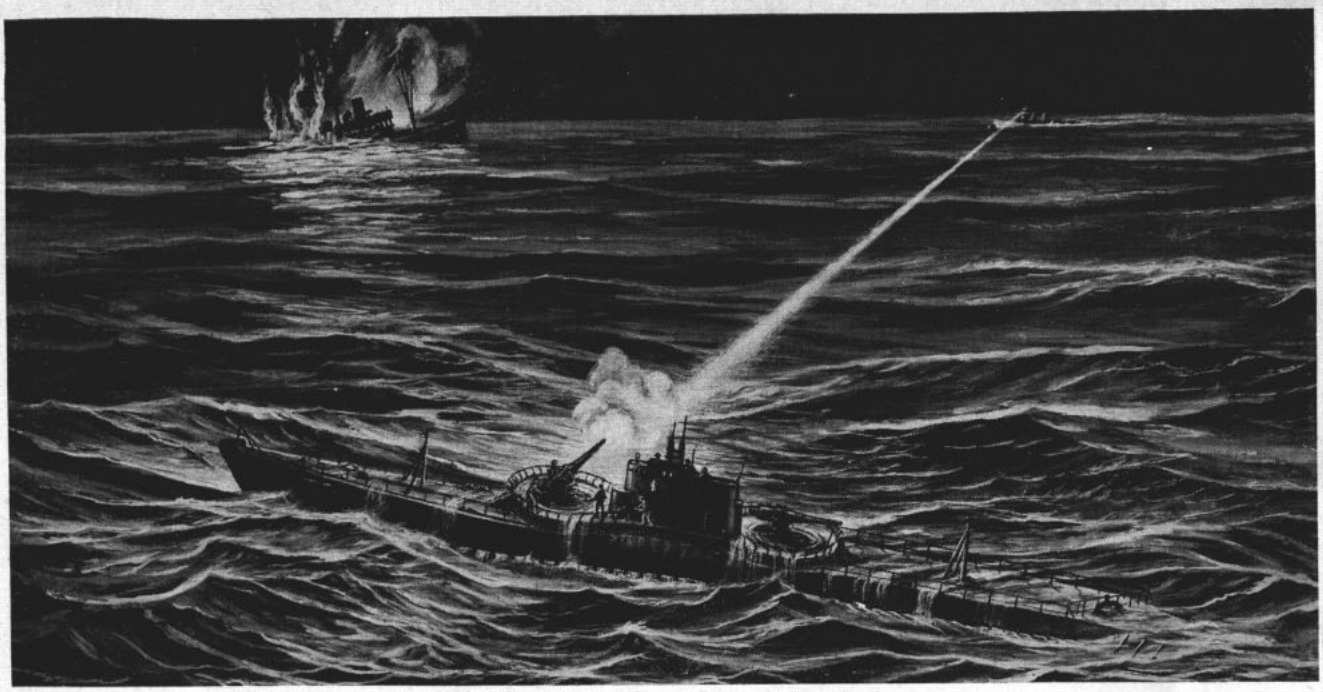
Lt. Stanley O. Raithel, USNR, Coronado, Calif. (missing in action): While commanding a patrol plane in action against Japanese forces in the Aleutian Islands during June 1942 Lieutenant Raithel fulfilled hazardous scouting missions, took part in all-night aerial patrols and launched repeated bombing attacks on Japanese ships in Kiska Harbor.

☆

Lt. Ralph Weymouth, USN, Washington, D. C.: After contributing to the serious damaging of a Japanese carrier in dive-bombing attacks 24 August 1942, Solomon Islands, Lieutenant Weymouth aggressively attacked enemy planes during the return flight to his own carrier. He assisted in shooting down three and seriously damaging a fourth.

☆

Lt. Roger S. C. Wolcott, USNR, Washington, D. C.: As pilot of an Inshore Patrol plane in the Solomons, Lieutenant Wolcott spotted a Japanese submarine on the surface about three miles away. Sweeping low, he released two depth bombs which exploded directly beneath the submarine. It burst clear of the surface, rolled upside down, and sank in a swirl of oil slick and air bubbles.



The Nautilus: One of Five Subs Cited.

Five Submarines Given Presidential Unit Citations

Five submarines which struck devasting blows at Japanese warships and merchantmen have been presented Presidential Unit Citations for their achievements.

☆

The USS WAHOO fought a 14-hour battle with an armed convoy, destroying the entire force of two freighters, one tanker and one transport. She destroyed 31,890 tons of shipping during a single patrol.

☆

During two patrols the USS GUARDFISH accounted for more than 66,000 tons of Japanese shipping destroyed and approximately 14,000 tons damaged.

☆

In three patrols the USS GREENLING destroyed nine ships totalling 61,800 tons and severely damaged another 22,000 tons, including a converted aircraft carrier.

☆

The USS TROUT sank a total of 43,200 tons of enemy shipping and damaged an additional 31,500 tons, including an aircraft carrier.

☆

During three aggressive patrols the USS NAUTILUS inflicted severe damage to shipping in enemy-controlled waters.

These People

(*Continued from Page* 24)

the Army, one in the Marines, four in the Navy—and a daughter who is a Navy nurse.

The list could be almost endless.

Of the Navy's total civilian employes, nearly a fourth are women—each releasing a man for military service. In addition, more than half the Navy's male civilian employes are too old or too young for military service or are disqualified physically.

George F. McDuffee, 79, who put on the fireworks display in New York City when Admiral Dewey returned home from Manila, is a learner-welder in the Boston Navy Yard. In the same yard's structural shop, Paul Alpert, 29 years old and one inch less than four feet tall, is a handy welder to send into cramped compartments where a full-size man couldn't work. The breech mechanism shop alone at the Washington Navy Yard employs 39 16-year-old apprentices.

Of male civilian employes qualified for active military service, it has been the policy of the Navy Department to release to the armed forces all but the most essential skilled journeymen, machinists, and technicians in Navy Yards and shore establishments. The main group of military-age men is scheduled for orderly release as replacements are trained. For the most part, members of this group enter the Navy when released to the armed forces and take into the service with them valuable naval experience acquired in shore activities.

Even for boys almost certain to leave soon for military service Navy shore establishments provide valuable pre-Navy technical training. Many navy yards and naval air stations have worked out programs for such training in cooperation with local schools. Lads of 16 and 17 go to school mornings and work afternoons as apprentices in Navy shops. Often the boys get credit in school for practical instruction received at work.

One graduate of such a program, Frank H. Thames, Jr., spent his summer vacations working in the Charleston Navy Yard, where his father is head planner. Upon graduation from the V-7 school at the United States Naval Academy, he requested—and received—duty in a Charleston-built destroyer.

—The Dispatch (NTS, Miami U, Oxford, O.)

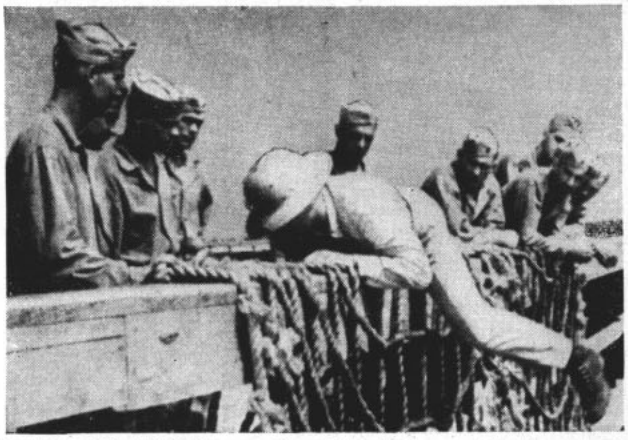
"Joe's a changed man since he started going with that Wave."

BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

TRAINING TIP OF THE MONTH

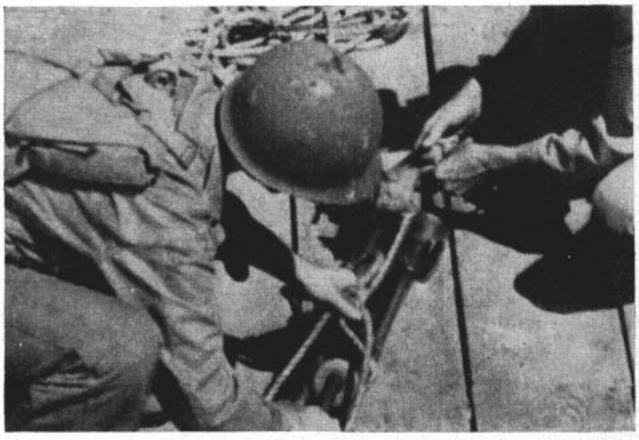
OVER THE SIDE: *Landing and Loading Of Men and Material*

GOING OVER THE SIDE, the rifle is slung on left shoulder, butt held close by inserting canteen through sling, muzzle held to shoulder by inserting bayonet grip through sling. The belt is loosened until man is in boat. Then one quick motion can remove pack.

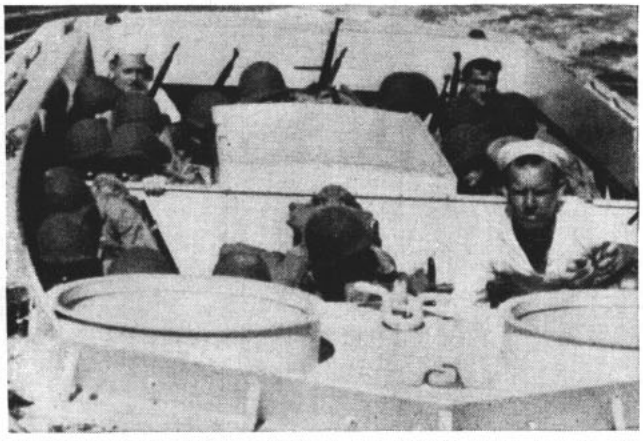


LEFT LEG FIRST over the side. This avoids the possibility of fouling each other in attempting to scramble over every which way. Also, by going over the side in uniform fashion there is a minimum danger of accidents and loss of ordnance and materials.

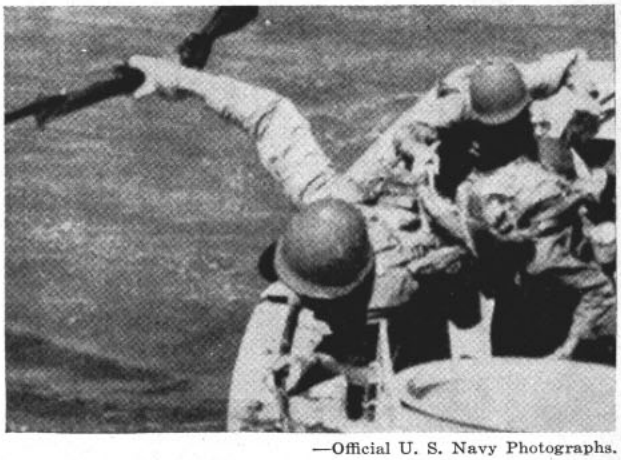
VERTICAL ROPES of the cargo net are for the hands. Horizontal strands are for the feet. By grasping vertical strands in hands you eliminate the possibility of having your fingers stepped on. The cargo net must always be full if the landing boat is to be loaded rapidly.



MANY DIFFERENT KNOTS and slings are used to lower ordnance and valuable materials over the side. There is no set rule except to get the material ashore safely. See that ordnance and materials are made ready in time. See that they're safely stowed in boat.



IN THE LANDING BARGE, all heads must be down. Nothing should show above the gunwales except (when necessary) the coxwain who is piloting the boat to shore. Belts are now fastened, equipment inspected and assembled, while men keep safely out of sight.



—Official U. S. Navy Photographs.

MEN DEBARKING from the starboard side hold their rifles free in their right hands as shown above. Men debarking from the port side carry rifles and equipment in their left hands. When debarked, head for cover.

NEW BOOKS IN SHIPS' LIBRARIES

The following books have been purchased for distribution during the month of November to units in the service. Although not all titles will be supplied to all units, the practice of the Bureau is to distribute different titles to small units operating in the same area so that it is possible for units to exchange books. If units do not receive desired titles, request may be made to the Bureau.

THE DUKE by Richard Aldington. Biography of the Duke of Wellington.

THE WEEPING WOOD by Vicki Baum. Story of rubber, the weeping wood, told through the lives of the people whose destinies it shaped.

THE REPUBLIC by Charles A. Beard. Thoughtful discussions on American institutions.

CONDITION RED by Comdr. Frederick J. Bell. A combat cruise of a destroyer in the South Pacific.

NOW I LAY ME DOWN TO SLEEP by Ludwig Bemelmans. Amusing novel, a picture of high life at the approach of the war.

COW BY THE TAIL by Jesse James Benton. A cowboy tells of his life on the ranches and among the Comanche Indians.

THE PROMISE by Pearl S. Buck. Mrs. Buck's novel dramatizes the situation in Burma when the Japs were driving out the British and Chinese soldiers.

THE F.B.I. IN PEACE AND WAR by Frederick L. Collins. Actual cases explain F.B.I. methods and techniques.

THIS WINGED WORLD edited by Thomas Collison. Collection of writings about aircraft and the dreams and the courage of the men who made them.

COMMAND AT SEA by Capt. Harley F. Cope. A guide for the naval officer.

CRUSADE FOR PAN-EUROPE by R. N. Coudenhove Kalergi. Life story of a man who has been at work a score of years on plans for a federation of Europe.

MURDER IN HAVANA by George Harmon Coxe. Cuba's big town is the setting for another of this author's well-constructed mysteries.

YOU'RE SITTING ON MY EYELASHES by Whitney Darrow Jr. Collection of laugh-provoking drawings.

SHE CAME TO THE VALLEY by Cleo Dawson. A novel of lusty pioneer life in the valley of the Rio Grande River.

SHADOW OF NIGHT by August Derleth. Hasso wanted to avenge his brother's death when he followed Gebhardt to Sac Prairie, Wis. in the 1850's, but life in the frontier community brought about a change of heart.

STAGECOACH KINGDOM by Harry Sinclair Drago. Excitement, action, horses in the West before the coming of railroads.

THE WILD DUCK MURDERS by Theodora Du Bois. Amateur sleuth (a doctor) works with the F.B.I. to solve murders.

THE AXIS ON THE AIR by Harold Ettlinger. Axis propaganda; its background, history and practices.

GARDEN ISLANDS OF THE GREAT EAST by David Fairchild. Botanist describes plant life he found on South Pacific Islands.

JOURNEY IN THE DARK by Martin Flavin. This novel is the story of a small town boy from the wrong side of the tracks who aimed his life singly at the acquisition of a fortune and made it.

MALTA MAGNIFICENT by Maj. Francis W. Gerard. Graphic account of the siege of Malta portraying the life and stamina of the Maltese people.

BRIGHT IS THE MORNING by Robert Gibbons. This dramatic novel set in Alabama of recent years treats of brothers in love with the same woman.

RINGED HORIZON by Edmund Gilligan. Account of U-boat warfare in the North Atlantic by the author of "Gaunt Woman."

THE WILD BUNCH by Ernest Haycox. Another Western.

THE BATTLE IS THE PAY-OFF by Capt. Ralph Ingersoll. Former editor of PM tells what he saw and experienced in the African campaign.

IT'S A FUNNY WORLD. A collection of cartoons from Colliers.

THE BAYOUS OF LOUISIANA by Hartnett T. Kane. A charming portrait of a little known section on the gulf coast inside Louisiana boundaries with industries and customs all its own.

LIFE IS TOO SHORT by C. Kay Scott. Biography of a many-sided, widely travelled man, known in scientific circles by his real name, F. C. Wellman.

MURDER WITH LOVE by Garland Lord. An old major invites his heirs to visit him. Murder ensues.

NONE BUT THE LONELY HEART by Richard Llewellyn. Author of "How Green Was My Valley" writes of everyday life in Cockney London.

RED RASKALL by Clark McMeekin. A girl, a boy, a horse, and some villains in an exciting tale of adventure in Colonial America.

THE FRUITS OF FASCISM by Herbert L. Matthews. Fascism in Italy discribed, and the reasons for its rise and decline.

EAST COAST CORVETTE by Lt. Nicholas Monsarrat. An action-filled tale of convoy duty.

CAT'S CLAW by D. B. Olsen. Mystery.

THE PAGEANT OF CANADIAN HISTORY by Anne Merriman Peck.

THE GRAND DESIGN by David Pilgrim. Adventures of James de la Cloche, seventeenth century English secret agent.

HERE IS YOUR WAR by Ernie Pyle. Correspondent's experiences on the Tunisian fighting front.

THE INVASION OF GERMANY by Curt Riess. Need and proposed plans of attack for defeating Germany on her own soil.

MY FAMILY RIGHT OR WRONG by John Philip Sousa III. Antics of the Sousa family, which normally resembled a three-ring circus.

THE MYSTERY OF SWORDFISH REEF by Arthur W. Upfield. International figures become tangled in a mystery while swordfishing in Australia.

STALK THE HUNTER by Mitchell Wilson. Plenty of suspense in this thriller.

New Books in the Armed Services Edition

The following titles are included in the second series of 30 paperbound books published for the armed services:

B-31—Rose Wilder Lane, LET THE HURRICANE ROAR.
B-32—Fred Herman, DYNAMITE CARGO.
B-33—Robert Frost, COME IN, AND OTHER POEMS.
B-34—Edith Wharton, ETHAN FROME.
B-35—Mary Lasswell, SUDS IN YOUR EYE.
B-36—Peter Field, FIGHT FOR POWDER VALLEY!
B-37—Cornelia Otis Skinner and Emily Kimbrough, OUR HEARTS WERE YOUNG AND GAY.
B-38—MacKinlay Kantor, GENTLE ANNIE.
B-39—Rober Benchley, BENCHLEY BESIDE HIMSELF.
B-40—William Sloane, TO WALK THE NIGHT.
B-41—Edmund Gilligan, THE GAUNT WOMAN.
B-42—Alan LeMay, WINTER RANGE.
B-43—Arthur Henry Gooden, PAINTED BUTTES.
B-44—Rosemary Taylor, CHICKEN EVERY SUNDAY.
B-45—Pardee Lowe, FATHER AND GLORIOUS DESCENDANT.
B-46—H. Allen Smith, LIFE IN A PUTTY KNIFE FACTORY.
B-47—Archie Binns, LIGHTSHIP.
B-48—Hartzell Spence, GET THEE BEHIND ME.
B-49—Mary O'Hara, MY FRIEND FLICKA.
B-50—Henry C. Cassidy, MOSCOW DATELINE.
B-51—Dorothy Macardle, THE UNINVITED.
B-52—Walter D. Edmonds, ROME HAUL.
B-53—Struthers Burt, POWDER RIVER.
B-54—Louis Adamic, THE NATIVE'S RETURN.
B-55—Marjorie Kinnan Rawlings, THE YEARLING.
B-56—Stefan Heym, HOSTAGES.
B-57—Hubert Herring, GOOD NEIGHBORS.
B-58—Merrill Denison, KLONDIKE MIKE.
B-59—Marcus Goodrich, DELILAH.
B-60—Peter Freuchen, ARCTIC ADVENTURES.

New Ideas

(*Continued from Page 29*)

of an aluminum sheet that previously yielded only four. Result: an increase of 25% in the material available for his job. Someone else redesigned a gadget and saved an ounce of brass. An ounce saved on each of a million gadgets is 31 tons of brass."

One of the strangest of all idea stories concerned the mysterious "Mr. X." Ideas and suggestions for improving production kept dropping into the Suggestion Box at an Indianapolis war plant, all of them signed "Mr. X." That they were good ideas is indicated by the fact that seven of the nine turned in won plant awards. But no one turned up to receive the award certificates.

When his identity was finally discovered, it was found that "Mr. X" was 63-year-old Joe Kaufsky, machinist. He has one son in the Navy, another in charge of the production department at a war plant. His ideas were submitted to War Production Drive headquarters in Washington and the board gave Kaufsky a Production Award Citation, highest national honor bestowed for suggestions which boost the output of weapons and equipment for the fighting forces. Brought to Washington, Kaufsky was introduced to war production chief Donald Nelson, to General George C. Marshall, to Under Secretary of the Navy James V. Forrestal and many others. The high spot came at the White House, when Kaufsky received his Citation from the President himself.

Not all ideas lead to the White House—but most of them lead to a shorter war, and a saving in human lives. In the first six months of this year, one big war plant received from its workers 35,750 suggestions. A country that can pour 'em out like that isn't going to come in second in any idea sweepstakes.

How Did It Start?

When badges for the electrician's mate rating were first ordered, a "globe" (meaning an electric light bulb) was specified as the identifying symbol. When the badges were delivered, the "globe" turned out to be a reproduction of the globe of the world. However, the world globe looked so well it was never changed. *(If you have a new or different version, send it along to the Editor.)*

BuPers
POSTING MATTERS OF PARTICULAR INTEREST AND IMPORTANCE TO NAVAL PERSONNEL
BULLETIN BOARD

DEPENDENCY PAYMENTS INCREASED

A new schedule of increased government payments to dependents of service men became a law November 1. The law increases only the government's share in dependency payments. The service man's contribution remains at $22 where limited to wife and children and $27 where it also includes other relatives.

The new benefits are extended to all seven pay grades. The first three grades have the option of choosing between the new benefits and continuing the old quarters allowance for dependents. No new applications can henceforth be filed for quarters allowance for dependents.

Service women's relatives are also eligible for the new allotments if they can prove dependency.

New benefits compared with the former amounts:

Dependent	*Formerly*	*Now*
Wife	$50	$50
Wife and 1 child	62	80
Wife and 2 children	72	100
Each additional child	10	20
Child but no wife	42	42
Additional children (no wife)	10	20
Divorced wife, 1 child	54	72
Each additional child (divorced wife)	10	20

The new law makes a distinction between Class B dependents and a new Class B-1, the difference being the amount of support furnished by the person in service.

Class B dependents include a father, mother, brother, or sister. Unlike the wife and children, these relatives must prove that they are dependent upon the enlisted man for *a substantial portion of their support.* The amount payable to Class B dependents is $37 a month; that amount is payable whether only one relative or several relatives may be members of this class.

Class B-1 dependents similarly include the parents, brothers, and sisters; but the amounts payable to Class B-1 dependents are higher—$50 for one parent, $68 for two parents or for one parent and one brother or sister, with $11 additional for each other parent and each subsequent brother or sister. The first brother or sister receives $42 if there is no parent, and each other brother or sister receives an added $11. But in order to qualify as a Class B-1 dependent, each such relative must show that he or she is dependent upon the enlisted man for *the chief portion of his or her support*—that is, for more than 50 per cent of the relative's net income.

A child, brother, or sister may receive an allowance only if he or she is unmarried, is under 18 years of age, or, if older, is incapable of self-support because of mental or physical handicap.

After 1 November, during the month in which the enlisted man enters on active service, his relatives are eligible for an initial family allowance, if he applies within 15 days. This initial allowance is paid entirely by the government. Thereafter the payment of the stated amounts is made partly out of government funds and partly out of the enlisted man's own pay. If the enlisted man has only one class of dependents, his pay is reduced by $22; if he has dependents both in Class A and Class B or Class B-1, it is reduced by $27. The remainder is paid by the government.

Relatives of enlisted men who have been receiving family allowances in the past need not apply for increases in their payments. The higher amounts which the new law provides on account of children or on account of Class B-1 dependents are paid by the Navy Department automatically or after a special communication is sent to the relatives concerned.

Every enlisted man is informed of his rights to allowances when he enters on active service. But in most cases two or three weeks will elapse before the individual dependent may receive an allowance check. If it is clear that the enlisted man has failed to apply, a wife or child may apply by letter direct to the Navy Department (Bureau of Naval Personnel, Washington, D. C.). But application for parents, brothers, or sisters must be made by the enlisted man himself. If such a relative has reason to believe that the enlisted man has not applied for an allowance, the relative should write direct to the man—not to the Navy Department.

WHAT YOU DO ABOUT THE NEW CHANGES

Lower four pay grades—

Class A — changes will be made by the Bureau automatically.

Class B (and those who will change to class B-1)—the Bureau will take the question up directly and individually with each present recipient of an allowance; neither the person in the service nor the dependent should initiate action to effect the change. *No letters are necessary.*

First three pay grades—

If *not* now receiving quarters allowance for dependents, personnel may apply to the commanding officer for all family allowances.

If *presently* receiving quarters allowance for dependents, personnel should decide whether it is best to continue as at present or apply for family allowance. If it is decided to continue with quarters allowance, no action is necessary. If, however, family allowance is desired, notice must be given to discontinue quarters allowance and application for family allowance can then be made through the commanding officer. Family allowance cannot be granted if quarters allowance is in effect.

NOTE: Personnel in the first three pay grades receiving or having made application for quarters allowance for dependents are *compelled* by the new law to register an allotment in favor of the relative on whose account they are receiving the quarters allowance, and that allotment must be at least as great as the allowance.

17 New Rates for Enlisted Men

In the most comprehensive revision of the enlisted rating structure since the war began, the Navy last month established 17 new ratings and 33 subdivisions of ratings. In addition, four ratings were changed from one pay grade to another and six were abolished and replaced by others.

The changes include re-establishment of third class ratings in the Artificer Branch, Engine Room Force, and necessary readjustment of firemen ratings; revision of musician's rates and pay grades, and establishment of Mineman, Special Artificer, Airship Rigger, and Ship's Service Man ratings.

Following a thorough study by BuPers of the entire enlisted rating structure, it was concluded that, in the interest of efficiency, it was essential to have additional means of identifying men with special training or skills in order to place them where they could serve to the best advantage.

The new system insures: (1) retention of men with special training and skills in activities where they are best fitted, (2) that such men will not be lost in transfer.

In general the changes include the following:

(a) New ratings:

Rating	*Abbreviation*	*Pay Grades (Inclusive)*
Mineman	MN	4-1
Chief Soundman	CSoM	1A-1
Chief Radarman	CRdM	1A-1
Special Artificer	SA*	4-1
*O—Optical		
*I—Instruments		
*D—Special Devices (Synthetic training devices)		
Airship Rigger	AR	4-1
Ship's Service Man	SSM	4-1
*B—Barber		
*C—Cobbler		
*L—Laundryman		
*T—Tailor		
Machinist's Mate, Third Class	MM3c	4
Motor Machinist's Mate, Third Class	MoMM3c	4
Water Tender, Third Class	WT3c	4
Boilermaker, Third Class	B3c	4
Metalsmith, Third Class	M3c	4
Chief Molder	CM1	1A-1
Molder, Third Class	M13c	4
Chief Patternmaker	CPM	1A-1
Patternmaker, Third Class	PM3c	4
Chief Painter	CPtr	1A-1
Buglemaster, Third Class	Bgmstr3c	4
Chief Musician	CMus	1A-1
Musician, Third Class	Mus3c	4

(b) Subdivisions of ratings in addition to general ratings from which derived:

Rating	*Abbreviation*	*Significance*	*Pay Grades (Inclusive)*
Boatswain's Mate A	BMA	Master at Arms	3-1
Torpedoman's Mate V	TMV	Torpedoman's Mates assigned to aviation activities	4-1
Fire Controlman	FC	Same as Fire Controlman (M)	4-1
Fire Controlman R	FCR	Same as Fire Controlman (R)	4-1
Soundman H	SoMH	Harbor Defense Soundman	4-1
Printers L and M	PrtrL(M)	Lithographers and Multilith Operators	4-1
Painter V	PtrV	Aircraft Painters	4-1
Machinist's Mate E	MME	Engineman	4-1
Machinist's Mate G	MMG	Industrial Gas Generating Mech.	4-1
Machinist's Mate R	MMR	Refrigeration Mechanic	4-1
Machinist's Mate S	MMS	Shop Machinist	4-1
Aviation Machinist's Mate C	AMMC	Aviation Carburetor Mechanic	4-1
Aviation Machinist's Mate F	AMMF	Aviation Flight Engineer	4-1
Aviation Machinist's Mate H	AMMH	Aviation Hydraulic Mechanic	4-1
Aviation Machinist's Mate I	AMMI	Aviation Instrument Mechanic	4-1
Aviation Machinist's Mate P	AMMP	Aviation Propeller Mechanic	4-1
Aviation Ordnanceman B	AOMB	Aviation Bombsight Mechanic	4-1
Aviation Ordnanceman T	AOMT	Aviation Turret Mechanic	4-1
Storekeeper D	SKD	Disbursing Storekeeper	4-1
Storekeeper V	SKV	Aviation Storekeeper	4-1
Specialist (F)	Sp (F)	Fire Fighters	4-1
Specialist (Q)	Sp (Q)	Communication Security	4-1
Specialist (X)	Sp (X)	Essential specialists who do not fit into any existing rating	4-1
Specialist (Y)	Sp (Y)	Control-Tower Operators	4-1

(c) Changes of rating in pay grade:

Effective upon receipt of BuPers Circlet 205-43—

Rating	*Present Pay Grade*	*New Pay Grade*
Musician, First Class	3	2
Musician, Second Class	5	3
Effective 1 January 1943—		
Fireman, First Class	4	5
Fireman, Second Class	5	6

(d) Ratings to be abolished:

Effective upon receipt of BuPers Circlet 205-43—

Fire Controlman (R)	Replaced by FCR
Fire Controlman (M)	Replaced by FC
Bandmaster	Replaced by CMus
First Musician	Replaced by Music

Effective 1 January 1944—

Fireman, Third Class	To be replaced by AS

Effective upon establishment of Mineman qualifications—

Gunner's Mate (M)	To be replaced by MN

Inasmuch as present complements, in most cases, already cover the specialties in the broad general ratings which have been subclassified, it should not be necessary to change the total number in a complement. Inclusion of AMMC's in a complement, for example, should be accompanied by a corresponding reduction in the number of AMM's.

No changes or advancements to new ratings listed in paragraphs (a) and (b) will be effected until complements are established and qualifications published, other than the following changes of ratings, within the same pay grade, which shall be effected immediately.

General Rating	*Additional Rating*	*Qualifications*
BM	BMA	Not physically qualified to perform duties at sea.
TM	TMV	Attached to aviation activities.
FC	FCR	Same as for FC(R).
SoM	SoMH	Graduates of Harbor Defense School, Fisher's Island, N. Y., or San Pedro, Calif.
MM	MMR	Graduates of NTSch (refrigeration), Carrier Corporation, Syracuse, N. Y., and York Naval Training School, York Ice Machinery Corporation, York, Pa.
AMM	AMMC	Graduates of NATechTraCen, 87th and Anthony Ave., Chicago, Ill. (carburetor and fuel system).
AMM	AMMF	Graduates of NTSch (PAA flight mechanics), LaGuardia Airport, N. Y.
AMM	AMMH	Graduates of NATechTraCen, 87th and Anthony Ave., Chicago, Ill. (hydraulics system).
AMM	AMMI	Graduates of NATechTraCen, 87th and Anthony Ave., Chicago, Ill. (instruments).
AMM	AMMP	Graduates of NATechTraCen, 87th and Anthony Ave., Chicago, Ill. (propeller maintenance).
AOM	AOMB	Graduates of NTSch (bombsight), Jacksonville, Fla., NATechTraCen; San Diego, Calif.
AOM	AOMT	Graduates of NTSch (aircraft turrets), Detroit, Mich.
Sp (T)	Sp (F)	Fire-fighter instructors.
Sp (T)	Sp (Y)	Class V-10 control-tower operators.

BuPers BULLETIN BOARD

Former Rating	*New Rating*	*Qualifications*
BMstr (abolished)	CMus	Same as for former Bmstr.
1st Mus (abolished)	Mus1c	Same as for former 1st Mus.
Mus1c	Mus2c	Same as for former Mus1c
Mus2c	Mus3c	Same as for former Mus2c.
FC (M)	FC	Same as for former FC(M).

Pending publication of qualifications for the new ratings listed immediately above, all candidates for advancement in these ratings must pass the examination for the general rating, as prescribed by part D of BuPers Manual.

Changes in pay grade of the fireman ratings shall be effected as follows:

(a) Effective upon receipt of BuPers Circlet 205-43, no further advancements to firemen, first class, shall be effected until the rating of fireman, first class, is changed from pay grade 4 to pay grade 5.

(b) Men now in the rating of fireman, first class, may be changed to new third-class artificer ratings when qualifications are published, or they may be advanced to second-class artificer rates under current instructions.

(c) Qualified fireman, second class, may be advanced to new third-class artificer ratings when qualifications are published.

(d) On 1 January 1944 all firemen, second class, and firemen, third class, shall be changed to fireman, first class, and fireman, second class, respectively.

It is intended to include in the specialist (X) rating such miscellaneous essential specialists as draftsmen, model makers, visual-training-aid experts, telephone-switchboard-operator supervisors, pigeon trainers, air station operations desk and sea-frontier operations personnel performing duties deserving of a petty officer rating. No changes to this rating will be authorized until designators to identify specialties have been published.

Men classified as USN(I) or USNR, except fleet reserves, will be considered for the specialist (Y) rating, provided they are not qualified to perform the duties of a general service rating. Bureau authority in each case must be obtained. In this connection, it is desired to emphasize that it is not the practice to authorize physically fit young men to change to specialist ratings.

Qualifications for the specialist (F) rating, to include men with long experience as civilian firemen who are now serving as key men in fire-fighting organizations, will be published at a later date.

Revised NAVPERS Forms 625 and further instructions will be issued as soon as practicable.

(Full details in N. D. Bul. [semi-monthly], of 15 October 1943, R-1491.)

Convalescent Leave Policy Established for Officers

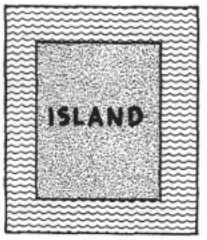
Convalescent leave not to exceed 30 days now may be granted to officer patients by medical officers in command of U. S. Naval Hospitals.

To be eligible for convalescent leave an officer must (1) be under treatment for an illness or injury which has necessitated his evacuation from overseas or which was incurred aboard ship under combat conditions; (2) be no longer in need of active treatment in a hospital but be not fully recovered nor fit for active duty, and (3) have reached a point where a period of convalescence with his family could be expected to hasten his recovery and return to duty.

Such officers may be granted permission to report to the naval hospital near their homes upon expiration of convalescent leave. All male officers will be brought before a board of medical survey when fully recovered and fit for duty.

Convalescent leave will not be granted to officers who are admitted to a hospital from their place of duty in the United States or to those who are permanently disabled. In such cases leave, or sick leave, and authority to transfer to other naval hospitals for continuation of treatment should be requested in accordance with established procedures. (Details in N. D. Bul. [semi-monthly], of 1 October 1943, R-1445.)

Can You Get to the Ship?



The Receiving Ship is on an island, surrounded by a stream 20 *feet wide. How would a group of sailors who stayed out late cross the stream by using two boards, one* 18 *feet in length, the other only* 15 *feet long?* (*Answer on Page* 79).

Maternity Care Plan for Lower Pay Grades Only

Emergency maternity and infant care for wives and infants of enlisted men in the armed forces is available (effective 1 October 1943) only to dependents of enlisted personnel of the fourth, fifth, sixth or seventh pay grades.

However, commitments made prior to 1 October 1943 in cases of wives and infants of enlisted men of the first, second, or third pay grades, are valid. Massachusetts, Oregon and Pennsylvania have been added to the list of states having the program in operation. (See INFORMATION BULLETIN, October 1943, page 67.)

Dependents' Out-Patient Care Must Be by Navy

Out-patient medical service is provided for the wives, children, and other actual dependents of naval personnel, but only by naval medical officers at naval dispensaries, naval hospitals, or other Medical Department activities where an out-patient service for dependents has been established.

The Navy Department may not authorize, pay for, or assume any responsibility in connection with medical, dental, or hospital care obtained by or for dependents from civil physicians, dentists, or other practitioners, in civilian hospitals, clinics, etc., or in the hospitals or medical facilities of branches of the Government other than the Navy.

During such times as the Coast Guard may continue to operate as a part of the Navy, naval medical out-patient service is available for Coast Guard dependents in like manner as for naval dependents. (Details in N.D. Bul. [semi-monthly], of 15 October 1943, R-1482.)

More Lightweight Magazines for Men Afloat

Pony editions of nine popular magazines are now being printed for

YOUR FAMILIES AT HOME ARE RATIONED SO YOU CAN HAVE ALL YOU WANT

DO YOUR PART BY TAKING NO MORE THAN YOU CAN EAT

BuPers BULLETIN BOARD

Seamen, Firemen May Be Rated as Corpsmen in Same Grade

Authority to change the ratings of seamen and firemen of the fifth and sixth pay grades to Hospital Corps ratings in the same pay grades, provided they have had specified training, has been extended to commanding officers of all shore-based activities outside the continental United States, except construction battalions and base companies.

The authority formerly was limited to those shore-based activities outside the continental limits having a permanent authorized complement of two or more medical officers, and to vessels having a permanent authorized complement of two or more medical officers. (Details in N. D. Bul. [semi-monthly], of 1 October, R-1449.)

Wounded Men Should Apply For Purple Heart Medal

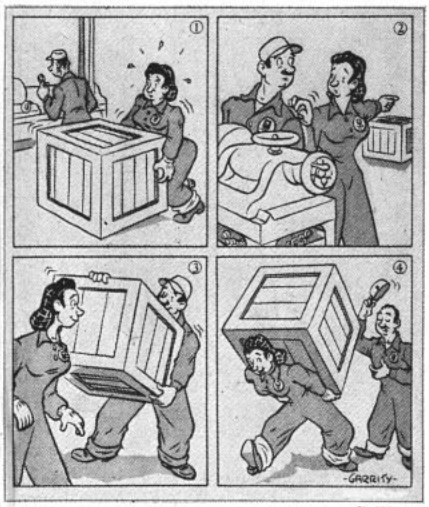
It has come to the attention of BuPers that all men who are entitled to receive the Purple Heart Medal have not applied for it. This medal is awarded to anyone who is wounded in action against an enemy or is wounded as a result of the act of an enemy, if such wound necessitates treatment by a medical officer. Full details concerning the Purple Heart Medal appear in Navy Department General Order No. 186 of 21 January 1943.

U. S. Shore Duty Officers To Relieve Outlying Bases

BuPers plans to relieve in the near future a number of officers serving at outlying and advance bases. Reliefs will come from physically qualified, experienced officers at shore establishments in the continental United States who have not recently served at sea or on foreign shore.

Color blindness, dental deficiencies, minor deformities, when not coupled with organic defects, are not considered disqualifying for outlying or advance base duty.

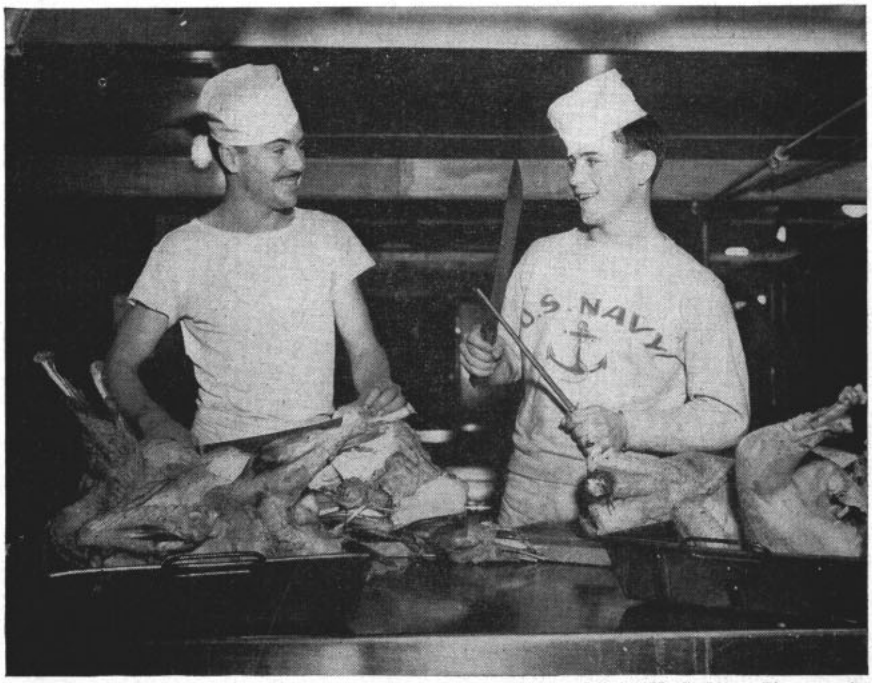
Each activity may, if it so desires, submit a priority-of-detachment list by ranks of those officers considered physically capable of performing duty at advance or outlying bases. (Details in N. D. Bul. [semi-monthly], of 15 October 1943, R-1500.)



—Colliers.

Officers Duty Requests Must Be Forwarded

It has come to the attention of BuPers that all officers' requests for change of duty are not being forwarded according to the provisions of U. S. Navy Regulations, Article 2020, which states that "All officers through whom communications from subordinates are sent for transmittal to higher authority shall forward same if in proper form. . . ." BuPers has directed that officers comply with this regulation. (Details in N. D. Bul. [semi-monthly], of 1 October 1943, R-1457.)



—Official U. S. Navy Photograph.

There'll be turkey and all the fixin's for every man in the Navy, this Thanksgiving, no matter how far he may be from home. BuSandA has taken care of that. A pound of the Thanksgiving bird will be procured as usual for each officer and each man, plus the traditional side dishes. Above, Commissary Stewards at NTS, Norfolk, prepare to carve turkey for the ship's company.

A Problem for the Admiral

The Flag had 21 warships which he wished to have in nine straight lines with five ships in each line. How did he do it?

(*See page 79 for solution.*)

—The Mock Up (Amphibious Training Base, Fort Pierce, Fla.)

"O. K. boys. Synchronize your watches."

BuPers BULLETIN BOARD

Short Cuts in Handling Enlisted Service Records

Two suggestions for saving time in entering transfers on the service record have been received by the Bureau and are recommended for use where applicable.

Commands transferring large drafts of personnel may arrange in alphabetical order the original and duplicate copies of the transfer pages 9 & 10 and secure them with rubber bands, rather than placing them in the various service records. The command which receives the draft may then mimeograph the receipt endorsement. Obviously this procedure will be of benefit only for large drafts of men ordered to the same place.

The command transferring a man may fill in the space showing "Last station" as well as the entries showing the transfer. The command receiving the man may then stamp or mimeograph the remainder of the receipt.

'FER A GUY WID MY BRAINS DIS IS SILLY'

"I wanna be a cook!" "I wanna be a baker!"
"I wanna be a clerk or a candlestick maker!"

"I wanna be a captain!" "I wanna blow the horn!"
"I wanna stay at home an' help pappy cut the corn!"

"I wanna do this; I wanna do that!"
"I wanna do anything but what they got me at!"

Suppose, my discontented friends, you quit your silly griping
And at the Axis aim your shots and everlasting sniping.

There's just one thing we've got to do
—and you know what it means,
Blast the Axis off the map! Smash to smithereens!

That's our main assignment; each has his role to play,
Your chance to do the other things will come on Vict'ry Day.

So buckle down, train hard and fast, and don't go on a bender—
The order still remains the same—Unconditional Surrender!

—Maj. Julius Schreiber, Camp Callan, Calif.

$15,000,000 War Bond Sale Is Pearl Harbor Day Goal

An unofficial goal of $15,000,000 has been set for the bond sale within the naval establishment on Pearl Harbor Day, 7 December 1943, and no further cash sales will be held until that date. Total sales on Pearl Harbor Day last year were $7,416,000.

The goal is twice as big as last year's because the Navy has greatly increased its activities and personnel and it has been possible to give more advance notice. (Details in N.D. Bul. [semi-monthly], of 1 October 1943, R-1429.)

Personnel May Apply For Suspended Compensation

Any person who, upon enlistment or appointment in the armed services of the United States, suspended his or her rights to Government compensation or pension paid on account of the death or disability of another person, now may apply for resumption of such payments.

Although a person on active duty cannot receive more than one award from the Government for his or her own service, he or she now (under Section 15, Public No. 144, 78th Congress, Act of 13 July 1943) may receive an award (in addition to his or her own active duty pay) based on the death or disability of another person.

Forms, on which to apply for resumption of suspended benefits, may be obtained by writing the Veterans Administration, Washington, D. C.

Disabled Veterans May Ask Rehabilitation Aid

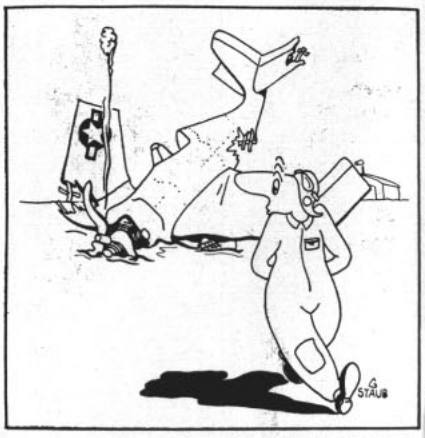
Any honorably discharged, disabled veteran of the military or naval service, who served after 6 December 1941 and prior to termination of the present war is entitled to vocational rehabilitation to fit him for employment consistent with the degree of disablement, according to information received by SecNav from the Veterans Administration. Limit on length of training courses is four years and they will not be afforded beyond six years after the termination of the present war. Full information regarding vocational rehabilitation may be obtained from the Veterans Administration, Washington, D. C.

—Vultair.

Letters to the Editor

(*Continued from Page 40*)

well as NROTC regulations. According to the Regulations for Administration and Training (NROTC 1943, Navpers 2422), "The course for all NROTC students shall be five 16-week terms plus the two terms spent as a V-12." Total: seven terms. Following successful completion of the course, an NROTC student would be commissioned in the Naval Reserve, if qualified, and ordered to active duty. Due to the exigencies of war, it is not required that NROTC students receive a degree before leaving college. Engineering students are an exception to the regulation concerning length of course as they are required to remain in college the full eight terms. For individual cases, consult your PNS&T.



—Dope Sheet (NAS, Norfolk.)

"Ho hum—back to flight school!"

BuPers BULLETIN BOARD

Proper Marking of Baggage To Avoid Loss Is Directed

Because of difficulty in identifying bags and hammocks separated from men during transfer, BuPers has directed strict inspection of personal affects to insure proper marking at all times.

Baggage should be inspected on transfer and measures instituted whereby bag and hammock, secured as one piece, are properly tagged with name, rating, service number, and destination. BuPers has suggested a linen reinforced eyelet stringed tag, firmly tied to the baggage, as the most suitable means for ready identification.

Baggage masters at rail and bus terminals frequently are unable to determine ownership of unclaimed baggage readily because effects are not marked. In other cases clothing is stenciled with two or more different names.

In the event baggage is lost by the railroads after it has been properly checked, claim for reimbursement should be submitted direct to the general passenger agent of the initial line over which the baggage was checked. Claim should contain a detailed list of articles lost, the valuation declared at the time of checking, and the name signed on valuation check. (Details in N. D. Bul. [semi-monthly], of 1 October 1943, R-1452.)

—The Islander (US Naval Base, Tobaga Island, Canal Zone.)

Hash marks.

ALNAVS ISSUED

The following Alnavs were issued in the period 21 September 1943 to 20 October 1943, inclusive:

No. 163—Requesting applications for two-year post graduate course in naval construction and engineering.

No. 164—Requesting applications for seven-months course in naval architecture leading to designation as CC-V(S).

No. 165—Appointing certain Lieutenant Commanders of the active list of the regular Navy and of the Naval Reserve to the rank of Commander.

No. 166—Appointing certain officers of the regular Navy and of the Naval Reserve to the next higher grade or rank.

No. 167—Referring to Alnav No. 166 in regard to physical examinations form.

No. 168—Directing commanding officers to take immediate steps to prevent shipment of any personal articles dangerous to life.

No. 169—Amending Alnav 131-42. (Alnav 131-42 referred to pay of officers on sea duty.)

No. 170—Regarding address of correspondence and despatches intended for information or action by Office of Naval Operations.

No. 171—Directing task force and unit (afloat) commanders to submit special letter reports on performance of captains and commanders attached to the task force or unit.

No. 172—Restricting emergency maternity and infant care for wives and infants of enlisted men to dependents of men in the fourth, fifth, sixth and seventh pay grades.

Aviation Training Requests Being Considered by BuPers

Officers of the Navy Academy Class of 1942 (December 1941) who desire heavier-than-air aviation training should submit official requests, including statement of successful completion of flight physical examination, to BuPers as soon as possible. Requests are being currently considered. (Details in N. D. Bul. [semi-monthly], of 1 October 1943, R-1444.)

Postgraduate Training Open To Many Qualified Officers

Postgraduate training in the following curriculums is open to certain qualified Navy officers:

Aerological Engineering, Aeronautical Engineering, Aeronautical Engineering (Armament), Civil Engineering, Communications (Applied), Naval Engineering, Naval Construction and Engineering, Ordnance Engineering, Ordnance Engineering (Aviation), Ordnance Engineering (Reserves), Radio Engineering, and Naval Architecture.

Training in all curriculums is of a technical nature and length of courses will range from seven months to 2½ years. It is expected that classes will be ordered in 1944. Applications for the Naval Architecture course should reach BuPers prior to 25 December 1943; those for Aeronautical Engineering, Aeronautical Engineering (Armament), and Ordnance Engineering (Aviation), prior to 1 January 1944, and those for the other courses by 1 March 1944.

In order to make certain that the boards (to select candidates) will have before them all applications, any applicant who may have indicated his preference for postgraduate instruction on his report of fitness, or by letters, should now renew his request by letter.

Details in N. D. Bul. [semi-monthly], of 1 October 1943, R-1448.)

V-12 BULLETINS

The following V-12 Bulletins were released during the period, 21 September to 20 October, inclusive:

Nos. 82, 90, 93, 94, 96, 97, 98, 99, 100, 102, 104, 106, 107, 110, 112, 114, 116, 117, 118, 122.

Commanding officers of V-12 units should be certain that copies of all V-12 Bulletins are made available to the Academic Dean or the V-12 Liaison Faculty Member. Since each V-12 Unit now is receiving three copies of every bulletin, this number should be sufficient for academic and Navy use.

If all numbers have not been received, they may be obtained upon request from the Training Division, BuPers.

—Official U. S. Navy Photographs.

What the Well-Dressed Wave Will Wear

Next spring Women's Reserve personnel will don gray-and-white, striped seersucker dresses (first photograph at left), replacing the navy-blue cotton suit. The skirt of the new uniform dress has a generous kick pleat and set-in belt. A new button-on tie is fastened at the collarline of the bodice, eliminating bulky material at the back of the neck.

To complete the new uniform a long sleeved collarless jacket of matching design will be worn over the dress (second photograph). Fitted snugly at the waist, it has one real and three simulated flap pockets. Except for the crown which carries out the striped seersucker motif, hat styles will not be altered.

Officer personnel will wear exactly the same uniforms except for insignia of rank and officer hat (third photograph). The change was made to provide more convenient washable hot-weather garb, and in basic design will be similar to present uniforms.

A new working smock (fourth photograph) has been designed for spring wear for personnel of hospital corps and other activities authorized to wear smocks in place of regular uniforms. With a full-cut, bias skirt and draped back, the new navy-blue broadcloth smock will give more practical comfort.

Both officer and enlisted personnel will wear a new lightweight raincoat (extreme right photograph) for spring showers next year. In basic design, but lighter fabric, it is identical with the regular Women's Reserve raincoat. An officer's havelock will cover the hat and snap securely under the chin.

Changes in winter uniform regulations for Women Reservists: (1) The navy blue shirt may be worn by all personnel at work; (2) the reserve blue shirt, or the white shirt, may be worn optionally for dress.

Black, moderately styled, dress shoes with regulation dress heel of 2-inches may be worn with the working uniform, except during periods of drill at which time the commanding officer may prescribe service shoes. Plain rayon, silk or lisle thread hose are within regulations at all times and on all occasions.

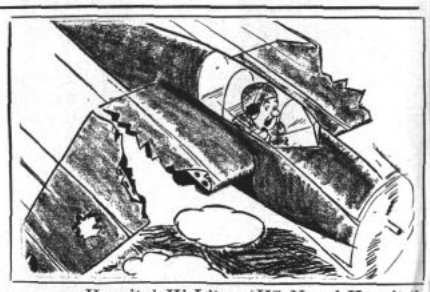
Honorable Service Buttons Ready for Issue This Month

Honorable service lapel buttons (INFORMATION BULLETIN, September 1943, page 55) will be distributed beginning this month to officers and enlisted personnel of the naval service (including Women's Reserve) who receive honorable discharges or certificates of discharge with character "Good" on or after 9 September 1939.

Enlisted personnel who have been discharged or who are subsequently discharged without having received this button, may apply to BuPers or other naval activity authorized to issue the button.

The new button is in addition to the "U. S. Navy Honorable Discharge" and "U. S. Naval Reserve Honorable Discharge" buttons previously issued to enlisted personnel. It will not be issued to enlisted men discharged during the present war for the purpose of reenlistment.

(Details in N. D. Bul. [semimonthly], of 1 October 1943, R-1446.)



—Hospital Hi-Lites. (US Naval Hospital, Pearl Harbor.)

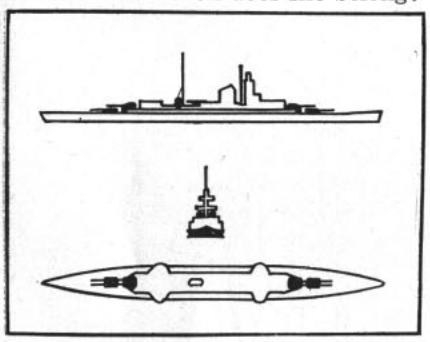
"Comin' in on a wi . . . Omigosh! Comin' in on a prayer!"

What Is Your Naval I. Q.?

1. How many civilians are employed by the Navy in its far-flung activities over the country?

2. The Navy in 1846 "outlawed forever" and made a punishable offense the use of a certain word because the word had caused confusion and accidents. Do you know what the word is?

3. Here are starboard, topside and bow-on silhouettes of a heavy cruiser. To what nation does she belong?



4. What is a williwaw?

5. True or false? When walking with a civilian, naval personnel should always walk to the left.

6. The number of feet in a nautical mile is: (1) 6080.2; (2) 5280; (3) 5820.6; (4) 5000?

7. What is: (1) "sea dust?" (2) a "dog?" (3) "Dutchman's breeches?" (4) A "camel?"

8. What naval craft are named after fish?

9. This is the Navy's newest fighter. What is its name? What are its special virtues?

10. Paramushiru is: (1) a key U. S. base in the Aleutians; (2) one of the Japanese cities bombed by Gen. Doolittle; (3) an enemy stronghold on the northern tip of the Kurile Islands; (4) the main Chinese stop on the India-China run?

11. What was the first U. S. naval ship to be sunk by German forces in the present war?

12. In parades which include U. S. troops does the order of precedence place military academy cadets ahead of naval academy midshipmen and members of the Regular Army, or does the Army head the line of march?

13. When a Navy man talks about the tonnage of a ship just what does he mean?

14. Identify the Navy insignia at right.

15. True or false? The Army salutes when uncovered, the Navy does not.

16. A primary objective in the treatment of "immersion foot" is to: (1) relieve the pain by the use of heat; (2) keep the feet and legs moist; (3) restore circulation gradually; (4) warm the feet and legs immediately; (5) cool the victim to lower body temperature.

17. What is: (1) the Tyrrhenian sea? (2) The Ligurian sea?

18. How many men comprise the flying crew and ground crew required to keep one B-17 (Flying Fortress) operating?

19. Each flight crew aboard an aircraft carrier has a definite designation and a definite job. Name the crews and their jobs. Now give the identifying colors each crew wears.

20. Give the order of precedence of the following medals: Legion of Merit, Distinguished Service Medal, Navy Cross, Medal of Honor.

Answers

1. Less than 700,000.

2. Larboard. (In the early days it became confused with "starboard." The word "port" for the left side of the ship was substituted.

3. Germany. She is of the 10,000-ton Admiral Hipper-class.

4. A sudden, strong blast of wind from the mountains to the sea, especially prevalent in the Aleutians.

5. False.

6. (1) 6080.2.

7. (1) Salt; (2) Bent metal fitting used to close water-tight doors, hatches, ports, etc. (3) A small patch of blue sky often seen after a gale is breaking. (4) A float placed between a vessel and the dock; also a float chained to a ship to reduce her draft when going through shallow water.

8. Submarines.

9. The Grumman Hellcat. Added speed and climbing power, range, maneuverability and altitude capacity.

10. (3) An enemy stronghold on the northern tip of the Kurile islands.

11. USS *Reuben James.*

12. The order of precedence would be: West Point Cadets, Annapolis Midshipmen, Coast Guard Cadets, Regular Army, U. S. Marines, U. S. Navy, U. S. Coast Guard.

13. The Navy expresses tonnage of warships as "displacement," that is the weight of the volume of water displaced by a vessel.

14. Hospital Corps device.

15. True.

16. (3) Restore circulation gradually.

17. (1) North of Sicily; (2) North of Corsica and Sardinia.

18. The flight crew is composed of nine men, the ground crew 29, a total of 38.

19. Handling crew: pushes and spots planes, wears blue shirts; fire-fighters: rescue personnel from burning planes, fight fires, wear red helmets and shirts; plane directors: supervise taxi direction, spotting of planes, wear yellow shirts and helmets; chockmen: remove chocks before launching planes, stow chocks, wear purple; arresting gear crews: operate maintain and overhaul arresting gear and barriers, wear green; hookmen: part of arresting gear crews with specialized duties, wear green helmets, heavy clothes, padded gloves; gasoline crew: fuels planes, responsible for gassing and oiling, wear red helmets but not red jerseys; talkers: transmit executive orders, wear brown helmets and jerseys. Other flight deck crew personnel includes a medical officer and two or three corpsmen wearing white helmets or white armbands with red cross, a hook observer, and, although not officially listed as deck crews, plane captains and ordnance men.

20. Medal of Honor, Navy Cross, Distinguished Service Medal, Legion of Merit.

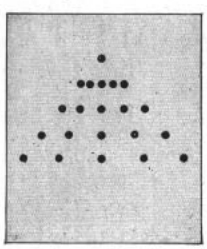
V-12 Exams

A qualifying test for the Navy V-12 Program and the Army Specialized Training Program (A-12) will be held in high schools and colleges throughout the United States on 9 November. The test is open to all male high-school seniors in their last semester and graduates, who will reach their 17th but not their 22nd birthday by 1 March 1944.

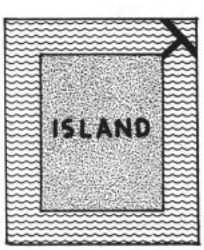
Coast Guard Plants 1,100 Navigation Aids

United States Coast Guard established more than 1,100 aids to marine navigation in United States waters in the fiscal year ending 30 June 1943. Total number operated as of that date was 33,557, including 13 lightships.

ANSWERS TO PUZZLE



Page 75 Puzzle



Page 73 Puzzle

Spars Are Pay Officers

Preparatory to replacing most of its pay and supply officers at shore stations with Women's Reserve officers, the Coast Guard last month closed its Pay and Supply School for male personnel at Curtis Bay, Md., and opened one for women at the Coast Guard Training Station (SPARS), Palm Beach, Fla. In the first class were 25 enlisted women who will be commissioned ensigns upon successful completion of the four months' training course.

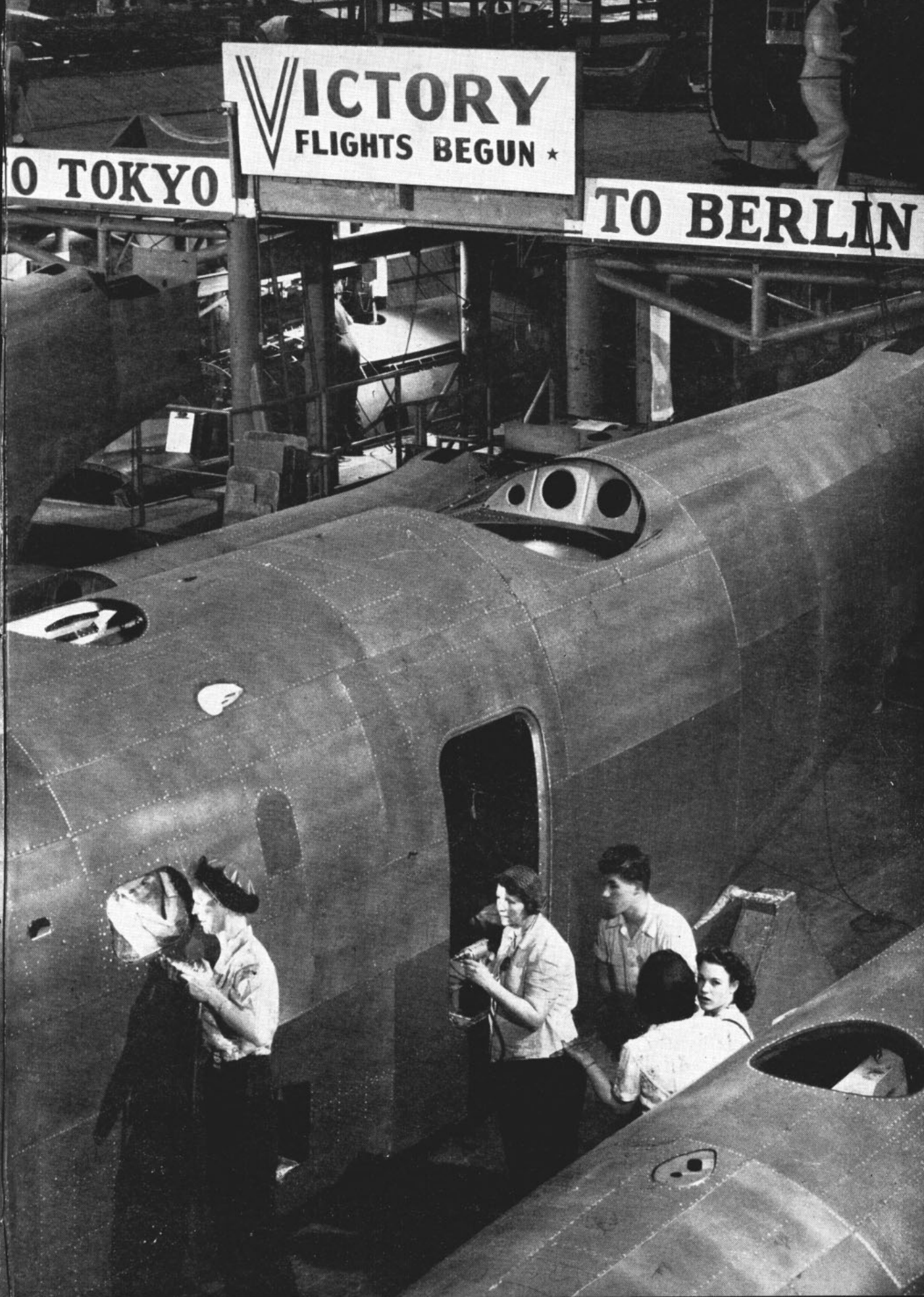
Staff College Graduates

The new Army and Navy Staff College (INFORMATION BULLETIN, September 1943, page 31) graduated its first class of 30 Army, Navy and Marine Corps officers on 30 September.

INDEX FOR NOVEMBER 1943

This Month's Cover

They stand together to defeat the Axis: Navy men in uniform and in overalls. The photograph shows a sailor watching a Charleston Navy Yard burner at work. Inside the front cover: This photograph of a shipfitters' open air shop was taken at the Naval Drydocks, Terminal Island, San Pedro, Calif. Opposite page: A boy apprentice and women on the assembly line at the Burbank, Calif., Vega Aircraft Factory. The planes are Vega Venturas, the Navy's new antisubmarine bombers. Starting on page 2 of this issue, the INFORMATION BULLETIN *reports on the achievements of the Navy's civilian personnel in building, repairing and supplying the world's greatest sea and air fleets. (All cover pictures are Official U. S. Navy Photographs.)*


VICTORY
FLIGHTS BEGUN ★
O TOKYO
TO BERLIN

YOUR FAMILIES AT HOME ARE RATIONED SO YOU CAN HAVE ALL YOU WANT

DO YOUR PART BY TAKING NO MORE THAN YOU CAN EAT