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FRONT COVER: Navy cooperation and skill solves many a knotty problem. Here, William J. Miller, QMC, of Sea Breeze, N.Y., shows Richard J. DeBell, TESN, of Charlotte, N.C., the proper way to form a double carrick bend—All Hands photo by Walter G. Seewald.

AT LEFT: Recently returned from Korea, Destroyer Division 81 displays smart military appearance at change of command ceremonies. Ships are: USS Joseph P. Kennedy, Jr. (DD 850); USS William R. Rush (DD 714); USS Fiske (DD 842) and USS Hawkins (DDR 873).

CREDITS: All photographs published in All Hands are official Department of Defense photos unless otherwise designated.
NEW MUSCLES are a-building for the submarine service, and they might well mold the "silent service" into Uncle Sam's strong arm of the future.

With atomic energy in the engine room, guided missiles in hangars on topside, and target-seeking homing weapons in the torpedo tubes, the submarine of the future figures to be the instrument of war most benefited by atomic era science.

Alone, an atomic energy power plant would make the submarine hard to detect and harder to destroy, blessing the undersea boat with the long-desired ability to stay submerged indefinitely. Also it would bring high submerged speeds, long range and long endurance.

With guided missiles and self-aiming torpedoes, the submarine will be converted into a versatile man-o'-war that could strike at targets on the sea, under the surface, on land and in the air. Its hit-and-run tactics of past wars are likely to change to mainly hit and hit again.

Backing up the attack types, there's a possibility of whole flotillas of specialized auxiliaries moving undersea to their destinations—

cargo ships, Oilers, troop transports and others.

This picture of great armadas of the deep brings a gleam to the eye of a submariner. But the fact is—underwater fleets like this are far from an accomplished fact. Be that as it may, the submarine service, with its eye firmly fixed on that future date, has built one or more prototypes of each new attack-type or auxiliary it would use. Each prototype will be used to develop new techniques of warfare and would become a model from which "carbon copies" could be stamped out in a hurry in time of emergency.

With the growing importance of the undersea arm, more and more trained Navymen will be needed to fill its ranks. These new submariners will have to be even more carefully selected and painstakingly trained than the underwater warriors of today. Maybe you will be one of them. You should start thinking about it—today. What will these future submarines be like? How will they fight? How will you fit into them?

Secrecy, of course, surrounds the answers to many of these questions. But here are a few hints, quotes from high-ranking Navy planners, from press releases and from training publications:

- "What the future Navy will be like can only be imagined. Just as the ironclad superseded the frigate, just as the carrier has superseded the battleship, so might the dreadnaught of the deep—the future submarine—become the capital ship of tomorrow."
- "The advent of the improved, high speed submerged submarine is a logical weapon in the evolution of the 'true' submarine—one which will combine speed, maneuverability, long range and complete independence from an outside air supply."
- "We visualize the development of special types including bombardment and carrier submarines to carry guided missiles or pilotless aircraft to the shores of the future enemy."
Picket submarines, cargo carriers, and transports will help insure hemispheric defense. We expect all types to be capable of operating in any waters from the Arctic to the Tropics."

- "The basic weapon of the future will be the guided missile."
- "If it was difficult to dodge a torpedo in the last war, it will take a combination aquatic acrobat and miracle man to do it in the future."

In the past the U.S. Navy—or any other, for that matter—has never had a real submarine. Strange as it may seem, the craft known today as a "submarine" technically is not one, although it has seen creditable service with the U.S. fleet for more than half a century. A closer classification would be "submersible torpedo boat," designating a vessel that can submerge and operate below the surface for only a limited length of time.

Eventually it must return to the surface to recharge batteries, take on fresh air, and find its position. The underseas boat thus is periodically forced to sacrifice its secrecy, its main tactical asset. At the same time it becomes highly eligible for a swift coup de grace administered by an ashcan, a bomb, or the slicing prow of a submarine killer.

If only a submarine could be built along the line of Jules Verne's idea—a craft that could cruise below the surface indefinitely . . . While the novelist in 1873 could dream up an ingenious means of propulsion by deriving electricity from sea water, it was something else again for scientists to follow through and find a practicable way of doing it.

Atomic energy in the 1950s might be the answer. Work is progressing rapidly toward development of a $25,000,000 nuclear engine at two Atomic Energy Commission laboratories and two industrial concerns, both under contract to AEC. A few weeks ago, the Navy announced the exciting news that it had given a New England shipbuilder the go-ahead on construction of a thick, new hull for the world's first atomic-powered submersible. The new type will be designated SSN (for submarine, nuclear).

The atomic reactor's working principle is based on the tremendous quantities of heat and motion given off during atomic fission. The heat is taken up by a liquid—a liquid metal in one type of reactor—and put to work in generating steam, which can then be used in conventional steam turbines to drive the submarine propellers.

With equal ease, this steam could be used to drive electric generators to supply commercial power. With this in mind, it can be seen that the nuclear powered submarine will be, perhaps, the forerunner of atomic powered industrial factories, public utilities plants, and manufacturing concerns. The commercial nuclear power plant of the future is likely to have its origin in the submarine nuclear power plants of today if present plans are realized.

Two atomic reactors (a reactor is a machine for the release of atomic energy at a controlled rate) are occupying the attention of scientists. One is called the STR, for Submarine Thermal Reactor, and uses slow-speed or "thermal" neutrons to carry out the chain reaction called atomic fission. It uses ordinary water as the principal heat transfer fluid. This water produces steam in a boiler which, in turn, drives a conventional geared turbine.

The second is the SIR, for Submarine Intermediate Reactor, which uses higher speed neutrons. This project is being carried on at another commercial laboratory. This power plant uses a liquid metal as the principal heat transfer fluid.

As now conceived, the fuel for the atomic engine will be uranium, a substance so powerful that as an Atomic Energy Commission official pointed out, "one single charge of the reactor will provide power to propel a ship tens of thousands of miles."

Because of the enormous energy produced by small charges of the reactor, the fuel lasts a long time and will enable the submarine to cruise at long range. Also, the whole of the atomic fuel would never be used up: After depletion or partial depletion of the fuel elements, they can be removed and replaced by new material while the old is reprocessed for future use.

To attempt to more than scratch the surface in discussing the princ-
amples and manufacture of the atomic reactor is beyond the scope of this article for technical and security reasons, but the problems of producing the reactor can be outlined in brief. Scientists must first develop an operable power pile as a source of nuclear energy, find a safe system for releasing the energy at a controllable rate, and improve equipment for converting the heat energy into work energy to run the submarine’s propulsion system.

Then comes the task of adapting the pile to shipboard installation—not an easy one, for the shielding necessary to shield off the nuclear power plant from the rest of the submarine must be extensive, thick and heavy.

Operating characteristics of the nuclear powered submarine have given Navy operations officers many moments of interesting speculation.

Here are a few eye openers:

- Speed—An atomic submarine would probably have a destroyer’s cruising speed of 25 knots and could make 35 knots flank. To add to the sub’s advantage, destroyer-borne sonar works well only at low speeds and surface ships are slowed still further by wave resistance.
- Range—With no fuel problem, an SSN could go farther and stay longer. This would make for happy hunting.
- Independence of air—So much air is required for the combustion process of the present oil-burning diesel system that a free-flowing air supply from the outside is necessary.

Today’s craft can proceed on the surface with diesels or at snorkel depth with the “breathing tube” furnishing air. But without air at the deeper depths, present boats must operate on batteries—and that means slow speeds and eventual return to the surface to recharge.

Independence of the earth’s atmosphere is the major change that an atomic plant could bring about. With this one change alone, the submarines becomes a “true” submarine, worthy of the name. It also will bring about a change in submarine living conditions.

The question of the future is, not how long the submarine can stay down, but how long can its crew stay down. Human endurance is likely to impose more limitations on the submarine of the future than the vessel’s operating capabilities. Some special features of the atomic powered submarine will have to be slanted toward making long stays in the deep less boresome and trying.

The Navy could have gained some advice from the Germans if the war had lasted longer. German sailors would have been able to tell about operating conditions in the Type 26 U-boat, which was at least an approach in the direction of the coming “true” submarine.

Utilizing hydrogen peroxide, the German Type 2 had a range of 22,000 miles and a top submerged speed of 25 knots—or would have had, according to German claims. Uncompleted, it never reached the sea before the war ended.

Hydrogen peroxide fuel was impractical for the times, but it was a novel idea. The Germans had many of them, and borrowed others. Copy-
ing from the Dutch, they were the first to use snorkel extensively. They also conceived a plan for launching bombardment missiles by submarine.

The vision of landing a V-1 buzz bomb on New York City intrigued the Germans for a long time. Plans were drawn up for a submersible barge carrying a V-1 to be towed across the Atlantic by a submarine, both proceeding underseas as much as possible. Thirty miles offshore, they were to surface at night and a firing team would be transferred to the barge.

The resulting “bombardment” by a single missile, they reasoned, would have a double effect on morale—good for the Germans at home, bad for the Americans. Although the plan was dropped, many German officials were behind the idea to the end of the war.

Less than two years later, an improved version of the buzz bomb was being fired — in practice — by the Americans. First firing was in March of 1947, on board the submarine uss Cusk (SSG 348), underway a short distance off Point Mugu, Calif.

Specially trained guided missiles men worked the covering off the 27-foot missile, brought its wings up and secured them in position, connected outlets for air and electricity, then moved behind shields or below decks.

A naval officer pushed the “silent service’s” first push button. The Navy’s “Loon,” revamped from the German V-1 buzz bomb, was on its way. Down the ramp it moved, the hot blast from behind kicking up billowing clouds of steam that mingled with the missile’s own white smoke. Steadily picking up speed, it shot off the end of the ramp and climbed skyward. At a height that had been set previously, it leveled off.

Inside Cusk’s control tower the officer worked the control panel, watching the missile as it obeyed the command impulse to move to right or left, to dip or to swerve. Out of sight it sped, continuing some 70 miles from Cusk until its automatic distance mechanism sent the missile diving into the sea.

Since then, more than three years have gone into improving equipment and technique. Today the accuracy of the Navy’s “Loon” is considerably greater than the Germans achieved in shore based firings of the V-1 during the war.

The target that has received the pasting of Navy “Loons” is the mile-square Begg Rock, some 54 miles to the southwest of Point Mugu. Cusk and another submarine, uss Carbonero (SS 337), soon reached a high peak of accuracy. Even when the missiles were off the target, most still landed within a damageable distance of the target. In contrast, the Ger-
mans were able to put only 50 per cent of their missiles within eight miles of the target center.

Although the improved World War II missile is outmoded as far as operational uses are concerned, it has been used extensively for training purposes. Newer and better missiles are being made available, and that's about all that can be said of them at this time.

In addition to the guided missiles submarine, several other types new to the fleet are being built, converted, or are already in service. These are:

- Attack submarines - The new underwater "ship-of-the-line." Three of these advanced-type guppy submarines have recently been launched. They are uss Trigger (SS 564), uss Tang (SS 563) and uss Trout (SS 566). The accent here is on firepower, maneuverability and speed - these snorkel submarines can go faster below the surface than on it.

- "Submarine killer" submarines, the SSK series. This small, super-quiet, lethally armed killer will be one of the promising answers to enemy underseas craft. The day of the battle beneath the surface of the seas, submarine versus submarine, probably will come with a future war.

Lying quietly submerged while listening, this craft will be able to hear enemy submarines operating in the vicinity. Special torpedoes of the target seeking or pattern-running type - both now under consideration - will search out and destroy the prowler. Of the two types, both operate in a different manner. The target-seeking torpedoes steer themselves in the direction of propeller sounds, exploding either upon contact or within a certain distance from the target. The pattern-running type will head straight for the area of the target, then commence a weaving action that covers a large area. Personnel in the SSK will never see the enemy - nor, probably, will enemy personnel know a torpedo is on its way.

Three new "K-boats" are now afloat, uss K-1, K-2 and K-3, as well as a fourth, uss Grouper (SSK 214), which was converted to a K-boat from a World War II Gato-class submarine. Six more conversions like Grouper are now in the works.

- Radar picket submarines, the SSR series. Elaborate electronics and communications gear will enable the SSRs to detect and give early warning of the approach of enemy planes or guided missiles.

All of these are conversions from existing craft. Four are now afloat - uss Burrfish (SSR 312), uss Requin (SSR 451), uss Spinax (SSR 489) and uss Tigrole (SSR 419). Four others are part of the recently authorized conversion program - uss Pompom (SSR 267), uss Rasher (SSR 268), uss Raton (SSR 270) and uss Rock (SSR 274).

- Minelaying submarines, SSM series. Out of these boats come several torpedoes and in go mines to be planted in the path of enemy shipping. The big advantage of these craft over surface minelayers lies in the fact that they can penetrate enemy harbors or sea lanes, spawn their lethal eggs and get out undetected.

Of this type, there is to be but one at present. It is to be converted to an SSM from a fleet submarine, as yet not designated.

- Troop - carrying submarines, ASSP (auxiliary, submarine, personnel) series. Invasion by submarine-transported troops promises surprise tactics that will cut down troop casualties. No full scale invasions could be conducted in this manner, of course, but spearhead forces could be landed to secure a beachhead prior to the landing of the main force.

The Navy, with the Marine Corps looking over its shoulder, has converted two submarines to troop carriers. They are uss Perch (ASSP 313) and uss Sealion (ASSP 315). Aside from carrying 160 men to the invasion point, these subs can also transport a cluster of rubber boats, several jeeps or an amphibious tractor in the bulbous metal structure installed on the afterdeck.

- Cargo - carrying submarines, ASSA (auxiliary, submarine, cargo) series. Submarine supply ships, the ASSAs would find handy employment in wartime. Vital materials could be transported to and from
the U. S. in complete secrecy. Guerillas and isolated forces could receive medical supplies, arms, food and other necessary stores.

Operating at lower speeds and at shallower depths than attack submarines, the cargo carriers could be built with great advantage as to size. In the last war, the Japanese had three submarines—the I-400, I-401 and I-402, built as underseas aircraft carriers but used mainly for cargo carrying—that were 400 feet long, had a 40-foot beam and displaced 5,700 tons when surfaced. All three were more than twice the size of the biggest American submarine ever built, uss Argonaut, 2,710 tons. When an American pilot spotted one of the Jap boats underway, he reported, "It looks like a submarine but it's too big for one."

The Navy has experimented with only one cargo carrier, uss Barbero (ASSA 317). Barbero has now been salted away in the Reserve fleet. In the event ASSAs were needed, large numbers of Reserve fleet submarines could be quickly and easily converted to fill the need.

- Oiler submarines, SSO series. Supplying raiders with gasoline, fuel oil and special fuels during a submarine-borne invasion would be their big job. Submarine tankers, however, could also refuel other diesel submarines on station, thus eliminating the long haul back to home base.

Nosing in toward a beachhead, an SSO can ground her forward end, discharge fuel by pumping sea water into her tanks.

Only one SSO is now in service—uss Guavina (SSO 362).

Whatever the future may bring—changed submarine designs or revolutionary power systems—no change is expected in the past-proven fact that the men who man the submarines yield the nation a high return on its investment. In the Pacific war, U. S. submarines destroyed 29 percent of Japanese warships and 55 percent of her merchant fleet. Yet the silent service totalled only 4,500 officers and men—scarcely 1.5 percent of the Navy's manpower!

Also, many believe an underwater offense is better than a good defense. The Allies, on the defensive for much of the time in the Atlantic war, paid out for defense measures against the U-boats 17 times what the Axis spent to wage its submarine war—and lost 20,000,000 tons of shipping to boot.

But the point that counts most is that the U. S. was able to win both a submarine war against the Japanese in the Pacific and an anti-submarine campaign against the Germans in the Atlantic—at the same time.

That's a healthy record—one which atomic submarines and imaginative new types should help maintain.

Gigantic, atom-powered subs, armed with strange new weapons and supported by undersea auxiliaries may lead you to believe the day of the surface man-o-war has passed.

Bear in mind, however, that this discussion can only indicate possible clues to the submarine of the future. At present, no one can forecast with authority the shape of subs which are to come.

And what of the atomic-era men who will operate these atomic-era subs? How are they chosen? How are they trained? Are they any different—or better—than you? What are your opportunities in the Navy in the atomic age?

The answers to these and other questions of equal importance to you will be found in a forthcoming issue of ALL HANDS.
MOST of the young women who are today enlisting in the Naval Reserve will readily admit they don't know a commission pennant from the Irish kind.

To remedy this lubberly state of affairs, district commandants have been instructed to set up recruit training programs wherever possible, programs which will give these newly enlisted Waves a taste of salt air and the feel of a steel deck.

One of the best of these indoctrination courses to be conducted to date was staged by the 4th Naval District at Philadelphia.

In the course of this two-week, birdseye view of the Navy, 40 eager Waves took a day's cruise down the Delaware River on board a minesweeper, visited the busy Naval Air Materiel Center, climbed aboard an aircraft carrier, ducked into a submarine which was tied up at the Naval Shipyard and watched wide-eyed as Navy firefighters extinguished a prepared blaze at the Damage Control Training Center.

The women in blue had descended upon the Quaker City from three states—Pennsylvania, New York and New Jersey. Before they arrived, each Wave had been given a 20-lesson orientation course at her home Organized Reserve unit.

The group was pretty ragged at first but two chief petty officers (female), assigned to work with the women, soon ironed out the kinks. The Navy gals learned to walk around the well-kept parade ground instead of scuffing bald spots into the greensward with their short cuts. Instead of the non-regulation high-
HELPFUL BOSUN checks out a Wave on her lifejacket. Right: Recruits survey shipyard from a deactivated carrier.

heeled shoes and sandals in which they appeared at their first formation, they donned rugged service brogans.

Learning to drill didn't come easy, the recruits found, but they knew they were getting somewhere when passers-by on the naval base would turn to watch the trim Waves swinging jauntily down the street, singing as they marched.

In the classroom, they grappled with such familiar subjects as naval etiquette, Navy organization, ship and aircraft identification, knots and splices, visual signalling, damage control and bugle calls.

At the end, after two weeks of rapid-fire instruction spiced with an occasional field trip, the Waves sorted out of Philadelphia — a little saltier than when they came.

SWIM LESSONS are also part of the program (above). Below: Chief shows spare-time Waves one of the torpedo tubes on board USS Permit (SS 178)

in the air at the Air Materiel Center.
WHILE AWAITING RESULTS of truce talks, U.N. planes and ships assist troops in Korea by blasting supply routes.

Navy Continues Efficient Korean Action

THE on-again-off-again truce talks in the Korean theater have somewhat submerged the news—but not the fact—of the Navy's continuing and all-important job in the waters around that peninsula. Whatever comes, the Fleet stands ready.

Quietly and efficiently Navy ships have patrolled the coasts, located their targets, only then to break the silence with the roar of 16-inch guns from "New Jersey" (BB 62), or a pattern of rockets from specially equipped LSMRs, or a rattling barrage from a dive bomber.

Fiery salvos from the sea continued to blast Chinese Communist and North Korean artillery positions, routing enemy gun emplacements, destroying ammunition dumps, transportation routes and supply convoys.

Since late in August the Navy's twin-jet fighter, the F2H Banshee, has been operating in the Korean theater. It made its first appearance taking off from the decks of the carrier "Essex" (CV 9). The Banshee was flown by pilots of Air Group Five, the first carrier air group to return to the war zone for a second tour of duty.

The crew of "Essex", along with the Banshee pilots, was also celebrating—this was the first action in Korea for the oldest carrier in active service. Commissioned in 1942, "Essex" was recommissioned from the mothball fleet early this year. During the reactivation it underwent modernizing modifications, in accordance with the Navy's ship reconversion program.

The Banshee jet fighter, flying in its initial missions with Corsairs, Skyraiders and Panthers from her mother ship and "Bon Homme Richard" (CV 31), was kept busy on strikes over the Hamhung, Pyongni, Chongjin and Kilchu areas.

Southwest of Kosong, Navy action was also vigorous. The heavy cruiser "Toledo" (CA 133), carrying the flag of Commander U. N. Blockading and Escort Force, was delivering a continuous series of "Sunday punches" to the enemy. Joined by the "Big J", flagship of Commander Seventh Fleet, and a number of U. N. warships, "Toledo" was part of a support mission for Army troops.

"Excellent shooting" was the remark coming from the shore-based fire control points. Tons of TNT un-
loaded by the ships just ahead of advancing U. N. ground force constantly harassed the Communists in their efforts to hold or retake lost positions, some of them almost 15 miles inland. The large caliber guns of the Navy are capable of pounding at shore targets ranging up to 20 miles away.

Much of the success of the Navy's floating artillery barrages is the result of close teamwork between Army and Navy personnel. "Naval gun fire teams" made up of Army personnel have been assigned to U. N. land units fighting on the east and west coasts of the Korean peninsula.

Led by an artillery officer, these Army-manned teams serve as eyes for naval guns. Since a great deal of the fighting in the Korean theater has been along the coastal supply routes and transportation centers (there are practically no good routes in the mountainous interior) the Navy's guns have constantly been within range of strategic targets.

While relatively new to the Army, the utilization of naval tactical fire support has long been part of the tactics of the Marine Corps. Trained Marine fire direction teams were used with the Army field units during the early stages of the Korean conflict.

Another top spotter for the sea artillery is the Navy's own helicopter. Since the beginning of air spotting by the "egg beaters" early in the struggle, they have played a permanent role in the job of locating targets.

U.S.S. Toledo, while it carries a helicopter, boasts its own naval gunfire spotting team on the ground. Dozens of other United Nations ships in the Korean action now have naval personnel trained to do target spotting as ground teams.

Consisting of one naval officer, as a spotter, and five enlisted men as assistant spotter, radio operator, telephone wire man and two "security" riflemen, the team goes ashore to locate targets not otherwise visible to the firing ship's human or electronic eyes. At such times even the spotting from helicopters may not be able to provide the necessary information concerning a particular target.

Toledo's naval gunspotting crew, as an example of these Navy teams, received its training in a fast, con

REPLENISHMENT AT SEA keeps vessels on combat stations without frequent return to port. Below: Shore-based spotters help to insure pin-point accuracy.

HUNDREDS OF TONS of vital war supplies are prevented from reaching enemy by destruction of this yard and bridge.
ON THE STEPS of "U.N. House"—headquarters for the U.N. delegates at Kaesong conference—the principal U.N. negotiators discuss possibilities of truce.

NOT HAPPY about the whole thing, principal Chinese Communist Forces and North Korean delegates pose for photographs for first time at Kaesong.

ON THE LIGHTER SIDE, Princeton hosts find time to serve chicken dinner—while USS Toledo relaxes with Varieties.

centarated course at Naval Amphibious Base, Coronado, Calif., just after the cruiser first returned from the Korean theater months ago.

The team learned how to read charts, picked up the radio-telephone procedure needed in shore bombardment. They learned all about the different types of projectiles and fuzes, their destructive power, and what should be used against tanks, pill boxes and troops. They studied the classifications of fire which the Navy delivers—destructive, close support, harassing, illuminating, enfilade, and other types.

From the theoretical training they went on to work with mock-ups, learning how to recognize actual terrain and locate it on their charts. The final phase of the training was in maneuvers, with the team members equipped with a full combat pack from rifle to entrenching tools, first aid pack, "K" rations, ship-to-shore portable radio set, "handietalkies", binoculars, compasses and charts.

During this operation the naval gun fire team went ashore, established communications with the ship, sent a "call-fire mission." As the shells came over, the spotter called the shots—long or short, to the right of left—until target and TNT met in an explosive dress rehearsal of the action now taking place in Korea.

Back again in the fighting zone, Toledo and sister ships of the U. S. fleet have been supplying top notch gunfire support. And when other fire direction and spotting facilities are not available, the Navy-manned naval gunfire teams have furnished the eyes for the ships firing from a dozen miles away.
Refueling Blimps

A MAJOR shortcoming of airships in the past has been their limited cruising range. This has been a big drawback especially in anti-submarine work where the blimp is the perfect bird dog for tailing a prowling enemy undersea boat.

To extend the blimp's cruising range, the Navy some time ago began experimenting with surface-to-air refueling "on the run." This tricky fueling operation was first tried on aircraft carriers (ALL HANDS, July 1951, p. 34) and was judged a success. But airmen were understandably reluctant to turn their fighting ships into wayside gas stations for needy airships. They wanted clear decks for launching aircraft from the carriers.

So the Navy turned to its oilers. Further experiments conducted by the busy Operational Development Force made use of the airship ZP2K, uss Piscatauck (AO 108) and uss Mattabeset (AOG 52) and proved that the same technique could be applied to the smaller oilers as well as carriers.

This sea-to-air evolution begins as the airship takes a position heading up into the wind at an angle to the oiler's course (top right). In this position, she is less likely to spill fuel onto the ship's deck below.

Once the blimp is in position, its crew lowers to the oiler a hoisting line which has a sandbag attached to the end. The oiler's crew snags the line, removes the sandbag (which is covered with a luminous cloth so it can be spotted against the sky), and attaches the hose, nozzle-end first (right center). The hose is then pulled up to the airship (below, right), the nozzle seated and the signal flashed to commence fueling.

To coordinate the pinpoint navigation of the hovering airship with the action of the oiler's winch and pump operators, a landing signal officer stations himself on the oiler's deck (above, left).

Using this new technique, it takes but a few minutes to pump several hundred gallons of precious fuel into a waiting airship.
USNR PHYSICALS — Naval Reservists being ordered to extended active duty must undergo a substantiating physical examination at the first naval activity reported to have there been a pronounced change in their physical condition since originally examined or if more than 45 days has elapsed between the initial physical examination and the date they report for active duty.

Reservists are now ordered to temporary active duty for the purposes of this substantiating examination. If additional defects are found, conditional waivers may be granted provided the Reservist is considered reasonably able to perform the duties to which assigned. In this case, the Reservist would then complete his orders. If considered not physically able to perform duties assigned or significant hospitalization is indicated the unexecuted portion of active service orders are cancelled by reason of not being considered physically qualified.


COPIES OF ORDERS — In order to assure that Reserve officers who have reported to active duty within the past year are properly credited with retirement and promotion points, the Navy has reiterated its instructions which require copies of officers' orders to be filed with BuPers and with the Reserve Officer Performance Recording Unit.

To insure the completeness of officers' records maintained in BuPers and to provide information for accurate officer accounting, a comprehensive directive outlining the forwarding of Reserve officers' orders is contained in BuPers Circ. Ltr. 115-51 (NDB, 30 July 1951).


TAX EXEMPTION — Naval personnel will not be required to pay income tax on naval pay earned while in a U.S. possession during calendar year 1950, provided certain percentage requirements under Section 251 of the Internal Revenue Code are met. The salaries of U.S. citizens—employed by the U.S. government or its agencies in such possessions—earned through 31 Dec 1950 are also exempt from income tax, under similar conditions.

Under the provisions of the Revenue Act of 1950—covered by Alnav 106-50 (AS&SL, July-December 1950)—all income earned in U.S. possessions by civilian and military employees of the U.S. after 31 Dec 1949 would be taxable. Public Law 82, 82nd Congress, has changed the effective date to exclude such income from federal income tax through 31 Dec 1950.

Naval personnel who have already paid the tax on such 1950 income—which would have been exempt except for the Revenue Act of 1950—should file claims for refund with the Collector of Internal Revenue, using Treasury Department Form 843.

Those who have reported such 1950 income but have not paid the tax should file amended tax returns in order to complete the Internal Revenue Bureau's files.

Personnel who have neither reported nor paid tax on such income need take no action unless specifically requested to do so by the collectors of internal revenue.

Specific inquiries with respect to this exemption may be forwarded to the Bureau of Supplies and Accounts, Code OB-1, Navy Department, Washington 25, D.C.

DUTY TOGETHER — Sailors wanting to serve on board the same ship with a brother or other male member of their family are reminded of the SecDefense policy regarding the separation of male members of the same immediate family upon request, providing there are no overriding military considerations.

This policy has been effected because of the potential undesirability of members of the same immediate family serving together from the point of view of their dependents.

Requests for assignment together may still be submitted, but all such requests must now be accompanied by statements signed by each enlisted member concerned, showing understanding of the potential un-
**Former Warrant Boatswain Has 3 Admirals as Aides**

An ex-warrant boatswain who has had two admirals as his assistants now has a third in the same position. The former warrant in this topsy-turvy situation is Sheriff Jack Gleason of Alameda County, Calif. He served in the Navy during World War I.

His new "assistant" is Rear Admiral Bertram J. Rodgers, USN, Com 12, who was formally sworn in as an Alameda County deputy sheriff.

The two flag officers who have previously served on the sheriff's staff are Vice Admiral Lynde D. McCormick, USN, now CinCLant, and Fleet Admiral Chester W. Nimitz, USN. The Navy officers accepted the law enforcement billets on a non-salary basis.

Ranks in the sheriff's office get straightened out again in the matter of landlords and lessee. His Santa Rita Rehabilitation Center, a civil establishment, is leased from the Navy. In a way this makes his deputy, the district commandant, his landlord.

**HOUSING CONDITIONS**—The Secretary of the Navy has directed the commanding officers of shore stations to take all possible action within their authority and responsibility to eliminate housing conditions such as those recently publicized as a result of the investigations by the Preparedness Subcommittee of the Senate Armed Services Committee.

Naval personnel should obtain from their local Navy Housing Office or Legal Assistance Officer information on the rent control regulations in effect in their community and such other information on leases and real estate matters as will help them to protect themselves from rent-gouging and other unscrupulous practices in connection with leasing housing for their dependents.

Personnel who, because of the housing shortage, are forced to accept substandard accommodations or who believe they are being subjected to rent-gouging, should report the facts to their commanding officer.

**TATTOOS** — Medical men are telling all sailors who value their health to ignore the call of the tattoo artist.

Practitioners of the ancient trade of tattooing can transmit any number of communicable diseases—including syphilis and yellow jaundice—by using unsanitary needles.

The next time you and your buddy pass a tattoo shop—just look, don't buy. Window shopping is much safer and it's cheaper, too.
Here's Status of Current Legislation of Special Interest to Naval Personnel

Each month when Congress is in session, legislation of interest to naval personnel is reported in ALL HANDS. Only new bills and changes in the status of previously discussed legislation are reported, covering generally the four-week period immediately prior to the date this issue goes to press.

If there has been no change in the status of a particular bill since the time it was last reported in ALL HANDS, it will not be covered in the current issue.

World War I Insurance — Public Law 101 (evolving from H.R. 769) amends the National Service Life Insurance Act of 1940 to authorize renewals of NSLI level premium term insurance for successive five-year periods without medical examinations provided the required premiums are tendered prior to the expiration of such term.

Gold Star Lapel Buttons — Public Law 121 (evolving from S. 311 and H.R. 3911); provides lapel buttons to widows, parents and next-of-kin of service personnel who lost or lost their lives while in the armed services during World Wars I and II and subsequent hostilities (including the Korean conflict). Next-of-kin must apply for the buttons, which are issued free.

Veterans’ and Dependents’ Pensions — Public Law 108 (evolving from H.R. 315) liberalizes the service pension laws for veterans, and their dependents, of the Spanish-American War, the Philippine Insurrection and the Boxer Rebellion.

Advances for Midshipmen’s Clothing and Equipment — Public Law 122 (evolving from H.R. 2736 and S. 843); authorizes advances for clothing and equipment for midshipmen at the Naval Academy and coast cadets at the Military Academy and Coast Guard Academy, removing the top credit limit of $250 currently set by law.

Transportation of Dependents — Public Law 131 (evolving from H.R. 1199 and S. 330) amends section 12 of Missing Persons Act to authorize moving the dependents and effects of service personnel in the case of a serviceman whose death is due to other than military or naval operations, or who is officially reported missing or captured by the enemy or interned in a neutral country.

Defense Housing — H.R. 2988 and S. 949: passed by Congress and sent to President; to assist in providing housing and community facilities and services required in connection with national defense, and lowering the down payment of houses for servicemen in defense housing areas.

Korean Veterans G.I. Bill — Bill S. 1040: introduced in Senate; to provide for an educational and training program for Korean war veterans similar to the World War II G.I. Bill of Rights program.

Commissary and Prices — H.R. 5054: passed by House; to provide, as part of the Armed Forces Ap-
appropriation Act, that no appropriation shall be available for any direct expense in connection with the operations of commissary stores, except where reimbursement for such expenses is to be made by the services. A possible effect of this is that the services may be required to include in the sale price of commissary goods overhead items or any direct expense, including transportation, maintenance, operation and management.

**Tax on Admissions** — H.R. 4601: passed by Congress and sent to President; to exempt servicemen in uniform from admission tax where they are otherwise admitted free.

**Experimental Submarines** — H.R. 1227: passed by House; to authorize the sum of $50,000,000 for the construction of experimental submarines.

**Disabled Veterans Payments** — H.R. 4233 and S. 1884: passed by House and reported approved by Senate Armed Services Committee; to authorize payment by VA of $1,600 toward purchase of an auto, or a direct cash benefit of the same amount for veterans of service after 27 June 1950, in those cases where loss of or the permanent loss of use of one or more limbs is involved, or when there is a permanent impairment of vision of both eyes.

**Disabled Veterans Pensions** — H.R. 3193: passed by Congress but vetoed by the President, whose veto was overridden by the House, to provide a $120 a month pension for totally disabled veterans whose disability is not service-connected.

**Reserve Components of Armed Forces** — H.R. 5277: introduced to replace H.R. 4667 and H.R. 4860 after completion of hearings by a subcommittee of the House Armed Services Committee. It supplements the new U.M.T.S. Act (Public Law 51), and places all Reserve components of the armed forces on an equal basis in so far as practicable. Provisions of the bill call for establishment of a Ready Reserve, a Stand-by Reserve and a Retired Reserve, in each of the services in lieu of existing organizational structures.

**Dependents' Pensions** — H.R. 3549: passed by House and passed, without amendment, by Senate; to modify eligibility requirements for payments of pensions to widows of veterans of Spanish-American War, Boxer Rebellion, Philippine Insurrection and certain earlier wars.

DOWN into position goes the hull section that will make USS Ray (SSR 271) a new type of undersea vessel. She is one of six subs to be transformed.

**Section Inserted to Make Subs 30 Feet Longer**

Naval engineers and shipyard workers at the Philadelphia Naval Shipyard met the problem of installing a large amount of new electronic equipment in a submarine with typical Yankee ingenuity.

Instead of jamming the gear into the subs, uss Redfin (SSR 272) and uss Ray (SSR 271)—already snugly packed, like all submarines—they cut the sub in two and inserted a prefabricated section.

The round-the-sub cut was made with acetylene burners. It was done just a little forward of amidships. The inserted section was 30 feet long, making Ray's and Redfin's length 342 feet.

Four other Fleet-type submarines are scheduled for the same operation. The six boats will be “an entirely new type of undersea weapon”—all that can be disclosed at present.

CUT in two, USS Redfin (SSR 272) has her bow section pulled forward on greased rails to allow for the installation of a new 30-foot section.
Strategic Guam

BLUE WATER breaking on the jagged coral is the scene that a sailor sees looking across beautiful Talofofo Bay.

THE ISLAND of Guam has become the hub of America’s outer defenses in the Far East.

Although small in size (its area is barely equal to that of metropolitan Chicago), this tiny patch of western Pacific real estate bulks large in strategic importance.

For within a 1,500-mile radius of Guam lies most of Japan, the Philippine Islands and many of the resources-rich islands of the West Indies. The major sea and air routes pass through Guam, making the island a vital crossroads. Acknowledging this central location, the Navy established here its headquarters for the final phase of the war against Japan.

Today, with a greatly expanded anchorage area capable of handling the largest Fleet units, a complete line of servicing facilities and plenty of airfield space, Guam is prepared to swing into action once more as a major advance base should the necessity arise.

To put the base in this condition of readiness in the six years since World War II has required plenty of good old-fashioned musclepower.

This energy has been applied most notably to the reconstruction of Apra harbor, the Fleet anchorage.

During the fight against Japan, the harbor at Guam was far from ideal, although that fact did not keep it from handling a greater tonnage of shipping per month than most U. S. harbors. The low-lying coral reefs which partly surround the harbor failed to give full protection from wind and wave. A nasty set existed at the main entrance and threatened to sweep unwary ships into rocks on one side or a coral shelf on the other. Within the harbor itself, spikes of coral and a tangled mass of sunken shipping made even a routine run to the fleet landing a coxswain’s nightmare.

To remedy this situation, the Bureau of Yards and Docks got to work in the U. S. and had an exact scale model of the harbor constructed.

Once It Dozed in the Bright Pacific Sun, But Now It Is Wide Awake, Its Guard Up

From the model engineers drew up a blueprint of alterations. In effect, the harbor was to be rebuilt “from scratch.”

The completed plan was sent to Guam where workers translated the blueprint into fact. Dredges sucked up 80,000,000 square yards of coral and sand from the bottom of the bay and deposited it in an area called the “Fill.” On the Fill is now located the Naval Operating Base industrial department with its many servicing shops. A two-mile-long breakwater of rock was thrown up like a protecting arm around the harbor. The entrances were improved. Sunken ships were raised, broken up and carried away. As a result of this facelifting, Apra Bay today presents seven square miles of well-protected harbor which is considered one of the finest in the Far East.

Other naval activities are also busy these days. In the Agana area, the naval air station sends out weather flights and acts as an important terminal for Military Air Transport Service cargo planes. Commander Naval Forces, Marianas, is located...
here and an active communications station keeps in constant contact with ships in the area.

Recognizing that it has a heavy stake in the island's future, the Navy in the last six years has played an important part in the economic rehabilitation of Guam as well. Last year the administration of the island passed from the Navy to the Department of the Interior. Under both authorities, living conditions for the natives have continually improved over pre-war standards.

The towns of Agana, Piti, Agat and Sumay, all of which had been completely demolished by the Japanese attack or by the Allied naval bombardment that swept the island before its recapture in 1944, have been completely rebuilt.

Medical-wise Navy doctors have improved the health of the natives by establishing a native hospital and by training Guamanian practitioners and nurses in modern medical techniques.

Putting the island economy on a paying basis was a harder job and one which still offers a problem to Interior authorities. After the war, many natives opened shops in Agana and other towns but few of them were inclined to venture into bigger things—industry and trade. Experts such as mother-of-pearl shells and copra do not earn enough return to balance needed imports such as sugar, rice, canned fish, meat and clothing. But with the help of U. S. advisers, native businessmen are beginning to increase their activity.

Agriculture on the island is showing gains, too. Thanks to an experimental dairy farm established near Agana, Guamanian farmers and dairymen now get the advantage of expert advice in adapting crops and animals to the soil and climate. To rehabilitate the island herds after the war, the Navy imported some top-grade cattle.

While helping the natives get back on their feet, the Navy has not overlooked its own personnel. The housing problem has had first priority. As at many other overseas bases, housing here is still not adequate. Gradually, however, new ranch-type permanent housing units such as the 200 new dwellings at Tipaloa Point are replacing the old quonset-type dwellings for enlisted men with families. The new houses are modern, typhoon-proof units with two, three or four bedrooms. Paved roads and street lighting give a suburban air to the development.

For the single enlisted man, housing is often excellent. More often than not he lives in a cool, two-story, typhoon-proof barracks which is equipped with laundry facilities. His EM mess is considered one of the best outside the States.

For Navy families, the commissary serves as the local supermarket and corner drug store. Commissaries are well-stocked with a variety of food. Reefer ships replenish the stores with fresh fruits and vegetables every month. For added delicacies, there are the native shops. Veteran Guam residents will tell you to bring along one item from the U. S., however—paper napkins. They're hard to come by.

By way of amusement, there is lots. Sailors can swim all year round at one of the several beaches. The beaches here, they say, are the equal of Hawaii's Waikiki. Fishing is fun, too, even if the boats are expensive to rent. A cheaper pastime is a drive or bus ride around the island for a look at Guam's tropical splendor and picture-postcard views.

Then there are sports. Navy personnel here play every sport in the books and games are organized by the various activities. In the evening, there are the clubs and the movies in several open-air amphitheaters. Moviegoers on Guam in the rainy season are a hardy lot. The veteran cinema fun brings his raincoat, slips into it when the deluge comes—and stays in his seat to watch the rest of the show!—J. B. Smith, JOG, USN.
Torpedoes—Ageless Weapons of War

Did you ever hear about the time an American torpedo sank an enemy bus?

It was in the latter half of World War II, and one of our submarines had penetrated to the inner area of a Japanese homeland harbor. A big transport was tied up to a pier there, unloading passengers into a bus. Our submarine, at the head of a fleet of vessels, attacked the transport, and the torpedo—unmanned as many did in World War II—passed under the ship. It blew up the pier. The result: “Scratch one bus.” It was “scratch one transport,” too. The ship was sunk by the same blast.

Most of the world knows of the great part American submarines played in winning World War II, and most of the world knows something of the history of undersea craft, back to their origin. Not so well known is the history of the interesting jobs, almost the only purpose of a submarine was to deliver and fire torpedoes.

The purpose of this article is to tell you something of the torpedo family tree.

The first device at all resembling a torpedo seems to have appeared on the scene about 1555. That year, an Italian engineer named Gianibelli partially destroyed a blockading bridge of boats across the Scheldt River at Antwerp, Belgium. To do it, he used a number of “small vessels,” each of which carried a quantity of gunpowder. These “infernal machines”—as people called such things in those days—were exploded by a clockwork mechanism.

In 1730, the French scientist Desaguliers experimented with rocket-type torpedoes which were fired underwater and were said to have destroyed several boats.

Forty years later, Captain David Bushnell, USN, submarine pioneer, invented a device which, although called a torpedo, was essentially a floating keg-mine. It was useful mainly near shore, and only where there was a certain amount of current. This Revolutionary War weapon was floated downstream until it fouled a target. Then a lanyard leading to the device from the shore was pulled setting the mine off.

It was one of Captain Bushnell’s torpedoes (or mines) which probably first took a trip in a submarine. The submarine was a one-man affair, and an Army man by the name of Sergeant Lee took it out, along with a torpedo, to attack a British man-of-war. He got under the ship—HMS Eagle—and tried to fasten the torpedo to the ship’s hull. But he wasn’t used to operating the sub, and the screw for fastening the torpedo to the ship failed to penetrate the copper sheathing of the man-of-war. He failed, and had to return to shore with mission unaccomplished.

Another “torpedo attack,” using Bushnell’s floating mines, stirred up even more excitement, although not one of the enemy was laid low by it. The incident took place on the Delaware River in the dead of winter. Bushnell’s men set a considerable number of the torpedoes aloft among the ice cakes in the river, expecting them to float down and explode against the British ships. But the British ships had moved to wharves along the shore to escape the ice, and the mines floated harmlessly by. Even though the attack misfired, it completely demoralized the British sailors for a time.
affair has come down through history all the way from the Revolutionary War as “the battle of the kegs.”

The next man to take up torpedo work seriously was the famous Robert Fulton. His first attempts weren’t successful, but in 1801, at Brest, France, he destroyed a small vessel with a submarine mine containing 20 pounds of gunpowder. His mine-like device, like the small explosive vessels of Desaguilers two and one-half centuries before, was designed to be fired by a clockwork device. Fulton was the first to demonstrate that an explosion beneath the surface causes more damage than one at the surface. He also proposed the spar torpedo, about which you will hear more, presently. And the small vessel he sent to the bottom at Brest is the first ship known without a doubt to have been sunk by a torpedo.

Up to the beginning of the Civil War, torpedo work was mostly experimental and unsuccessful, though some of it had desperate intentions behind it. Fulton blew up several more small vessels in the way of experimentation, and then, in the War of 1812, destroyed a British brig. This he did by use of two torpedoes, each of which contained a 180-pound charge of gunpowder and a clockwork firing device. In 1812 and 1813, another American—a Mr. Fix—made several attempts to blow up British ships with torpedoes, but didn’t have any luck.

Then in 1829, a colonel named Samuel Colt began investigations in the torpedo field. Thirteen years later, he developed a system of firing mines by electricity. In one instance, he employed a wire 40 miles long. History tells us, “with complete success.”

But it was in the Civil War that torpedoes came to the fore as practical weapons, and the Confederates made considerable use of them. Why just the Confederates? Because the Union forces had plenty of ships, and used them in confined waters. The Confederates had few ships, and thus presented fewer targets.

Although hundreds of attempts to torpedo ships were unsuccessful, the “rebels” succeeded in sinking or destroying seven Federal iron-clads, nine gunboats, six transports and one cruiser. In addition, they damaged two armor-clad ships, three gunboats, one transport and one large cruiser. The only important Federal success at torpedoing a Confederate ship was the destruction of the armed ship Albemarle. However, the southerners—through mistake or accident—blew up three of their own ships with torpedoes.

For the Albemarle sinking, the Yankee attacker, Lieutenant Cush-ling, used a spar torpedo. That type of weapon, well known in naval circles of the time, was primarily a keg of explosives fastened onto the end of a long, hinged spar that looked something like a pivoted bowsprit. In an attack, the torpedo boat approached until the end of the spar, with “torpedo” attached, could be lowered beneath the target ship. Then the torpedo was fired. Such an attack was dangerous for the attackers, and could be prevented rather easily by the defenders.

Another torpedo of that time was the “otter,” designed by Captain Harvey of the Royal Navy. It was a cigar-shaped weapon with fins and rudders. It was towed at the bow of a line, like a paravane.

While all this was going on, several different inventors were thinking about self-propelled torpedoes. Among these were a Mr. White, a Mr. Willoughby and a Mr. Ramsey in the U.S.; Robert Whitehead, an Englishman, and Captain Lupius of the Austrian Navy. It was Captain Lupius, with the help of Mr. Whitehead, who had the greatest success.

The idea of a small self-propelled boat carrying an explosive charge and directed from a distance first occurred to Captain Lupius in 1860—five years after America’s Mr. White had thought of it and had been given “the brushoff” by naval authorities. But it wasn’t until Captain Lupius joined forces with Mr. Whitehead, four years later, that he did much about his idea.

Soon, a self-propelled explosive boat had been built and was being guided around by long wires. But the inventors decided that better ways of steering a torpedo could be devised. In 1866 the truly self-contained Whitehead torpedo was first demonstrated. Two years later, in 1868, it was adopted as one of the official weapons of the Austrian armed forces. Speed of the Whitehead torpedo at that time was seven knots. This is not a great speed today but at that time it was impressive.

Whitehead’s torpedo was propelled by a little compressed-air engine of the reciprocating piston type.
Although primitive at first by modern standards, the “Whitehead” quickly grew into something that looks no more out of date today than last year’s automobile. By 1887, the speed and range of the Whitehead torpedo had jumped to 27 knots and 400 yards, respectively. By 1890, the Whitehead was the standard torpedo of all the world’s navies except the U.S. Here, it was used in approximately equal numbers with the Howell. By 1900 it possessed most of the major features of the World War II weapon.

Meanwhile, in 1870, Captain J.H. Howell, U.S. Army, had designed a torpedo which had a very different type of motive power from that of other torpedoes of any era. Before the weapon was launched, a flywheel inside it was set spinning at a speed of 10,000 revolutions per minute. When turned loose in the sea, the torpedo was powered by the “coasting” flywheel, which was geared to its propellers. Also, the gyroscopic effect of the heavy whirling flywheel tended to keep the weapon on a straight course. Captain Howell also was the first person known to have made use of the variable-pitch propeller.

In 1874, the Naval Torpedo Station at Newport, R.I., then only five years old, began work on two new types of torpedoes. One was driven by compressed air and the other by carbolic acid gas. Both had three-cylinder reciprocating engines and both had hydrostatic depth control. They could go approximately 900 yards at 20 knots.

Developments came thick and fast from that time till 1900, and around the turn of the century a strictly American design came into being—the Bliss-Leavitt. This model soon replaced the Whitehead in the U.S. Navy, although the Whitehead was retained by other countries.

While mentioning the developments which occurred toward the end of the 1800s, one shouldn’t neglect J. L. Lay and his invention of 1873. It was a controllable torpdeo, propelled by a carbolic-acid gas engine. The steering was done by electricity, and the electrical impulses were sent to the torpedo by wire. The wire was fed out from a reel at the launching point as the torpedo traveled along. Lay’s torpedo wasn’t adopted by the U.S.; Russia used it for some 10 years.

It was in the last couple of de-
ades of the 1800s that the torpedo became something definitely different from the mine. For a long time, the two weapons were one and the same. Actually, when Admiral Farragut was damming the torpedoes on his way into Mobile Bay, he was talking about what we would now call mines.

Most any torpedoman can tell you so much about torpedoes of the last 50 years that you'll practically be an expert on the subject. But in case he won't here are a few facts of interest:

For many years, most U.S. Navy torpedoes have been powered by a turbine-type "air-steam" engine. (Note that the word isn't air-steam.) Compressed air does much to spin the turbine; to help, an alcohol fire heats the air up. The heat from the burning alcohol also turns water into steam, and that too kicks the turbine around.

Another type is driven by electricity, which is provided by storage batteries. Early U.S. development of this type resulted, in 1917, in a torpedo which could travel approximately 3,500 yards. Speed: 27 knots. Two of these were built at New London, Conn. The Newport torpedo station fired them occasionally until 1931, but the Navy didn't adopt that type for use.

A German electric torpedo was captured in 1942 and turned over to a U.S. commercial firm to be duplicated. Later, the duplicate unit was sent to Newport to be equipped with directional and depth steering mechanism and to be fired on the torpedo range there. By the end of 1943, American electric torpedoes were going out with U.S. subs, and in 1945 almost two thirds of all torpedoes fired by the Navy were electric. Principal advantage: no tell-tale exhaust trail.

Most of the various torpedoes have had much the same horizontal-steering device for some time—a small unit with a gyro for brains. Depth is governed by a "depth engine" which receives orders from a hydrostatic diaphragm and a pendulum. Exploders, in most cases, are made to go off on contact with the target, but some are activated by the magnetic field of the target ship.

Warheads of World War II torpedoes carried 400 to 800 pounds of TNT or torpex. Torpedoes could deliver this destructive force at speeds up to 45 knots or more, and to distances of several miles—with fair accuracy if settings were exact and if everything worked out right.

As for what torpedoes of 1951 (and later) will carry in their forecastles, designers have plenty of leeway within weight limits. This goes for their power plants too.

LOADING UP, a sub crew deftly guides a torpedo into the hold. Self-propelled fish like this originated with the Whitehead torpedo of 1866.

FIRE TWO! A torpedo leaps from a destroyer's tubes. Modern fish have a speed 6 times that of old Whiteheads.

OCTOBER 1951
Striking for Seabee Rating

SIR: Because we maintain and service vehicles for all ships in the area, there is an automotive division organized on board this ship during its present cruise. Can I strike for mechanic third class and remain assigned to the ship?

If this rating is open only to CB personnel, then I would have to strike for engineman third class and I do not have the required 24 months of obligated service to attend the Class A Engineman School, unless I agree to extend or reenlist.

Would it be possible for me to enlist in the Naval Reserve when my enlistment expires in June 1952 and thereby obtain the necessary obligated service?

R.L., SN, USN.

Proper Uniform for Stewards

SIR: What is the proper uniform for stewards in an inspection—the mess jacket, or the white undress jumper? Or, is there no specific uniform prescribed for wardroom stewards?

V.G., SDG1, USNR.

A member who is granted leave to expire 0800, 1 February, must be charged one day of leave for 1 February, even if the over leave is considered unavoidable.

The additional day of leave may be considered as an emergency extension of leave and should be charged against earned leave, as provided by Art. C-6504. If earned leave is exhausted, it should be charged to advance leave not subject to pay checkage, but subject to future accrual.

Enlisted Billets in Intelligence

SIR: A Navy doctor told me that during the war he was in the V-12 program and the Navy paid his way through medical school.

Does the Navy still maintain this policy? If so, what procedure is necessary to apply for this training? If the answer is negative, is it possible for a YN3 to change his rating to HM3?”

A.T.B., YN3, USN.

The Navy has discontinued the V-12 program whereby members were paid expenses for medical school.

In order to change your rating from YN to HM there are prerequisites which must be met prior to the submission of the letter of request, which are: (1) must volunteer for duties in the Hospital Corps; (2) must have normal color perception; (3) must have a score of 300 in the GCT and ARI tests; (4) must be interviewed by a naval medical officer and certified as temporarily qualified for duty in the Hospital Corps; and (5) must have at least 18 months obligated service from date of entry in a Hospital Corps school or agree to extend his enlistment for the required time.

If these qualifications are met, you may submit an official request to the Bureau ofNaval Personnel via Bureau of Medicine and Surgery through the chain of command, requesting a course of instruction at a basic Hospital Corps school, and change of rating to corresponding pay grade in the Hospital Corps on satisfactory completion of the course.

F.K.L., ATAN, USN.
IC Class B School

Sm: Please advise me of the convening dates and the location of the IC Class B, Naval School, Interior Communication Electricians, Class B—L.C., IC2, usn.

- Classes at the Naval School, Interior Communication Electricians, Class B, were scheduled to convene at Naval School, Naval Receiving Station, Washington, D.C., on 10 Sept 1951, and at 14-week intervals thereafter. The length of course is 42 weeks.

The procedures for applications to enter naval schools and the eligibility requirements are found in List of Navy Schools and Courses, NavPers 15705 (revised April 1951).—Ed.

Taxes on Retirement or Retainer Pay

Sm: It is my understanding that retirement or Fleet Reserve retainer pay is exempt from federal income taxes. As a member of the armed forces who has completed 30 years’ federal service, is my retirement pay subject to the tax?

- F.H.Q., BMC, usn.

- Generally speaking, compensation received by reason of retirement or Fleet Reserve retainer pay is taxable for income purposes the same as pay received for active service in the armed forces.

Specifically, Section 22(b) (5) of the Internal Revenue Code provides that amounts received as a pension, annuity, or similar allowance for personal injuries or sickness, resulting from active service in the armed forces of any country, are excluded from gross income for federal income tax purposes, and the Commissioner of Internal Revenue has held that the retired pay of persons retired for a physical disability incurred in active service is excluded from gross income under this section.

Prior to the enactment of the Career Compensation Act of 1949 this disability retirement pay was completely excluded from gross income. However, section 402(b) of the Career Compensation Act of 1949 provides that where the disability retirement pay of a retired member of the armed forces is computed on the basis of his longevity, the excess of such disability retirement pay over the amount he would receive if the disability retirement pay was computed on the basis of the percentage of his disability, is not excluded from gross income until after the date the amount of the disability is determined.

- Ed.

Both in Armed Forces

Sm: What is the picture on basic allowances for quarters when both a husband and wife are members of the armed forces? In my particular case my wife and I are stationed at the same base and no married quarters are available.—C.B.B., PNI, usn.

- Your particular case is covered by Letter 51-328 (NDB, 15 May 1951). This provides in part that in the case where both husband and wife are members of the uniformed service with no other dependents, and are stationed at the same or adjacent posts or stations where no quarters are available for assignment to the husband for occupancy by himself and his wife, the husband may be authorized the basic allowance for quarters prescribed for a member without dependents.

The fact that the wife may be drawing in her own right a basic allowance for quarters as a member of the armed forces does not preclude the husband from drawing the basic allowance for quarters as indicated above.—Ed.

LSUs: Fleet’s Workhorses

Sm: I am writing regarding the article “The Navy Inspires Respect” (All Hands, February 1951, p. 18) in which an LSU in a photo is called an LST. As a crew member of an LSU, I'd like to say we are proud of our ships and prefer to have them called by their right names.—A.H.B., EM3, usn.

- You are correct. The photograph is that of an LSU and not an LST as a typographical error described it in the caption. Dubbed the “workhorse” of the Fleet, the LSU is a utility landing ship. In late 1949 the landing craft tank (LCT) was redesignated landing ship utility (LSU). The LSU is an important member of the amphibious landing ship family. They are used for many utility services in harbors and overseas bases. LSUs are a familiar sight in Korean waters.—Ed.

Normal Tour of Overseas Duty

Sm: What is considered a normal tour of overseas service for naval officers?—S.W.S., LCDR, USN.

- A normal tour of overseas service varies from 18 to 24 months according to the area concerned. According to BuPers Circ. Ltr. 74-50 (NDB, January-June 1950), this tour is considered completed when an individual has spent the established period in the area concerned, excluding transit time to and from the locality.

Certain overseas locations are designated as "foreign-shore duty" and may be combined with sea duty in one cruise for rotational purposes.—Ed.
LETTERS TO THE EDITOR (Cont.)

Naval Reserve Retirement

Sin: According to Public Law 810, 80th Congress, no person who was a member of a Reserve component on or before 15 Aug 1945 shall be eligible for retirement benefits unless he performed active federal service during any portion of either of the two periods beginning 6 Apr 1917 and ending 11 Nov 1918 and beginning 9 Sept 1940 and ending 31 Dec 1946.

I have had service in both the Regular Navy and Naval Reserve prior to 15 Aug 1945 but not during the two periods mentioned. On 12 Aug 1940 I was honorably discharged from the Naval Reserve and was placed on the 6th Naval District Commandant's list of key personnel and deferred for the duration as non-replaceable. During that time I held a Civil Service position.

On 28 Jan 1947 I reenlisted in the Naval Reserve and was ordered to active duty on 8 Sept 1948. I reenlisted on 28 Jan 1951 and am still on active duty.

Can you clarify the requirements for qualifying for retirement under Public Law 810?—H.W.C., YNG, usnr.

Sin: Your eligibility to qualify for retirement under Public Law 810 is similar to that of several thousand other Naval Reservists. This group, within the scope of the language of the Act, performed no "active federal service," and includes technical, communications, aviation and Merchant Marine personnel.

It is understood that the civilian components Policy Board still has under study an amendment to the nondisability Reserve Retirement Act which, if enacted into legislation, will exempt from the requirement of active federal service before 31 Dec 1946, certain Reservists who were denied an opportunity to serve on active duty within the limiting dates.

Meanwhile, it is suggested that you continue your participation in the Naval Reserve in order to be eligible for full benefits should the proposed amendment be approved.—Ed.

USNR Uniform Gratuity

Sin: Following World War II, when I held a temporary commission, usn (τ), I reverted to CPO and took my discharge from the Navy. In 1947 I joined the Naval Reserve and was given back my commission.

Last year I went on active duty and was told by a Supply Corps officer that I was entitled to a $250 uniform gratuity for Naval Reserve officers. My present supply officer and I haven't been able to come to a definite conclusion over this. What do you make of this situation?—J.H.B., Jr., LT, usnr.

Sin: The Comptroller General has consistently held that payment of the initial uniform allowance can be made only once.

The Assistant Comptroller General Decision B-75731 of 1948 determined that an officer who was first appointed from an enlisted status to a temporary commissioned or warrant rank in the Regular Navy, and who received the $250 uniform allowance provided by the Act of 24 June 1941, would not be eligible for the $100 initial uniform gratuity or the $150 National Emergency Uniform Allowance, provided by the Naval Reserve Act of 1938, upon first reporting for active duty after accepting an appointment as an officer in the Naval Reserve Act of 1938.

You will, however, be eligible for the $50 additional uniform gratuity upon the completion of four years' commissioned Reserve service, provided you have performed the authorized duty requirements. Information on this is contained in Article II-ST05, BuPers Manual.—Ed.

Surveyors' School

Sin: I would like to know if the Navy has a surveyors' school. If there is one, where is it located and how can I request to attend?—E.S.T., SA, usnr.

Sin: A Class A Surveyors' School is located at the Construction Battalion Center, Port Hueneme, Calif. Quotas are assigned by BuPers and a request to attend this school should be submitted to the Chief of Naval Personnel via your CO. A request should list your expiration of enlistment and combined GCT/MECH or GCT/MAT basic battery test scores.

Information on this and other naval schools, Class A, is contained in NavPers 137955, List of Navy Schools and Courses; and NavPers 91763, Catalog of U.S. Naval Training Activities and Courses.

Copies of these publications should be available at your local personnel office.—Ed.

Wearing Small Arms' Ribbons

Sin: Is a man authorized to wear the Navy expert rifleman and expert pistol shot ribbons with his other campaign bars if he was issued the medals as far back as 1932 and 1933? Some men believe you must qualify each year to be entitled to wear the ribbons. During World War II the Fleet matches were not held and there was no opportunity to qualify for the medals.—F.O.P., FCC, usnr.

Sin: Navy Uniform Regulations, Art. 12-2, par. (b), provides, "If an individual fails to qualify as expert rifleman or pistol-shot within four years from date of previous qualifications, his right to wear the medal or ribbon ceases."—Ed.

Travel Allowance for Dependents

Sin: The article "Travel and Transportation Allowances Are Revised for Personnel and Dependents," May 1951, ALL HANDS, page 33, states that three cents a mile is allowed for children under 12. I have two children under five. I have been told that children must be five years or older for such an allowance to be applicable. Which is correct?—A.G.K., AOV3, usnr.

Sin: Joint Travel Regulations, revised, states that three cents per mile is authorized for dependent children between the ages of five and 12. No monetary allowance for transportation is granted dependent children under five years of age.—Ed.

Correct Way to Address Waves

Sin: What is the correct way to address enlisted Waves? Except for CPOs, enlisted men are addressed by their last names. Is this the proper form of addressing enlisted Waves?—J.M.P., YNS1, usnr.

Sin: The correct form depends on the prevailing circumstances. Under military conditions, enlisted personnel both male and female are addressed by their last names only. CPOs customarily have "Chief" preceding their last name.

In a social gathering, civilians would feel unnecessarily curt in addressing any enlisted man or woman by last name only. It is customary for those outside the service to extend to any enlisted man or woman the same courtesy they would naturally have extended to them in civil life, and to prefix their name with "Mr.," "Miss" or "Mrs." as the case may be.

Forms of address and other matters of military courtesy and etiquette were covered in ALL HANDS, July 1949.—Ed.
Big Ben Is Still Afloat

Sin: On page 16 of the July issue you say...survivors of the sunken aircraft carrier USS Franklin (CV 13). How come all hands have the Franklin listed as sunk when the Japanese Navy itself couldn’t do it? R.U.G., BMC, USN.

* Just as the Japanese dive bomber pilot, who put two near-deadly 500-pounders into Franklin, got shot down too late, All Hands caught the typographical error after the damage had been done. The word should have been “stricken,” not “sunken.”

Franklin is very much afloat. She is in the New York Group of the Atlantic Reserve Fleet. Franklin, a 27,000-ton carrier of the Essex class, was launched late in 1943 at Newport News, Va., and was commissioned 31 Jan 1944. She reported to the Pacific where she soon began to engage the enemy. On 10 March 1945, while supporting the Okinawa operation, she was severely damaged in a Japanese air strike, losing over 750 men. The heroism of her officers and enlisted men in saving her is one of the epics of World War II.—Ed.

Computing Time in Grade

Sin: I have been on continuous active duty since June 1928. What is the earliest date on which I may request retirement? My date of rank as permanent chief pay clerk is 28 Oct 1942. I was appointed acting pay clerk 20 May 1943. My date of rank as ensign is 15 June 1943. I am now a permanent lieutenant (LDO).

For purposes of requesting retirement after completing 10 years’ commissioned service, does the time spent in the ranks of pay clerk and/or chief pay clerk count? What effect will my combat commendation ribbon have on my retired pay and rank? R. E. G., LT, USN.

* In computing time in grade it must be remembered that the effective date of appointment is the commencement date of time in grade. The date of rank is assigned for precedence purposes and to establish an individual’s place on the lineal list.

You are eligible for retirement on 28 Oct 1952, upon completion of 10 years’ commissioned service computed from the effective date of your appointment as a commissioned officer, which date may not necessarily be the same date as your date of rank of chief pay clerk. Time spent in grade as chief pay clerk counts as commissioned service. Time in grade as pay clerk does not count.

After ten years’ commissioned service are completed you are eligible for retirement in the grade in which you served on active duty at the time of retirement. Public Law 305 (79th Congress) provides that retirement pay will be computed at two and one-half times the number of years of service to which you are entitled for the computation of your pay while on active duty.

Your Navy Commendation Ribbon will have no effect on your retired pay in rank.—Ed.

Temporaries and 20 Years

Sin: According to the article on retirement in All Hands, June 1951, an officer of the Regular Navy or Naval Reserve who has completed more than 20 years’ active service in the Navy, Marine Corps, Coast Guard or their Reserve components—10 years of which was commissioned service—may, at his own request and at the discretion of the President, be transferred to the retired list. Is there a section of this retirement law that prohibits officers with temporary commissions from retiring under its provisions?—G.E.S., LT, USN.

* There is nothing which specifically excludes temporary officers from the provisions of 20-year retirement. On the other hand, there is nothing which specifically brings them within the scope of the law.

When the first temporary officer, who meets the service requirements, submits his request for retirement, a legal opinion will be rendered as to whether the law is applicable to temporary as well as permanent officers. This opinion will then, of course, be given wide publicity.—Ed.

Ship Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, host results will be obtained by notifying the Editor, All Hands Magazine, Room 1809, Bureau of Personnel, Navy Department, Washington 25, D. C., four or more months in advance.

* USS Santa Fe (CL 60): Former shipmates are invited to the Fifteenth annual reunion to be held 20 Oct 1951, at the Hotel Essex House, Newark, N. J., at 2030. Reservations and tickets for the reunion banquet may be obtained through Frank Moran, 135 Manhattan Ave., Jersey City, N. J.

* C.R.M.U. 625: Former members interested in a reunion to be held early in 1952, at a time and place to be decided later, contact Phillip C. Sellow, 67 Remington Rd., Windsor, Conn.

* USS LST 845: The third biennial reunion of former personnel will be held 18 to 20 July 1952 at the Mark Twain Hotel, St. Louis, Mo. For full details contact USS LST 845 Reunion Committee, 2011 N. Illinois St., Indianapolis 2, Ind.

Uniforms in Adjacent Areas

Sin: Where I am stationed the uniform for liberty is dress blue baker. On authorized liberty in an adjacent area the uniform is dress blue able. I was stopped by a shore patrolman who informed me that I should wear the uniform prescribed for this area while I am there on liberty.

Where will I be able to find out what the uniform of the day is for different naval districts? Was I right in wearing the uniform prescribed by the command to which I am attached?—J.W., YNSN, USN.

* Uniform of the day for each naval district and river command is prescribed by each individual commandant. Men on authorized leave or liberty from another command should wear the uniform prescribed by the command of the area he is visiting. Usually it is easy to find out what uniform is.

It is general practice of all commands to advise adjacent commands of their respective uniforms of the day. This information is available in your command from several sources, such as the district public information office, base operations, or the local shore patrol headquarters. While men “out of uniform” are checked by the armed forces military police, it is not the practice to hold such men, nor to reprimand seamen who are properly uniformed according to the orders of their “home districts.”—Ed.
LETTERS TO THE EDITOR (Cont.)

How to Address Officers

Sir: It is my contention that all officers are correctly addressed by their rank, i.e., "Lieutenant----", "Ensign----", etc. A friend of mine claims that all officers up to and including the rank of lieutenant commander are addressed as "Mister----", and that CDers and above are addressed by their rank, i.e., "Captain-----". Which of us is right?-F.L.B. HM1, USN.

- Depending on the circumstances you both could be right. Article 1312, Navy Regulations states that every officer in the naval service shall be designated and addressed in official communications by the title of his or her grade.

However, in oral official communications male officers below the grade of commander in the Navy and captain in the Marine Corps may be addressed as "Mister-----" and female officers of similar grade as "Miss----" or "Mrs.----".

Navy Regs further states that officers of the Medical and Dental Corps may be addressed as "Doctor----" and officers of the Chaplain Corps as "Chaplain----". In fact, when addressing officers of the Medical, Dental or Chaplain Corps you will be following the accepted practice if you say "Doctor----" or "Chaplain----" as appropriate. This holds true whether the officer be an ensign, a lieutenant commander or an admiral.-Ed.

Fleet Reserve on Active Duty

Sir: Is it possible for a member of the Fleet Reserve on active duty to enlist in the Regular Navy?

What are the chances of a Fleet Reserve now on active duty who held a temporary commission at time of his transfer to Fleet Reserve, being appointed to his former temporary commissioned rank?-P.W.B. ALC, Tenn.

- When your transfer from the Regular Navy to the Fleet Reserve was effected, such transfer was "conclusive for all purposes," according to Art. H-9409, BuPers Manual. There is no program in effect at present whereby individuals in your category may be temporarily appointed to warrant or commissioned grades. However, it is planned that a board will be convened in the near future to consider these Fleet Reservists now on active duty in enlisted status, and who formerly held temporary usn appointments in the grades of warrant officer or above, for temporary appointment to their former grades, but not above lieutenant.

Individual applications or recommendations have not been solicited since all selections will be made utilizing the records of the Bureau of Naval Personnel and the regular CPO and POI evaluation sheets submitted by commanding officers.-Ed.

Requesting Diving School

Sir: Would you give me some information about the Navy's diving school? How could I put in for this school?—R.W.W., Cpl, USSC.

- The Navy has a diving school located in the nation's capital. Its full title is Naval School, Deep Sea Divers, Naval Gun Factory, Washington, D.C. Length of the course is 25 weeks. Graduates are designated "diver first class."

In your case a request should be submitted via the appropriate administrative command to the Commandant of the Marine Corps. The Commandant of the Marine Corps may obtain a quota for Marine Corps personnel for assignment to this school.

In your request for this quota an admiral.-Ed.

Determining Dates of Sea Duty

Sir: Part 1, Par. 3(e) of BuPers Circ. Ltr. 36-50 states: "The date of termination of shore duty is the date of detachment from last shore duty to sea duty."

There is no program in effect at present whereby individuals in your category may be temporarily appointed to warrant or commissioned grades. However, it is planned that a board will be convened in the near future to consider these Fleet Reservists now on active duty in enlisted status, and who formerly held temporary usn appointments in the grades of warrant officer or above, for temporary appointment to their former grades, but not above lieutenant.

Individual applications or recommendations have not been solicited since all selections will be made utilizing the records of the Bureau of Naval Personnel and the regular CPO and POI evaluation sheets submitted by commanding officers.-Ed.

- The date of commencing sea duty is the date of detachment from last shore duty to sea duty. Shore duty for purposes of sea/shore rotation is defined in paragraph 1, Part 1, BuPers Circ. Ltr. 36-50 (ASGS/L, January-June 1950).

Since, upon completion of your tour of sea duty, you were ordered to school for a course of instruction and not sea duty, this does not constitute a break in your shore duty.

For purposes of sea/shore rotation, your sea duty commenced on the date of detachment from last shore duty station to sea duty. Shore duty for purposes of sea/shore rotation is defined in paragraph 1, Part 1, BuPers Circ. Ltr. 36-50 (ASGS/L, January-June 1950).

Cut or tear on this line and mail to address given on blank.
Camera Records Explosion Two Miles Beneath the Sea

NAVAL SCIENTISTS designing ordnance equipment are now obtaining increased knowledge of the nature of underwater explosions through the use of special camera equipment.

Experts at the Naval Ordnance Laboratory had already determined the nature of explosions at shallow depth, but they also sought to find out exactly what takes place down at one or two miles beneath the surface where pressures are, in brief, tremendous.

Determination of what takes place at these depths calls for photographs. Photographs of an explosion mean high-speed cameras. Photographs taken a mile or two beneath the surface require a lot of light. A mile down it's more than just plain dark—it's black.

To solve this problem the NOL personnel under direction of Dr. Paul Pye joined forces with scientists from the Woods Hole Oceanographic Institution in Massachusetts. They came up with a rig that looked like a box kite frame.

A high speed camera enclosed in a waterproof case was mounted at one end of the frame; an array of flash bulbs at the other. Between the camera and the bulbs was mounted a diffusion screen, for better photographic presentation. The explosive charge was mounted between the diffusion screen and the camera. The explosive charge, the camera and the flash bulbs were then set up to operate, synchronized to within one-quarter millisecond.

The entire rig was put aboard the Woods Hole Institution's ketch Atlantis which then proceeded to the deep, clear water area between Florida and the Bahamas. Atlantis in position, the rig was secured to a one-half inch wire cable which was paid out to 12,000 feet. At that depth pressure closed a switch which started the camera motor. When the motor built up to the required speed another switch opened the camera shutter, fired the flash bulbs and detonated the explosive. After 100 pictures were taken, at a rate equal to 20,000 to 30,000 frames per second, the shutter closed, the motor stopped and the rig was hauled up.

Photographs taken at the 12,000-foot depth show, among other things, that the gas bubble produced by the explosion has a very symmetrical shape which contrasts with the "ink-blot" shape produced by explosions set off at much lesser depths.

The Naval Ordnance Laboratory scientists could have tested their theories on gas formations resulting from underwater explosions by having a test tank constructed that would simulate the necessary conditions. This test tank would have cost about $500,000 so they resorted to the sea where nature has provided the facilities.

SAILING KETCH SS Atlantis served as Navy's underwater explosion test ship.

DEEP SEA BANG—Charge (left) detonates (No. 2), producing gas bubble which expands rapidly, then contracts.

OCTOBER 1951
Two new precision compasses have been tested and proved under combat conditions. Designed by Army’s Research and Development Laboratories, Fort Belvoir, Va., the new compasses are light weight, accurate, rugged, and are water, weather and shock-proof.

One type is a small wrist compass with illuminated dial of 10-degree graduations which permits accurate day and night reading to five degrees and to an estimated two degrees. It is easily attached to the wrist over heavy Arctic clothing and mittens. In size and weight it is only one and a half inches in diameter, three-eighths of an inch thick, and weighs less than three ounces.

The other is a lensatic compass, a type required for accurate measurements in fire control directing. The compass is set in a hinged aluminum case about two inches square, and less than one inch high when closed. It weighs only four ounces.

This type also has a luminous indicator which can be set quickly and held at a predetermined azimuth either in day or night reading. Through the sighting wire and magnifying lens, magnetic azimuths can be determined with an error not exceeding two degrees of arc.

A spinal column of metal, rubber, nylon and ball joints; three ribs of metal stock; metal, plastic and fiberglass bones; cylinder and sleeve joint arrangements; and vinyl plastic foam “skin” help make up the Air Force’s new “enlistee”—a dummy.

Designed to represent the measurements of a muscular, 200-pound man, the dummy has been developed for tests on the bone structure of humans. It is anatomically correct in body mobility, weight and distribution of weight. It can assume the same positions as a man.

The dummy will step in when it is no longer practical to use human volunteers in the tests. Its collar-bone will snap just as a human’s (the collar-bone is man’s most easily fractured bone) and its skin will show the effects of cuts or abrasions. If the dummy’s collar-bone should snap, scientists can study or replace the “injured” member by merely opening a zipper in the shoulder.

Studies of the effects of accidents on the fragile dummy are being undertaken in an effort to prevent or reduce the number of fractures and broken bones of human pilots who may have to crash-land planes or undergo accidents. The studies are scheduled to get under way soon at the Air Research and Development Command’s test center at Edwards Air Force Base, Muroc, Calif.

A collapsible container, with a capacity of 10,000 gallons, is one of the Army’s latest gadgets.

Designed to help meet the requirements for storing petroleum products in the field, the new container can be used at forward areas, at truck fill stands, along the pipeline at pumping stations, and for landing operations.

The overgrown bag is made of Buna N synthetic rubber, reinforced by nylon cloth. It is simple to produce, easy to carry. It can be installed quickly by troops with no special training. When not in use, the container can be emptied and rolled up like a rug in a protective box, for easy, safe storage.

It is expected to eliminate much of the need for costly, time-consuming construction of the conventional steel tanks, used in World War II.

Death Valley was the scene last summer for experiments to determine the most suitable clothing gear to be worn by servicemen in hot desert areas.

These tests proved loose clothing, completely covering the body, rather than abbreviated garments such as quarter-sleeve shirts and shorts, affords better protection against the heat of the air and heat radiated from the terrain.

To evaluate tests of last summer in the light of

AIR POLICE—To safeguard its aircraft against enemy espionage or sabotage, the Air Force maintains a group of capable policemen. An ‘air sheriff’ (left) uses a shadow for concealment. Policeman (right) directs a motorist.
AVIATION MEDICINE—At Randolph Field Tex., Air Force scientists adapt airmen to fly farther and faster. A unique ear device (left) warns of lack of oxygen. Technicians (right) await a B-29 after a 15-hour crew-fatigue test.

actual combat conditions in temperatures averaging 106 to 120 degrees, a detachment of 83 officers and enlisted men are at Yuma, Arizona, wearing clothing specially designed by the Army for desert fighting.

The experimental clothing includes a long-visored cotton cap and cotton head-cloth, a loose-fitting cotton jacket, trousers, and underwear. For protection of the feet, wool cushion-sole socks and tropical combat boots with nylon uppers and ventilating insoles will be worn.

* * *

AN OVERSIZE MEDICAL KIT containing enough drugs and supplies to care for 200 to 300 men for 30 days has been developed for flight surgeons of the Air Force.

It is named the "Flyaway Kit" because it may be air-transported and parachuted from a bomb-bay with safety and used in all kinds of terrain and weather—far north, desert or the tropics.

The kit is divided into three parts, and is adapted for use by a flight surgeon and two medical airmen assistants. One part is a conventional surgeon's bag containing a stethoscope, standard drugs and pills. A second section, largest of the kit, consists of 18 fiberboard cartons weighing up to 36 pounds each.

The third part of the kit is an aluminum field chest for protection of perishable drugs, instruments and sterilizers from rough treatment. Additional space has been retained to permit inclusion of special items needed to meet demands created by local conditions.

* * *

AN ENDOSCOPIC CAMERA to photograph the interior parts of body cavities such as the eye, ear, nose and throat has been developed by the Air Force's School of Aviation Medicine at Randolph AF Base, Tex.

To meet the special needs of doctors and dentists, the camera will operate at any speed from 12 seconds to 1/1000th of a second, and by use of an adapter lens can record magnification on standard 35-mm. film.

Standard instruments used for looking into body cavities can be attached to the camera as accessories. (The term "endoscopic" refers to probing into body cavities.) By funneling light through these instruments, interior parts are illuminated and photographed through a small, adjustable lens.

The experimental camera—the only one of its kind—is housed in a compact aluminum case, equipped with a safety glass light port which permits free flow of light and at the same time shields the patient from possible injury in case of flash bulb explosion. A series of attachment lenses permits a wide variation of focal lengths, permitting pictures to be taken at an optimum distance from the area to be photographed.

* * *

A LIGHT-WEIGHT 38-CALIBER REVOLVER, about one-third the weight of the .45-caliber automatic now in use in the Air Force, may replace the heavier model.

Three new models of 38-caliber revolvers will be tested by 2,000 aircrewmen. The revolvers use a two-inch steel barrel with frames and cylinders made of light-weight high tensile strength aluminum alloy. The lightest of the three models weighs 10.5 ounces, and the heaviest, 14 ounces.

NEW SERVICE .38 which weighs only about one-third that of the old .45-caliber (left) is being given tests.
Navy Relief Society Always Ready to Provide Aid to Naval Personnel and Their Dependents

As a result of the Korean conflict and the declaration of the national emergency, many thousands of new personnel have entered the Navy and Marine Corps. This mobilization has created new problems for some of the personnel, particularly family disruptions and adjustments.

The Navy Relief Society—a private non-profit corporation closely affiliated with the Navy but not an official part of it—offers timely and appropriate aid, either financial or with information and advice to naval personnel and their families.

The society wants every man in the Navy to know and to tell his family what the society is, how it operates, what it does and doesn’t do. It is the Navy’s own organization to take care of its own people. Those having real problems, financial or otherwise, should have no hesitancy in bringing them to the Navy Relief Society’s office nearest to their duty station or home port.

The Navy Department is interested in making available to all officers and enlisted personnel full information on where to go and what to do in obtaining assistance for themselves and their families in time of need. To this end, BuPers Circ. Ltr. 137-51 (NDB, 15 Aug 1951), contains an enclosure entitled “Information on Navy Relief Society.”

The circular letter enclosure tells the nature of the society, its general purposes and policy. It explains the nature of financial assistance and what assistance may be expected, as well as what may not be expected. Also, there is information about services other than financial and how to obtain assistance from any one of the 42 auxiliaries of the society. Personnel and their families outside of areas served by these auxiliary offices may apply for assistance by written application (letter) or telegram. In many such cases the society receives the cooperation of local chapters of the American Red Cross.

Assistance to dependents of deceased personnel, point by point in the circular letter, is summarized here:

When an officer or enlisted man,
active or retired, dies or is killed in service, the society visits or writes the dependents to offer aid, if needed. Briefly, this assistance includes:

- Financial help with expenses while awaiting government benefits.

**Under Secretary F. P. Whitehair**

An infantry top sergeant in World War I and a Navy lieutenant commander in World War II, the new Under Secretary of the Navy, Francis Preston Whitehair, brings to his post an understanding of military and naval affairs.

Mr. Whitehair, a lawyer and railroad and corporation executive, was admitted to the bar when he was 20 years old. Between military careers, he has carried on legal activities both privately and for the government. Most recently, he has been general counsel to the Economic Stabilization Agency.

During World War II, Mr. Whitehair served on board USS Fechteler (DD 870) as gunnery officer. Later, in the Pacific theater, he had duty in the Ellice group, the Marshalls and Gilberts. He also had duty with the assault forces on Saipan and with the Third Amphibious Force during the Guam landing operation.

- Transportation of dependents to family home.
- Assistance to families in such typical situations as sickness, hospitalization, death or equivalent emergencies which are urgent and require immediate attention.
- In special cases, assistance in keeping minor children in primary and secondary public schools when family income is insufficient to provide books, clothes, lunches etc.

Usually the above type of assistance is given as an outright grant. For living personnel and their dependents the role of the society is to relieve financial distress occasioned by abnormal, non-recurring emergencies which cannot be met from normal income. Typical situations are:

- Hospital and medical bills of dependents in cases of acute illness where naval or armed force hospitals are not available.
- In special cases, with expense of so-called “chronic illness” when a reasonably satisfactory return to health is expected if special treatment or care is provided.
- Funeral expenses of dependents.
- Assistance with family basic living expenses during periods when approval of dependent’s allowance is pending or regular allotment is delayed.
- Transportation in special cases such as critical illness or death of members of immediate family. The society does not finance travel for dependents between stations or to follow ship’s movements.

Most cases of assistance to living personnel and dependents is by loan, to be reimbursed by allotment direct to the society.

Navy Relief Society is not a small loan or banking agency. Loans are not made for the purchase of household appliances, autos or radio-television sets, nor to finance liberty or leave, except for cases of emergency leave when conditions warrant.

Besides its financial services, the society offers other facilities not involving the loan of money. It employs and makes available the services of visiting nurses who follow up post-hospital cases, assistance to new mothers, before and after birth. The understanding aid and guidance of experienced personnel of the society frequently helps solve many kinds of problems.

The workers, both full time paid employees and volunteers, are most conscious of the society’s obligations and responsibilities to the officers and enlisted personnel of the Navy and Marine Corps, and their dependents. It is the desire of all those connected with the society that all hands in the service be familiar with its purposes and policies and its readiness and willingness to “aid in times of need.”

The auxiliaries of the society are located in every naval district, and some overseas stations. Here’s a list of locations. Exact addresses are available from your district headquarters or chaplain’s office.


**ALL HANDS**
Lovett Named Secretary of Defense

Robert A. Lovett, Deputy Secretary of Defense, has been named by President Truman to succeed General of the Army George C. Marshall as Secretary of Defense. General Marshall has resigned.

Mr. Lovett thus becomes the fourth to hold the post created by armed forces unification.

The new Secretary of Defense served as a naval aviator during World War I. He won the Navy Cross and left the service as a lieutenant commander. After the war he became a partner in a New York investment banking firm.

In 1940, President Roosevelt appointed him Assistant Secretary of War for Air. Secretary Lovett resigned this post in 1945. Two years later he returned to Washington to serve as General Marshall's Under Secretary of State. He returned to his firm in 1949 and was summoned to Washington the following year to serve as Deputy Secretary of Defense.

William G. Foster, Economic Cooperation Administrator, has been nominated for the position of Deputy Secretary of Defense. Mr. Foster, also a pilot, served with the Army Air Corps during World War I. He was Under Secretary of Commerce from 1946 to 1948.

Defense Bond Campaign

Once again the Navy is joining in the nation-wide Defense Bond campaign. This year the emphasis is on payroll savings.

There are three good reasons for buying Defense Bonds. First—and most important from the sailor's point of view—is that a bond allotment offers the easiest way to accumulate personal savings in a safe and fluid form. Second, buying bonds helps the defense effort. Third, increased personal savings helps cut down inflation.

Navymen can save the sure and relatively painless way by merely arranging through the disbursing officer for an allotment for Defense Bonds. Civilian employees can also get into the swing of things by arranging for payroll deductions.

COs of naval activities are asked to encourage bluejackets to start payroll savings. Activities with civilian personnel are urged to maintain a minimum civilian enrollment of 65 per cent in the payroll savings plan.

Diving Record Set

Two Navy divers set a new West Coast record by going down 418 feet off the California coast. The two men, T. H. Moss, Jr., BMC, USN, and W. L. Greeman, ME1, USN, were members of a group of 10 divers working off the Floridan (ASR 9).

Other members of the group made dives starting at 309 feet—depths in themselves a little on the deep side. These dives were made in an operation to familiarize the divers with helium and oxygen mixtures used under working conditions at great depths. All dives were made in standard USN helium-oxygen diving dress.

The open sea deep sea diving record for American divers still stands at 500 feet. This depth was reached in April 1949 by C. M. Prickett, GM1, USN, during training operations in Panama Bay.

OLD TIMERS William Black (left) and Wilfred Weber have watched the transition of their ship from fighting ‘wagon to proving ground for guns.

Two CPO’s Have Spent 21 Years in USS Mississippi

Two chief petty officers who really know their way around USS Mississippi (AG 128) are Wilfred P. Weber and William W. Black. They should. Between them, they've been on board 21 years.

Bill Weber, a bantam-sized chief pipefitter, came aboard the battleship as a youthful seaman second class fresh from the fields of Iowa. That was in July 1940. Black, who is now a chief boatswain's mate and the ship's chief master of arms, followed him a few months later.

The two chiefs will tell you that a lot of history has flowed under the keel since they first came aboard. Perhaps the most active of the "old battleships" of World War II fame, Mississippi took a leading part in the Aleutians, Gilberts, Marshalls, Bismarck Archipelago, Palau, Okinawa and Western Carolines campaigns.

The high point of her career, Black thinks, came during the Battle for Leyte Gulf when Ole Miss led the battle line of six battlewagons against the southern Japanese attack force. The U. S. force blew the Japs out of the water, sinking or damaging two battleships, three heavy cruisers, one light cruiser and five destroyers. Mississippi dropped a 12-gun straddle around one enemy battleship.

The two chiefs have also seen the postwar transformation of Mississippi from a ship of the line to a unique gunnery test ship whose important job it is to evaluate the latest types of gunnery weapons being designed for the Fleet.

As you come they have been with the ship so long, the pair replies, "Why move? We know this ship, we both have a job to do and we’re doing it. What’s more we like the old bucket. Who wants a transfer?"
PORTABLE was the idea when John Maykut, AT1, built this radio during his spare time at NAS Norfolk.

Navy at Air Races

The 1951 National Air Races at Detroit, Mich., opened to the roar of Navy "week-end warriors" flying overhead. Thirty-six fighters and attack planes from nearby Grosse Ile Naval Air Station, flown by Navy and Marine Corps pilots, thundered in front of the packed stands to officially open this greatest of all aeronautical spectacles.

Outstanding among the Navy's flight presentations were jet-assisted take-offs (JATO) by P2V Neptune patrol bombers and comparative climb exhibitions between a propeller-driven F8F Bearcat and a jet-powered F2H-2 Banshee. The Bearcat, world-record holder for a climb to 10,000 feet, had all the better of it to that altitude but from there on up, school was out. The jet was a winner going away.

The ground display of naval aircraft was headed by the massive 168-passenger transport, Constitution. Also shown—and perhaps the most sensational of all aircraft at the show—was the radically-designed tailless jet fighter, the F7U Cutlass. Almost every type of aircraft currently operated by the Navy was on display ranging from the Constitution and patrol bombers down to small helicopters and grasshopper-type liaison planes. The latest anti-submarine aircraft and devices to reach the Fleet were featured prominently in the exhibit.

A special exhibit inside the hangar portrayed the Navy's mission, showed the most advanced types of Navy and Marine Corps fighting equipment including cutaways of the latest engines, planes, guided missiles, and associated equipment.

Naval ordnance played a prominent part in the display. There was a collection of guided missiles of various sizes; rockets—including the "Tiny Tim" used so effectively by Navy and Marine Corps aviation in Korea. Another crowd-pulling exhibit was a 26-foot steam driven torpedo which was fully activated to demonstrate torpedo propulsion.

Sub Propulsion Test Facility

If your ship should cruise up the Severn and moor across the river from the Naval Academy at Annapolis, Md., you'd see a lot of activity going on at the Naval Engineering Experiment Station. There, the Navy's first submarine propulsion test facility is being constructed.

A section of the Naval Engineering Experiment Station, it will be known as the Submarine Propulsion Test Facilities. This unit will provide the means for testing "conventional" or existing (as opposed to nuclear-powered and other proposed systems) propulsion systems.

Some of the systems that will be tested when this unit gets into full swing next year will be gas turbine, diesel and hydrogen peroxide propulsion plants. Present plans indicate that not only will the propulsion plants (the machinery that furnishes the ship its drive) be tested, but that control equipment and pumping systems for the plants will also undergo tests.

Clamshell Mobile Hangar

Nicknamed the "clamshell" because of its unique clam-like operating characteristics, the world's first mobile hangar is now in operation at the Marine Corps Air Station, Cherry Point, N. C.

The structure is built on railroad-wheel trucks that roll back and forth on tracks imbedded in a reinforced concrete foundation. The hangar's mobile housing will enclose any of the type planes at the air station. Overhaul and repair equipment, work bench facilities and tools are available along the inside walls and mounted in order to move with each half of the hangar. Four electric motors, located in the hangar, furnish the power to move the sections to opened and closed positions.

An aircraft scheduled to be serviced is taxied into place between the halves, then the hangar is closed. The tail section of larger planes may extend outside the hangar. Each side of the hangar is 100 feet long and when closed the longest corners are 173 feet apart. The shortest diagonal corners are 100 feet apart. Height of the hangar is 29 feet. Weight of the hangar housing, not including repair equipment and tools, is 118 tons. Hangar opening and closing time is two minutes a section.
Ship Model Exhibition

The annual exhibition of the Washington Ship Model Society will be held at the Truxtun-Decatur Naval Museum in Washington, D. C., from 3 October to 4 November.

Models of such famous ships as HMS Bounty, Robert E. Lee and the racer, America, will be on display. Photographs, relics and other nautical objects will form a part of the exhibit which is arranged by the Naval Historical Foundation.

Cruises for Midshipmen

Midshipmen went to sea in battleships, heavy cruisers and destroyers this past summer. Four training cruises, lasting from four to eight weeks, accommodated more than 6,200 NROTC and Naval Academy midshipmen from the 52 NROTC colleges and the U. S. Naval Academy at Annapolis.

The first cruise which got underway on 4 June was a joint USNA-NROTC cruise. The remaining three cruises were NROTC only, the second sailing on 22 June, the third on 3 August and the fourth on 4 August.

London, Edinburgh, Lisbon, Oslo, Copenhagen, Goteborg, Cherbourg and Rotterdam played host to participants in the first cruise. Ships included uss Wisconsin (BB 64), uss Missouri (BB 63), uss Albany (CA 123) and 10 destroyer types. The same or similar type ships were employed for the other three cruises. The ports of call for these latter cruises included Kingston, Santiago, Colon, Halifax, Boston and New York.

In addition to their routine training schedule, the middies found time to do lots of sightseeing in the ports they visited. Sports were not overlooked, either, as middies field-ed basketball, rowing, swimming, track and field teams to compete with athletes representing the various countries visited. These athletes gave the Annapolis men first-class competition.

Naval Academy second class midshipmen got a taste of the sea when they were introduced to carrier aviation on board uss Franklin D. Roosevelt (CVB 42). Divided into four battalions, the class of 1953 spent its time working in four major departments—air group, air department, operations and engineering.

New Seabee Power Grader

Power graders are old hat to World War II Navy sidewalk superintendents—they saw graders build and maintain the surfaces for landing fields and roads the world over. However, the most imperturbable old Seabee will set aside his hoe cup and have a closer look-see when he gets his first glimpse of the Navy's newest power grader.

This new type, built to Bureau of Yards and Docks' specifications, is known as a Model CB-80 grader. Its most unique feature is its six-wheel drive and six-wheel steering. This is about two up on previous models.

Though it weighs eight and a half tons, is 25 feet long and carries a 12-foot blade, this machine is air transportable. Three can be carried at one time in the Globemaster. It weighs only two-thirds as much as commercial types with equivalent performance characteristics.

In competition with other graders on San Nicholas Island, Calif., the CB-80 not only outperformed other graders, but it moved through mud and sand which stumped its competitors. The competition trials included heavy and fine grading, dozing, backsloping, heavy ditching and scarifying (plowing up hard ground and pavement).

MSTS Ships to Be Armed

One-third of all Military Sea Transportation Service vessels will be armed by the Navy during fiscal year 1952.

In addition, 59 transports are to be altered over an extended period of time to improve troop-carrying capacity. Staterooms, dining rooms and lounges will give way to troop berths, mess facilities, ventilation equipment and other requirements. Ships now regularly employed to transport dependents will be the last to be converted.

No immediate change in the method of manning these ships is planned at present. Certain Navy ratings needed to keep the armament in readiness, however, will be added to the crews.

USS IOWA (BB 61) is back in commission as a modernized BB at less than one per cent of the cost of a new one.
RACKET BUSTERS check noise level of a reduction gear which they have installed in one of the special fiberglass-lined rooms at the acoustical lab.

**Navy Steps Up Campaign to Eliminate Engine Noise**

The drone of a gnat can be heard in the face of a 21-gun salute—that is, if the gnat is in the Navy's new "inside-out" acoustical laboratory at Annapolis, Md.

So perfect is the control of sound in the unique construction at the Naval Acoustical Laboratory, that sensitive instruments can measure the sound of a pin dropping.

The new laboratory has three testing rooms, in any one of which it is possible to record virtually the lowest as well as the highest sound frequencies without interference. Tests can now be run simultaneously in one of the three rooms with little possibility of sound interfering with tests in the other two.

Framework of the building is actually its exterior. This design eliminates dead spaces between columns, which are erected outside of a 16-inch solid and flat concrete wall for the interior. The same effect is attained in the ceiling by suspending the roof from beams rather than resting the roof on them, as in the conventional type structure.

The principal achievement was the creation of an "accordion" form made of fiber-glass sheets. Tests show that with this accordion form it is possible for instruments to provide studies in a range spread far greater than ever previously considered in the installation of soundproofing material.

**New Wind Tunnel**

A speed of 2,500 miles per hour can be produced in a new wind tunnel which has been developed by the National Advisory Committee for Aeronautics and installed at the Aeronautical Laboratory of the Naval Postgraduate School, Annapolis, Md.

The new supersonic wind tunnel is used for training and research in high speed aerodynamics, along with a new transonic tunnel of lower speed. The transonic tunnel can establish air speeds both below and slightly above that of sound, from about 250 to 1,000 miles per hour. The supersonic tunnel is capable of air speeds from about, 1,000 to 2,500 miles per hour.

The air needed to produce the wind is pumped by a 175 horsepower compressor through a dryer into a storage tank. This tank has a capacity of 2,000 cubic feet, at a maximum pressure of 300 pounds per square inch. It provides the air for the intermittent operation of either one of the tunnels for test periods of one to six minutes.
New Guided Missiles Plant

A new plant for Navy guided missiles—the first integrated production unit of its kind in America—is being built by a commercial firm for BuOrd at Pomona, Calif.

Construction on the all-modern one-story buildings started last month. The buildings, occupying a 140-acre site, will feature air conditioning and other conveniences designed to help achieve efficient volume production.

New Naval Supply Activity

The well-known manufacturer and supplier of naval uniforms, the U. S. Naval Clothing Depot, Brooklyn, has been officially abolished.

But don’t worry about where your next uniform is coming from—the old clothing depot, with its outstanding production record will go right on turning out clothes for the world’s best dressed Navy. It has been incorporated into a new command known as the U. S. Naval Supply Activities New York.

The clothing depot was one of the oldest naval activities in the 3rd Naval District. It was established at what was then known as the Brooklyn Navy Yard in 1879. “The Clothing Manufacturing Department” was its original name. In 1918 it was moved to its present site and in 1933 it became the U. S. Naval Clothing Depot.

Several heretofore independent Navy activities have been combined under the command of the CO of the U. S. Naval Supply Activities New York. These include the Clothing Supply Office, Navy Ship’s Store Office, Navy Material Catalog Office, Supervisory Cost Inspection Office, Eastern Area and Navy Regional Accounts Office. Other components of the new activity are the Naval Clothing Factory and the Naval Supply Facility.

Even though the title of the new organization ends “New York,” the new activity is located at the former clothing depot’s Brooklyn location. This is the three-block area between 29th and 32nd streets on Third Avenue.

This reorganization has centralized such services as personnel planning, public works, medical, fiscal and administrative services. Greater savings to the Navy are expected to result from this reorganization.

Sideline Strategy

The catching of sharks (intentional or otherwise) seems a commonplace enough pastime among naval anglers, but some sort of trophy is due Marine Pfc Ernest “Rip” Howland of MCRD Parris Island, S. C. He set out with a shark hook attached to a clothesline dangling from a gallon-can float, and at one cast caught six of the sharp-toothed specimens—an expectant mother carrying a quintet of about-to-be-born “sharklets,” the latter being released in the sea—for survival or prey for other clothesline “Waltons” remaining to be seen.

Shades of Daniel-the-Boone: A local chapter of the National Muzzle-Loading Rifle Association has been formed at U. S. Naval Ammunition Depot, Hawthorne, Nev. In contrast to the modern rifleman who shoves in a clip and lets go, NMLRA shooters must first pour into the barrel the proper amount of black powder, then insert a lead shot with an underpatch (for rifling accuracy) and push it down to the powder charge with a ramrod, and check the flintlock or percussion cap (depending on the type of muzzle-loader)—all before even drawing a bead on the target.

Expert pistolers at NAAS Whiting Field, Milton, Fla., manufacture their own ammunition, using salvaged toothpaste and shaving cream tubes.

To ensure a ready source of basic ordnance material, the station’s heads are equipped with special disposal receptacles for the much-sought-after empty containers.

At least one contingent of Leathernecks has discovered that not only do the Greeks have a name for basketball, but also that they play it quite proficiently. A hard-court aggregation of Marines serving with the U. S. Sixth Fleet extended a goodwill challenge to Greek hoopers of the Athens Athletic Club and bowed in both contests of a twin bill. For the edification of future athletic invaders, the “Semper Fidelians” pass along the word that ancient Athens, among other Greek ports, abounds with well-rounded sports contenders who practice on many a modern basketball rectangle as well as in fresh-water swimming pools, and on soccer and football fields.

Everything happens to sailors—in this instance, sailboat sailors. In a championship race off Parris Island, S. C., the final contest had to be postponed on the scheduled day because the boats went backwards. The tide, stronger than the prevailing light breeze, not only prevented the boats from navigating the first-mile pylon of the three-mile race course, but carried them well astern of forward progress.—Ernest J. Jeffrey, JOC, USN.
Dates and Rules Listed for Service-Wide Competitive Exams in January

Dates for the January 1952 service-wide competitive examination for advancements to first, second, third class and chief petty officer rates have been established as follows:

- For pay-grade E-4—Tuesday, 8 Jan 1952.
- For pay-grade E-5—Tuesday, 15 Jan 1952.
- For pay-grade E-6—Tuesday, 22 Jan 1952.
- For pay-grade E-7—Tuesday, 29 Jan 1952.

Regular Navy personnel and Naval Reservists on active duty who are eligible and recommended in accordance with current directives may compete. The deadline for fulfillment of service requirements for advancement to pay-grades E-4, E-5 and E-6 is 16 April 1952; for advancement to chief, 16 June 1952.

Certain "non-routine" groups are also eligible for advancement:

- Regular Navy personnel, previously discharged in pay-grade E-7, who enlisted or reenlisted in a lower pay-grade, may compete for readvancement to pay-grade E-7.
- FCs may compete for change in equal pay-grade from FC to FT, or for concurrent change in rating from FC to FT and advancement to the next higher pay-grade. (Examinations for FCs will not be offered in January 1952. FCSNs may compete for advancement to FT3 only.)
- Reservists who reported for active duty on or before 16 April 1951 (or 16 June 1951 in the case of those competing for enlistment in pay-grade E-7) may compete for qualification to enlist or reenlist in the Regular Navy in the pay-grade in which discharged from the USNR.
- Personnel may be recommended for advancement only to those rates for which they are eligible. If an individual is in training for a rating to which he is presently ineligible for advancement, the necessary change in rating or rate symbol must be authorized and put into effect before he can be nominated to compete in the examination. (FCs changing to FT and competing for advancement concurrently are excepted from this rule.)

Sailors in a transient status may participate in the exams if nominated by a previous CO. They must, however, be on board a Navy ship or station at the time the appropriate examinations are held.

Complete details on the January exams are contained in BuPers Circ. Ltr. 141-51 (NDB, 31 Aug 1951).

15 October Is Deadline For Transfer to DC, USN

A 15 October deadline has been set for applications from Naval Reserve dental officers—both active and inactive—who wish to be considered for appointment in the Dental Corps, USN. The program is open only to lieutenants and lieutenants (junior grade) under the age of 37, who have previously served on active duty (other than training duty).

No professional examination will be required. The professional experience of applicants will determine the grade of the appointment. Normally the grade will be the same as that held in the Naval Reserve.

BuPers Circ. Ltr. 135-51 (NDB, 15 Aug 1951) outlines the requirements for Reservists on active duty. Applicants should submit letter of request for consideration to the Chief of Naval Personnel (Attn: Pers B-6221) via their commanding officers. Applicants who are not on active duty will apply at the nearest Navy Recruiting Station and Office of Naval Officer Procurement for processing of their applications for appointment in the Dental Corps under the provisions of the current Recruiting Service Instruction relative to dental officers of the Naval Reserve.
Latest Tabulations Show How You Stand on the Shore Duty Eligibility List

What’s your standing on the Shore Duty Eligibility List and how soon can you expect orders to a normal tour of shore duty?

With the resumption of sea/shore rotation as of 1 July 1951 on a limited basis, numerous inquiries have been received in BuPers concerning individual standing on the SDEL and the approximate date orders to shore duty can be expected. Since it is impracticable to ascertain the date any one man can expect orders to shore duty, BuPers publishes in All Hands (usually semi-annually) a tabulation of the SDEL in order to give each man on the list the opportunity to determine his relative standing.

At the present time, approximately 1,000 persons are being ordered from the SDEL each month to a normal tour of shore duty.

From the following information on shore duty (the fifth tabulation to appear in All Hands) you can figure your relative standing on the SDEL and how close you are to shore duty. The following table was tabulated as of 1 Sept 1951.

Since new requests for placement on the SDEL and the assignment of personnel from the list to shore duty change the picture constantly, the following information should be considered only as a general guide. Correspondence from personnel relative to this tabulation is not desired.

Remember that the following categories are not included in the tabulation:

- Presently ashore for duty of less than one year’s duration.
- Serving outside the continental USA with dependents on station and have not completed a normal tour for the area as prescribed by BuPers Circ. Ltr. 74-50.
- Less than six months on board since return from a naval school.
- Undergoing instruction at a naval school on a returnable or non-returnable quota.
- Less than six months on board a newly constructed or reactivated vessel.
- Being held by BuPers for screening of jackets pending assignment or processing.

In screening jackets of personnel on the SDEL for transfer to shore duty, it has been noted that a considerable number of personnel have not kept BuPers informed of their current status. For your own benefit, keep BuPers informed at all times. Personnel who have been placed on the SDEL and who have had a change of address, change of NJC, change or advancement in rating, etc., since submission of their request, should inform the chief of Naval Personnel (attn: Pers-B211), via their commanding officer. Failure to keep BuPers informed will result only in unnecessary delay in sending out your orders.

Com 11 and Com 12 still continue to be the most popular choices of shore duty. This is particularly true with personnel on the list in rating groups with excessive numbers. For some of these personnel, the path to shore duty may be speeded by a request for change in choices of shore duty to some other shore administrative compartment. Also, for those who meet the qualifications set forth in BuPers Circ. Ltr. 70-51, instructor duty may also hasten the path to shore duty.

Remember, qualified personnel may be on the Bureau’s Shore Duty Eligibility List and the Instructor Duty List at the same time.

It should be pointed out to all hands that personnel assigned to newly constructed or reactivated vessels are not considered available for transfer to shore duty until completion of at least six months on board from date of commissioning. The reasons for this restriction are obvious. When personnel who receive orders to shore duty have been transferred to an activity as a member of a reactivation crew, the orders are cancelled, and the man is replaced on the SDEL in his relative position, and will again be considered, along with others on the list of the same rating group, upon completion of the six-months period.

The next tabulation of the shore duty situation is tentatively scheduled to appear in the April 1952 issue of All Hands. To consult the official directive on sea/shore rotation policies, see BuPers Circ. Ltr. 36-50 (corrected) (NDB, CumEd January-June 1950).

### STATUS OF SHORE DUTY ELIGIBILITY LIST AS OF 1 SEPT 1951

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ALL HANDS
Promotion to LCDR and LT
Recommended for 9,700

Approximately 9,700 officers of the
Regular Navy and Naval Reserve on
active duty, recommended for promo-
tion to the grades of lieutenant
and lieutenant commander, have
been listed in enclosures to BuPers
Circ. Ltr. 111-51 (NDB, 15 July
1951).

Approximately 6,000 have been
given temporary promotions to date
from either 5 July or 15 July 1951.
The remaining 3,700 officers were
given promotions to date from 1
August, according to BuPers Circ. Ltr.
124-51 (NDB, 31 July 1951). The
list includes 12 women officers who
received permanent promotions to
the grade of lieutenant commander.

Over 11,000 officers were consid-
ered by the selection boards which
convened on 3 April. One line board
and five staff corps boards (MC,
MSC-NC, SC, GHC, CEC, DC) con-
sidered lieutenants with date of rank
12 Apr 1945 or earlier and lieuten-
ants (junior grade) with date of
rank 6 June 1948 or earlier.

Detailed instructions for effecting
the promotions are included in Bu-
Pers Circ. Ltr. 108-51 (NDB, 15
July 1951).

All Service Ribbons Now
Must Be ¾-Inch Long

Service ribbons ¾-inch in length
are no longer authorized. Effective
1 Oct 1951 all service ribbons worn
on the naval uniform must be ¾-
inches in length.

Advance notice of this deadline
date and the information on ribbon
lengths was given in Change 4 to
Uniform Regulations and in All
Hands, March 1949, p. 38.

Prior to 1 October, ribbons of
either length were allowed on the
uniform. Ribbons of the two differ-
et sizes were not allowed to be
mixed, however.

Many persons confuse a ribbon's
length with its width. This is natural,
since the length of a service ribbon
is a much shorter linear distance
than the width.

The reason for this is the manner
of making service ribbons. The col-
ored cloth comes in long rolls. Short
lengths of these rolls are snipped off
and are secured around the support-
ing bars.

Boston Is Site of Seminar
In Industrial Relations

Reserve officers in the 1st, 3rd,
4th, 5th and 9th Naval Districts and
the Potomac River Naval Command
may attend the east coast Industrial
Relations seminar to be held in Bos-
ton from 14-27 October.

Provisions to include a limited
number of Regular Navy officers at
the Boston seminar will be announced
later. All applications should be sent
to the Commandant, 1st ND.

The seminar, similar to the one
held in Seattle, Wash., in August
which was restricted to USNR officers
in the three west coast naval dis-
tricts, will include a review of
current Navy Civilian Personnel In-
suctions, visits to naval activities
and conferences with top personnel
management representatives.

Plans for an intensive refresher
course for Naval Reserve officer in-
dustrial relations specialists are also
underway. The program will include
attendance at the OIR Institute in
Washington and two additional semi-
nars, tentatively scheduled for San
Francisco in February and Norfolk,
Va., in May.
Roundup Lists Eligibility for Bonuses of All States and Territories

If you believe you are eligible for a state bonus as a veteran of World War I, World War II or service since the Korean crisis (starting 27 June 1950), this summary of state bonuses will tell you how you stand.

The deadline for filing applications for many of the states and territories has expired. However, 13 states and Alaska still are accepting applications from qualified veterans of World War II. In addition to two states, Michigan and Vermont, have bonus plans for Korean service, for which applications may now be made. Missouri is the only state now accepting applications for a World War I veterans bonus. West Virginia proposes a WWI bonus pending determination of financing method.

A complete roundup of state bonuses, including procedures set up by the Navy to facilitate the claims of naval personnel, is contained in BuPers Circ. Ltr. 126-51 (NDB, 30 July 1951).

To help you find out if you can still apply for a state bonus, if you haven’t already done so, here is a check list prepared by the Veterans Affairs Section of the Bureau of Naval Personnel listing eligibility requirements, the amount of bonus payable, deadline for applications, and any special conditions. The roundup also lists information on where to obtain applications, with whom to file, and to whom inquiries should be addressed for additional information.

- **Alabama**—No bonus authorized.
- **Alaska**—No deadline has been set for the $10 per month bonus for service during World War II. Survivor must have had minimum service of one year between 16 Sept 1940 and end of war, or a discharge for injury, or a disability incurred in service between 16 Sept 1940 and end of war. No payment for service after 1 Nov 1945. Honorable separation required. Minimum residence in Alaska as follows: (1) one year immediately prior to entry into service plus return to territory with intent to remain; or (2), five years’ residence prior to entry. Survivor is entitled to amount veteran would have received.
- **Arizona**—No bonus authorized.
- **Arkansas**—No bonus authorized.
- **California**—No bonus authorized.
- **Colorado**—No bonus authorized.
- **Connecticut**—Deadline was 30 June 1951, for all but incompetents. Deadline for incompetents only was extended to 1 Oct 1951.
- **Delaware**—Deadline was 1 Jan 1951.
- **District of Columbia**—No bonus authorized.
- **Florida**—No bonus authorized.
- **Georgia**—No bonus authorized.
- **Idaho**—No bonus authorized.
- **Illinois**—Deadline was 1 July 1951.
- **Indiana**—Deadline was 30 April 1951.
- **Iowa**—Deadline was 31 Dec 1950.
- **Kansas**—No bonus authorized.
- **Kentucky**—No bonus authorized.
- **Louisiana**—Deadline was 1 Jan 1951.
- **Maine**—No bonus authorized.
- **Maryland**—No bonus authorized.
- **Massachusetts**—No deadline has been set for World War II bonus for service between 16 Sep 1940 and 31 Dec 1946. For domestic service of less than six months $100 bonus is paid eligible veterans, and for more than six months’ domestic service bonus is $200. Overseas service bonus is $300. Survivors of service personnel who died in service before 31 Dec 1946 receive $300, otherwise, survivors of deceased veterans receive the bonus the veteran would have been paid if living. Six months’ residence immediately prior to entering service is required. Applications may be obtained from Commandant, 1st Naval District (District Civil Readjustment Officer), 495 Summer St., Boston 10, Mass., or for information not otherwise available address inquiries to: Bonus Division, Commonwealth of Massachusetts, 15 Ashburton Pl., Boston, Mass.
- **Michigan**—Bonuses are paid for both WWII and Korean service. The deadline for WWII bonus has been extended to 31 May 1953. Veterans of WWII who served more than 60 days between 16 Sept 1940 and 30 June 1946, both dates inclusive, are eligible. Bonus payable is $10 a month for domestic service, and $15 a month for foreign service, up to a maximum of $500. The vet-

**HOW DID IT START**

**Broom Lashed To Mast**

Lashing a broom to a mast to denote a “clean sweep” of some nature or another, is a long-continued custom said to have had its origin nearly three centuries ago. In 1652, when Holland and England were at conflict on the sea, Maarten Harpertszoon Tromp, a Dutch admiral, during one phase of the war succeeded in defeating a detachment of the British fleet between Dover and Dungeness and thus gained temporary control of the English Channel. It is recorded that Admiral Tromp, in subsequent engagements with the British, hoisted a broom at the masthead of ships that won gunnery and engineering competitions. During World War II, U.S. submarines frequently revived the custom by lashing a broom to the periscope prior to the return to base to indicate that they had made a “clean sweep” of enemy vessels encountered on the patrol.

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ALL HANDS
eran must have an honorable discharge or be in honorable active service. Residence in the state for at least six months immediately prior to entering service is required. Survivors are entitled to the amount veteran would have received if living.

There is no deadline for the Michigan bonus for Korean service, but this bonus is paid only to survivors of personnel who died of service-connected disabilities or illness in or out of service. Survivors include "spouse, children, parent (including person who stood in loco parentis,—in place of parents), dependent brothers and sisters, in order named." To be eligible, the deceased seaman must have been in service during some period after 27 June 1950 up to the termination of the national emergency. Likewise, he must have been a resident at least six months prior to entering service. Applications may be obtained from Commandant (DCRO), 9th Naval District, Bldg 1-B, Naval Training Center, Great Lakes, Ill., and further information from The Adjutant General, State of Michigan, Bonus Division, Lansing 1, Mich.

- **Minnesota**—Application deadline is 31 Dec 1951. Bonus is payable to veterans at $10 per month with a maximum of $270 for domestic service, and $15 per month with a maximum of $400 for foreign service (providing seaman is credited with at least 30 days of foreign service). The bonus is paid only to veterans who were residents at least six months immediately prior to 7 Dec 1941, or entry in service, and who were on active duty sometime between 7 Dec 1941 and 2 Sep 1945. No bonus is payable to personnel who were in active service for five full years immediately prior to 7 Dec 1941. The next-of-kin of veterans who died in service from service-connected causes may receive $400, or the same amount if death occurs out of service due to service-connected causes; otherwise, the survivor receives the amount the veteran would have received if living.

Applications are available to personnel on active duty from Commandant (DCRO), 9th Naval District, Bldg 1-B, Naval Training Center, Great Lakes, Ill., or Commissioner, Veterans’ Affairs, State of Minnesota, Adjusted Compensation Division, 213 E. 4th St., St. Paul 1, Minn.

- **Mississippi**—No bonus authorized.

- **Missouri**—A World War I bonus is still paid to qualified veterans applying before 31 Dec 1954 who served between 6 April 1917 and 11 Nov 1918. The maximum is $250 credited at the rate of $10 per month. Survivors may be paid the amount the veteran would have received if living. To be eligible the veteran must have lived in the state one year immediately prior to 6 Apr 1917. Applications should be filed with the State Service Officer, Post Office Drawer 147, Jefferson City, Mo.

- **Missouri** did not authorize a WWII bonus.

- **Montana**—The state legislature has passed a bonus law which must first pass a court test before applications are available. Tentative deadline date is 1 Jan 1953. The bonus will pay, if finally approved, $10 per month for domestic service and $15 per month for foreign service, with a minimum of $400, for service performed sometime between 7 Dec 1941 and 2 Sept 1945, both dates inclusive. Honorable separation, or current honorable service is required. Servicemen must have been residents of Montana at the time of entering service or on 7 Dec 1941, if they were in the service at that date.

- **Nebraska**—No bonus authorized.

- **Nebraska**—No bonus authorized in this state.

- **New Hampshire**—No deadline for application or payment has been established. A WWII bonus is pay-
Pennsylvania

That the old battleship Pennsylvania was christened in honor of the state of the same name, is an accepted and true fact. Contrary to popular belief, however, the state of Pennsylvania, strictly speaking, is not named for William Penn, its founder.

Many terms and expressions today prevalent in America derived from the old English navy. The British fleet also was more or less involved in the selection of Pennsylvania as the name of the new American colony. Among its admirals was Sir William Penn, father of the Quaker settler William Penn. Admiral Penn had loaned the English crown 16,000 pounds, a debt remaining unpaid at the time of the admiral's death in 1670. The claim against the crown was inherited by Sir Penn's son, William, to whom King Charles II, in lieu of monetary settlement, bestowed the grant of territory from which the boundaries of Pennsylvania were determined.

Although William was bound by the king's decree that the new colony be named "Penn" in honor of his friend and benefactor, Sir William, the younger Penn felt that as a good Quaker he could not consistently name the colony after either himself or his father. It was his desire to call the territory New Wales, but in deference to Charles' wishes he suggested "Sylvania" (from the Latin "Silva," meaning "grove" or "wood") as a compromise. The full name Pennsylvania was the final compromise. Literally, the name means "Penn's Woods."

vivor is entitled to the amount the veteran would have received if he had lived. Applications of service personnel on active duty may be obtained from Commandant (DCRO), 3rd Naval District, Room 1412, 90 Church St., New York 7, N. Y., or from Veterans' Bonus Bureau, Department of Taxation and Finance, State of New York, 1875 N. Broadway, Albany 4, N. Y.

* North Carolina—No bonus authorized.
* North Dakota—The deadline for applications is 17 Feb 1954. Veterans who resided for at least six months in the state prior to entry in the armed forces, and served more than 60 days between 1 Jan 1941 and 1 Jan 1946 are paid $12.50 per month for domestic service, and $17.50 per month for foreign service. A $600 minimum payment is made to the survivor of a veteran who died in service between those dates, or the maximum amount earned by the deceased veteran. No person shall be considered a resident of North Dakota if he was on continuous active duty in the armed forces for a period of five years or more, immediately prior to 7 Dec 1941. Veterans must have established actual abode in North Dakota prior to the effective date of this act. Applications are available from Commandant (DCRO), 9th Naval District, Bldg 1-B, Naval Training Center, Great Lakes, Ill., or Office of the Adjutant General, Adjusted Compensation Division, Fraine Barracks, Bismarck, N. D.
* Ohio—Deadline was 30 June 1950.
* Oklahoma—No bonus authorized.
* Oregon—A deadline of 1 Dec 1952 has been set for applications by veterans of bona fide residence for a minimum of one year immediately prior to WWII active duty. Bonus is at rate of $10 per month for domestic service, and $15 per month for foreign service, with $600 set as maximum. The maximum is also payable to a veteran with active service between 16 Sept 1940 and 30 June 1946 who was discharged with 50 per cent or greater (VA rated) service-connected disability. The VA rating must be based on the veteran's application made within three months after his discharge. Survivors are entitled to maximum of $600 if a service-connected disability was cause of, or a contributing factor, in serviceman's death. Otherwise, the survivor is entitled to the amount the veteran would have received. The first survivor in the following order will be paid: spouse, child or children, parent or parents. Applications are available from Commandant (DCRO), 19th Naval District, Room 104, Bldg 256, 1611 W. Wheeler St., Seattle 99, Wash., and Bonus Division, Department of Veterans Affairs, State Library Bldg., Salem, Ore.
* Pennsylvania—The deadline has been extended to 31 Dec 1951 for WWII veterans who served a minimum of 60 days in the "armed forces of the U. S. or allies." The bonus is paid for service between 7 Dec 1941 and 2 Mar 1946, provided some of the service was prior to 2 Sept 1945. The veteran must have an honorable discharge or still be in service. He must have been a resident of the state at the time of entering service. The maximum bonus is $500, payable on a basis of $10 per month for domestic service and $15 per month for foreign service. The next-of-kin regardless of length of the veteran's service will receive the $500 maximum if the serviceman died in service between 7 Dec 1941 and 2 Sept 1945. Otherwise, survivor is entitled to the amount the veteran would have received. Next-of-kin must be either the unmarried widow, minor child, mother or father. Applications are available from Commandant (DCRO), 4th Naval District, Bldg 4, Naval Base, Philadelphia 12, Pa., or World War II Veterans Compensation Bureau, Commonwealth of Pennsylvania, Harrisburg, Pa.
* Rhode Island—Deadline was 31 Oct 1949.
* South Carolina—No bonus authorized.
* South Dakota—Deadline was 1 Sept 1951.
* Tennessee—No bonus authorized.
* Texas—No bonus authorized.
* Utah—No bonus authorized.
* Vermont—Bonuses for both WWII and the Korean crisis are payable only to enlisted personnel and
Training Results in Passing Advancement Exams

In the July issue, ALL HANDS carried an article stating 48 per cent of the crewmen of USS Hawkins (DDR 873) who took the July 1950 service-wide examinations for advancement in rating were promoted.

ALL HANDS listed in second place hospital corpsmen of the First Marine Division, with 45 per cent of the candidates promoted as a result of the January 1951 examinations.

Since the article appeared several units have sent in their records in an effort to determine the service-wide success. In all cases, intensive training programs have been credited as the primary cause of success.

On the basis of reports received, the laurel wreath goes to USS Grampus (SS 523) which boasts a spankin' clean record of 100 per cent that will be hard to beat.

Other units with high percentages of successful candidates on the basis of the January 1951 exams follow:

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<tr>
<th>USS</th>
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<th>Result</th>
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<td>Runner (SSG 476) *</td>
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<td>Razorback (SS 384) *</td>
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<td>Conger (SS 477) *</td>
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<tr>
<td>Orion (AS 18) *</td>
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Fleet Airborne Electronics Training Unit, NAS San Diego, Calif. 68.18

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<td>Tigrone (SSR 419) *</td>
<td>63.64</td>
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<tr>
<td>Kittiwake (ASR 13) *</td>
<td>53.33</td>
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*These vessels are attached to Submarine Squadron Six. Of 63 HMs from the entire naval organization who were promoted to HMC, 10 came from Repose. In other words, more than one-seventh of all the hospitalmen advanced to CPO status came from a single ship.

Repose was in Korean waters at the time, caring for some 6,500 patients. Work days often ran to 16 hours. The ship's senior medical officer instituted an effective training program which included classes and practical demonstrations, as scheduled on a day and night basis.

The men of FAIRBETUPAC took advantage of outlines and bibliographies prepared by their education division. With these comprehensive guides they, too, burned the midnight oil.

All of which goes to prove that advancements are awarded to those who earn them. If you missed out on these exams, don't wait until the week before the next ones to prepare. Start boning up now. Keep up to date and on the ball.


Examining Center Does Its Best to Advance Most Highly Qualified Sailors

The Naval Examining Center, Great Lakes, Ill., established to equalize the opportunities for advancement to petty officer pay grades, is now entering its third year of existence. It was recently moved to Great Lakes from Norfolk, Va.

Working on the assumption that all men recommended for advancement are qualified, the center tries to see that the limited quotas open in each pay grade will be filled by the most highly qualified sailors. To do this, it produces, analyses, grades and evaluates the service-wide competitive examinations for advancement in rating.

This is how the system works. Questions for the examinations are made up by chief petty officers, not commissioned officers. These chiefs are highly proficient in their ratings. Their questions are based on long years of experience. The questions are phrased in the chief's own language—the language of his particular rating.

Civilian experts in the field of test and measurement are employed at the center to counsel the chiefs. They show the chiefs the best manner of presenting the problems contained in the questions. But they don't write them.

The questions are designed as a check on the requirements listed under "Written Examinations" for the rating and pay grades as given in the Manual of Qualifications for Advancement in Rating. This BuPers booklet is held by all ships and stations.

With this manual as a guide, the chiefs go through the training courses and other available study material. They make notes of the various points they think the exam should cover. The chiefs keep in mind the fact that the questions should test the men on knowledge gained from study and knowledge acquired from actually performing the work.

The center will not approve use of a question that cannot be proved by reference to published textbooks. Thus the chiefs may also turn to reference books not generally available to the candidates. The complete list of reference material is not published. There are two good reasons for this: First, not all men would have access to all of the references. Second, men who are able to round up all the references might be able to answer from memory those questions designed to test the individual's working knowledge of the skills of his rating.

Why are the questions so difficult? They're supposed to be. The center isn't trying to flunk anyone, however, it just wants the best qualified men to be advanced. It wants to give the "sharp" newcomer an equal chance with the so-called "drifter" who coasts along, half-heartedly studying but building up service credits to increase his multiple score.

The old-timer who really knows his stuff and comes up with a good score, however, usually gets well ahead of the man who "cracks" the exam for a high score but doesn't have the old-timer's advantage of long service credits.

Does that mean that a third class yeoman could sit down and take the second class yeoman exam without studying and expect to pass it simply on the basis of his knowledge of his rating? No. In general, the center does not believe this is possible. In too many instances there is a definite need for refresher study to remain abreast of the knowledge required for a particular rating.

After the exams have been prepared, printed and distributed and examination day has come and gone, the exams are reassembled at the center for grading and evaluation. Lists are then made up of those who passed and are authorized to be advanced, those who passed but cannot be advanced because of quota restrictions, and those who failed.

The exams are scored mechanically. This factor brings rumors of ways to "beat" the machines. One of the most popular theories is that of putting a mark with the electro-

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I don't care if you did get your diploma through the mail, you can't wear that kind of a flat hat to inspection.

Her bright smile haunts me still.
For her voice lives on the breeze,
And her spirit comes at will;
In the midnight on the seas,
Her bright smile haunts me still.
For her voice lives on the breeze, And her spirit comes at will;
In the midnight on the seas,
Her bright smile haunts me still.

—Old Forecastle Song.
graphic pencil in each space opposite the question on the answer sheet. The cheaters think this will give them a perfect score. And it would if the machine were set to record correct answers only. By making an adjustment or two on the machine, however, it will record all wrong answers. Thes, this exam paper would wind up with a big, fat "zero."

There are other precautions. A chief inspects each exam before it is fed into the scoring machine. In this way, evidence of "monkey business" often turns up. After exams are scored mechanically, those very high, those very low and the borderline failure cases are double-scored. Usually they are hand-scored to detect irregularities—either on the part of the candidate or the scoring machine.

A few cases have been discovered where advance information on the exams was obtained. From time to time, copies leak out and are sold. Rumors about advance dope are not new to the center. When such a rumor pops up, Naval Intelligence officers move in, investigate and usually the culprits—if any—are swiftly apprehended and punished.

When the scoring has been completed, the selection begins. The advancement lists are printed from IBM cards—those cards with holes punched in them to represent letters and numbers. There is a card for each candidate. It carries the usual identification data, the marks on the professional and military exams and the final multiple, based on examination marks and service credits. All cards are filed together by rating and pay grade.

They are sorted first to weed out those who failed either the professional or military exam. The cards of the successful candidates are sorted in order of the final multiple. These cards are then fed into a printing machine which prints an advancement list showing each passing candidate in order of his final multiple.

A quota authorization—furnished by BuPers and giving the number of advancements to be made in each rating and pay grade—is then consulted. Starting at the top of the advancement lists, the allowed number in each pay grade of each rating is counted down on the list. A red line is placed under the last name counted. All names above the red line will be authorized to be advanced in rating.

The cards of those to be advanced are then punched to show that they are to be advanced. These cards are sorted first by convening authorities and then by activities under the convening authorities. Finally all the cards for each command of those men to be advanced are put in order alphabetically by name and rate.

A forwarding letter, authorizing the advancements, is attached to the list which is then mailed to the activity concerned. A similar sorting is made of those who passed but are not within the quota and those who have failed. These lists are also sent to the activities concerned.

This work takes time and many men have complained that the time lag between the date of the exam and the announcement of those who passed and are to be advanced is excessive. To help eliminate this bottleneck, the center now includes a postcard with each examination. The candidate addresses the card to himself and the local examining board staples it to the report form.

The card is arranged so that the center can indicate whether the man passed or, if he failed, which parts he failed. These cards are mailed to the candidates as soon as possible after the exams are scored. Of course, they do not state whether or not the successful candidate will be advanced.

A man who passed can then decide for himself whether he should wait to see how he comes out in

**Don't Pawn or Sell Uniforms or Gear Issued to You**

Don't hock gear issued to you by the government. Pawnimg, selling, bartering, lending or giving away any part of issued clothing or gear, can lead you to grief.

Take the recent case of a member of the armed forces who was court-martialed for pawning his uniforms. The servicewoman was reduced to the lowest non-com grade of private, fined $30 and sentenced to 30 days at hard labor.

However, if you want to make a deal with a shipmate for the sale of any article of personal clothing which is stenciled with your name, you will need an authorization from your commanding officer. The reason for this is to protect the buyer.

Navy regulations state that "No enlisted person in the naval service shall have in his possession, without permission from proper authority, any article of wearing apparel or bedding belonging to any other person in the naval service."

Article 108 of the new Uniform Code of Military Justice, effective 31 May 1951, says that, "Any person subject to this code who, without proper authority; (1) sells or otherwise disposes of; or (2) willfully or through neglect damages, destroys, or loses; or (3) willfully or through neglect suffers to be lost, damaged, destroyed, sold or wrongfully disposed of; any military property of the United States, shall be punished as a court-martial may direct."

Depending on the particular facts of each case, according to the Judge Advocate General, offenders may be charged with the violation of Navy Regulations or Article 108 of UCMJ.

The Table of Maximum Punishments (Paragraph 127c of the Manual for Courts-Martial, effective 31 May 1951), provides a maximum punishment of two years' confinement at hard labor and a dishonorable discharge for the violation of a lawful general order or regulation. For the violation of Article 108, UCMJ, by selling or otherwise disposing of military property of the United States, the table provides a maximum punishment of six months' confinement at hard labor and a dishonorable discharge if the property is valued at $20.00 or less. If valued at $50.00 or more and less than $200.00, the maximum is one year's confinement at hard labor and a dishonorable discharge. If valued at more than $50.00, the maximum is five years' confinement at hard labor and a dishonorable discharge.

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**Table of Maximum Punishments**

<table>
<thead>
<tr>
<th>Article</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Article 108</td>
<td>Two years' confinement at hard labor and a dishonorable discharge</td>
</tr>
<tr>
<td>Article 108</td>
<td>Six months' confinement at hard labor and a dishonorable discharge</td>
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<tr>
<td>Article 108</td>
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Depending on the particular facts of each case, according to the Judge Advocate General, offenders may be charged with the violation of Navy Regulations or Article 108 of UCMJ.

The Table of Maximum Punishments (Paragraph 127c of the Manual for Courts-Martial, effective 31 May 1951), provides a maximum punishment of two years' confinement at hard labor and a dishonorable discharge for the violation of a lawful general order or regulation. For the violation of Article 108, UCMJ, by selling or otherwise disposing of military property of the United States, the table provides a maximum punishment of six months' confinement at hard labor and a dishonorable discharge if the property is valued at $20.00 or less. If valued at $50.00 or more and less than $200.00, the maximum is one year's confinement at hard labor and a dishonorable discharge. If valued at more than $50.00, the maximum is five years' confinement at hard labor and a dishonorable discharge.

**Don't Pawn or Sell Uniforms or Gear Issued to You**

Don't hock gear issued to you by the government. Pawnimg, selling, bartering, lending or giving away any part of issued clothing or gear, can lead you to grief.

Take the recent case of a member of the armed forces who was court-martialed for pawning his uniforms. The servicewoman was reduced to the lowest non-com grade of private, fined $30 and sentenced to 30 days at hard labor.

However, if you want to make a deal with a shipmate for the sale of any article of personal clothing which is stenciled with your name, you will need an authorization from your commanding officer. The reason for this is to protect the buyer.

Navy regulations state that "No enlisted person in the naval service shall have in his possession, without permission from proper authority, any article of wearing apparel or bedding belonging to any other person in the naval service."

Article 108 of the new Uniform Code of Military Justice, effective 31 May 1951, says that, "Any person subject to this code who, without proper authority; (1) sells or otherwise disposes of; or (2) willfully or through neglect damages, destroys, or loses; or (3) willfully or through neglect suffers to be lost, damaged, destroyed, sold or wrongfully disposed of; any military property of the United States, shall be punished as a court-martial may direct."

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the final standings or begin to study for the next exam. He knows, however, that his study plan is pretty sound.

For the man who failed one or more parts of the exam, the course would seem clear. He should start immediately to study for the next service-wide exams, stressing the parts of the exam he failed.

There have been complaints about the 2.5 minimum mark for both the professional and military parts of the examination. The usual reasoning is that a man who makes a 3.5 on his professional exam and a 2.45 on his military exam is a pretty smart sailor in his own field and should be more valuable than one who makes a 2.5 on each part.

As a trial measure, starting in January 1952, the Naval Examining Center will present a combined examination. This exam will cover both the professional and military requirements. The military questions will total about 30 per cent of the over-all exam. They will be selected to cover those military subjects most applicable to the rating being examined, rather than the entire pay grade as is now the practice.

The combined exam is not designed to take the emphasis off the military factor, however. On the contrary, a good mark on the military questions will raise the over-all mark and compensate for some errors made in the professional questions.

To make sure that all candidates will have an equal chance on this part of the exam, all military questions will be limited to material covered in the General Training Courses for petty officers, the Bluejackets' Manual and certain basic portions of the Uniform Code of Military Justice.

The question of keeping the examination questions for use as study guides is another one frequently asked. Letting the men keep the booklets would certainly eliminate the administrative work necessary to account for each one.

But there are three reasons for "calling in" all copies of the exam booklets. First, the exam is only a "spot check." If candidates were allowed to keep their booklets for study guides, they might distort their studying and thus not cover their subjects thoroughly. In addition to not having a basic knowledge of their rating they would stand a good chance of failing the next exam which might emphasize other aspects of their rating.

In addition, they might tend to become "memorizers." Learning the correct answer to a question contributes little toward gaining a basic, well-rounded knowledge of the subject.

Finally, the number of good questions that apply to a specific rating is limited. From time to time, questions may reappear on subsequent exams. Obviously, the questions would be worthless if they were allowed to circulate throughout the Navy.

In a relatively short time, the center has come a long way toward achieving its objectives and overcoming the obstacles that have confronted it.

Many recommendations have been forwarded to the center by commands afloat and ashore which are being utilized toward improving the examinations and the accompanying procedures.

Further information on the Naval Examining Center is contained in ALL HANDS, January 1950, pp. 12-13; November 1950, p. 23.

NAMTC Point Mugu Lagoon Has Zoological 'Treasure'

The Naval Air Missile Test Center at Point Mugu, Calif., is known by many scientists for something far removed from its routine activity of testing and launching guided missiles. Its tidal lagoon and salt marshes hold treasures which most NAMTC personnel do not realize exist.

The "treasure" is what zoologists call invertebrate animals. To the uninformed these are snails, clams, and other creatures lacking the bone structure which all humans consider important — the spinal column or backbone.

Twenty University of California at Los Angeles zoologists visited the NAMTC lagoon to obtain specimens for laboratory study.

The leading zoologists in the group said, "The Mugu lagoon is ideal as a habitat for invertebrate animals. In the bucketfuls of specimens which we obtained were moon snails, bubble shells, sea slugs, Venus clams, scallops, sand crabs and anemones." —P. G. Kellogg, AK2, USN.
Qualified Personnel May Apply for Commission in Medical Service Corps

Qualified officers and enlisted personnel of the Regular Navy or Naval Reserve on active duty may submit applications for appointment to the grade of ensign or lieutenant (junior grade) in the medical allied sciences and pharmacy sections of the Navy’s Medical Service Corps.

Here is a list of the qualifications required. No waivers will be considered.

- Either sex may apply. Male candidates must be over 21 but under 32 years of age at time of appointment. Female candidates must be over 21 but under 30 on 1 July of the calendar year in which appointed.
- A female candidate is not eligible, however, if she is married or if she has a child, stepchild or adopted child under 18.
- Candidates must be U. S. citizens by birth or have been naturalized citizens for at least 10 years.
- Applicants for appointment as ensign must have an acceptable bachelor’s degree in pharmacy or a bachelor’s degree with a major 30 semester hours—in either bacteriology, biophysics, pathology, pharmacology, physics, radiobiology, public health (sanitation) or public health (industrial health).
- For appointment to lieutenant (junior grade) candidates must hold an acceptable doctor of science or doctor of philosophy degree in pharmacy or one of the allied sciences listed above.
- Candidates must show evidence of mental, moral and professional fitness. Candidates for the pharmacy section must submit evidence of registration as a pharmacist in one of the states or the District of Columbia.
- All candidates must pass a professional examination designed to determine their academic knowledge of their fields.

Enlisted personnel should submit an application in writing to their commanding officer. Then, if the CO believes the candidate is qualified and if he has been determined physically qualified, the candidate should submit a formal application, including all documents necessary to substantiate his qualifications, to the Chief of Naval Personnel (Attn: Pers B6221), via his CO. The CO will review the application before it is forwarded to BuPers.

Office personnel desiring an MSC commission should submit their applications to the Chief of Naval Personnel (Attn: Pers B6221), via their CO, briefly outlining their qualifications. They must include a special fitness report, a transcript of college work completed, evidence of professional registration if required, and all other documents prescribed.

Candidates not selected or found not qualified will be notified by individual letter.

Complete details concerning the program are contained in BuPers Circ. Ltr. 97-51 (NDB, 15 June 1951).
Refraction Puts Heavenly Bodies Where They Aren’t

Navigators of ships and planes must contend with a worrisome factor called refraction. It is caused by the earth’s atmosphere. You may not realize it, but refraction is at work every time you see the sun, moon, stars or planets at low altitudes (near the horizon).

The effect of refraction is to make bodies near the horizon appear to be where they aren’t. This can be very misleading when determining a ship or plane’s geographical position by celestial navigation. No refraction and you’d see the sun rising and setting about eight minutes later than it actually does at the equator; about three minutes later on the usual North Atlantic and Pacific routes.

Tables listing these errors caused by refraction are published by the U. S. Naval Observatory. Officials of this office decided not long ago to recheck the accuracy of the tables—tables that every ship or aircraft navigator uses almost daily. Navigators of 33 ships, both Navy and Merchant Marine, assisted by making 315 test observations.

To understand how this was done, a little information on refraction would be in order. Navigators prefer to take their sextant shots of heavenly bodies lying at altitudes from 20 to 70 degrees above the horizon. As these higher altitudes refraction error is considered negligible because the light from these bodies enters the atmosphere almost perpendicularly.

At the horizon, however, the light enters the atmosphere at an angle and passes through much atmosphere. This not only causes the different time table of the sun but it gives the sun the flattened shape at the bottom which you often see at sunrise or sunset. For this reason, too, a star can be seen when it is really below the horizon.

In checking the figures in the refraction tables the navigator determined at dawn and dusk his ship’s geographical position by observing stars and planets at medium to high altitudes. Then he measured the actual and uncorrected altitude of the sun with his sextant.

The various measurements were sent in to the Nautical Almanac Office where they were compared with the sun’s calculated position based upon the position of the ship at the time of the observation. When the ship measurements and the shore measurements were worked out they agreed with one another in a four-decimal manner.

If there is any error in the theory of refraction at low altitudes, Nautical Almanac officials say, it is so little that the calculated position of a ship would be only a few tenths of a mile off.

As a result of these checks navigators can rely with even greater confidence on the refraction figures found in their nautical and air almanacs. One group of aircraft navigators to whom these observations and checks will be of special value are those flying near the North or South Poles. In these regions during the long polar day the only heavenly body that is regularly seen is the sun—a low-lying sun.

Members of the Nurse Corps Reserve May Transfer to USN
If They Meet Requirements

Members of the Nurse Corps Reserve and former members of the Nurse Corps and Nurse Corps Reserve are now eligible to apply for appointment in the Regular Navy.

Eligibility requirements and application procedures are outlined in BuPers Circ. Ltr. 122-51 (NDB, 30 July 1951). Qualified applicants must have their credentials cleared and oath of office executed prior to their 40th birthday.

Both active, inactive, and former nurses must have been commissioned in the Navy or Naval Reserve prior to 1 Jan 1947. They must also be unmarried and meet the Medical Department physical requirements for appointment of women to commissioned grade.

Educational requirements are graduation from high school with a minimum of a four-year academic course and status as a graduate registered nurse in good standing.

Reserve Nurse Corps officers now on active duty who desire transfer to the Regular Navy will submit their requests as outlined in the circular letter, addressed to the Chief of Naval Personnel (Attn: BuPers-B6221) via official channels and BuMed.

Reserve Nurse Corps officers on inactive duty and former members of the Nurse Corps and Nurse Corps Reserve may submit applications in the same manner via the nearest naval district commandant.

Transferred members upon reporting for active duty will be given such grade as they will be appointed to the grade they now hold in the Naval Reserve. In the case of former Nurse Corps officers they will be appointed to the grade they would have held had they retained their commissioned officer status. On each case Nurse Corps transferred officers will lose lineal position at the rate of five numbers each month or fraction thereof spent in inactive status, not to exceed 100 numbers, and no officer will be advanced higher than the grade of lieutenant.

Promotion above the grade of lieutenant will be made by selection boards and only when a vacancy occurs in such higher grade.
Many Navy men are not sure whether they’re eligible for mustering out pay. Others want to know what amount they’ll draw. Here’s a rundown on the subject in answer to your queries.

Mustered out payments are payable only to certain officers and enlisted personnel of the Navy, Marine Corps, and Coast Guard, and their Reserve components, upon discharge or release from active duty.

Generally speaking, to be eligible you must have served on active duty sometime between 7 Dec 1941 and 30 June 1947. Only one day’s active service during this period may be sufficient to entitle you to MOP. Persons enlisting or reporting for active duty on or after 1 July 1947 are not eligible for MOP. Also lieutenants commanders and above and certain other persons are not entitled to MOP.

The amount of MOP to which a person is entitled depends on which of the following three conditions he meets:

- Active service of less than 60 days between 7 Dec 1941 and the expiration date of an enlistment or active duty period which began on or before June 1947. That is, a man who enlisted on 30 June 1947 and served only a few days or weeks before being discharged for a disability would be eligible. The amount of MOP for persons in this category is $100.

- Active service of more than 60 days between 7 Dec 1941 and the expiration date of an enlistment or active duty period which began on or before 30 June 1947, no part of which was outside continental USA or in Alaska. For example, a man who enlisted 30 June 1947 and who served two months and a day without leaving the states would be eligible. Payment for men in this category is $200.

- Active service of more than 60 days between 7 Dec 1941 and the expiration date of an enlistment or active duty period which began on or before 30 June 1947, any part of which was outside continental USA or in Alaska. This would include a man who enlisted 30 June 1947 and had nothing but stateside duty until this spring, when he served for a short while with Task Force 77 in Korean waters. In cases such as this the individual would be eligible for $300 MOP.

There are certain personnel in the above categories who are not eligible for MOP. These include:

- Personnel who previously received $300 MOP under the Mustered Out Pay Act of 1944. A person may receive MOP more than once, but the total must not be more than $300.

- Personnel transferred or returned to the retired or inactive list with retired or retainer pay.

- Personnel (except those who have served outside USA or in Alaska) discharged at their own request to accept employment as evidenced by specific entry on pages 9 and 10 of their service record.

- Personnel whose only service has been as a student under the college training program.

- Personnel discharged or released for the purpose of entering the Military, Naval or Coast Guard Academies.

- Midshipmen or cadets at those academies whose only service has been in a preparatory school.

- Personnel whose only period of active service has been for purposes of physical examination.

- Personnel (except those who have served outside USA or in Alaska) discharged at their own request for the purpose of enlisting or accepting commissions in the armed forces of allied nations or for serving with the United States Maritime Service.

- Personnel given dishonorable, bad conduct or undesirable discharges.

A man who has received MOP of less than $300 by reason of completion of one period of active service is entitled to additional MOP upon completion of a subsequent period of active service. This service must fall under one of the three categories of service listed above. The total MOP for personnel with two periods of service shall not exceed $300.

**Submarines Now Getting ‘Pre-Fabricated’ Food**

Sailors who man our submarines are getting “pre-fabricated” food these days—and they like it.

Frozen, pre-cooked meats that have already been cut, frozen vegetables and fruits, ready-mixed bread, cakes and other pastry goods are included in the rations. And chicken cacciatore, no less. The bluejackets are happiest about the pastries.

The new-type “submarine provision load” occupies 25 per cent less space than regular rations. This means more food can be taken aboard, reducing the need for short cruises to stock up on more food.

Garbage is 65 per cent less. This is an important factor in combat operations because a tell-tale trace of garbage, discharged either on the surface or underwater, can mean death.

**Quiz Answers**

Quiz Aweigh is on page 15

1. (b) Medal of Honor.
2. (a) Presented by the President in the name of Congress.
3. (c) Aneroid barometer.
4. (b) Atmospheric pressure. Both the aneroid (meaning “without fluid”) and the mercurial (containing mercury) barometers measure atmospheric pressure. The psychrometer is the instrument combining wet and dry bulb thermometers for measuring dew point and relative humidity.
5. (c) Pettit or chain stopper.
6. (b) Pelican hook. Sometimes called a slip hook.
New Navy Book Lists Names and Records of Medal of Honor Winners

Since President Lincoln first authorized the Medal of Honor in the early part of the Civil War, the Navy has delivered this award—the highest in the nation—a total of 917 times in 87 years.

This information is disclosed in the first official all-Navy commemorative publication of its kind, a new book entitled Medal of Honor, The Navy. Since the book was published one medal has been awarded for action prior to 1949.

It contains the names and records of the citations of 907 officers and men of the Navy and Marine Corps, and one member of the Coast Guard, who received the Medal of Honor for heroic action between 1861 up to 1949. Navy personnel received 722 of the awards and Marine Corps personnel received 193.

A fact little known is that during the 87-year period, nine men received two Medals of Honor. These men and their heroic actions which twice won for them the most coveted decoration are listed below:

John Cooper, Coxswain, USN, born in Ireland, 1862, was cited for his first award “on board U.S.S. Brooklyn during action against rebel forts and gunboats, and with the ram Tennessee, in Mobile Bay, 5 Aug 1864. Despite severe damage to his ship and the loss of several men as enemy fire raked her decks from stern to stern, Cooper fought his gun with skill and courage throughout the furious battle which resulted in the surrender of the prize rebel ram Tennessee and the damaging and destruction of batteries at Fort Morgan.”

His second medal was won also in Mobile Bay during a “terrific fire” on 26 Apr 1865. “At the risk of being blown to pieces by exploding shells, Cooper advanced through the burning locality, rescued a wounded man from certain death, and bore him on his back to a place of safety.”

Daniel J. Daly, Private, USMC, received his two decorations for actions in widely separated areas, first in the China Relief Expedition in Peking against the Boxers, and again 15 years later as a gunnery sergeant in the Haitian Campaign of 1915.

John King, Watertender, USN, was twice awarded “for heroism in the line of his profession” and in both cases the actions occurred during accident to the boilers on ships, first in U.S.S. Vicksburg, May 1901, and again in U.S.S. Salem, September 1909.

Patrick Mullen, Boatswain’s Mate, USN, serving during the Civil War, received two Medals of Honor on board U.S.S. Don. During an expedition up Mattox Creek, March 1865, he loaded a heavy howitzer, while forced to lie on his back, and fired it with such accuracy as to cause the retreat of the rebels, after many had been killed or wounded. Six weeks later he won his second award when he engaged in helping to save the crew of a picket launch which had swamped, and personally rescued a drowning officer at great risk to himself.

John McCloy, Chief Boatswain, USN, was first cited for heroic conduct with the relief expedition of the Allied forces in China, June 1900, and again in April 1914, at Vera Cruz, Mexico. His second award was for his heroism in leading three picket launches along the sea front “drawing Mexican fire and enabling cruisers to save our men on shore... though wounded he gallantly remained at his post.”

Three of the nine men to receive two awards of the Medal of Honor were cited for rescues of persons from death by drowning under extremely hazardous conditions. They were: Robert Sweeney, Ordinary Seaman, USN; Albert Weisbogel, Captain of the Mizzen Top, USN; and...
Louis Williams, Captain of the Hold, USN.

Major Smedley D. Butler, USMC, was cited twice, first for distinguished conduct in the Vera Cruz, Mexico, engagement, April 1914, and the second for his action in the Haitian Campaign of 1915. When he was commanding officer of detachments of marines and sailors from USS Connecticut he led the attack on Fort Riviere, Haiti, and after engaging in hand-to-hand combat, took the bastion and crushed the Caco resistance.

For the potential heroes of 1861 there were no medals established until December 1861 when President Lincoln authorized the Medal of Honor in a message to Congress as an "Act to further promote the efficiency of the Navy."

Records in the book show the earliest date of battle action for which the Medal of Honor was awarded to a Navy man was 26 June 1861, when John Williams, of New Orleans, La., 33-year-old Captain of the Mantop, USN, was cited in General Order 11., 3 April 1863, as follows: "Serving as Captain of the Mantop of the USS Pawnee in the attack upon Mathias Point, 26 June 1861, Williams told his men, while lying off in the boat, that every man must die on his thwart sooner than leave a man behind. Although wounded by a musket ball in the thigh, he retained charge of his boat, and when the staff was shot away, held the stomp in his hand, with the flag, until alongside the Freeborn."

Another early date of heroic action is recorded for 93-year-old Benjamin Swearer, Seaman, USN, of Baltimore, Md., whose citation reads: "Embarked in a surfboat from the USS Pawnee during the action against Fort Clark, off Baltimore Inlet, 29 Aug 1861. Taking part in a mission to land troops and to remain inshore and provide protection, Swearer rendered gallant service throughout the action and had the honor of being the first man to raise the flag on the captured fort."

A total of 260 Medals of Honor have been awarded to foreign-born personnel of the U.S. Navy, Marine Corps, and Coast Guard.

The book is $4.00 and may be purchased from the Government Printing Office, Superintendent of Documents, Washington 25, D. C.

**Marine Gets Medal of Honor for Action in Korea**

First Lieutenant Henry A. Comisky, USMC, became the first Marine to be presented the Medal of Honor in the Korean conflict.

The Nation's highest decoration was presented to Lieutenant Comisky in ceremonies at the White House.

Posthumous awards of the Medal of Honor have been made to three other Marines—two privates and a lieutenant killed while protecting their buddies from enemy fire in Korea. The medal winners were:

Private Stanley R. Christianson, USMC, who gave his life in a "fiercious enemy attack."

First Lieutenant Baldomero Lopez, USMC, killed when he threw himself on an enemy hand grenade in order to protect his men during the Inchon landing.

Private Eugene A. Obregon, USMC, killed at Seoul last September when he intentionally took an enemy bullet which was meant for a wounded buddy.

**Transport COs Get Awards**

For Incon Ship-Handling

Skillful maneuvering of the Navy's big troop and cargo transports played an important role in the success of the Inchon amphibious attack September 1950. Despite hazards of extreme tidal and current conditions, and constant danger from floating enemy mines, transport fleet skippers did a "superb ship-handling" job.

The COs of fifteen troop and cargo transports who contributed to the success of the Navy's operation at Inchon have been awarded the Bronze Star medal with Combat "V."

The commanding officers and names of their ships, cited for meritorious service in action during the amphibious assault are: Captain Crotchet Adair, USN, USS Achnean (AKA 55); Captain Henry F. Agnew, USN, USS Ogletorpe (AKA 100); Captain Robert N. C. Clark, USN, USS Alstit (AKA 55); Captain Samuel H. Crittenden, Jr., USN, USS Pickacay (APA 222); Captain Charles A. Ferriter, USN, USS President Jackson (APA 18); Captain Henry Farrow, USN, USS Seminole (AKA 104); Captain Michael F. D. Flaherty, USN, USS Noble (APA 218); Captain John E. Fradd, USN, USS Henrico (APA 45); Captain Tyrell D. Jacobs, USN, USS Thomas Jefferson (APA 30); Captain Raymond S. Lamb, USN, USS George Clymer (APA 27); Captain Eugene L. Logbihi, USN, USS Whiteside (AKA 90); Captain James A. Frichard, USN, USNS Washburn (AKA 108); Captain William M. Searles, USN, USNS Thuban (AKA 19); Captain Daniel J. Sweeney, USN, USS Cayo Alto (APA 37), and Captain Gerald D. Zumeck, USN, USNS Union (AKA 106).

**Corpsman Gets Silver Star**

For Aid to Wounded Marines

Edward J. Emery, Jr., HMC, USN, has been awarded the Silver Star Medal for exceptional courage in risking his own life to give aid to the wounded in Korean fighting.

While serving as a corpsman with a Marine artillery battery in Korea, Emery moved forward under intense fire to search for wounded and administer first aid. Although wounded himself and suffering from frozen limbs following a fierce five-hour battle, he carried a wounded marine on his back and crawled to a rear area to obtain medical treatment.

**Four Sailors Help Rescue Persons in Burning House**

Without regard for their own personal safety, four sailors from USS Atka (AGB 3) entered a burning house in Jamaica Plain, Mass., to assist firemen in rescuing occupants and combating the blaze.

The crewmen, Richard E. Dilling, RM3, USN; Faustino F. Alanis, RM3, USN; Robert E. Ritacco, RM3, USN; and John P. Whalen, Jr., SN, USN; received commendations from the Boston Fire Commissioner and from the commandant of the 1st Naval District.
Newest Movies Are Listed
For the Convenience of Ships and Overseas Bases

For the convenience of ships and overseas stations All Hands reports the following list of motion pictures available through the Navy Motion Picture Exchange, Brooklyn, N. Y.

The number following the title indicates the program number to be used when ordering the 16-mm. films. (T) indicates technicolor film. Distribution of the following titles began in August 1951.

_The Guy Who Came Back_ (677): Comedy; Paul Douglas, Joan Bennett. _Appointment with Danger_ (678): Crime melodrama; Alan Ladd, Phyllis Calvert.


Chaplain Gets Silver Star
For Action with Marines

A Navy chaplain has been awarded the Silver Star for gallantry in action with a Marine infantry battalion in Korea.

Lieutenant (junior grade) Cornelius J. Griffin, ChC, vC, was cited by the Marine Corps as being an “inspiration to all who observed him.”

The chaplain’s courage was demonstrated in particular during a fierce coordinated night attack by the enemy. At the height of the attack Chaplain Griffin continuously exposed himself to heavy enemy fire as he moved among the Marines lending solace and encouragement. His presence and display of courage “inspired the men... and aided materially in a rapid consolidation of the lines.”

While the Marines were being subjected to heavy fire, Chaplain Griffin left the comparative safety of the battalion sick bay where he had been helping the wounded and moved up to the front lines.

DIRECTIVES
IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs, NavActs, and BuPers Circular Letters, not as a basis for action. Personnel interested in specific directives should consult Alnavs, NavActs, and BuPers Circular Letter files for complete details before taking any action. Alnavs apply to all Navy and Marine Corps commands; NavActs apply to all Navy commands, and BuPers Circular Letters apply to all ships and stations.

Alnavs

No. 85—Ordered colors to be displayed at half mast when flown until sunset of day of funeral of Stephen T. Early, former Deputy Secretary of Defense.

No. 86—Announced date of funeral for the former Deputy SecDef.

No. 97—Directs disbursing officers to forward to BuPers Family Allowance Unit a list of EMs, already credited with BAQ (for parents) whose pay records indicate that BuPers approval of application has not been received and a second list to be forwarded to the same unit of EMs receiving BAQ who have unverified applications involving dependents other than parents.

No. 88—Announces the opening of the nationwide defense bond drive, to continue to 27 October, and urges all military and civilian personnel of the Navy and Marine Corps to participate in this mutually beneficial and urgent national defense program.

No. 89—Pending the issue of “Record of Duties Performed” (Form NavPers 3031), commanding officers are required to continue to maintain up to date each officer’s qualification record jacket (NavPers 305) by filing in that jacket a copy of data contained in Sections 1 through 5 of the new fitness report (NavPers 310, revised 3-51), whenever fitness reports are submitted.

No. 90—Applies to applications for designation as engineering duty officer from line officers, and requires that such applications must reach BuPers prior to 15 Oct 1951.

No. 91—Authorized the granting of leave, if practicable, to persons of Jewish faith for holy days observed between 30 September and 10 October.

No. 92—Lists the names of officers...
32 Receive Good Conduct Medals for 135 Years

A total of 135 years of good conduct brought recognition to 32 men attached to Air Anti-Submarine Squadron 23 who were awarded Good Conduct Medals and awards. Presentation was made on board USS Bairoko (CVE 115) at Yokosuka, Japan.

This award-making ceremony was brought about through the efforts of Francis J. McBee, PNA1, USNR, who delved into the service records of his squadron mates to determine their eligibility for the awards. Almost all of this research was done on McBee’s off-duty time, with McBee interviewing each man and writing to the Bureau of Naval Personnel for verification if there was any doubt.

approved by the President for temporary promotion to grade of Captain, USN.

BuPers Circular Letters

No. 129—Individuals who have received Letters of Commendation awarded in the name of the President and issued for service in the Korean campaign are directed to return such letters to the issuing command for reissue in the name of the command.

No. 130—Outlines procedures pursuant to presidential regulations for effecting temporary promotions to grades of lieutenant commander, major and below in the Navy, Marine Corps and their Reserve components. Includes regulations governing temporary appointments to commissioned status of warrant officers, chief petty officers and petty officers 1st class, and their Marine equivalents.

No. 131—Lists in lineal order the LDO candidates recommended for appointment by 1951 selection board who are eligible for promotion to lieutenant (junior grade) during calendar years 1951 through 1953.

No. 132—Announces applications for deep sea diving training will be accepted from USN warrant officers in grades of gunner (designator code 7230) and boatswain.

No. 133—Announces convening on 11 September of selection boards to recommend Medical, Supply and Dental Corps officers for temporary promotion to rear admiral. The same boards and a CEC board will also consider captains who are eligible for continuation on the active lists.

No. 134—Establishes policy concerning the assignment of more than one member of a family to the same unit.

No. 135—Announces acceptance of application from Reserve dental officers for appointment in Dental Corps, USN.

No. 136—Lists acceptable expenditures which may be charged to appropriate station maintenance funds for CPO Messes and EM Clubs Ashore.

No. 137—Contains information on Navy Relief Society.

No. 138—Modifies BuPers Cir. Ltr. 56-51 to the extent that any Reserve officer on active duty whose questionnaire shows that he desires to serve beyond the period of obligated service can assume unless otherwise notified that his request will be granted.

No. 139—Supplements and revises the list of naval and other armed forces schools providing classified courses for which personnel security investigations and clearances are required.

No. 140—Applies to deadline dates for the 1952 increments of the LDO program as outlined in BuPers Cir. Ltr. 62-50, specifying that the same schedules will be observed except when dates fall on a Saturday, Sunday or national holiday, in which case the date will be the next succeeding weekday.

No. 141—Lists schedule of service-wide competitive examinations during January 1952 and requirements for advancements to pay grade E-4, E-5, E-6 and E-7 in all general service and emergency service ratings.

No. 142—Supplements administrative instructions contained in BuPers Cir. Ltr. 85-51 concerning procedures for separation of officers.

No. 143—Contains instructions regarding the qualifications of officers and enlisted personnel to test, adjust and repair influence-type mine fire mechanism.

No. 144—Outlines standard instructions regarding information and instructions which will be included in initial active duty orders issued to naval personnel.

OCTOBER 1951
SHIP AND STATION libraries are receiving more and more books selected by the BuPers library staff. Reviews of some of the latest—designed for good fall reading—follow:

- Seven Leagues to Paradise, by Richard Tregaskis; Doubleday and Company. The author of Invasion Diary and Guadalcanal Diary has come up with a book describing his leisurely trip around the world in search of the “perfect place to live, the Garden of Eden rediscovered.” It is interesting to note that Mr. Tregaskis lives in Hollywood.

In Seven Leagues to Paradise, Mr. Tregaskis describes the people he meets along the way and their environment. Political and moral institutions, spiritual gropings, societies in a state of flux are discussed.

Ex-GIs in Australia, Indian untouched and women in various lands— in various stages of undress — dot Tregaskis’ interesting, perceptive book.

- Ice Is Where You Find It, by Captain Charles W. Thomas, USCG; Bobbs-Merrill Company. Four years in the Greenland Patrol during World War II coupled with RADM Richard E. Byrd’s expedition to the Antarctic in 1947 make up the background for Captain Thomas’ book.

He skippered the first ocean ice-breaker to be built during the war. Called Easteind, it crashed its way farther north than any other ship had traveled under its own power. It has another first to its credit: the capture of an enemy surface vessel—the first such capture by the United States since the war with Spain.

Rear Admiral Byrd calls Captain Thomas “one of the best ice sailors alive.” He is also a pretty good writer. If you like tales of hazards and exploits, told with warmth and humor, this book will be good reading for you.

- Wasa-Wasa, by Harry Macfie; W. W. Norton and Company. This is another story of adventure in the far north—but it is the far north of the gold rush days in northern Canada and Alaska.

Mr. Macfie spins interesting yarns of his quests for gold, of brushes with unfriendly Indians (whose gold he sought and found), of races with death, of daring and heroic dog teams, of frostbite and amputations, of friendship and madness.

The account of Macfie’s days in the north wilderness is told in a competent style. Many of the incidents will stick in your mind for days.

“Wasa-Wasa,” by the way, is not the name of an Indian tribe—it simply means “far, far away” in the language of the Indian.

- The Many Loves of Dobie Gillis, by Max Shulman; Doubleday and Company. Shulman, a prolific and popular writer, has collected 10 episodes from the college campus life of Dobie Gillis, student and lover. Each story has a leading lady. Each lady differs enough from the preceding one to complicate Dobie’s life and amuse the reader.

These stories, depicting the foibles of youth today, make excellent light reading.

- Dementia Pigskin, by Francis Wallace; Rinehart and Company. This is a timely book—what with football season getting nicely under way—and frost forming on the pumpkins.

In his first chapter, the author rationalizes his title by saying the term “pigskin” will attract football fans while the term “dementia” will bring in buyers of books on psychiatry, psychoanalysis and the like. It will be interesting to see how his reasoning pans out.

- The Naval Officer’s Manual, by Rear Admiral Harley Cope, USN (Ret); Military Service Publishing Company, Harrisburg, Pa. ($3.50). The second edition of this valuable manual is now in print. It contains 133 additional pages. Chapters have been added on Ships and Aircraft of the Navy, Life on Overseas Stations, Travel and Transportation, and Administrative Records. There is also an appendix on Traditional Songs and a glossary of naval terms.

Other chapters have been expanded, with the help of suggestions from readers of the first edition.

Navyman Spends Leisure Hours Tying Square Knots and Fancy Ropework

Square knotting and fancy ropework, a fine old mariner’s craft, has one of its most skilled workers in the person of Chief Boatswain Crawford Hayden. Boatswain of USS Albany (CA 123), he has followed this craft since he first joined the Navy 16 years ago.

His fancy rope and canvas work has been used for decorative effect on ship’s boats of the various ships he has served in. Examples of his work are on exhibit at the Marine Museum at Portsmouth, Va. Among these pieces are some that took three years to complete.

In his stateroom on board the cruiser he has intricately worked picture frames, lamp shades and lamp stands. When Mr. Hayden breaks out his going ashore clothes, he wears one of his “homemade” square-knot belts. A piece of canvas spread across the bottom of an overhead bunk furnishes the back of a knot board on which he has displayed several types of splices.
The negotiations for the peace treaty with Japan which are now completed recall the historic first treaty between the United States and Nippon, which happened slightly less than a full century ago.

On 31 March 1854, Commodore Matthew Calbraith Perry, USN, and high commissioners of Nippon signed a treaty of peace and friendship which opened the long-barred door of Japan to the occidental world. Japan at that time was an unknown land, still immersed in much of the feudal tradition of the past. Until Perry succeeded in bringing about a mutual agreement, the country had been virtually closed to foreigners.

Perry's naval-diplomatic mission changed all that, although the Japanese still were unwilling for the American sailors to enter the city of the ruling Shogun, which was called Yedo, later to be renamed Tokyo. The day-to-day events surrounding the signing of the treaty are described vividly by Edward Yorke McCauley, USN, young acting-master of USS Powhattan, one of nine ships on the expedition. The full text of his Journal of the Perry Expedition to Japan, of which excerpts are reprinted here, is available, along with an interesting background sketch, in the book With Perry in Japan, edited by Allan B. Cole and published by the Princeton University Press.

Edward Yorke McCauley’s original manuscript is owned by the New-York Historical Society. His journal has been published in the book With Perry in Japan, edited by Allan B. Cole, published, with copyright in 1942, by Princeton University Press. Permission to reprint excerpts has been granted ALL HANDS by the copyright owners.
passed heretofore been the bounds which no stranger vessel has exceeded up the bay of Jeddo, passed Gorihama which has been left alone. They [the Japanese] are not as troublesome and imperious to men of war as they are to Merchants, although the "Southampton" only carries four guns.

February 15th. A number of Japanese officials came on board to have a conference. It appears that they required the Squadron to go down to Gotthama, which the Commodore wouldn’t accede to. They kept on making inquiries about health &c, doing the polite, but little else was done.

February 16th. The Commodore having given the natives three days to decide on giving him a reception here or at Jeddo, they came on board today in a glorious humour saying that they had good news from Jeddo, that the treaty was to be signed and everything settled amicably—I even got a pair of the officials to come down, the steerage where we gave them a little feed, and they were not noticed. We got up to the American anchorage where we came to, and banked fires.

Found the "Southampton" at anchor; she arrived here a few days ago, and has been making herself comfortable. To all enquiries her captain answered that "he was very well," and that "he had come to spend a year with them." He said he had plenty provisions (no doubt of it, she carried three months’ stores for three ships) so he has been left alone. They [the Japanese] are not as troublesome and imperious to men of war as they are to Merchants, although the "Southampton" only carries four guns.

February 16th. The Commodore having given the natives three days to decide on giving him a reception here or at Jeddo, they came on board today in a glorious humour saying that they had good news from Jeddo, that the treaty was to be signed and everything settled amicably—I even got a pair of the officials to come down, the steerage where we gave them a little feed, & a glass of something to astonish their insides. But bless my wig, they swallowed poteen, Brandy, Gin alternately, a mixture that would swamp the d-ly himself; and finally went off as happy as two such polite beings could ever get.

Before leaving they showed us their swords which are certainly beautiful, the grasp is long enough to be held by both hands & something to spare—they also carry a shorter one in the girdle, when entitled by rank to wear one, which I suppose is to parry whilst the other is used on the offensive tack.

One of them gave me his card and a kind promise if I should ever get on shore. We understood one another perfectly, although he was innocent of any English. He showed me his hakakiri [hara-kiri] knife, which they had not shown before. It is worn concealed, behind the small of the back, wrapped up in a piece of Silk, then a paper sheath for covering. They are made with a very clean smooth pine handle & scabbard, with a blade of apparently the finest steel; on the scabbard were some Japanese characters which, if I could read his telegram correctly, meant hakakiri or “happy dispatch.”

One thing must be said of these people, which cannot be gainsaid, that they are without exception the most polite people on the face of the earth, not only on board here, but also in their boats alongside; their intercourse with one another seemed to be of the most amiable & self denying kind. Thus affects even their gestures. They are very graceful in everything except walking, which their garments deform into a waddle.

They are very inquisitive about everything on board; they have measured the ship, guns, and every odd & end they can spy. Their pocket handkerchiefs are pieces of paper, of which they carry a quire: after using a piece, it is put into a kind of pocket in the sleeve and chucked overboard on the first opportunity.

Their stockings are made with a separation between the big & second toe to allow the sandal strap to be kept amidships—they have fine teeth which they keep in very good order—their heads are shorn all over except at the back part, where it is gathered up into a queue, which is secured with a piece of thread—they are decidedly a cleanly race.

February 20th. Boats are surveying all the time. Weather bad. We are, I hear, only waiting for good weather for the surveying boats to sound up the bay to move up. The "Southampton" has gone five miles up to protect the boats.

February 22nd. Ordered on a survey of “Websters Bay” & proceeded to an island at the mouth of the bay. The scenery is perfectly beautiful. We were met by the natives & several Mandarins [Nobles] who seemed very friendly and invited us to walk about & examine the premises. There were some young girls who were more than pretty, white skinned, and rosy as their own blushing Japanese. Medico, who of course was of the party, got very much interested and quitted a sardine box to scrape a closer acquaintance. The married ladies disfigure themselves by staining their teeth and plucking out their eyebrows. Their hair is parted in the middle and gathered into a knot behind, secured there by tortoise shell bands & pins.

February 26th. Got underway this morning to proceed up the Bay. By sunset a town was reported from the mast head, which from its size and position was determined to be the city of Yedo [early name of Tokyo]. Here we anchored for the night. Nothing has astonished the natives so much as our impudence—Paixhan guns—Electric Telegraph—Steam—and firearms, all called for their admiration, but to see these Steamers walking majestically up their Bay, clearing Mandarin and Plebian boats out of the way without distinction, making no fuss but going ahead steadily and determinedly, it must have seemed to them that it would, on reaching the head of the Bay, be a matter of doubt whether they would keep going on, over hill and dale into the water on the other side, or not.

One surveying party landed at one of their forts, and in spite of a number of Nobles, walked into it, inspected and when satisfied walked away again, without the least symptom of that fear and trembling with which, they conventionally believe, all foreigners and Barbarians must have for their arms.

The Fort, if it can so be called, was nothing but a painted screen intended to hide the warriors from the view of the enemy. Behind it were four rows of soldiers,
with their officers, the whole party "eyes to the front," and apparently as immovable as stone.

The first armed row were Spearmen, with long spears or lances, seven or eight feet in length, with highly burnished steel points. The next rank were armed with Blunderbusses. If they could only wait until an enemy walked up to them and stood quiet in a body, these war men would do monstrous execution. The third rank were matchlockiers. From a specimen I have since seen of their matchlocks, I should think they were at least equal to any flint firelock in dry weather. The fourth rank were swordsmen; they generally wore a uniform red jacket, cut something like a Polka.

The Japanese are not permitted to draw their swords in public; should anyone do so, the house of the offender is boarded up for the space of three weeks.

February 27th. They had a long confab at Uraga about nothing. The Commodore says that if they want him to go anywhere to have a conference, or to listen to any propositions he would go to Yedo. They however said that they intended signing the treaty and entering upon a commercial intercourse. Captain Adams went ashore to Yokohama and picked out a pretty little spot, on which to erect buildings for a grand reception.

They seem to be anxious to see the various specimen of American work that we bring; their idea of the greatness of our country being pretty decided, having counted in the course of one year "two hundred sail" bearing the American Flag, passing in sight of their Island. Of course they must have counted the same whaler over many times, whilst he was cruising forwards & backwards, but as they did not know it, every time they repassed, she was as good as another ship.

February 28th. Officials come on board at present without hesitation. The Magnetic Telegraph has been in operation, one battery in the Guard & the other aft in the cabin. A party of Japanese are placed at each end; they send each other messages, and are apparently delighted with it, but not at all astonished. I suppose they have read all about it, and are familiar with the theory of the thing, as they appear to be with everything else. They walk about the ship pointing to various things, calling them by their European names, and explaining their uses.

March 3rd. The buildings are completed, and the audience is to take place on the 6th or 7th as soon as the treaty is signed. We shall be able to go on shore and see something of the country, besides getting some fresh grub, which is the most acceptable of the two, as we are fast losing our appreciation of Uncle Sam's salt julep, &c.

There was a complaint made by the Japanese that our surveying boats were in the habit of landing and the crews walking about on shore. They expressed anxiety lest the Japanese should attack them, and do them an injury—requesting that they should be forbidden to do so in future. They were told that the survey was necessary, and could not be carried on without touching ashore, but as far as the boats' crews being in danger, it would be safer for any parties belligerently inclined, to leave them alone, for they would hardly take a hard knock without giving one in return. After a little conversation a good feeling was created, and one of the Officials went so far as to show, with great show of secrecy, a Japanese Chart of Jeddo Bay.

March 8th. At nine this morning signal was made for all armed boats alongside. We formed in a line abreast and pulled in; at about fifty yards from the shore, we made a dash, grounded, the marine and blue jacket guard then jumped on shore and formed their ranks.

The parson of the Susquehanna got permission to go on shore today and as he had no orders limiting him to any part of the shore he struck out at once for Yedo. Of course he was accompanied by a crowd of Japanese officials imploring his return. As he did not heed them he came on board and reported it to the Commodore, who wrote him an order to return. This was taken by a horseman who caught up to Bitty [the Parson] when he had reached the other side of Yokohama.

The next day, the Commodore received from the Japanese a report that Bitty, on receiving the order the day previous, instead of obeying it at once, actually "took four steps ahead after perusing it." Bitty said that one of the Japanese party who were following him had a piece of paper in his hand and took note of every motion he made.

During the conference today, the Japanese Commissioners said that "they would be glad to see the officers on shore to walk about and amuse themselves, but earnestly requested that he would send no more Bittys."

March 18th. Went ashore on the Commodore's staff. Landed in the same array as the first time only without salutes and with a reduced number of marines. We went into the reception hall, where the three Japanese commissioners received the Commodore.

The Chief Interpreter crawled in upon his hands and knees, and hopped backwards and forwards, as one of the Japanese Princes or the Commodore spoke to him, like a frog.

After a few minutes the Commodore and the Commissioners went into an adjoining apartment for business, which apparently grew interesting, for Jack was heard to say, "If I go up farther, I want to know if it will be as a friend or an enemy."

Took a walk in the village of Yokohama. It is a very interesting little place. The houses are all of wood, very neat and clean, no windows but now and then a sliding door with paper in the sashes instead of glass. Each house had a store adjoining it, built of wood and covered over with about a inch thick of lime cement, which as the buildings are far apart, is sufficiently fireproof for all Japanese purposes.

March 24th. Went ashore with the Commodore in the barge. We were again received by the same old Foggies.

The Audience room was laid out with the Japanese...
PERRY EXPEDITION TO JAPAN

presents. The Commodore and party came outside and took seats to see the Princes’ athletes—they were about 30 in number and were certainly the stoutest men I ever saw. On their first appearance they wore an apron of purple silk heavily embroidered with gold.

A pile of rice bags—each weighing about 140 pounds —and two hundred in the pile, were laying a couple of hundred yards off from where the Commodore was sitting. At a signal they kicked off their aprons and appeared in a light robe, consisting of a silk band passed round their middles—and in a few minutes they transported the whole lot close to the beach, 400 yards distant. They picked the bags up, holding them at arms length over their heads, and then ran to deposit them in the new pile. This rice was presented to the Commodore as part of the customary present.

The Marine guard was drilled for their inspection. They marched and countermarched, over the rough stones, until I thought that Prince Hayashi would have the ague, whenever he should hereafter meet a marine.

The marines finally ended their evolutions by coming over their heads, and then ran to deposit them in a volley direct at their Noble highnesses’ dough bags. The muskets were loaded with ball and buckshot. I have a violent antipathy against all “ifs,” but what a comprehensive fragment “if” that would have been had those marines accidentally put caps on their locks, and sent a score or two of bullets into the crowd. Wot would have become of the Treaty, Japan Expedition and all such!

We went to see the locomotive engine the Lexington brought out. It is one-fourth the natural size, with about 370 feet of track laid down in a circle. The engine and car are the most perfect little models I ever saw. Steam was up, an Engineer got on the tender, and one of the Commissioners sat on the car. It was set going and ran round at a speed of 18 miles an hour, which was doing very well for such a young affair.

We went back to the audience hall, where a circular piece of ground had been cleared away, for the Athletes to wrestle on. Two parties came in. All of a sudden they gave a yell and sprang at each other, grasping by the armpits, and kept shoving, yelling, tugging, hawling, bawling, twisting and curvetting about with seemingly no aim whatever, and the party that was the weakest of the two kept butting at the other’s right shoulder. It was a very unsatisfactory trial of strength; there were one or two falls, but after all, any wrestler that I have heretofore seen of half the muscle would have laughed at them.

The presents to the U. S. consisted of lacquered wares, crepes, silks, &c. The Commodore gives a Grand dinner to the Japs on the 27th.

March 27th. Fitted out the quarterdeck with flags, and all sorts of contrivances usual on such occasions, as bayonet, chandeliers, musket rack candlesticks, &c.

A table was set below for the Commodore and the Japanese High Commissioners, and another on deck for the lesser gents and the officers of the Squadron.

They came on board here. Every one of them had his paper and pencil at hand, and copied everything they could get at. One of the field pieces was worked with blank cartridges, quite surprising them by the rapidity with which they are fired.

Afterwards they adjourned to dinner. The seats round

the board were filled alternately with Japanese and Americans. The ladies of the respective lands were toasted and cheered with great good will.

As soon as the eating was over, a new phase took place. Every Japanese (except the Interpreters who had learnt better) left their seats and commenced pocketing all the edibles they could lay their hands on, wrapping each piece of pie, slice of beef, leg of chicken, &c in a piece of paper, depositing it in the bag of their capacious sleeves. It was laughable to see them trotting around the tables picking out whatever suited their fancies. I saw one character end his foray by emptying a saltcellar. White sugar and cut glass are their particular weakness.

When the dinner was over the Commodore and party came on deck and all proceeded to the main deck where a stage had been arranged for an Ethiopian performance.

March 28th. Taken down by a fever—

March 29th. Turns out to be scurvy—so nice—

March 31st. A little worse today. Wonderful thing the scurvy—fast going out of date though.

Today the treaty was signed in great style, but being laid up I am unable to go and see the instrument before it was boxed up. It appears that the Port of Shimoda in the principality of Izu, Hakodate in the principality of Matsumai, and Nap-Kiang in the Loo-choo group, are to be thrown open to us at once, or rather within 50 days, and in the course of five years when they have gained, as they say, a little more experience in the way of foreign trade they will throw more ports open.

April 10th. This morning at 8 we got underway and proceeded up the Bay. The Japanese officials having refused us permission to sight the Town of Yedo, the Commodore said that whether they liked it or not that he was going up.

After much palaver they said that if the ship went up, we might run in sight of the city, but the moment we started they would follow in their boats. If we anchored, they would immediately perform the expiatory deed of hakakiri, or ripping their innards out.

As the two Interpreters who placed themselves in this Cesarean position had done the state good service, the Commodore was loath to proceed any farther to the detriment of their bread bags.

So they were invited on board for the trip. The tallest of the party, Einosuke, said again very determinedly, that the instant an anchor was gone, he would kill himself even though he should happen to be in the Commodore’s cabin.

At 12 we have in sight of Yedo, when by mistake of signals, the sounding boats which were some miles ahead, returned to the ship, and as it was too late to send them out again, we turned round and paddled down the stream. Einosuke was not much excited during the performance, but was evidently gratified at its conclusion, for he came down and made himself quite agreeable. He became more communicative than he had ever been before; he said that he was married, had a very handsome wife, and one other character whom he called a "by-wife"—the Japanese are not restricted in the number of their wives—but generally have from one to four, making up a harem should their tastes lie that way. These ladies live in the same house, and are always supposed to be on the best terms with one another, for if it should ever get to the neighbors’ ears that they quarrelled & scratched (as women will do!) they would lose their position in society. Einosuke says that he has been mar-
ried five times; whenever a wife gets tired of him, she goes home to her father's house, which is sufficient divorce for the parties to contract anew.

April 21st. We walked over to Shimoda; went into a number of temples. We left the temples and were suddenly joined by a young Mandarin, evidently a Spy. We tried to shake him off by various ingenious devices, but not succeeding we determined to give him a walk, as we did not wish to get him into trouble by forcing him to leave us, which would have entailed punishment on him, and we having no particular objection to his company, excepting as a Spy.

I never walked so fast for so long a time before in my life. We walked at that pace for three hours during which no less than ten miles of soil must have been tramped over by us. When he got up to us, he implored us to wait while he cooled himself, which he did by stripping and getting a peasant to rub him down. We returned to town; he handed us over to the care of a brother-chip and threw himself on the floor of a tea house, telegraphing to us that he was sick.

April 25th. For another walk up the valley. We met our young Mandarin, and invited him to join us, but could not coax him ten steps ahead.

May 12th. I do not understand exactly how the President's letter has not received an answer from the Emperor of Japan—which is a custom, not set aside by any extraneous circumstance, in the civilized world. I think these people recognize no 'Law of Nations' and will allow no intercourse, but that which brings them manifest advantages. Their diplomacy is long and intriguing, & not to be depended on for its inviolability; with such a vexing race of men, hard blows are more eloquent than the poetry of Truth and Justice.

May 17th. At Hakodate I went to the Governor's house, a clean stout building with black marble doors. He seated us on some stools covered with horse cloths, treated us to tea cakes, sugar plums & pipes. I wrote him the names of the different ships in Japanese, some of the characters of which I have picked up. He gave me his pipe and we parted very good friends.

June 1st. An Interpreter arrived from Yedo. Being a government officer, he ranks everybody on the island who merely hold their rank from the Prince of Matsumai. Here he began to show his importance by making the Commodore wait an hour beyond his appointed time. Signal was made for the return of the boat sent for him; the launch was hoisted out. The 2nd lieutenant & 30 blue jackets, the captain of marines and 40 marines, & a howitzer under my charge were underway ashore to bring him to his senses when he came paddling off as meek as possible, with all his arrogance of importance in his pocket.

June 3rd. Left Hakodate. To my huge gratification I may say that the Joe-Pan Expedition or cruise is over. The rage for getting Japanese curios before we left Hakky was nigh expended; the little that was left was vented on the canines. We have 20 diminutive specimens of that bark race now decorating our decks.

June 8th. Arrived at Shimoda again. The Princes and high Commissioners are here to make a final wind up of business. I understand that the Captain of the Supply has had some trouble with the gentry here. [The Commodore] seems to think that they are presuming a little too much upon his good nature. They sent him off an invitation to meet them at a general confab, to take place tomorrow. We are to land in force.

June 9th. This morning at ten, boats were called away manned and armed. I had charge of a company of blue jackets, the marine guard. I had this ship's battery of field pieces. Blue jackets, marines and battery made up a very good show. On land the marines and sailors dashed ashore & covered the guns, which went up some very rugged rocks & steps like rockets. We then formed in line, the artillery on the right, marines in center, and tars on the left—bands in front. The Commodore left the ship under a salute of 14 guns—was received at the landing with "present arms" and "Hail Curlumby." Field pieces wheeled into column, then came band, tars, marines, Commodore and suite.

The day was a fine spring one, everybody in good spirits, expecting this to be the last function, after which they would be homeward bound. The band played "Home Sweet Home."
TAFFRAIL TALK

A T NAF Litchfield Park, Ariz., an office equipment salesman entered the planning department, located in the hangar, and asked how to find the administrative office. "Just go out through the passageway and up the ladder," the planning officer directed him. A few minutes later the officer himself went out the passageway and ran across the salesman headed up a narrow, precipitous ladder leading to the hangar's high overhead! A short indoctrination in naval terminology put the salesman straight and he located the administrative office right where they said it was—through the passageway and up the ladder.

Wonder where the salesman would have headed if informed that the adm. officer was on the binacle list, in sick bay?

The "horse Marines" are back again, returning to Quantico, Va., as members of a new course that is the only one of its kind taught in the Marine Corps today. The course in "equitation" provides student officers with training in the use of pack saddles and horses for carrying ammunition and supplies in modern warfare. The need for four-footed pack animals has been demonstrated in mountainous war fronts, such as Italy and Burma during World War II, and in the Korean theater. Quantico maintains about 300 horses which are used in the course. The horse Marines learn to pack, ride and care for their animals, study tactical employment of the horses, and after completing classroom instruction they put their training to use in overnight marches in the field. Significant of our era is the fact that many of the Marine students had never been on a horse's back prior to taking the course.

Navy jet pilots look out—you might catch up with your own bullets. An expert of the Air Force's Armament Laboratory at Wright Patterson AFB discusses the problem. At high speed and low altitude, he says, a bullet fired from a jet fighter travels about 1,500 yards in six seconds. Air resistance slows down the bullet's speed. In about 20 seconds a jet plane could catch up with the bullet it fired. However, the expert says, for all practical purposes the likelihood of a jet causing itself any damage by its own bullets "can be ignored."

If you haven't yet seen the back cover on this issue of ALL HANDS take a look, and then thank Gene D. Legler, JOL, serving with MSTS, North Pacific Area, Seattle, Wash. The idea for the cover is his, highlighting the importance of keeping service record beneficiary slips up to date. It's a good idea for you to put into action, in your own case, pronto.

The ALL HANDS Staff

ALL HANDS

THE BuPERS INFORMATION BULLETIN

With approval of the Bureau of the Budget on 21 May 1951, this magazine is published monthly by the Bureau of Naval Personnel for the information and interest of the naval service as a whole. 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. All original material may be reprinted as desired if proper credit is given ALL HANDS. Original articles of general interest may be forwarded to the Editor.

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REFERENCES made to issues of ALL HANDS prior to the June 1945 issue apply to this magazine under its former name, The Bureau of Naval Personnel Information Bulletin. The letters "NDB" used as a reference, indicate the official Navy Department Bulletin.

- AT RIGHT: This photograph taken on board USS Los Angeles (CA 135) in Korean waters symbolizes the men and guns who have fought for the right to fly the Stars and Stripes from the masts of U. S. Navy ships everywhere.
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