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• FRONT COVER: CAREFUL TEAMWORK is a must in handling mines. Here, crew members of LCU 1363 swing practice mine over the side during MinPac minelaying exercises.
• AT LEFT: MINLANT HONOR Guard is inspected by VADM James L. Holloway, Jr., USN, as men of Atlantic Fleet Mine Force stand formation in honor of his visit to their Charleston, S.C., headquarters. RADM Neil K. Dietrich, USN, MinLant commandant, and LTG B. A. Wadsworth, USN, accompany the Chief of Naval Personnel.
• CREDITS: All photographs published in ALL HANDS are official Department of Defense Photos unless otherwise designated.
Little Ships Sweep the Sea

They're just little ships but they have a big job. The smallest are no more than the length of a standard whaleboat, the big boys are ocean-going 165-foot heavyweights.

They have as their primary mission "the task of freeing our sea lanes and keeping our coastal waters, harbors and channels clear of mines." Technically, this job is known as mine countermeasures. More informally, minesweeping.

They're just little ships, but they're special.

They range from small MSBs—used for sweeping shallow water and harbors—on up to the largest type, the ocean-going minesweepers (MSOs). These mine craft represent a "new look" which is becoming more and more apparent throughout the Atlantic and Pacific Fleets. Newly constructed minesweepers are appearing in ever-increasing numbers, and as they do, the old "standard" types are being inactivated.

The Navy's "new look" in minesweepers features the wooden-hulled, non-magnetic ships and boats. They include the MSBs, the "Mighty Mites of the splinter Fleet"; the MSCs ("C" for coastal), which are 142 feet long and manned by a crew of 35 officers and men; the MSC(O)s, ("O" for old), which is the standard wooden-hulled minesweeper of WW II, (formerly designated YMS and later AMS), and the MSOs (ocean minesweepers). But let's take the MSB as an example.

MSBs are minesweeping boats. They were specifically designed for minesweeping duties but are not designated as minehunting vessels nor classified as combatant ships. They're designated as service craft, yet assigned to the Atlantic and Pacific Fleet Mine Forces.

All but two Atlantic Fleet MSBs are at present based at Charleston, S. C. The two render services to the Mine Warfare School at Yorktown, Va. The Charleston-based boats make up Mine Divisions 101 and 102 which comprise Mine Squadron 10. Each division has two sections, with a CPO in administrative control of each. MSBs assigned to MinDivs 111, 112 and 113 (MinRon 11) are based at Long Beach, Calif.

The MSBs are only 57 feet long. When fully loaded they displace about 44 tons. They are made of laminated wood and equipped with special type gear. The anchors are of brass, and other equipment which must be made of metal is usually aluminum or magnesium.

Even the engines and tools to service them are of a non-magnetic ALL HANDS
To Keep It Free

foot MSBs than on the larger coastal and harbor sweepers.

The Charleston-based MSBs usually operate on a day-to-day basis. They get underway shortly after dawn and, as a rule, return to the mine craft base before dark. They operate with other MSBs and quite often with MSCs and MSOs. They usually operate for three weeks and then have a breathing period to catch up on paperwork and other administrative matters. (MSBs maintain approximately 28 logs and reports, just about the same number as on the largest combat ship afloat.)

The MSBs participate in type training, special competitive exercises and "ISE"—Independent Ship Exercises. The competitive exercises are usually conducted between the sections in each division and are based on the requirements set forth in the various Atlantic Fleet, ComMinLant and Squadron training manuals. In these exercises, the MSBs conduct all types of minesweeping, collision, abandon ship, man overboard, scuttle ship, towing and steering ship drills.

The MSBs undergo rigid administrative and material inspections—just as the big ships do—every six months. In addition, in compliance with ComMinLant policy, Squadron and Division Commanders hold personnel inspection aboard every two weeks.

The 57-foot sweepers are usually manned by a crew of six enlisted men. This includes a chief or first class boatswain's mate or quartermaster who, as petty officer in charge, acts as CO; engineman; electrician's mate, boatswain's mate and two (sometimes three) seamen.

At Charleston, the MSB crew members who are not married and living ashore, are berthed and messed in APL 43. This barracks ship, moored to a pier at the Minecraft Base, serves as barracks, mess hall, recreation and repair ship, as well as headquarters for MinRon 10 and MinDivs 101 and 102.

Each of the MSBs has a small corner in the bow which serves as a galley. In addition to a two-burner hot-plate, they are equipped with a sink, and an electric coffee pot which is usually in use from dawn to midnight. They also have a portable ice sweeping procedures and tactics, damage control, engineering, piloting, formation tactics and maneuvers, as well as seamanship and Rules of the Road.

These senior enlisted men assigned duty as MSB skippers are given responsibilities and opportunities that cannot be equaled in any other duty in the Navy. Although chiefs and PO1s are given command of landing craft, harbor tugs or other yard and
service craft, MSB skippers regard such assignments as child's play.

Joseph W. Kocur, QMC, USN, is typical of the chosen few, whether in MinLant or MinPac. He's in command of the Charleston-based MSB 43. Chief Kocur has been in the Navy for the past 15 years and eight of those years have been with the Atlantic or Pacific Fleet Mine Force. He has been skipper of MSB 43 for about 25 months. He picked up his first command at the building yards in Dorchester, Mass., and brought her down to Charleston.

Chief Kocur is well qualified for his present duties. During World War II he served in PTs. He then had duty in USS Thompson (AMs 38) and USS Hornbill, formerly AMS 19, now MSC(0)19. He was on board Hornbill when she transferred from MinPac to MinLant.

"The duty is tops," says Kocur. "The best any chief could ever hope for. I'm more or less my own boss, and I have a crew I can depend on. What more can anyone ask?" As petty officer in charge of MSB 43, Chief Kocur has direct responsibility for all phases of the boat's operation. While streaming and recovering the gear, he directs the operations; while sweeping he's in charge of navigation, ammunition and communication; on Special Sea Detail, he's at the Conn. On board an MSB, skippers such as Chief Kocur must be a jack of all trades and master of them all. So should every crew member. Just as every man on board a submarine is a member of a well-versed team and must be able to take over the duties of one of his shipmates, all hands in a minesweeper work as a team, with each man knowing just what to do and when to do it.

"If I didn't know before, I certainly know now," says Kocur, "how much a skipper depends on his crew. Earlier, I took a lot of things for granted that are really serious now."

Not only does the MSB skipper receive specialized training, but so does the electrician's mate and engineman. That's because equipment aboard the mighty mites is unique—non-magnetic engines, built-in degaussing systems and generators driven by gas turbine engines (not found aboard many other ships).

Therefore, the engineman and electrician must be prepared to cope with the special problems which this type equipment encounters. The electrician must have a thorough understanding of mine countermeasures in order to operate the degaussing system properly and rig high voltage cables for sweeping magnetic and acoustic mines.

The engineman and electrician in whom Chief Kocur has so much faith are Joseph C. Senical, EN1, USN and Clifton Young, EM1, USN.

Senical has been in the Navy for more than 12 years, four of which have been with the Mine Force. As a single man, he loved destroyers, but now that he's married he prefers duty with the Mine Force (MSBs)—"the married man's Navy." Senical has two future Mine Force sailors, age 7 and 5.

Senical's duties are varied. His primary job is the operation and maintenance of all machinery aboard. The non-magnetic Diesel engines are a full-time job themselves. He does all the overhaul on them and after every 2000 hours of running time he must give them a complete overhaul. During operations he, like the others, can take his turn at the wheel, assist in streaming and recovering sweeping gear, man a rifle or serve as lookout.

The title of "sparks" goes to Young, who is a mere youngster in regard to service when compared to Kocur or Senical. He's been in the Navy a little more than five years but is well experienced for his duties on board the 43. He's been assigned to minecraft for over three years.
A graduate of Class “A” EM School and the mine warfare school, Young has served in the destroyer uss Boyd (DD 544), the escort vessel, Cross (DE 448), the ocean minesweeper, Embattle (MSO 454) and the mine hunter, Bobolink (MHC 44).

Like most married men, Young enjoys MSB duty. He operates and maintains all electrical equipment, rigs acoustic and magnetic sweeping gear, operates and maintains degaussing equipment, is the radio operator, assistant navigator and steersman. Both Young and Senical interchange their jobs when needed, but all crew members take turns with the other’s work.

The title of first lieutenant and assistant to the OIC, is Domenick J. Razzi, BM1, who has 14 years’ service—the last nine years with MinLant. He’s responsible for the general upkeep and appearance of all other gear aboard. A top-notch seaman, he’s the expert in regard to rigging, streaming and recovering all types of sweeping gear. Razzi has been aboard MSB 43 for the past year. He earlier served as coxswain of ComMinLant’s Barge, and for two years was based ashore at the Charleston Mine Craft Base. Earlier, he had five years of continuous sea duty on board uss Tanager (AM 385).

Razzi is married like all the other “43”-boat crew members. He owns his own home in Charleston. He thinks the duty is tops but doesn’t like to admit it, “After all, he says, if we tell everyone how good this MSB duty is, they will be looking for my job.” That feeling is shared by the majority of the MSB sailors. They know good duty and want to stay with it.

Rounding out the crew are two seamen—Carrol Lenoir and Ben T. Crider. Both of them have been on board one and a half years. They are responsible for the upkeep of the boat, and assist Razzi with streaming and recovering the sweep gear. They also stand lookout watches, take their turn at the wheel and “mess cooking.”

Mine Force sailors have a lingo of their own. They talk in terms of “pigs,” “oscars,” “banana floats,”—“otters,” “depressors” and “holidays.” “Pigs” are floats with a black and red striped minesweeping flag which shows the position of the sweep. “Banana floats” are not ordered at the ice cream store. They are used for holding afloat non-buoyant electric cables used when sweeping influence-type mines. A “holiday” means a gap in a clearance-sweep of a channel, harbor or sealane.

MSB-43 and all other minesweeping boats of MinLant and MinPac have responsibilities just as great as the largest combatant ship afloat. As small as they may be, they have a vital role in carrying out the functions of our nation’s over-all naval defense team. They have the intricate task of harbor and shallow-water mine sweeping.

Without them, what good would our super carriers, nuclear subs and guided missiles be if our harbors were secretly mined while these ships were in port?

—H. George Baker, JOC, USN

MINESWEEPS of MinPac hold steady as they head back to the pack in Long Beach harbor after sweeping exercises in Pacific coastal waters.

WATCHING OVER ‘PIGS’—MinPac sailor is silhouetted against sky as he stands at stern of minesweeping boat moored with others at Long Beach, Cal.
Korean conflict, which revolutionized Navy thinking in regard to mine warfare—so much in fact that the Navy today is once again mine-conscious as well as air- and submarine-conscious. The effects of Korea were immediate but lasting. They lead to the development of new types of non-magnetic, wooden-hulled ships and boats.

In today’s Navy of tomorrow, mine warfare is considered to be an important function of naval power, rated with air, submarine, anti-submarine and amphibious warfare. This is just the opposite of the evaluation of mine warfare less than seven years ago when we went to war in Korea. At that time, U. S. mine forces were at an ebb. Our Pacific Fleet Mine Force Command had been disestablished and the Atlantic Fleet had only a small number assigned there, is enough to convince an observer of the new outlook and added importance the U. S. Navy is placing on mine warfare. If a first-hand view does not convince you, a visit with the determined boss of the Atlantic Fleet Mine Force will do so.

He’s Rear Admiral Neil K. Dietrich, USN, known as “ComMinLant,” who has his headquarters at Charleston in a historic rice mill at the Minecraft Base located on the Ashley River.

The Commander, Mine Forces Atlantic, is so convinced of the importance of mine warfare that it would take him only a few minutes to have you feeling the same way. This veteran of more than 37 years of naval service is not a high-pressure salesman type but is a firm believer who speaks with authority and experience.

He knows of the Navy’s problems when Task Force 90 encountered 50-year-old contact mines off the coasts of Korea. It’s now his job to protect our carriers, high-speed destroyers, guided missile ships and nuclear submarines if an enemy were to plant the more recently developed influence type mines in U. S. waters.

The majority of the mines that gave the Navy trouble in October 1950 before the landing at Wonsan were pre-World War I mines. Most of them exploded only upon direct contact. Today, however, various types of influence mines are in use in addition to the older moored, contact-type mines. These new mines lie on the bottom and wait. As they are influenced by sound, pressure or magnetism, a ship doesn’t even have to come in direct contact with them in order to set them off. They may be exploded by the noise of a ship’s propeller, by the changes in water pressure caused by the passage of a ship through the water, or by the shifting lines of force of the earth’s magnetic field resulting from the passage of steel-hulled ships. Mines have been developed to the stage where they will be actuated by any one of these influences or a combination of two or all three. Other types are also under development. If an enemy were to plant any one of this type of mine in our sea lanes,
Iron Men

harbors or coastal waterways, the units of the Navy's Mine Forces—both Atlantic and Pacific would have a job on their hands. However, the men in the mine force are continually training to face any such emergency that may arise. For example, it is ComMinLant's job to "maintain the personnel and ships of the Mine Force in the highest condition of readiness and efficiency, in order that units of the Force, individually and collectively, may accomplish any time, the mission and tasks assigned." In addition, ComMinLant is the principal adviser to the Commander in Chief, U. S. Atlantic Fleet on all matters concerning mining and mine countermeasures.

This means that MinLant, which is one of the seven type commands assigned to the Atlantic Fleet, has a dual responsibility—that of laying mines and mine countermeasures. (MinPac has a similar setup). Mine countermeasures is actually the Mine Forces' biggest job—operations undertaken in order to reduce or eliminate the hazards caused by mines. This includes (1) the destruction of enemy mines before they are planted; (2) the destruction of enemy mine planting vehicles and location of mines by visual or electronic means as they are being planted; and (3) sweeping or destroying mines after they have been planted.

Mine sweeping, MinLant's specialty, is a complex business. It has to be if MinLant is to fulfill its task of freeing our sealanes of mines and keeping our harbors and channels clear. MinLant is prepared for this job only as a result of hard work and continued training.

This training is specialized and is instrumental in knitting MinLant personnel into smoothly functioning teams. It covers tactics of minefield clearance; deck seamanship in streaming and recovering mine sweeping gear; shiphandling in close formation with gear streamed; operation and maintenance of complex magnetic and acoustic mine-sweeping gear; precision navigation; and mine hunting.

As mines get more complex, so do sweeping techniques. Contact type mines are the easiest to sweep. As MinLant sailors say, "they are just a matter of good seamanship, courage and endurance." Such mines are swept by a wire cable rigged with a device to cut the mine's mooring cable. When cut, the mine bobs up to the surface and is then destroyed by gunfire.

With the influence type mines it's a somewhat different matter. To destroy or sweep influence type mines lying on the sea bottom, the sweeping ship must duplicate the particular influence or combination of influences which actuate them. Acoustic mines, for example, are swept by means of a large drum-like noise-producing object that is towed behind the sweeping vehicle. This noise maker—called a "hammer" or "butterfly"—makes a sound similar to that of a ship's propellor. Magnetic mines are influenced or destroyed by means of a pair of electrically charged cables which the
sweeper tows through the water about the same as a fisherman trolls. These high-voltage cables have a loop at the end or a “J-type rig,” with positive and negative electrodes which produce a magnetic field.

The U. S. Mine Forces, although not the world’s largest, are second to none in spirit and determination. “We have many new type ships with rough, rugged, well trained crews who are not afraid of work,” ComMinLant says. “The submarine sailors are known for their esprit de corps, but they will really have to go some to beat that of the personnel of our Mine Forces.”

“I really don’t know what gives my men all their drive,” the MinLant boss added. “They don’t get extra pay as they do in submarines or aviation. It’s a great deal of hard work with little compensation other than knowing they are doing an important job and doing it well.”

But despite the hard work, morale and reenlistment problems are at a minimum. Last year MinLant had the highest over-all reenlistment rate in the entire Atlantic Fleet.

Although MinLant may not be as widely known as some of the other type commands, it is far from being a small outfit. It includes many ships of various types—of which more than half are coastal and ocean minesweepers. It has a rather large number of minesweeping boats.

The various ships and minesweeping boats within the Atlantic Fleet Mine Force are assigned to squadrons. One, MinRon Four, includes three new wooden-hulled, non-magnetic coastal minesweepers (MSCs) as well as the old type coastal minesweepers (MSC(O)s). The latter are the standard wooden-hulled minesweepers of World War II which originally carried a YMS designation but were later changed to AMS and then MSC(O). These ships are gradually becoming inactivated as the newer MSCs become fully operational.

In addition, the landing craft repair ship uss Pandemus (ARL 18) is assigned to MinRon Four. It’s a converted LST which serves as a tender, support and command ship as well as the squadron flagship. Also assigned are two tenders primarily used for recovering practice mines.

MinRon Eight is the “big” division of MinLant, not because of the number of its ships, but because it is made up of the heavyweights of the Mine Force—the 165-foot wooden-hulled ocean minesweepers—the MSOs.

Assigned to MinRon Eight is ComMinLant’s flagship, uss Guin (DM 33). The squadron flagship is uss Orleans Parish (LST 1069) which also serves as a logistic support ship for the MSOs and a landing and repair facility for helicopters. The experimental metal-hulled Fleet minesweeper uss Peregrine (MSF 373) is also assigned to MinRon Eight.

Rounding out the family of minesweepers are the MSBs of MinRon 10. These minesweeping boats are the “Mighty Mites” of the Mine Force. They are called upon for the many intricate harbor and shallow-water sweeping operations. Only 87 feet long, they are manned by six or seven enlisted men, including a chief or first class boatswain’s mate or quartermaster who acts as skipper.

The only officers assigned to the
entire squadron of MSBs are LT J. D. O'Shaughnessy, USN, who is the squadron commander as well as ComMinDiv 101, and LT C. D. Lilly, USN, who commands MinDiv 102. LT O'Shaughnessy is the youngest and lowest ranking squadron commander in MinLant (a job usually assigned to a four stripper) and perhaps in the entire Navy.

All the ships in the Atlantic Fleet Mine Force are home-ported at Charleston.

Some are deployed by periodic rotation to fulfill continuing commitments to other commands. One group provides services to the U. S. Naval Mine Defense Laboratory at Panama City, Fla., in the development of mine warfare equipment and techniques.

A second group act as training ships for the U. S. Naval Schools for Mine Warfare at Yorktown, Va. It is in these vessels that the prospective minesweeping officers, MSB skippers, boatswain's mates and electrician's mates who will be assigned mine warfare duties, get their initial training.

Another group provides services to the various branches of the Op-erational Development Forces in Key West, Fla., on projects connected with the evaluation and development of new mines and minesweeping techniques.

Other ships of MinLant rotate to the Mediterranean for duty with the Sixth Fleet.

During the Korean war, many of these same ships performed services beyond all expectations. Mine sweeping units of the Fleet suffered more than 32 per cent of the total U. S. naval casualties—yet sweeper crews comprised only two per cent of all Navy units serving in the Far East. The only combatant ships the U. S. Navy lost in Korean Waters were four minesweepers—and they were sunk by mines. Mines accounted for more than 70 per cent of all naval casualties during that war.

The ships of our mine forces may be small but they are looked up to by the biggest ships afloat. Even with guided missiles and nuclear power, Today's Navy of Tomorrow has a place for its "wooden ships and iron men." And that place is right out in front of the Fleet. That's why the Mine Force can proudly claim, "Where the Fleet goes, we've been."

—H. George Baker, JOC USN.

FEBRUARY 1957
History of Navy Mine Warfare:

The man in the fleet, if asked, is just likely to tell you that mine warfare originated in World War I—but if he does say that, he “just ain’t been reading the right comic books” for his next advancement exam. If his “shot in the dark” turns out to be the Civil War or the American Revolution, he’s equally wrong, although they did play a part in mine warfare development.

Some authorities have concluded that the early Chinese were among the first users of naval mines since they were the first to discover and use gunpowder, but no concrete evidence of this has been found. So, perhaps as one authority states, “It is a matter of good manners rather than of technical accuracy to state that the first recorded use of mines was in 1585, when the Dutch succeeded in disposing of several hundred Spaniards at Antwerp by means of boats filled with gunpowder and exploded by clock-operated flintlocks.”

Next came the “floating petard,” a somewhat similar device used by the English in 1628, which might be considered a type of mine, although it did not explode under water either.

Comes the American Revolution (1775-81), and our old friend David Bushnell, of submarine Turtle fame, was involved in one of the earliest underwater mining attempts—by use of a submarine, naturally. In 1776, he fitted a submersible with an external charge of gunpowder in a waterproof case, this, in turn, being attached by line to a “corkscrew” which could be operated from within the underwater craft.

The idea was to sneak alongside an enemy vessel, maneuver the corkscrew into her wooden hull, then head for safer waters in the 30 minutes remaining before the mine charge was set off by a clockwork mechanism which caused a hammer to strike a percussion cap. This rig was used in several attempts against British warships, but all of them were unsuccessful.

Bushnell also originated a couple of other ideas for mining ships, but they weren’t very successful either. One of these resulted in the “Battle of the Kegs,” an attempt to float loaded kegs down the Delaware river, trusting the kegs to come in contact with British ships anchored at Philadelphia, and eliminate at least a few of them. The kegs, each attached to a buoy which bobbed along on the surface, were designed to explode the moment they brushed against a vessel’s bottom. Due to timetable upsets, however, the keg-bearing buoys came into view during daylight, thereby giving the enemy ample warning of their presence.

Several further attempts of a similar nature were made, creating little more than alarm.

Steamboater Robert Fulton also toyed with mines under French, then English, then American sponsorship. One device he tried for the French during their Revolution (1789-99) was more or less a crude locomotive torpedo which didn’t turn out very well. Later he tried a submersible approach similar to Bushnell’s, also without success. Yet another try with a submersible produced what has been called “the first recorded case of a vessel being destroyed in European waters by an explosive charge placed below the waterline.” The time: 1801; the victim: an old schooner. The successful trial took place at a depth of 25 feet.

For the English in 1804 Fulton produced an oblong wooden craft, whose charge of 40 barrels of gunpowder was set off by an arrangement of clockwork, hammer and percussion cap. These rigs, connected in pairs, were used against a French fleet of Boulogne. But apparently...
Lady Luck agreed with the usual public opinion of the time, that any attempt to attack a water-borne enemy from beneath was morally indefensible.

Fulton conducted another experiment in 1805, successfully destroying a brig; then, tired of fighting British official and civil opposition, he returned to the United States. Between 1810 and his death in 1815, the inventor of the steamboat presented to American officials such ideas as the following:

- A “harpoon torpedo,” making use of a musket to fire a harpoon which was attached by line to a torpedo and float. The idea: Once the harpoon was fired into the side of a ship, the tide could be counted on to bring the torpedo against the hull with enough force to actuate a spring lock firing mechanism.

- A moored contact mine consisting of 100 pounds of powder in a copper case, fitted with a lever which, when struck, fired a musket charge into the powder. The mine was made buoyant by adding a wooden box filled with cork. Also included was a most remarkable gadget which held the mine under water for a time, then locked the firing lever and caused the mine to rise to the surface.

- A “turtle ship,” designed to carry a crew of 12 and tow five torpedoes which could be actuated from inside the vessel. Painted dirty white, drawing only six feet and traveling with her arched topside barely awash, she was supposed to foul a victim with a torpedo, then set off the explosion by means of a line leading from the torpedo gunlock.

A few years later a similar mine set-up was employed in the defense of Kiel harbor during the Schleswig-Holstein emancipation fracas (1848-51). Although not particularly well planned, the very thought of this early defensive minefield kept the Danes from attempting to enter the port.

Russians, in the Crimean war (1854-56), used contact mines to protect such major ports as Sevastopol. The mines contained a 25-pound charge of powder, and had “horns” —lead finger-shaped fuses, each containing a quantity of glass-enclosed sulphuric acid surrounded by chlorate of potassium and sugar. Contact sufficient to bend the fuse and break the glass set off a chemical reaction which fired the main charge. Shore-controlled, electrically actuated ground mines were also used, but the Russians did not take advantage of Colt’s method, and so had difficulty with their timing.

The Austrian armed forces partially overcame the timing problem in their 1859 war with France by using a camera obscura to project a ship’s image onto a chart which was marked with the actual location of each mine in a field. An operator in his seaside control post could touch off a mine electrically while the shadowy ship image was directly over the mine’s charted position. Haze, fog or darkness immobilized...
IN WAR OF 1812 British may have ridiculed American mine warfare, but they still considered it devilish and deadly, according to this old cartoon.

the whole set-up, of course.

Colonel Colt's system could be used on a 24-hour basis, provided you didn't care whose ships were blown up. And the need for actual contact between mine and ship opened the possibility of damage to the mine system or to your own ship's hulls even when the mines were not exploded.

Mine warfare, or what passed for it, was fairly common during our own Civil War, and contributed a good bit to the development of the science, both in the types of mines and in methods of using them. Several different types of mines were used in the triple line of underwater booby traps which were part of Mobile's defenses, for instance. A water-tight keg, filled with powder, and fitted with coned ends and five finger-type chemical fuses was one type.

Another was an inverted cone, the lower half loaded with an explosive charge, the top supporting a weighted cast iron cover. A slight blow from a moving ship dislodged the cover, which was attached by a length of chain to a friction tube; the subsequent pull lit off the friction tube and that fired the charge.

Yet another type at Mobile (the "Brooks") was intended for use in shallow water. Made up of a water-tight gunpowder charge mounted on the upper end of a spar which was connected by means of a universal joint to a weighted "anchor," this mine was a hard one to sweep in its "natural" state. At times, however, sweeping was made even more difficult by an ingenious anti-sweeping device—a wire running from the first mine to a second "ground" mine which contained a much heavier charge. Any halfway successful attempt to move the first mine pulled the wire which set off the second mine.

Clever, them Rebels.

Shore-controlled ground mines, fired electrically, came into use during the later stages of the war. One "oddball" of this type: an old boiler stuffed with 1000 pounds of gunpowder and submerged in Virginia's Roanoke River. This little gem accounted for a heavily armored Federal gunboat, despite a careful Yankee search for telltale cable leading from the river bank into the water.

Also toward the end of the war, the Confederate Davids came into being, lugging their spar torpedoes with them. While neither mines nor submarines, in the modern sense, the Davids were similar to early attempts at mining—and they were pretty effective despite an affinity for fatal accidents. Their torpedoes (or mines) were copper-clad charges of gunpowder, fitted with contact chemical fuses. The Davids ran with their decks awash, much in the manner of Fulton's "turtle" minecraft.

All told, mine warfare is credited with destroying 22 combatant ships and damaging many others during the Civil War.

From 1865 to 1914, mine warfare developments in the United States were practically non-existent, although defensive mining of important harbors was maintained; other countries continued to develop mines and techniques, however. During this period guncotton was generally adopted as the explosive charge for

IN CIVIL WAR Confederates used a variety of mines. This one, despite size of explosion, killed only two Yankees.
The "Herz horn," a variation of the Crimean lead and glass fuse, was invented in 1868, and gained popularity as a fuse for independent mines, since each horn consisted of an independent battery which was not actuated until contact broke the sealed glass tube containing a bi-chromate electrolyte.

Britain developed a countermine system, which involved the laying and subsequent detonation of controlled mines in areas where enemy mines existed.

Various methods of defensive and offensive planting were also developed, a notable one being the use of open-sea mining during the Russo-Japanese War (1904).

By 1914 practically all maritime nations were in possession of at least a small amount of mine gear, and knowledge of mining potentialities for both offensive and defensive purposes. It soon became evident, however, that Germany was well ahead of other nations—at least in the beginning.

At the war's end, the tally sheet showed a different story: Germany had laid more than 43,000 mines, but Great Britain was credited with more than 128,000 and the United States had laid more than 56,000 in the North Sea Mine Barrage alone (See ALL HANDS, March 1953, page 59, and May 1956, page 59).

This spectacular mining operation, covering approximately 240 of the 250 miles between the coasts of Scotland and Norway, was designed to keep German U-boats in the North Sea. The only other outlet through which submarines could pass was the English Channel—already well patrolled. Although the North Sea barrage was proposed long before the U.S. entered the war, current British mines were not plentiful, and were not suitable for planting in waters which averaged 600 feet in depth. To be successful the barrier required mines at various depths throughout the 240-mile length—an estimated 400,000 mines in all, and an impossibility.

The U.S. Navy, however, soon after our entry into the war devised a replacement mine that solved both problems. To replace the older mines, which required actual contact between mine and victim, the Navy Bureau of Ordnance came up with one which could be planted at any depth, since it was set off by means of an "antenna" which reached to within a few feet of the surface. Thus, instead of planting mines at various depths in order to make a tight barrier, it was only necessary to plant them near the bottom. Any craft attempting to pass through the barrier regardless of its draft or depth would be likely to contact one of the antennas and blow itself to bits. These new mines cut the total number required for the barrage to approximately 100,000—just about one-fourth of the original figure.

Once the barrage was laid it was not completely effective, but it did account for a number of submarines and its effect on German morale was terrific. Ranging as it did from 12 to 35 miles in width, and requiring from one to six hours for passage, the barrage placed a terrible strain on the crews of submarines which did attempt to leave the North Sea via that route.

The mines used in the U.S. portion of the North Sea barrage were of the Mark VI type—which continued in use right on through post-WW II days, with modifications, of course.

During the period between the first and second world wars, Navy authorities paid little attention to mine warfare. Although a minute staff continued to develop mines and firing mechanisms, few of them were carried beyond the design stage. Mines of the three common types—drifting, moored and ground—were designed with mechanical, chemical, galvanic and magnetic firing devices, and a few of them were actually manufactured in small lots for use in testing and drills. An acoustic firing mechanism was also conceived, but not developed.

According to the History of the Bureau of Ordnance during World War II, mine warfare remained in this dormant state until September 1939 when German magnetic types...
were planted in British shipping lanes, causing alarmingly high losses before countermeasures were perfected.

“Between September 1939 and 1942, the 20,000 German ground mines laid in the harbors and channels of the United Kingdom took a toll of over a million tons of Allied shipping. German mines also were used effectively in American waters; ships were sunk and several harbors were closed for short periods.

“On the other hand, British mines during World War II sank approximately 1050 Axis warships and merchantmen, and the American offensive mining campaign in Japanese home waters, initiated in the spring of 1945, virtually strangled the domestic and military economy of the islands.”

When German use of a highly effective magnetic mine began to make headlines in 1939, our Navy had plenty of mines of WW I vintage which could be modernized, and the paper results of much basic research; otherwise 7 Dec 1941 found us with plenty of nothing—and not the least bit happy about the situation. The mines on hand included thousands of modernized Mark VI mines, originally designed for anti-submarine operations; limited quantities of Mark V (a drifter) and Mark VII (a moored, chemical horn rig); Marks X and XI, of the moored contact type, were available for submarine laying—but only uss Argonaut (AFS 1) was equipped to handle them. Mark XII, a revised version of the German 1920-vintage magnetic mine, were in existence for both aircraft and surface minelaying, but most of those already manufactured were in Manila and had to be dumped in deep water to prevent capture.

A couple of random quotes from BuOrd’s history reflect a change in the picture, however: “The advent of war soon quickened the interest of operational groups in this form of warfare; by the summer of 1942 there was a real demand for the development of new offensive mines.”

“American naval mines soon underwent radical change, emerging as potent, versatile, and decidedly offensive instruments of warfare, with little resemblance to their predecessors in either appearance or operational principles.”

By the end of the war the Bureau had “assigned mark and modification numbers to 65 mine designs, 39 of which were released for service use. Production emphasis, however, was confined in the main to seven mines.”

The Navy’s minelaying program in the Pacific is credited with sinking or damaging tonnage amounting to nearly one-fourth of Japan’s pre-WW II merchant marine—some 2,000,000 tons, including two battleships, two escort carriers, eight cruisers, 46 destroyer types, seven submarines and 81 other naval craft. The mines which accomplished this feat included 21,389 aircraft-type mines, and 25,000 planted by surface craft and submarines. This mine campaign ran in two phases, an “outer zone” period beginning in October 1942 and running until the end of the war,

IN KOREAN conflict MinPac sweepers saved ships and lives. Left, LCVP on sweeping job. Right, ‘pig’ comes aboard.
and an “inner zone” phase which covered approximately the last five months of hostilities.

In the first phase, the mining of enemy-held harbors and shipping lanes effectively fouled up shipments of raw materials to the homeland, while cutting down on outgoing troop supplies. Representing one of the most concentrated mining offensives in history, the “inner zone” mining of Japan’s home waters was carried out by the Army’s Tinian-based B-29s using naval aerial mines. Among the mines used in this operation were two magnetic types, which had been previously used in the outer zone, and:

- An audio-frequency acoustic variety, fired by the sounds of a passing ship—but the Japanese accidentally discovered that noisemakers used in the training of their sonar operators were effective in sweeping these.
- A subsonic “unsweepable” mine, actuated by ship sounds too low for the human ear.

Another “unsweepable,” a type of pressure mine.

These basic types were varied by a Mine Modification Unit, being tailored to fit the desired target and situation. The twin goals of this unit: defeat known enemy sweeping methods; and change firing characteristics so that only larger ships would actuate the mines.

The unit’s work has been credited with doubling the tonnage sunk.

From 1945 until the outbreak of fighting in Korea, the Navy’s mine force personnel were kept busy sweeping up the mess left by World War II, and in training and maintenance tasks. Simultaneously, the men responsible for developing new mines and techniques—the men who were assigned the job of insuring that our mine warfare organization remained “in the van” of the new Navy—moved steadily along their secret research trails, producing, testing and storing for possible future use a whole bag full of new tricks.

Korea, to the UN mine forces involved, was primarily a matter of spotting and sweeping. The mines, although of Russian manufacture, were conventional types common to both sides during World War II: moored, floating and ground mines, with contact, magnetic, pressure or acoustic detonating devices—or possibly a combination of these. Mine spotting was successfully carried out by helicopters; but an aerial countermining attempt, using planes and bombs, was not so successful.

Today, the men who man our minecraft spend a good part of their time in the familiar drills, study and constant maintenance routine needed to keep a mine organization and its equipment in topnotch order. Some of the stuff they work with is classified, but much of it is straight out of World War II. Meanwhile, back at headquarters the “masterminds” are steaming ahead, dropping in their wake figurative “Dan buoys” to mark the cleared channel into an age of nucleonic navies—and untold possibilities for mine warfare.

—Barney Baugh, JO1, USN.
Almost everyone has heard of Yorktown, Va. In grade school history, we learned it was where Lord Cornwallis surrendered the British Army to end the American Revolutionary War. There's a big national shrine there, visited every year by hundreds of tourists. Yorktown played a big role in early American history.

Another important role is performed in that area today. It is the work of the Naval Schools, Mine Warfare—the only school of its kind in the United States and one of the least publicized schools in the Navy.

On the 209-acre tract of land which adjoins the Yorktown Battlefield Park, the Naval Schools, Mine Warfare, trains officers and enlisted men in all phases of offensive and defensive mine warfare. During 1956 alone, the Schools graduated 339 officers and 834 enlisted men who had completed one of the 24 courses offered at Yorktown. Their studies ranged from the basic course in the Class A Mineman School to the course in Minesweeping and Minelaying.

In addition to the men from the U. S. Navy and a few from the U. S. Air Force, selected officers and enlisted men from friendly navies of the free world are also students at Yorktown. A number of selected U. S. Navy-employed civilians also attend courses here every year.

Proiciency with hand tools is a mineman 'must.' Here, Yorktown instructor demonstrates art of wire splicing to student at the Navy's mine warfare school.

The courses of instruction at Yorktown range from the 20-week Mine Warfare Staff Officers' course and the 13-week Mines Maintenance Officers' course to the Classes A and B Mineman courses to the six-week Minesweeping Boatswain's Mates' Class C course.

The Mine Warfare Schools in Yorktown were commissioned on 31 Dec 1940 and the first class convened a week later with a student body of 50 officers and 175 enlisted men. During the following 16 years of operation, the school has trained more than 20,000 officers and enlisted men in all the intricacies of mine warfare.

One of the most important aspects of the Yorktown curriculum is practical experience. Each of the students is taught by doing. A good example of the training offered at Yorktown is the Class A Mineman School.

The embryo Mineman attending the 14-week school is given first a course in basic electricity and mine accessories. Mines used in today's Navy are highly complicated items of machinery and electronic circuits.

The advanced student must learn as much as he can in the few weeks of basic electronics since his work will revolve around this medium. In addition, he must be able to read blueprints, drawings, and schematics—which are in a language all their own—and must be adept in the use of the various types of hand tools.

As one veteran Mineman put it, "You've got to have the nerves of a tightrope walker, the delicate touch of a sculptor, and the training and ingenuity of a scientist-inventor."

Besides the training in basic electricity and electronics, the student in the "A" school learns about power supplies, amplifiers, fundamentals of mine warfare, special circuits and other devices, mine vehicular equipment, mine equipment catalogs and mine operation procedures.

Under the subject of "mine vehicular equipment," the student is taught the features, functions, and operations of the basic types of all mines. Except for specialized features for specific jobs, most mines fall into two or three basic categories. Once the Mineman has these down pat, he can easily learn "special features" of other particular-mission weapons.

All Hands
In effect, this mine "vehicular" equipment takes a trainee from a knowledge of fundamentals up the road toward the ability to work with any mine equipment of the same general type. The student gains experience by actually seeing the mines operate, maintaining them and solving practical troubleshooting problems on them. This work is invaluable since these vehicular mines are either so typical, or contain so many of the circuits and features of all the others, that the Minemen can work with any mines of the same general type in only a short time.

When the Mineman reaches the Fleet, he will deal in several distinct types of mine duty, depending upon whether he's assigned to a surface minelayer, a submarine minelayer, a shore base for test and assembly, or a tender of an aviation activity. The routine procedures of his job will vary with his assignment. In any case, the Mineman trainee is given some preparation in basic procedures which makes it easy for him to adapt himself to the special requirements of any branch of the Mineman service.

Instruction in this category is presented to the Mineman at school in "operational procedures" and includes such fundamental routines as:
- Handling and stowing underwater equipment.
- Testing of mine components and assembly of mines.
- Overhaul, test and adjustment of depth charges and preparation for firing.
- Supervision of storage and preservation of stores and spare parts.
- Operation, construction and routine maintenance and inspection of mines, mine-handling gear and controlled devices.
- Safety precautions related to explosives, magazines, mines and mechanisms.

Another subject in the course which stays with the Mineman throughout his career is "Equipment Catalogs." These catalogs list and describe all types of underwater ordnance, particularly with respect to their electrical and electronic components. Ability to read these catalogs helps the Mineman to extend his knowledge beyond what he has actually learned in the other subjects. The devices and equipment listed are described in terms of the "vehicular equipment" which he has already studied. Thus, if the Mineman is required to handle a mine or depth charge which has electrical or electronic characteristics he hasn't seen before, he can look up the part in the reference catalog and get a good description of it.

The Mineman trainee also gets thorough training in the use of the various types of hand tools. Since he will use many of these tools in assembling and servicing the mines, he must have "the touch of a sculptor" when, for example, he buttons up a mine case—closing and sealing all openings—before planting. A little awkwardness or possibly too much pressure on tightening a nut could cause the mine case to crack. On the other hand, too little pressure might keep the mine from being watertight and turn it into a dud.
The fourteen-week Class A Mine-man course covers the practical work an MN would be required to perform regardless of the type of duty he will eventually be assigned. Basically, there are three major types of duty he might get.

First, on shore, he may work in mine assembly, which includes loading the mine with a charge of high explosive and then installing various mechanisms which “arm and fire” the mine, once it gets into the water. This is like loading and beginning to fire this strange weapon while still hundreds of miles away from the prospective victim.

Second, afloat, the MN might get duty in a minelayer, where he completes the process by actually launching various types of mines.

Finally, and equally important, various types of craft equipped for minesweeping have the job of clearing the waters of enemy mines for the protection of our own ships. Although Minemen are not normally assigned to this type of duty, they must know something about it.

Perhaps the most characteristic action for the Mineman consists of minelaying. But in dealing with mines every action must take place...
in a very precise sequence and it is hard to regard any one portion—even the minelaying operation—as separate from the whole process. For instance, "firing" this weapon really begins on shore, since it is loaded with a huge charge of high explosive, in the earliest stage of its assembly. On the other hand, unlike any piece of machinery which is normally completely assembled in a factory, "assembling" has to be finished aboard ship. Actually, the mineman makes his final adjustments at the very last minute before the releasing gear drops the mine over the side.

These last minute adjustments by the MN are a part of "minelaying." And though they are performed almost with split-second timing, they demand great skill and, above all, utmost accuracy. These last-minute operations include activating certain mechanisms, previously installed but left in non-service condition, now set so that once the mine is in the water, they will become self-operating and will "arm" and eventually fire the mine. Also, various safety devices which have kept the mine in its non-service or safe condition, must be removed so that the firing mechanisms can operate as designed.

Finally, the releasing gear is operated and the "sea monster" takes up its position in the water, there to lurk silently until the enemy ship approaches and meets its fate. Often, this kind of minelaying action takes place at night, under uncommonly difficult conditions.

This basic training is thoroughly ground into the embryo Mineman at Yorktown. In brief, when the Mineman completes Class A school he:

- Knows the operating procedures for all types of mines and depth charges and associated equipment.
- Can maintain, test, adjust and troubleshoot mines.
- Conducts periodic cleaning, lubrication and performance testing.
- Can use all mechanical and electrical instruments and tools associated with the work he's doing.
- Reads and uses mechanical drawings, blueprints, schematics and wiring layout diagrams.
- Can locate troubles and make minor repairs.
- Knows the proper methods for handling and stowing.
- Can install equipment and accessories.
- Maintains mine warfare records.

It sounds tough, but mine warfare is a mighty tricky business.

Very rarely will the Mineman see the results of his work—and it's quite unlikely that you and I will hear of the results of his work until long after the battle. Unlike combat in the ordinary sense, by the time the "kill" is made the Minemen are far off, engaged in other duties. They seem to share little of the glory. But like their predecessors in the Battle of Yorktown during the American Revolutionary War, they too are playing a big part in forming the destinies of the United States.

—Rudy C. Garcia, JOC, USN.

Courses for EMs at Naval Schools, Mine Warfare

Ten of the 24 Naval Schools, Mine Warfare, at Yorktown, Va., are open to enlisted men in certain ratings. Here's a rundown on the schools available to EMs and what rates are eligible:

- **Mineman, Class “A”—**A 14-week course which trains the student in the fundamentals of mine assembly testing and maintenance, storage, and mine warfare. Open to SA, SN, and MN3.
- **Mineman, Class “B”—**A 13-week course of advanced instruction for MN2 rating and above in maintenance of all mines and mine mechanisms in service use.
- **Aviation Mine Assembly, Class “C”—**Four weeks of training for AO2 and above in the test, adjustment and assembly of all aircraft-laid mines.
- **Submarine Mine Assembly, Class “C”—**A six-week course for GM3, MN3, and TM3 and above in the test, adjustment and assembly of submarine-laid mines.
- **Minesweeping Electrician’s Mate, Class “C”—**A five-week course for EM3 and above and designated EM strikers who are graduates of Minesweeping EM, Class “C” course. This course teaches the student to operate, maintain and repair the automatic degaussing equipment aboard minesweepers.
- **Submarine Automatic Degaussing, Class “C”—**A four-week course for EM3 (SS) and above, which teaches the EMs to repair, operate and maintain automatic degaussing gear aboard submarines.
- **Electrician’s Mate, Ranging and Deperming, Class “C”—**This course is open to EM2 and above. The seven-week course gives the students an understanding of the purpose and principles of deperming and deperming and also qualifies him for duty at deperming and/or deperming activities.
- **Mine Assembly Refresher—Officer and Enlisted—**This three-week course is for officers and enlisted men who are qualified firing mechanism technicians to requalify them in testing, adjusting, assembling and repairing firing mechanisms on all service mines.

Quotas for these schools may be obtained from Service Force Commanders by Fleet activities and from the Bureau for shore activities. The convening dates and other information on these schools is contained in BuPers Inst. 1500.25A.
USNR Lends a Hand—

**Port Protectors**

N A MASSIVE UNDERGROUND STRUCTURE located on a sloping hill overlooking one of our important harbors, a group of Naval Reservists cluster about a maze of electronics gear in a crowded cubicle.

Seconds ago an alarm had sounded. Miles out at sea, an unidentified “iron body” had passed over a magnetic indicator loop. The loop, a wire cable laid on the bottom of the ocean, records any distortion of the earth's magnetic field by the crossing of an iron body over it. The effect on the magnetic field was recorded on chart paper and the record mechanism in this tightly guarded underground post sounded an alarm.

Instantly underwater listening devices and echo-ranging equipment begin their tasks of providing accurate, precise tracking information. Hydrophones are used to detect the sound generated by a ship's propulsion machinery and transmit the resultant electrical impulses to the station by means of a submarine cable. Sono-radio buoys do the same—but send the underwater sounds ashore by means of radio instead of through a cable.

The herald—a supersonic echo-ranging and listening device capable of transmitting a short, powerful signal and then receiving the reflected echo from an underwater target in such a manner that its distance and bearing are known—is the “last line of detection” in this complex system designed to protect our harbors from possible enemy sneak attacks.

As fast as the information is received from these sources, it is “fed” to the officers and men of the Harbor Entrance Control Post (HECP) who carefully evaluate and coordinate the data.

Finally, a determination is made as to whether attacking surface and aircraft should be sent out for the “kill.”

In this instance, no orders to attack are necessary. The “iron body” is quickly identified as a Navy destroyer coming back from a training cruise.

The Reservists taking part in this exercise are members of a Naval Reserve Harbor Defense Division, training alongside Regular Navymen at a Harbor Entrance Control Post.

The functions of the Harbor De-
defense Unit, whose headquarters is in the HECP, are to:
- Challenge all ships approaching the harbor entrance and to prevent the entry of any unidentified ship on the assumption that it may be an enemy.
- Control the movement of ships in the harbor entrance in the interests of mutual safety.
- Receive information from naval control of shipping office, harbor detection stations, and surface radar and to pass to patrol ships and aircraft all pertinent information on targets.
- Arm defensive minefields, maintain nets and booms, and close or open net gates.
- Order appropriate action of hunter-killer teams, and recommend Fleet action in the preservation of a secure harbor.

Harbors must be defended against surprise attacks by sea—via submarines—and by air. They must also be guarded against fast small craft, such as PT boats, sneak craft, swimmers, demolition teams and offensive mines.

There are seven major lines of detection currently used to thwart any kind of sneak attack. They are: Air radar and surface radar—conducting long range searches from a shore base.

Air patrol—covering the outlying approaches to a harbor.

Offshore patrol—usually conducted by DEs equipped with radar and sonar, and inshore patrol—conducted by PC type ships.

Magnetic indicator loops.

Hydrophones and sono-radio buoys.

Echo-ranging heralds.

Because the duties of harbor defense in a future emergency would be assigned, to a large extent, to Reservists, the Naval Reserve Harbor Defense Program was established almost a decade ago.

At the present time, there are 22 divisions—all pay units—operating in the Harbor Defense Program. Membership is open to both officer and enlisted personnel—including those who do not qualify for sea duty.

While experience in harbor defense components or related experience and training is desirable, the training program has been developed to the extent that inexperienced Reservists may also take part.

Reservists in many enlisted ratings are eligible to join Harbor Defense divisions:

Boatswain’s mates, gunner’s mates, quartermasters, radiomen, radarmen, sonarmen, minemen, electronics technicians, telemen, electrician’s mates, enginemen, damage controlmen, metalsmiths, interior communications electricians, machinist’s mates, torpedomen, yeomen and storekeepers.

Membership is not limited to male Reservists. Waves, both officer and enlisted, may enroll in Harbor Defense divisions. Applications are made to district commandants.

The Harbor Defense Program is made up of both operational divi-
sions and technical divisions. Because it is not practical for each division to offer training in all fields of harbor defense, the following missions have been established for the various divisions:

Operational divisions (OP) have been organized for the purpose of providing training in all operational and tactical functions of harbor defense.

Because of the nature of their activities, these divisions may utilize over-age personnel, limited service personnel, and personnel not physically qualified for sea duty.

Technical divisions have been established to provide technical training in specific harbor defense equipment. There are two types of technical divisions:

- *Technical Division, Underwater (TUN)*—provides training in the installation, operation and maintenance of underwater detection equipment and in the fabrication, installation and maintenance of nets and booms.

- *Technical Division, Mines (TM)*—provides training in the assembly, installation, operation and maintenance of controlled mines and training in mine countermeasures, including channel clearance, mine location and destruction techniques. These divisions are located at or near harbors that include mines as part of their defense system.

Reservists selected for enrollment in technical divisions should be qualified to perform duty afloat in connection with installing and maintaining sea units of the harbor defense equipment.

There are 11 OP divisions, 7 TUN divisions and 4 TM units currently in operation. Their locations range from Portsmouth, N. H., to Miami, Fla., and from Port Townsend, Wash., to San Diego, Calif. In addition, there is an OP division at Balboa, C. Z.

The training Reservists receive as members of Harbor Defense divisions is often as exciting as it is thorough.

For example, the operator of an echo-ranging herald sea unit has to be able to identify the various types of target contacts. He soon gets to know the sounds caused by fish, the ocean floor, rocks, ships and submarines—distinguishing them by the distinctive echo each gives over a crystal-type sea unit.
He must understand the “Doppler effect”—the apparent change in pitch of a sound wave, and how to distinguish a moving target from a stationary one. He must know how to determine a target’s course beneath the surface.

And he must have the know-how to adjust and maintain equipment to give maximum results under varying sea conditions.

In order to get the best possible training, Reservists in the Harbor Defense Program attend a minimum of 48 drills annually and spend 14 days on active duty for training (AcDuTra).

Drills are conducted at the nearest Fleet Harbor Defense Unit so that Reservists may receive actual on-the-job training in their specialties. Each Fleet Harbor Defense Unit has a billet for a “Readiness and Training Officer.”

This officer, in addition to his duties with the Regular unit, acts as an instructor for Reserve divisions during drill periods.

Reservists operate the same gear they would be using upon mobilization. As an example, certain Regular units have mock setups of mine control systems for use by members of TM divisions.

In addition to weekly drills, multiple drills are conducted over weekends, with exercises in the division’s specialty.

Mine units, for example, get practical experience in minelaying and recovery operations.

Quarterly harbor defense exercises are also held, with Reserve divisions taking part. In these exercises, submarine operators, frigates, Coast Guard ships, patrol craft and miscellaneous small craft all cooperate to create realistic problems for the Harbor Defense Units to solve. Reservists are assigned to key positions in the combat centers and also take an operational part in the activities of the afloat units.

Specialty training is also available to Reservists at naval schools providing instruction in sonar, mine warfare, nets and booms, CIC, radio-logical defense, damage control, chemical warfare, radar and radio, all part of harbor expense.

So the next time your ship heads into port, remember that a small army of mechanical eyes and electronic ears are likely to be “watching” your progress. And behind these inanimate detection devices there are many Navymen—Regulars and Reservists—on the job around the clock to see that any possible sneak attack meets with failure.
In the Mine Force Family

The ships and boats used in mine warfare, as in the rest of the Fleet, are undergoing a big change these days.

Many of the minecraft which saw action in the Korean fighting and World War II have been put in mothballs, sold out of the Navy or converted to more modern types. The service craft employed in mine warfare are also passing through a transition period, in which the MSBs (Minesweeping Boats) are leading the way.

This modernization program is resulting in greater emphasis on wooden ships in the mine warfare field, but there are still quite a few steel-hulled “old-timers” around. USS Peregrine, a Fleet Minesweeper (Steel Hull), and USS Gwin, a Destroyer Mine layer, both date back to World War II. USS Bobolink, a Coastal Mine hunter, is also a holdover from World War II, but she has a wooden hull.

The other ships, and the MSBs, shown on this page belong to classes which have joined the Fleet within the past five or six years. They, along with new types now being built, give us the most modern mine warfare Navy in the world.
Widow’s VA Option

Sm: In the September issue of ALL HANDS, you mention an “option” offered to widows now drawing VA compensation for their husbands’ service-connected death. My question is this: Who is going to advise me what to do when I have no papers which indicate on what basis I’m now receiving a pension. For instance, I get compensation of $150 plus $54.40 Social Security for what basis I’m now receiving a pension. I have no papers which indicate on myself as compensation and how much is for each child under this new law?
—Mrs. E. B.

• The Veterans Administration will notify you, and every other widow, dependent parent and guardian of children now receiving compensation for the service-connected death of the serviceman, of your rights and benefits under the Servicemen’s and Veterans’ Survivor Benefits Act. They will give you full information on options available and you’ll have ample opportunity to make an election. Survivors at present receiving benefits will be given an option of electing to continue receiving their benefits or receive the benefits authorized under the Survivor Benefits Act.

The Servicemen’s and Veterans’ Survivor Benefits Act (Public Law 88-1, 84th Congress) authorized widows now receiving compensation for service-connected death of their husband, $112 per month plus $12 per cent of their late husband’s basic monthly pay computed on present active duty pay scales of rate and length of service at time of death. If your husband had more than 12 years’ service his basic pay would be $273, and compensation for you under the Survivor Benefits Act would be $145 per month for life. (You may also be entitled to Old Age Survivors Insurance at the age of 62, which is administered by the Social Security Administration.) This act also authorized benefits for children under 18 years of age to be paid by Social Security, based on the average monthly wage of your husband, until the child or children reach 18 years of age. Also a special VA benefit of $35 per month is payable to children attending a school or college approved by the VA. This special benefit is paid at the same time as the dependency and indemnity compensation and is intended to take care of children not otherwise covered by Social Security payments, which stop when children reach age 18. —En.

GI Training

Sm: I am trying to find out for sure if I will be eligible to go to college under the Korean G. I. Bill when I retire from the Navy on 20. According to the information that I have been able to get on board ship, I would have three years from the expiration of my present enlistment to enter school.

I entered into this enlistment on 22 Oct 1951 and it expires 22 Oct 1957. If I recall on that date, I can be discharged by 22 Apr 1960 and be entered in school by 22 Sep 1960, just 30 days before the expiration of my three-year grace period.

Check me if I’m wrong.—D. T. B., BM1, USN.

• On the basis of the facts as you present them, you’re right. As you say, according to the Veteran’s Readjustment Assistant Act of 1952 you must begin to use your educational rights within three years after your enlistment expires.

However, it seems that you’re pushing your margin of safety pretty close. It is quite possible that paperwork could delay your discharge and subsequent application, and thus jeopardize your entrance to school on time. To be sure that you have an adequate grace period, why don’t you extend your present enlistment for one year before you reenlist? The extension would give you a year’s grace (from October 1960 to October 1961) and need not delay your transfer to the Fleet Reserve.—En.

Boxer Awards for Korea

Sm: Can you tell me the campaign ribbons vs Boxer (CVS 21) was awarded during her 1953 tour in the Far East?—J. M., Des Moines, Iowa.

• As a climax to her activities during the Korean conflict, Boxer was awarded in 1953 the Korean Service Medal, United Nations Service Medal, China Service Medal and Korean Presidential Unit Citation.

Boxer earned the hard way every award she received and, in doing so, managed to achieve quite a record. Boxer pilots flew a record number of missions and claim to have taken part in the last mission of the Korean conflict before the official cease-fire became effective on 27 Jul 1953.

During her four combat cruises Boxer pilots flew more than 12,000 sorties over Korea and dropped nearly 12,000 tons of bombs in addition to thousands of rockets. They fired more than four million rounds of 50 caliber ammunition and more than a million and one half of 20mm ammunition.—En.

Parachute Insigne

Sm: I am a Naval Reserve Ensign, and have been designated to attend flight school. I would like to know if I am qualified to wear the parachutist’s wings on the basis of Federal service as a “smokejumper” during the past two summers. During this service I underwent a complete training course and have to my credit 21 parachute jumps.—A. H., ENS, USNR.

• You are not qualified to wear the Navy’s parachute insignia at present. According to Article C-7405, “BuPers Manual,” and Article 0225, “U. S. Navy Uniform Regulations,” in order to be authorized the parachute insignia, one must be assigned to parachute jumping duty and have successfully completed a course as prescribed by a naval parachute unit, in addition to having made six jumps from aircraft in flight.

Authorization to wear the Navy parachute insignia then continues until specifically revoked by the Chief of Naval Personnel.—En.
NO VALENTINE PARTY—In ship's mess crew members of USS Tarawa (CVS 40) sweat out their share of the service-wide examinations for advancement.

Final Multiple

Sir: In the August exams I tried out for PR2. Before the results were announced I was transferred to my present duty station. When I received the results, which were forwarded to me by speedletter, I found that I had failed with a score of 49.75. Some of my buddies got scores like 50, 51, etc. Could you tell me why my score was a four-digit figure?—J. E. A., PR3, USN.

This is what happened. Your score is a final multiple, which includes time in rate, time in service, bonus for medals, etc., plus your examination score. It is always a four-digit figure. The exam scores, however, are whole numbers, i.e. 51, or 75.—Ed.

Tuition Aid Program

Sir: I am a Reservist on active duty and would like to know if there is any provision for naval personnel in an active status to attend classes at private institutions with the Navy footing part of the tuition cost? I've searched high and low in the directives, but with little luck. Can you help me out?—J. H. T., YN3, USN.

In BuPers Inst. 1550.10 the Navy announced the resumption of the tuition aid program. Under this plan you can take courses at any accredited institution which is approved by your commanding officer and which (1) contributes to your professional capabilities, or (2) contributes to your qualifications for a baccalaureate degree.

The Navy agrees to pay tuition amounting to 75 per cent of the cost, as long as it does not exceed $7.50 per semester hour or $5.00 per quarter hour. For example, if you were to take a three-semester-hour course at a total tuition fee of $51.00, the Navy would pay $38.25. If, however, you were to take a three-semester-hour course at an institution where the total fee is $24.00, the Navy would pay 75 per cent or $18.00. You must bear all other costs.

You'll find a more detailed description of the program on page 46 of the October 1956 issue of ALL HANDS.—Ed.

Church Pennant

Sir: The old H. O. Publication No. 89 (Flags, The United States and other Countries), under the heading “Church Pennant,” stated that “the church pennant is hoisted at the same point of hoist and over the ensign during the conduct of divine services on board vessels of the Navy.”

Apparently I've looked in the wrong places, because I can't find a similar rule for shore stations. I thought I could find it in Chapter 21 of Navy Regulations but I didn't have any luck. Does the same rule apply to shore stations and activities; if so, where can it be found?

And can you name any publication currently available which both lists and illustrates the various flags (national, personal, special) and pennants?—F. L. B., CWO, USN.

According to Public Law 829, “No other flag or pennant should be placed above or, if on the same level, to the right of the flag of the United States of America except during church services conducted by naval chaplains at sea, when the church pennant may be flown above the flag during church services for the personnel of the Navy.” The naval publication DNC 27 (U. S. Naval Flags and Pennants, Descriptions, Uses and Customs) states in Chapter 11, Article 201.1 that: “The words 'at sea' are interpreted for U. S. Navy purposes as meaning 'on board a naval vessel.' Shore stations, while not authorized to display the church pennant above the ensign, may display it separately if desired.”

Illustrations of one or more national, personal and special flags and pennants may be found in the following: Navy Hydrographic Office publication National Flags and Ensigns (HO Misc. 15181); Jane’s Fighting Ships (at the beginning of each section devoted to a country’s Navy); and Webster’s New International Dictionary (Color Plates I, V, VI, VII and VIII, facing page 924 in the Second Edition). Descriptions of various flags and pennants may also be found published in DNC 27.—Ed.

BETWEEN ROUNDS—USS Boxer (CVS 21) enters Pearl Harbor on way to States for overhaul. She just finished her first battle tour in Korean waters.
No Plastic Raincoats

SIR: I have noticed a few officers and enlisted men wearing the clear plastic-type raincoats, which are sold at most Exchanges. Has the Uniform Review Board ever approved them for regulation wear?—M. L. C., HM1, USN.

They have been considered from the standpoint of utility and appearance, but weren't recommended for Navymen. Plastic-type raincoats may be all right for one man, but on a group of men they wouldn't present a smart appearance. In addition, they wrinkle easily and wouldn't hold up in the varying climates as cloth raincoats do. The men you noted were strictly out of uniform.—En.

Lump Sum Checkage of Pay

SIR: I was discharged at Norfolk, Va., in December 1955, and reenlisted a month later in Chicago, Ill. Since I selected Option 5, I was assigned to San Diego for further transfer, and was subsequently ordered to the San Diego-based USS Chevalier (DDR 805).

When I reported aboard Chevalier, I received travel allowance for my wife, plus $77.10 dislocation allowance. Now the disbursing officer has decided I didn't rate a dislocation allowance, and has proceeded to deduct the entire amount in one lump sum, leaving me with a $2 payday.

I don't know whether I rated the dislocation allowance or not; I do know that it takes money to live, and it doesn't help matters when the entire deduction is arbitrarily taken from one pay check. Couldn't the deductions have been spread out over several paydays?—D. C. S., MM2, USN.

- "Joint Travel Regulations," paragraph 3002 (item 3), authorizes payment of dislocation allowance to members who reenlist without a break in active service at the same activity at which they were discharged. As you did not reenlist without a break in active service, and reenlisted at an activity other than where you were discharged, you were not entitled to dislocation allowance.

As for the lump-sum checkage of your pay, the "Navy Comptroller Manual," paragraph 04556.3c, provides that a member indebted to the United States as a result of an erroneous payment may not be checked in excess of two-thirds of his pay in any one month. "Pay" is defined as basic pay, special pay and incentive pay, minus withholding tax and the mandatory basic allowance for quarters contribution.

On this basis, the checkage of $77.10 in one month is in accordance with regulations, since two thirds of your pay is roughly estimated to be $80.

Rules and regulations concerning pay do provide that if a member feels that checkage in a lump sum would cause undue hardship, and if such amount exceeds two-thirds of the total of his monthly basic pay, incentive pay and special pay, he may submit a written request to his commanding officer via the disbursing officer indicating his financial condition and the maximum monthly installments he thinks he can afford. Such a request will be endorsed by the commanding officer to the disbursing officer with his determination as to the amount of the monthly deduction to be made.—En.

Beginning Date for Sea Duty

SIR: I have been assigned to a pre-commissioning detail after a tour of shore duty. Will my sea duty start on the day of the assignment or on the date of the commissioning?—P. W. O'B., EMC, USN.

- Chief, sir, if you are being assigned after a tour of shore duty, your sea duty will begin on the date the ship is commissioned.—Ed.

Basic Test Battery Retest

SIR: I am anxious to get into the NavCad program, but I did not receive a passing score on the Basic Test Battery. Is there any way I can get approval to retake the tests?—W. D. M., FA, USN.

- Yes, there is. As long as you meet all the other requirements for the Naval Aviator Cadet program, you may put in a request to the Chief Of Naval Personnel (Attn: Pers B2242) for a retest on the BTB. Be sure you forward your request through official channels.—En.

Special Weapons Program

SIR: As a last resort I am turning to you for information, because I am told that you know all of the answers.

I want very much to get into the Special Weapons Program, but am unable to locate any BuPers instruction that outlines the procedure for doing so. I hope you can help me.—J. A. H., YN1, USN.

- We're honored that you hold us in such high esteem. We don't know ALL the answers, but we can help you this time.

BuPers Inst. 1308.46 outlines the requirements for personnel assigned to Special Weapons Programs. Requests are given prompt consideration and are approved if billets are available and if the applicant meets the general requirements for assignment. The requirements are: (1) high school education; (2) GCT of 50; (3) excellent record of performance of duty; (4) good moral record; (5) no indication of lack of financial responsibility; and (6) three years' obligated service at time of transfer.

It is possible that waivers may be granted in cases where men have outstanding compensatory qualifications. You must be cleared for access to Top Secret classified matter.—En.
LETTERS TO THE EDITOR (Cont.)

MODEL SHOWS how vehicles will be loaded aboard the Army's new high speed beach lighter. In World War II the Army had over 12,000 ships and boats.

Army Ships and Boats of WW II

Sir: At the close of World War II the Army had a great many ships and boats under its direct control. Are there any statistics on the approximate number and by whom the ships and boats were manned?—R.F.P., TE1, USN.

* During World War II ocean-going Army ships and boats were manned by civilian crews. The armed guard was generally U. S. Navy personnel and the medical group was Army. The smaller Army vessels and craft under 1000 tons were manned almost entirely by civilian crews, who received training, in part, by the Navy. At that time Army vessels, including landing craft, etc., numbered 186 vessels over 1000 tons and 12,000 vessels under 1000 tons. This totaled a little more than one-fifth of the Navy’s 68,936 combatant and non-combatant vessels as of 31 Aug 1945.—Ed.

USS United States

Sir: We have a question concerning boat hails. When a boat approaches a ship at night with the commanding officer aboard, one of the boat crew sounds out the name of his ship. Our question is on this illustration as follows: When a carrier is named United States and the gig of this carrier is returning at night and the boat crew sounds out “United States.” How will the OOD know who is aboard, the commanding officer or the President of the United States?

We ourselves would call out “President of the United States” if the President were aboard and “United States” if the commanding officer were aboard. We would like to know the proper procedure in the above case.—S. K. W., BM2, USN, and F. C. E., BM3, USN.

* You are right. The new carrier uses United States presents a problem in boat hails as you so aptly point out. Should this boat call become ambiguous after United States is in service the CO will doubtless originate the necessary correspondence to resolve the problem.

Army officers on active duty except TARs, Wavez, retired officers, and warrants are arranged in their proper seniority order on one linear list. This list has unrestricted line, restricted line, limited duty officers, staff corps officers, permanent regulars, temporary officers, and reserve on active duty. It indicates the standing of each officer with respect to every other.

There is also a way for determining the length of commissioned service of each permanent regular officer. This is the “service date” described in note two (page VI) of the 1 Jan 1956 “U. S. Navy Register.” Remember that as an officer’s service date, once established, does not change, unless he transfers from line to staff corps.

In the linear list it is important to have some means of subdividing groups of officers who are contemporaries or near contemporaries. These subdivisions must make up solid blocks on the linear list, including every officer whose lineal position is between the senior and the junior man in his group. These groups or blocks are called “year groups.” The dividing lines which establish these year groups are placed in such a way that the majority of permanent Regular unrestricted line officers who have not lost numbers or precedence are in the year group corresponding to their service date.

If you are an unrestricted line officer and have never failed of selection or have never been selected from below the promotion zone, you will have the same year group as your service date. If you have failed of selection one or more times you will probably be in a year group junior to that corresponding to your service date. If you were ever selected for promotion from below the promotion zone, you may now be in a year group senior to that corresponding to your service date. It is therefore possible for an officer to change his year group every year through repeated failures of selection.

“Year group” has little meaning for staff corps or restricted line officers, except to identify them with the unrestricted line officers who will determine their eligibility for promotion and their year and position in the promotion zone.

Reserve and temporary officers (who do not have service dates), are considered as being in the year group in which their lineal position places them.

A quick description of your year group—briefly speaking—might be the fiscal year in which you were first commissioned provided you never failed of selection or never were selected from below the promotion zone, and provided that you were not originally commissioned between the date of graduation of the Naval Academy class and 30 Jun of the same year.—Ed.
Phil Sea Gets Around

Srn: I would like to know whether or not the Navy Unit Commendation was awarded to uss Philippine Sea (CVS 47) during the period 1 Aug 1950 to 31 May 1951.

Also, I am very much interested in her history; how she was named, when she was launched, what she has done, etc. In other words, I’d like to know whatever you can tell me about her.

—J. H. T., BT3, USN.

- We get you, mate. Let’s take first things first.

The Secretary of the Navy awarded the NUC to Philippine Sea on 7 Dec 1954 for two periods, 4 Aug 1950–31 May 1951, and 31 Jan 1953–27 Jul 1953.

Now for a historical look at her. As you know, the Navy has a policy of naming aircraft carriers for names of famous ships formerly on the Navy list for important battles of present or past wars. So CVS 47 was named in honor of the battle of the Philippine Sea of 18–19 Jun 1944, the historic “Marina’s Turkey Shoot.”

Philippine Sea was launched on 5 Sep 1944 and became an official unit of the Navy when she was put into commission eight months later on 11 May 1946. A training period in June was followed in September by a shakedown cruise in the Caribbean with Air Group Twenty.

On 29 Jan 1947 she headed for the Antarctic region with a polar exploration party and during the remainder of 1947, operated in the Atlantic and Caribbean.

In the spring of 1948 Philippine Sea left the Mediterranean to join the Sixth Fleet. She showed her colors in France, Greece, Tunisia and Sicily, to name but a few of the countries she visited. June found her back in the United States working with carrier control approach landings. By November she was helping with exploration of the lower rim of the Arctic Circle in a cold weather operation designed to test planes, ships and equipment.

10 Jun 1950 was the date Philippine Sea became a part of the Pacific Fleet. At the outbreak of the Korean conflict she sailed for the Western Pacific as part of Task Force 77. From her deck air strikes were launched that hit strategic targets in the Yellow Sea.

In April 1951 she led Task Force 77 and other parts of the Seventh Fleet down through the Strait of Formosa and the South China Sea. On 9 Jun 1951 she arrived back at San Francisco only to return to the Western Pacific on 20 Jan 1952. Her Korean duty ended 1 Aug 1953.

For her operations off Korea Philippine Sea received the Navy Occupation Medal—Asia, the China Service Medal (Extended) and the Korean Service Medal with nine bronze stars.—Ed.

Overseas Orders

Srn: I have several questions to which I have been unable to obtain any satisfactory answers.

1. When a man receives orders to overseas shore duty, not as the result of his own request, is he ever permitted to turn down such orders?

2. Upon completion of a tour of overseas shore duty to which a man had been ordered voluntarily, does the duty count as a normal tour of overseas shore duty or computing eligibility for overseas shore duty?

3. What are the dependent transportation stipulations to a man aboard a rotating ship, who is married to an alien wife?

4. Are servicemen’s wives who are aliens allowed to enter overseas areas outside of their own country?

5. If the service record of a man who recently reenlisted does not have any of his previous sea duty entered, what can he do to establish his previous sea duty so that he may request overseas shore duty?—R. L. R., EMG, USN.

- This is a big request, Chief. Let’s tackle them one at a time.

1. No. If you receive orders for overseas shore duty you can't turn the orders down.

2. Whatever scuttlebutt you might have heard to the contrary, forget it. The duty does count when computing eligibility for overseas shore duty.

3. Whether or not his wife is an alien, he is entitled to normal dependent transportation when ordered to another duty station, subject, of course, to existing immigration laws and housing facilities. The amount he receives will not be more than the cost of transportation from the home port or yard of the ship to the new duty station.

4. They are, so long as approval has been obtained from the area commander.

5. The best thing for him to do is to have his command originate an inquiry to the Bureau asking for his sea duty date. The Bureau will check his duplicate service record to determine the correct date.—Ed.

Ship Reunions

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

- uss South Dakota Veterans’ Association of WW I—The 56th annual reunion of the World War I crew will be held in Seattle, Wash., on 6 April. For further details, write to Carl Haggland, 2519 N.E. 50th Avenue, Portland 13, Ore.

- uss Mink (IX 123)—All former shipmates who are interested in holding a reunion in Boston during May 1957—or at some other time and place to be decided by mutual consent—should contact Robert L. White, YNCA, 124 Alden Street, Malden 48, Mass.

- uss SC 699—All former crew members who are interested in holding a reunion, with time and place to be decided by mutual consent, should write to James W. Foristel, 7 Windsor Road, Alexandria, Va.

Allotment Check to Wife

Srn: I would like to have my family allotment check sent directly to the bank and deposited in my wife’s account. Is this possible? If so, how do I go about arranging it?—J. F. H., MM3, USN.

- Yes, you may do this. Your wife’s allotment may be registered to a bank to her account, but it is necessary for you to make the change. Your disbursing officer will be glad to lend you a hand on the mechanics of the operation.

Reference is paragraph 044402-3e of “Navy Comptroller Manual.”—Ed.
WITH BULKHEAD bedecked with ribbons from WW II and Korean conflict, USS Aucilla (AO 56) continues her career servicing the Sixth Fleet.

‘Mighty A’

Sir: I have been reading in ALL HANDS ever since I’ve been able to read, where members of a ship’s company address their complaints to you. Well, I have one.

My ship and 220 proud sailors of USS Aucilla (AO 56) would like to know why you have overlooked Aucilla.

We have been stationed overseas here in the Mediterranean since 29 May 1955, and never once in all that time has there been the slightest word on Aucilla in ALL HANDS.

We would like you to take into consideration the following facts, and if you have read them, I am sure you will find room for an article on the Mighty A.

I believe, but wouldn’t bet on it, that Aucilla holds some type of record for being overseas so long in peacetime. There are numerous ships now stationed here throughout the Mediterranean, but none more worthy than Aucilla.

During our past 18 months Aucilla has won the ‘E’ for being tops in her field. Besides winning the ‘E,’ she has been a real work horse of the Sixth Fleet. Refueling at two or three in the morning is not unusual for this white tanker. Any boatswain’s mate will tell you that it’s just regular routine.

In addition she has handled mail and parcel post for dozens of ships stationed here, and some — like USS Coral Sea (CVA 43)—average better than 100 bags per ship. During the Christmas season, even small ships such as USS Bordelon (DDR 881) averaged 13 to 16 bags of parcel post per mail call.

At Christmas Aucilla held a Yuletide party for orphans of Barcelona, Spain. It was not an ordinary affair. In three months’ time her crew had raised close to $1400 for that party, to be used for the purchase of books, clothes and toys for these children.

All of us on board Aucilla are mighty proud of her and hope that maybe you can mention her in ALL HANDS.—W. L. K., TE3, USN.

• We couldn’t possibly improve on your comments, and agree you have every reason for pride in your Aucilla. She was quite a gal even before you met her in the Mediterranean, and earned herself a nice chunk of history. Here’s her story, in case you hadn’t heard:

Aucilla was launched on 20 Nov 1943 and commissioned on 22 December. In late April 1944, after a training cruise in Trinidad, she took part in fueling cruisers and destroyers just before D-Day in preparation for the invasion.

During the latter months of 1944 Aucilla operated in support of the Third Fleet at the time it struck Luzon in connection with the reoccupation of the Philippines. In January 1945, she went with the Fleet into the South-China Sea during the fast carrier task force strikes on Camranh Bay, Hong Kong, Hainan and Formosa in support of the landing operations at Lingayen Gulf.

February 1945 found Aucilla giving support to the Fifth Fleet at the time of the invasions and occupations of Iwo Jima and Okinawa.

At the end of WW II Aucilla was giving logistic support for the occupation forces which entered Tokyo Bay. All told, Aucilla earned five battle stars and the Philippine Liberation Ribbon for her participation in WW II. During the Korean conflict she received the Korean Service Medal and the United Nations Service Medal. She earned the Navy Occupation Service Medal (Asia and Europe) for service in 1945–49, NOSM (Europe) during Korean Conflict, and China Service Medal (Ext.) for service in 1947.

If you are interested in a more detailed history, drop a line to the Division of Naval History, Ship’s History Section, Navy Department, Washington 25, D. C. They’ll send a complete history upon request.—Ed.

Computing Time in Officer Status

Sir: I expect to retire next year. Could you tell me whether or not my commission time for retirement is computed from the rank to which I am acknowledged? H. E. T., LT, USN.

• It’s counted from the day that you accept your commission.

Remember also, that you will have to have a minimum of 10 years’ commissioned service to be eligible for retirement in your present status.—Ed.
A Fast Look-See at the Fleet

A quick glance at the various types of ships silhouetted in this month's centerspread will give you an idea of the complexity of today's modern Navy.

A more detailed study will make you realize the vast number of different types of ships needed in order to execute the many tasks required.

This centerspread conforms with the latest list of types and designations of the ships and service craft, altered to comply with current security regulations.

Basically, many of the designators and silhouettes are the same as they were "way back when" — but in today's modern Navy, types, designators and even appearances of ships are taking on the new look.

In this atomic era, construction of radically new ships and conversion of others are necessary to keep pace with the rapidly changing concepts of modern warfare. Our ships of today and tomorrow are being designed and built so that our naval striking power will be capable of keeping the world's seas open no matter what type of hostilities we may be forced into.

Even in peacetime, a modern Navy capable of keeping the sea lanes open is paramount to the security of the U. S.

Today's ships would make the old time Navyman gasp with wonderment. Whether in operation, in the building ways or on the drawing boards, they are a far cry from those of yesteryear.

They include such almost unbelievable ships as 60,000-ton high-speed, attack aircraft carriers; nuclear powered submarines and cruisers; guided missile capital ships, cruisers, destroyers, frigates and submarines; radar picket destroyers, new types of mine sweepers, escort vessels and submarines; replenishment Fleet tankers and escort helicopter aircraft carriers.

If you studied the type and designator listings and review the accompanying charts, you will notice that it takes more than 180 different types of ships to run our modern Navy. They are divided, according to mission, into three distinctive categories — combatant ships, auxiliary vessels and service craft.

The combatant ships — the heart of today's Navy — are sub-divided into warships, amphibious warfare vessels, mine warfare vessels and patrol vessels. Among them are two types of battleships, six kinds of cruisers, two command ships, five different designations of aircraft carriers, seven types of destroyers, five types of submarines, 18 various types of amphibious vessels, 12 kinds of mine warfare vessels and a variety of 11 patrol vessels.

The auxiliaries, of which there are 48 types, range from the large replenishment fleet tankers, tenders, repair ships and transports to floating drydocks, distilling ships and sailing craft.

The indispensable service craft — the final category of naval ships — consists of a variety of 66 kinds of yard, harbor and district craft. Without these "odd-job" vessels, the larger combatant and auxiliary ships would be handicapped.

Many new ships have made their appearance in the operating forces in recent months and a number of others are scheduled. In a report to Congress Admiral Arleigh A. Burke, Chief of Naval Operations, stated that the Navy's shipbuilding and conversion program is "designed to keep the Navy modern, with the continued capability of dominating the seas no matter what eventuality."

Admiral Burke added that this program "placed greater emphasis on striking power, especially naval air striking power. It provides another substantial step toward a nuclear propelled Navy which we intend to accelerate each year. It provides for the maximum use of nuclear and other new weapons, and... accelerates our integration of guided missiles into the Fleet."

In line with this thinking, the Navy's '57 shipbuilding program (Public Law 523) calls for the construction of 23 new ships, all of which are combatant vessels except for one auxiliary. They are:

- The sixth 60,000-ton attack aircraft carrier of the Forrestal class.
- An 18,000-ton nuclear powered guided missile cruiser capable of steaming great distances at high speed without refueling.
- Four guided missile frigates, each of about 4000 tons, with seakeeping qualities to permit high-speed operations in rough weather. They will be equipped with dual Terrier missile launchers and will have excellent submarine detection capabilities as well.
- Eight guided missile destroyers equipped with every new device for anti-submarine warfare.
- Six nuclear powered submarines with a new and advanced hull design.
- Two 14,000-ton prototype escort vessels designed to be mass-produced rapidly from non-critical materials.
- One ammunition ship capable of rapid replenishment-at-sea with a speed of 20 knots.
- 5000 tons of landing and service craft including a 30-knot prototype hydrofoil landing craft to replace the eight-knot diesel-powered LCM.

In addition to the new construction, plans call for the conversion of four aircraft carriers; five light cruisers to guided missile ships; one guided missile submarine; one amphibious assault ship (a CVE for handling helicopters to be used in amphibious landings); a high-speed, large-cargo-capacity attack transport; a seaplane tender capable of servicing the P6M Seamaster, six radar picket escort vessels and four ocean radar station ships for extending the nation's DEW Line seaward.

With this shipbuilding and conversion program, even greater and more versatile ships will continually be added to our operating forces. However, bigger projects are planned, as the '57 program also provides for the design and advance procurement of one nuclear powered aircraft carrier.
PROFILE OF THE FLEET

CVL—Small Aircraft Carrier
CVHE—Escort Helicopter Aircraft Carrier
CVE—Escort Aircraft Carrier

Silhouettes shown are approximate and details are not accurate in all cases.

Prepared by ALL HANDS Magazine
Bureau of Naval Personnel

CB—Large Cruiser
CL—Light Cruiser
CLAA—Anti-aircraft Light Cruiser

CG—Guided Missile Cruiser
CLG—Guided Missile Light Cruiser

DDR—Radar Picket Destroyer
DL—Frigate
DLG—Guided Missile Frigate

SSK—Anti-Submarine Submarine
SSR—Radar Picket Submarine

APD—High Speed Transport
AK(SS)—Cargo Submarine
AP(SS)—Transport Submarine

LST—Tank Landing Ship
LPH—Amphibious Assault Ship

CVHA—Assault Helicopter Aircraft Carrier

Minelayer, MMC—Minelayer, Coastal
MSA—Minesweeper, Auxiliary
MSC(O)—Minesweeper, Coastal (old)
MSC—Minesweeper, Coastal (nonmagnetic)
MSF—Minesweeper, Fleet (steel hulled)
MSO—Minesweeper, Ocean (nonmagnetic)

PC—Patrol Escort
PGM—Motor Gunboat
PR—River Gunboat
PY—Yacht
SC—Submarine Chaser (110')

continued on next page
For security reasons, no attempt has been made to establish an accurate relative scale of ship sizes.

- Accurate silhouette not shown
- In construction or planned

Silhouettes not shown

- AD—Destroyer Tender
- ADG—Degaussing Vessel
- AE—Ammunition Ship
- AGS—Surveying Ship
- AGSC—Coastal Surveying Ship
- AG(SS)—Auxiliary Submarine
- AH—Hospital Ship
- AKS—General Stores Issue Ship
- AKY—Cargo Ship and Aircraft Ferry
- AN—Net Laying Ship
- AP—Transport
- APB—Self-propelled Barracks Ship
- APC—Small Coastal Transport
- ARH—Heavy-hull Repair Ship
- ARL—Landing Craft Repair Ship
- ARS—Salvage Ship
- ARVA—Aircraft Repair Ship (Aircraft)
- ARVE—Aircraft Repair Ship (Engine)
- AS—Submarine Tender
- AVM—Guided Missile Ship
- AVP—Small Seaplane Tender
- AVS—Aviation Supply Ship

- AB—Crane Ship
- AFD—Large Auxiliary Floating Dry Dock
- AFDL—Small Auxiliary Floating Dry Dock
- AFDM—Medium Auxiliary Floating Dry Dock
- APL—Barracks Ship (non-self-propelled)
- ARD—Auxiliary Floating Dry Dock
- AVC—Large Catapult Lighter
- LCU—Utility Landing Craft
- MSB—Mine Sweeping Boat
- PT—Motor Torpedo Boat
- PYC—Coastal Yacht
- SST—Target and Training Submarine
- X—Submersible Craft
- YAG—Miscellaneous Auxiliary
- YAGR—Ocean Radar Station Ship
- YC—Open Lighter
- YCF—Car Float
- YCK—Open Cargo Lighter
- YCV—Air Cushion Transportation Lighter
- YD—Floating Derrick
- YDT—Diving Tender
- YF—Covered Lighter (self-propelled)
- YFB—Ferryboat or Launch
- YFD—Yard Floating Dry Dock
- YFN—Covered Lighter (non-self-propelled)
- YFN—Large Covered Lighter
- YFND—Covered Lighter (for use with dry docks)
- YFNG—Covered Lighter (special purpose)
- YFNX—Lighter (special purpose)
- YFP—Floating Power Barge
- YFR—Refrigerated Covered Lighter (self-propelled)
- YFRC—Refrigerated Covered Lighter (non-self-propelled)
- YFRT—Covered Lighter (Range Tender)
- YFT—Torpedo Transportation Lighter
- YG—Garbage Lighter (self-propelled)
OF THE FLEET CONTINUED

Silhouettes shown are near approximations only and details are not accurate in all cases.

AF—Store Ship
AG—Miscellaneous
AGB—Icebreaker
AGP—Motor Torpedo Boat Tender
AK—Cargo Ship
AKD—Cargo Ship, Dock
AKL—Light Cargo Ship
AKN—Net Cargo Ship
AO—Oiler
AO(SS)—Submarine Oiler
AOG—Gasoline Tanker
AOR—Replenishment Fleet Tanker
AR—Repair Ship
ARB—Battle Damage Repair Ship
ARC—Cable Repairing or Laying Ship
ARG—Internal Combustion Engine Repair Ship
AVB—Advanced Aviation Base Ship
ARST—Salvage Craft Tender
ARV—Aircraft Repair Ship
ARSD—Salvage Lifting Vessel
ASR—Submarine Rescue Vessel
ATA—Auxiliary Ocean Tug
ATF—Fleet Ocean Tug
ATR—Rescue Ocean Tug
AV—Seaplane Tender
AW—Distilling Ship
CVL—Utility Aircraft Carrier
IX—Unclassified Miscellaneous

YGN—Gawage Lighter (non-self-propelled)
YHB—House Boat
YM—Dredge
YMP—Motor Mine Planter
YMS—Auxiliary Motor Mine Sweeper
YNG—Gate Vessel
YO—Fuel Oil Barge (self-propelled)
YOG—Gasoline Barge (self-propelled)
YOGN—Gasoline Barge (non-self-propelled)
YON—Fuel Oil Barge (non-self-propelled)
YOS—Oil Storage Barge
YP—Patrol Vessel
YPD—Floating Pile Driver
YPK—Pontoont Stowage Barge
YR—Floating Workshop
YRB—Submarine Repair and Berthing Barge
YRBM—Submarine Repair, Berthing and Messing Barge
YRDH—Floating Dry Dock Workshop (Hull)
YRDM—Floating Dry Dock Workshop (Mach)
YRL—Covered Lighter (Repair)
YSD—Seaplane Wrecking Derrick
YSR—Sludge Removal Barge
YTB—Large Harbor Tug
YTL—Small Harbor Tug
YTM—Medium Harbor Tug
YTT—Torpedo Testing Barge
YV—Drone Aircraft Catapult Control Craft
YVC—Catapult Lighter
YW—Water Barge (self-propelled)
YWN—Water Barge (non-self-propelled)

(Note: Where the identifying classification and hull number of a ship or service craft is preceded by the letter "E", it indicates that the particular vessel or craft is "Experimental." Similarly, the prefix "T" indicates that the vessel is assigned to MSTS (Military Sea Transportation Service).)
NAVY'S FIRST guided missile destroyer, USS Gyatt (DDG 712) heads to sea out of Boston. The converted DD packs twin Terrier launcher astern.

Ash Can Collectors
No doubt about it—a Navy frogman has an exacting and hazardous job—under the best of circumstances. His problems multiply when the assignment calls for retrieving 500-pound ash cans from the bottom of a harbor.

This has been the task of a five-man Navy Explosive Ordnance Demolition team working out of the Naval Ordnance Facility, Taura, Japan.

At the end of World War II an unknown number of depth charges were dumped into Yokosuka Harbor. They are now being brought to the surface and sent ashore for disposal.

Using specially-rigged medium landing craft, the team dives in about 40 feet of water with a three-foot visibility at the bottom. The limited visibility, complicates the problem of finding the charges, since they are buried under a foot of silt.

The divers work together in pairs, probing for metallic objects with a special ordnance tool.

When a charge is located, the boat above pinpoints the location with a marking buoy and the harbor crane moves to hoist the explosive to the surface.

More Navy Housing in Japan
A contract to build 68 units of Navy housing at Kamiseya and two units at Totsuka has been awarded.

Construction began in January. The units are expected to be completed before July.

This is the first of four contracts involving construction of Navy housing in Japan. The others include 130 units at Atsugi, 76 at Yokosuka and 21 at Iwakuni.

News of Navy Ships
Minecraft come and go so quietly that big ship sailors have a tendency to overlook their existence until a loose mine comes floating by or a spot of hot war forces some part of the world's coastal areas and navigable waters to be classed as "hostile." Like Faith, Hope and Charity, however, mine craft are still very much in evidence. For instance, there are the three new MSO hulls numbered 519, 520 and 521, and the names recently picked for them: Ability, Alacrity and Assurance. The three sweeps are a modification of the Agile class, with a length of 189 feet, a beam of 36 feet and a displacement of 936 tons. They are wooden-hulled, powered by non-magnetic diesels and have controllable-pitch propellers.

And elsewhere in the mine field:

- **uss Dextrous** (MSF 341), proud owner of 8 battle stars for World War II and five engagement stars for Korea, has been decommissioned.

  First put in service back in June 1942, **Dextrous** went to the "Med," participated in the landings at Salerno and Anzio, and in the invasion of Southern France. Later she operated in the Pacific, mostly around Guam, Eniwetok and Okinawa, although she did participate in the pre-occupation sweep of waters around the enemy homeland. Ending her occupation duty in January 1946, **MSF 341** headed home for a spell in the Reserve Fleet before being recommissioned for three tours of duty in Korean waters.

- **uss Acme** (MSO 508) has joined the Fleet in formal ceremonies at Boothbay Harbor, Me. She incorporates the latest technical equipment for combating mines, as well as the newest designs for comfortable living afloat.

  Five vehicle landing ships have been taken from their LSV slot and placed in a new one marked MCS (Mine Warfare Command and Support Ship). The five: **uss Catskill** (MSC 1), **Ozark** (MSC 2), **Osage** (MSC 3), **Saugus** (MSC 4) and **Monitor** (MSC 5).

  Then there are a number of mine craft which have been transferred to...
other navies under provisions of the Mutual Defense Assistance Program: Coastal minesweeper MSC 261 has been turned over to the government of Pakistan in ceremonies at Boston Naval Shipyard. The wooden-hulled 180-footer, first vessel to be taken by Pakistan, will be renamed Mujahid. At San Diego uss MSC 264 has been turned over by a crew of Danes; uss MSC 266, a coastal minesweeper, has been transferred to Spanish jurisdiction at Boston Naval Shipyard, while MSOs 513 and 514 were accepted by the French government representative in Boston.

Turning from minecraft and working up the long line of Navy ships we find that:

- Commander Fleet Activities, Yokosuka, set up ceremonies on the activity's small boat float for the transfer to Japan of five LCVPs, one YSR and two LCMs.
- Also at Yokosuka, the Commander, Naval Forces, Far East, speaking at ceremonies transferring LSMs 422, 471 and 478 to Nationalist China, said: "The transfer of three LSMs to the Navy of Nationalist China is not likely to rank as one of the great events of history—efficient and gallant little ships though they may be. What we do here today, however, has importance and significance far beyond mere number of the ships transferred, their monetary value or their combat capability."
- Auxiliary tugs uss Chilula (ATF 153) and Avoyel (ATF 150) have been taken out of the mothball fleet and recommissioned for service in the U.S. Coast Guard.
- At a launching down in Louisiana the wife of the Commandant, Eighth Naval District, reportedly "displayed excellent batting form" as sponsor of uss Grant County (LST 1174), a 442-footer which is believed to be the largest vessel ever launched on the Mississippi river.
- Meanwhile, back at Boston Naval Shipyard uss Suffolk County (LST 1173) was also launched.
- uss Sellstrom (DER 255), recently recommissioned at New York Naval Shipyard, was once plain old DE 255, named for a Navy flier who lost his life early in World War II.
- uss Courtney (DE 1021) has been commissioned down in Charleston as newest member of the Dealey-class escort vessels. Courtney, in addition to being fitted with the latest in electronic and anti-submarine warfare gear, has the distinction of being the first vessel commissioned in Charleston in almost 10 years.
- A 1900-ton escort vessel, uss Hartley (DE 1029), has been launched in Philadelphia. Hartley is a 315-footer, with a beam of 36 feet.
- Contracts have been let for DESs 1035 and 1036, although no names have yet been chosen for them. Of the DE 1033 escort vessel class, the new ones are 1350-tonners, sporting a 38-foot beam and 312-foot length—in addition to the most modern anti-submarine weapons and sonar devices, excellent maneuverability and a low silhouette.
- uss Forster, one-time DE 334, has been recommissioned at Long Beach Naval Shipyard as the radar picket escort vessel DER 334, following a period of conversion which called into use practically every trade to be found in the yard.
- Ex-destroyer escort uss Vance (DE 387) is back in the Fleet with what might be called a new "job code" number—DER 387.
- uss Decatur (DD 936), fourth of the name and a member of the Forrest Sherman class, has been placed in commission in Quincy, Mass.
- uss Hollis (APD 86) has been taken over by the zipper fleet at Green Cove Springs, Fla., after a record of service which dates back to her commissioning as a destroyer escort in 1944. After serving in the Mediterranean area with the first anti-submarine "hunter-killer" group in that area and as an escort for convoys, Hollis returned to the States in 1945, where the Philadelphia Navy Yard converted her into a high-speed personnel transport. Conversion completed, Hollis sailed for the Pacific and duty as flagship to a force of underwater demolition teams. mothballed in 1946, she was recommissioned in 1951 to pull subsequent duty as a training vessel.

USS COMPASS ISLAND (EAG 153) makes a trial run. She will be used to evaluate new navigation gear.
In the submarine Navy, ***uss Darter*** (SS 576) has been launched up Connecticut way. Billed as "one of the quietest submarines of all times," ***Darter*** features sound-isolating compartments for her diesels, in addition to controls of the "joy stick" type, the last word in habitability features, and power enough for her to make as much speed underwater as her WW II namesake made on the surface.

The nation's seaward defenses will be strengthened during the first half of 1957 if current schedules are met in delivery of YAGR s 9, 10, 11 and 11 namesake made on the surface. ***Darter*** features sound-isolating compartments for her diesels, in addition to controls of the "joy stick" type, the last word in habitability features, and power enough for her to make as much speed underwater as her WW II namesake made on the surface.

Finally, two Union ships of Civil War vintage have made headlines, with the one settling to the bottom unbidden and the other being discovered on the bottom as the result of a search which has gone on sporadically since Reconstruction days.

- ***uss Cairo***, a 512-foot ironclad, has been found approximately 12 miles above Vicksburg on the bottom of Mississippi's Yazoo river. One of the first U. S. warships to be sunk by a mine, ***Cairo*** has lain in her muddy bed since late 1862. Union forces removed her smokestacks and other superstructure to keep Confederates from finding and salvaging the vessel, but modern-day magnetic equipment located the wreckage and skin divers helped identify it. According to a National Park Service historian the ship is in a fair state of preservation and salvage attempts are being considered.

- When ***uss Hartford*** sank at her berth in the Norfolk Naval Shipyard, a local newspaper accorded her an "obituary" which began: "The last surviving lady who fought in Admiral Farragut's flagship when he gave voice to that famous "Damn..." quotation at Mobile Bay—had depended for several years upon steady pumping to keep her afloat. Her loss is attributed to the failure of hoses which carried water from her leaky hull via the permanent pumps, plus the inability of specially-rigged pumps to stem the flow of water before Hartford's vitals were breached.

And that's about all the News of Navy Ships for this month.

**Most Powerful Destroyer Type**

***uss John S. McCain*** (DL 3) has joined her sister ship ***uss Wilkinson*** (DL 5) as a unit of the Pacific Fleet's Cruiser-Destroyer Force. She will be based at San Diego as flagship of Destroyer Squadron 21.

***McCain*** left Norfolk, Va., for her cruise to San Diego early last November, making stops at Panama, Buenaventura, Colombia and Callao, Peru. (See photo, page 37.)

Carrying a crew of about 300 (see ALL HANDS, October 1956 page 16), ***McCain*** is considered faster and far more powerful than any destroyer-type ship in the Navy. She boasts automatic loading, rapid-firing guns, controlled by the latest fire control, and rapid target acquisition equipment.

She also is equipped with Weapon Able, one of the most modern anti-submarine weapons.

**Shipbuilders**

Not satisfied with some of the details of amphibious ships they've seen, two trademen Harry W. Carey, TD3, and Herbert W. Carder, TD3, have done something about it. They've built their own fleet.

The Navymen had no objections to the plans of actual landing vessels, but they did feel the models of these ships which are used by the Amphibious Training Unit at the Little Creek Naval Amphibious Base for instructional purposes, left something to be desired.

The fleet which they constructed is composed of 15 scale models. The models show the assault phase of an amphibious assault, beginning when the ships start their unloading operations until the Beach Group takes over.

Carder has also built a 14½-pound scale model tug, which he controls by radio. It has already proved its practical worth by sparing Carder the effort required to row his full-scale 12-foot dinghy.

BUILT THEIR OWN—Trademen H. W. Carey, TD3, USN, (r) and H. W. Carder, TD3, USN, built a 15-ship amphib fleet for classes at Little Creek.
Down to DC in Ships

Uss Saratoga (CVA 60) is plenty tough and mighty powerful.

To make sure she stays that way every officer and enlisted man in the crew has to be thoroughly trained for his role on her huge fighting team, and one of the most important aspects of that training is damage control.

Saratoga well knows the value of good DC organization, for in World War II it enabled her predecessor, CV-3, to stay afloat despite one of the most devastating kamikaze attacks ever sustained by any warship.

In the new Saratoga, as in the rest of the Fleet, the same sort of efficiency is being built up through repeated drills, so that in the event of collision, fire or battle damage every man will know what he's supposed to do and how he's supposed to do it.

Some (right) learn to assemble and use fog fire fighting equipment. Others (lower left) work in "DC Central" where reports from repair teams are collected, evaluated and plotted. "Central" in turn determines the condition of the ship and decides what measures should be taken to repair and isolate the damage.

Finally, when the simulated crisis is under control, the telephone talker in Central (lower right) passes the word and the repair parties are ordered to secure.

Next time, whether it's the real thing or only another drill, everyone on board will be better prepared for the emergency and the part he's to play in overcoming it.
The Olympic Games in Melbourne, Australia, dominated the mid-winter sports news and eight of 16 Navymen who were selected to the American team came back with Olympic championship medals. Leading the array of returning champions were Gold Medal winners Milt Campbell, SA USN, LTJG James Fifer, USN, and ENS Dan Ayrault, USN.

Campbell, now stationed at NTC San Diego, won the decathlon and set a new Olympic record on the way, missing out by only 49 points of surpassing the world mark. Campbell, who now joins the ranks of super-athletes like Bob Mathias and Jim Thorpe, broke Mathias' Olympic record set in 1952, when this same Campbell was runner-up.

As winner of the Decathlon, Campbell has been acclaimed as one of the outstanding heroes of the Games. This grueling 10-sport endurance test, includes the 100-meter dash, 400-meter run, 1500-meter run, 110-meter hurdles, shot put, high jump, broad jump, pole vault, discus and javelin.

Here Are the Navymen Who Made the Olympic Team

<table>
<thead>
<tr>
<th>NAME</th>
<th>DUTY STATION</th>
<th>SPORT</th>
<th>AWARDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTJG Jack Davis, USNR</td>
<td>NTC San Diego</td>
<td>110-meter hurdles</td>
<td>Silver Medal</td>
</tr>
<tr>
<td>Milton Campbell, SA, USN</td>
<td>NTC San Diego</td>
<td>Decathlon</td>
<td>Gold Medal</td>
</tr>
<tr>
<td>Ben Garcia, SN, USN</td>
<td>NTC San Diego</td>
<td>Javelin</td>
<td>Gold Medal</td>
</tr>
<tr>
<td>Allen Bell, SN, USN</td>
<td>USS Wasp</td>
<td>Cycling</td>
<td></td>
</tr>
<tr>
<td>LTJG Bill Andre, USNR</td>
<td>USNA Annapolis, Md.</td>
<td>Pentathlon</td>
<td>Silver Medal</td>
</tr>
<tr>
<td>Sewall Shurtle, YN3, USN</td>
<td>R/S Brooklyn, N. Y.</td>
<td>Rowing</td>
<td>Gold Medal</td>
</tr>
<tr>
<td>LTJG James Fifer, USNR</td>
<td>N/S Seattle, Wash.</td>
<td>Rowing</td>
<td>Gold Medal</td>
</tr>
<tr>
<td>ENS Dan Ayrault, USNR</td>
<td>N/S Seattle, Wash.</td>
<td>Pistol</td>
<td>Bronze Medal</td>
</tr>
<tr>
<td>CHMACH Offut Pinion, USN</td>
<td>NAS Atlantic City</td>
<td>Swimming</td>
<td></td>
</tr>
<tr>
<td>Reid Patterson, SN, USN</td>
<td>N/S Long Beach, Calif.</td>
<td>Wrestling</td>
<td>Bronze Medal</td>
</tr>
<tr>
<td>ENS Pete Blair, USN</td>
<td>USNA Annapolis, Md.</td>
<td>Yachting</td>
<td></td>
</tr>
<tr>
<td>ENS F. Scheetle, USN</td>
<td>R/S Newport, R.I.</td>
<td></td>
<td></td>
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<tr>
<td>ENS Robert Stinson, USN</td>
<td>N/S Newport, R.I.</td>
<td></td>
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<tr>
<td>NavCad Russell Desmond, USN</td>
<td>NABTC, Pensacola, Fla.</td>
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<tr>
<td>John Pogkos, ETA, USNR</td>
<td>USNRTC Yokers, N. Y.</td>
<td></td>
<td></td>
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<tr>
<td>Hugh Wiley, SA, USNR</td>
<td>USNRTC Ft. McHenry, Md.</td>
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</tbody>
</table>

In addition to the participants, there were a number of other Navymen who attended the Games in Melbourne in an official capacity.

LTJG Jack Davis, USNR, of NTC San Diego. In the 1952 Olympics, Jack had missed out by inches for winning the 110-meter hurdles. He had been shaded by the grueling two-day competition.

LTJG James Fifer, attached to Anti-Submarine Squadron 39 at NAS Quonset Point, R. I., teamed with a former Marine flyer, 1STLT Duvall Hecht, USMCR, to win the Gold Medal in the pairs without coxswain event.

The two airmen easily outdistanced their closest rivals to win first place. They had previously been rowing mates while attending Stanford University and avenged their defeat in this event in the 1952 Olympics.

Fifer, who is a pilot of a twin-engined S2F Sentinel, and Hecht pulled out in front at the start of the race and kept pulling away from the Russian, Austrian and Australian crews which had also qualified for the finals.

ENS Dan Ayrault of the Naval Station, Seattle, Wash., came home with an Olympic Gold Medal as he teamed with Kurt Seifert and Conn Findlay to win the paired oars event. Ayrault also attended Stanford, where he was teammate of Seifert and Findlay.

One of the hairbreadth contests at the Olympics this year was a tough one to lose for LTJG Jack Davis, USN, of NTC San Diego. In the 1952 Olympics, Jack had missed out by inches for winning the 110-meter hurdles. He had been shaded by
Harrison Dillard, although both were given the identical times of 13.5 for the distance, Davis came away with a second place Silver Medal.

This was to be his year, Davis hoped. In the 1956 AAU championships, he had set a new world record of 13.4 for this event, although he failed to win in the final heat. In the American Olympic Trials in Los Angeles, he finished in a dead heat in the finals of the 110 hurdles—a dead heat with the troublesome but capable Lee Calhoun. Both qualified for the Olympics.

Came the day of reckoning at the Olympics and Davis was ready. He knew that the slightest mistake and Calhoun would be winner. Once again, for Davis, it was not to be. Somehow or other, he got a poor start out of the blocks and although he was able to equal Calhoun by the time they cleared the fifth hurdle, Davis couldn’t pass his chief opponent.

Both runners checked at 13.5 seconds but it took a photo-timer to separate the two great hurdlers. It was again only a matter of inches, but Navy’s Jack Davis has his second Silver Medal.

Chief Machinist Offutt Pinion, USN, of NAS Atlantic City, N. J., came through in the International Free Pistol shooting event to win third place and a bronze medal. The veteran Navy pistol expert reached the zenith of his avocation this past year as he won the International Free Pistol shooting contest in the Nationals at Camp Perry. Then he followed this up with the cream of all shooting laurels, an Olympic Medal.

LTJG Bill Andre, USNR, of the Naval Academy, won a Silver Medal as a member of the U. S. Pentathlon Team which won second place. Andre, who also qualified for the American team in the Fencing events, was number one man on the U. S. Pentathlon team, finishing sixth in individual tabulations.

An upset for Navy came when ENS Pete Blair, USN, of the Naval Academy, won only third place and a Bronze Medal in the 191-lb class free-style wrestling. Blair had already defeated the wrestler from Turkey who had been heavily favored to win the class. Blair, in his semi-final bout, was pinned by the eventual winner. Blair did come back, however, to win the consolation bout and take third place.

The Marines, who are now competing within their own ranks (the Marine Corps was formerly included in the Navy Sports Program), qualified eight men for the Olympic team and five returned with medals.

The two Silver Medals were won by the Marine twins, SGT John D. McKinlay of Camp Lejeune, N. C., and PFC Arthur F. McKinlay, of MCRD San Diego. The twin rowers

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**Schedule of 1957 All-Navy and Regional Championships**

<table>
<thead>
<tr>
<th>SPORT</th>
<th>REGIONAL (week of)</th>
<th>ALL-NAVY (week of)</th>
<th>TEAM/SQUAD</th>
<th>RULES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boxing</td>
<td>25 Feb 11 March 18 March</td>
<td>12—five men AAU—Single Elimination, with headgear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basketball</td>
<td>8 April 12 August Host—Com 1</td>
<td>12—Both men Women—NSGWS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bowling</td>
<td>4—Both men Women—NSGWS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tennis</td>
<td>5 August 12 August Host—Com 11</td>
<td>40—1 August USTA—Single elimination</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Golf</td>
<td>5 August 12 August Host—Com 6</td>
<td>18 USGA—72 hole medal play</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseball</td>
<td>19 August 26 August Host—U.S.C.G. Cape May, N. J.</td>
<td>16 Men—16 Accepted professional rules, double elimination</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Softball</td>
<td>26 August 2 September Host—Cincinnati Women—16 A.S.A. Double Elimination</td>
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</tr>
</tbody>
</table>

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**Schedule of 1957 All-Navy and Regional Championships**

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‘COOL’ GOLFER, CWO W.C. Crews, USN, of USS Aftco (AGB 3) practices ‘Arctic golfing’ while his ship waits for ice break on DEW Line supply mission.
Jim Stanley, SN, USN, shows form that placed him on Navy All-Stars as he lays one up for Hawaii Packers in Western All-Navy tilt against 12th Naval District.

came in second in the four oars without coxswain event.

A Bronze Medal was won by Private Joshua Culbreath, of MCS Quantico, who won third place in the 400-meter hurdles.

No Wave athletes were selected to the Olympic team but two Navy dependents were members of the women's swimming team. Mary Jane Sears, daughter of Rear Admiral Harry E. Sears, usn, competed in the 200-meter breast stroke and 100-meter butterfly events. The other was Susan Gray, daughter of Captain James S. Gray, usn, who competed in the 400-meter freestyle.

The din of the Olympics is still echoing, yet basketball has gained the attention of many sports followers. Throughout the Navy today, some 2000 basketball teams are in the battle for league and district titles. Each is secretly—and some are openly—eyeing the All-Navy title up for grabs next March.

You might think that every team has an equal chance for the title. But in the case of basketball, ships don't have quite the same facilities for training as shore activities, although they'll be in there dribbling.

This year, as in years past, there will probably be about a dozen teams throughout the Navy with a fair chance of getting all the marbles. The fact that most of the top Navy quintets emerge from activities with large complements is not, in itself, a good reason for their success from season to season. Naturally, their chance of getting good material through normal personnel transfers is much greater than that of smaller ships and stations. Training centers are in an ideal position to get A-1 material as it comes into the Navy. But in the last analysis, the big reason for the success of the winning teams—whether from a big or small outfit—is simply: They try hard.

They try hard to get good players, try hard to find the best coaches, and try hard to get their athletes in the best possible physical condition. They also try hard to build up enthusiasm and interest among their own personnel.

All-Navy Sports Futures
This year's All-Navy championships present a "new look" in the Navy sports program and reflect the ideas and desires of what the commanders/commandants want in the way of sports. (See box, page 41.)

The scope of this year's contest has been enlarged to seven sports and includes championships for Waves in basketball, bowling, golf and softball. For the male athletes, All-Navy diadems up for grabs include the above four sports plus baseball, boxing and tennis.

The emphasis in the Navy sports program is again on the intramural level. However, competition and interest should remain as high as before in the All-Navy level.

Going out the window are the All-Navy Eastern and All-Navy Western championships. Under this year's setup, the Navy has been divided geographically into six regions. When a team wins a regional championship, it qualifies for a spot in the All-Navy championship playoffs in that particular sport. No team or individual, however, will be allowed to compete in more than one region in any one sport.

For Inter-Service competition, only three sports are on this year's agenda. Inter-Service competitions will be for men only and will include boxing, golf and tennis. Navy will host the Inter-Service boxing on 14-15 March at the Newport, R. I., Naval Station.

Host for Inter-Service golf will be the Marine Corps on 21-24 August with Parris Island as the tentative site. The Army will be host for the Inter-Service tennis competition on
20-24 August to be held in the District of Columbia area.

Before reaching the Inter-Service, each representative must win the championship of his respective service. For the Navy here's the path of elimination by regions:

**Atlantic Fleet Region:** All U. S. Atlantic Fleet units.

**North Atlantic Region:** First, Third, Fourth and Ninth Naval Districts, SRNC-PRNC and CinCenMr units.

**South Atlantic Region:** Fifth, Sixth, Eighth, Ninth, Tenth and Fifteenth Naval Districts.

**North Pacific Region:** Twelfth, Thirteenth and Seventeenth Naval Districts.

**South Pacific Region:** Eleventh Naval District and Pacific Fleet type commands with headquarters in the Eleventh Naval District.

**Western Pacific Region:** Fourteenth Naval District, Marianas, Far East, Philippines and Pacific Fleet type commands with headquarters in the Fourteenth Naval District.

Other outstanding changes brought about by this year's sports instruction include the matters of transportation and finances. From the time a team wins a regional championship, it will be under the financial wing of the BuPers Central Recreation Fund.

Full details may be found in BuPers Inst. 1710.1D.

### Sharpshooter

Don Tuculet, AOAN, USN, of NAAS Saufley Field, Pensacola, Fla., fired his first pistol shot less than a year ago. No record is available to certify where his first round hit, but since then, Don has been on or close to the V. This is a matter of record because Tuculet picked up seven medals in the first two matches he entered.

In the Naval Air Basic Training Command Pistol and Rifle Club matches, Don won: First Place, Sharpshooter Class, .22 caliber, National Match Course; First Place, Sharpshooter Class, .45 Caliber, National Match Course; First Place, Sharpshooter Class, Center Fire, National Match Course; and Second Place, Expert class, Grand Aggregate.

Tuculet added his other three medals at the Fiesta of Five Flags Championship Matches. Shooting in the Sharpshooter Class, Don won: Second Place, Center Fire, National Match Course; Second Place, Timed Fire; and Second Place, Slow Fire.

The light of day was quickly fading. There was a sharp chill in the air. But not one of the 100,000 who jammed Melbourne’s Cricket Ground was about to leave. It was the finale to one of the greatest one-man exhibitions of endurance, desire and ability they had ever witnessed.

The final event was the strength-sapping 1500-meter run, the last of 10 events in two days by the world’s greatest all-around athletes. The big (6'3", 215-lbs) athlete with the red, white and blue stripes across the front of his uniform had to run in a time of 4:55 or less to clinch the much desired Gold Medal.

As he made the final turn into the home stretch, he lapped the Australian entry in the Decathlon. “Come on, you’ve got to go” the Australian urged Milt Campbell, SN, USN. And Campbell appeared to cut in all boilers as he sprinted the last 300 yards and won the event in 4:50.6, and the first place gold medal.

It was a dream come true to the young (22) Navymen from Plainfield, N. J. Four years ago he had failed to make the grade in the Decathlon. He had finished second to an ex-Marine from Tulare, Calif. That year, Bob Mathias had set a new Olympic record, but now even his record was by the boards. Big Milt Campbell nudged the mark up 50 points, to a total of 7935.

In every Olympiad, the winner of the Decathlon stands as one of the outstanding heroes of the games. In 1956, Campbell established his superiority over an exceptionally strong field of competitors.

Although he had not been the pre-Olympic favorite going into the events, Campbell’s victory had not gone un-predicted. Campbell himself, while chatting with the Navy Representative at the Olympics, had quietly and confidently stated “I’m going to win the Decathlon.” It was no idle boast by the athlete who has now been elevated to the ranks of such greats as Mathias and the late Jim Thorpe.

Many experts at the Olympiad (and certainly there were many) had stated that even if the favorite Rafer Johnson of UCLA had had one of his better days (he was hampered by a groin and leg injury) they doubted that he would have bettered the Navy seaman. From the first event, the 110-meter hurdles, Campbell led the field and his first place victory was in doubt only after he had failed to clear the pole vault bar at 11 ft. 5 3/4 in.

“It was my own fault,” Campbell said later. “I didn’t time myself properly on the approach and fouled up.” But in the clutch, he proved himself the greatest all-around athlete in the world today.

—Rudy C. Garcia, JOC, USN.
Brief news items about other branches of the armed services.

LONG STEP—Copters are better to jump from according to paratroops who have been trying this new approach.

"Over-the-shoulder" bombing, a method for accurately hitting a target with atomic weapons while evading radar detection, is under development by the Air Force.

Officially called Low Altitude Bombing System, but better known as "toss bombing," the method differs from a regular bomb run in that the pilotlobsthe bomb into the target in a loft shot.

Teams of F-84F Thunderstreaks and F-84F Thunderjets are experimenting with two types of toss bombing. Both methods allow a pilot to make a high-speed, tree-top-level approach to a target, drop his bomb and get away before his craft is enveloped in an atomic explosion.

The advantages of toss bombing are obvious: fast, low-flying aircraft cannot be tracked or picked up easily on enemy radar screens and are less liable to attack from missiles and interceptors. And the marksman ship of the ground-hugging airplane is much more accurate than that of a high-altitude bomber.

The "over-the-shoulder" method is used when the only identification point is the target itself. As the plane approaches the target at tree-top level, the pilot pulls it up in a loop and while still climbing, tosses the bomb "over his shoulder" at the target behind. The bomb arcs above the plane while the pilot completes the loop and streaks off, to be miles away when the bomb explodes.

This approach is favored by pilots of fighter-bombers such as the Thunderstreak because of the type of target most frequently encountered in tactical bombing missions. Fighter-bombers are used primarily to hit major tactical targets such as railroad yards, bridges, dams, airfields, or for front-line air support. Over-the-shoulder bombing allows the pilot to get a good look at his target before dropping his bomb.

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WHAT IS SAID to be the largest static firing test stand for rocket motors in the United States—and possibly the world—has been announced by the Army.

The test facility at Redstone Arsenal, Ala., started two and one-half years ago, cost a total of $12,000,000, and will be capable of testing the intermediate range ballistic missile now being developed at Redstone. It may also test even more powerful missiles.

Static testing of a missile consists of locking the missile into place on the stand and firing it. The missile does not take off but as it strains against the grip of the tower its engine can be studied for performance characteristics as if it were actually in flight.

The test stand itself is only a part of the entire test facility, being surrounded by a complicated layout of other buildings and devices including a boiler plant, a booster water pump station, an engine building, a nitrogen booster station, a horizontal test stand, a components test laboratory, a cold calibration test stand, and storage area. A huge crane, with 90,000-pound capacity, is used to lift the test missiles into place on the stand.

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INSTEAD OF THE STANDARD 75mm blank shells which have been used to announce retreat and reveille, the Army is using at 10 installations an adapter which will permit firing standard 10-gauge shotgun shells.

In addition to the $25,000 saved annually, the shotgun shells have the advantage of greater safety in handling and will require less storage space.

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THE FIRST NONSTOP transcontinental helicopter flight has been completed by an Army H-21.

The feat was made possible by a series of in-flight refuelings at various points along the 2610-mile route. During its transcontinental hop the Vertol H-21 was refueled in flight four times by a U-1A fixed-wing plane.

In addition, the H-21 was twice refuelled from ground stations as it hovered above the ground. These were made at El Paso, Tex., and Shreveport, La.

The 32-hour flight was made to prove the practicability of ferrying helicopters as far as 3000 miles to bolster the striking power and mobility of ground forces.

At the same time, the Army claimed to have made the first successful aerial refueling of a helicopter on 14 August at Fort Rucker, Ala.

During the in-flight refuelings, the tanker A-1A reeled out about 200 feet of aviation fuel hose which was
linked to the copter as it flew slightly behind and slightly to one side. The trailing hose was supported by a small parachute.

Under normal conditions, an H-21 helicopter has a range of about 200 miles. Use of the new in-flight refueling system extends its range nearly nine times.

A one-shot lightweight flame thrower is now in the final stages of development by the Army Chemical Corps.

The unit, developed for use in close-range combat situations such as those encountered during World War II and the fighting in Korea, weighs 26 pounds when combat-loaded as compared with the 72-pound weight of the multiple-shot type. Because of its lighter weight and compact size, it can be "jumped" with a paratrooper as part of his equipment.

The new type of flame thrower is considered to be particularly useful for reduction of bunkers and other positions where high explosives are not effective. When equipped with a remote-firing device, it has been found to be ideal for use in defensive situations such as flank emplacement. It may also be adapted for use as a booby trap.

Either thickened or unthickened fuel may be used. Fuel capacity is two gallons, as compared with four and a half gallons for the multiple-shot type. Compact and easy to carry, the unit may be fired from any position. It is rugged, waterproof and safe to use.

A "rapid-firing," six-barreled 20mm cannon for supersonic jet planes, patterned after the Civil War Gatling gun, has been demonstrated by the Air Force.

Named after Vulcan, Roman god of fire, the cannon was developed to meet Air Force needs for a weapon with sufficient rate of fire for modern jet aircraft which move at tremendous speeds against equally fast-moving targets.

It fires a projectile weighing one-third of a pound and each round is fired independently, with "duds" being ejected automatically.

Now being tested in Air Force jets, the 300-pound cannon is simple to operate and maintain.

A two-way radio which the Army Signal Corps has built into a new synthetic combat helmet will enable soldiers to communicate on the battlefield with great ease.

The radio weighs a pound, including batteries, and has a microphone that tsks into the helmet when not in use. The entire set is smaller than two packs of cigarettes.

The experimental helmet, molded of a new tough synthetic material, looks like a football player's headgear and protects the head as well as a steel helmet would.

The radio, using transistors instead of bulky vacuum tubes, is pre-set for short-range conversations to prevent message interception in the front line. However, the range can be increased in a few seconds by hooking an auxiliary antenna to the helmet. At full capacity, the new radio can reach other sets up to a mile away and can hear powerful stations at even greater distances.

To answer a call the soldier pushes a button on the side of his helmet and talks into a microphone about the size of his thumb. No warm-up time is needed since the transistors act instantly.

Where talking might divulge his position, the wearer can push a second button, on his helmet and acknowledge a message with a short "beep."

The FM set, which can operate continuously for a half-day without changing the tiny batteries, snaps into the side of the helmet in two metal cases.

Production models of the new electronic headgear are expected to be practically indestructible.

The Air Force is developing mammoth vacuum cleaners to clean the surface of its runways. The machine is capable of cleaning a million square feet of runway an hour while traveling at a speed of 20 mph.

It is expected that this equipment will help reduce the damage done to jet engines when foreign objects enter them from airfield pavement surfaces.
Frank, Authentic Advance Information
On Policy—Straight From Headquarters

- NO ACKNOWLEDGMENTS—You will no longer get individual acknowledgments that your request for recruiting duty has been received. In other words, no news will be good news. If you don’t hear anything, it means that your request has been received and that you are on the recruiting duty eligibility list.

The only time that you’ll hear from the Bureau concerning your request for recruiting duty will be where there is wrong information on your request or when you do not meet the eligibility requirements.

Another good tip on submitting your request for recruiting duty: Don’t limit yourself to a single city. Your chances will be a lot better if you will list a first and second choice and a third choice as “anywhere U. S.”

- RETIRED GUIDE BOOK — Distribution of a guide book for retired and Fleet Reserve personnel in a pay status began in January. The new publication sets forth your rights, privileges and benefits, as well as those of your dependents and survivors.

Designated as NavPers 15891, the “Navy Guide for Retired and Fleet Reserve Personnel” will be automatically distributed by the Bureau of Naval Personnel to all individuals in a pay status on the retired rolls, to individuals retiring or transferring to the Fleet Reserve when orders are issued, and to ships and stations for administrative use.

Additional copies may be requested from the Chief of Naval Personnel (Attn: Pers G224). However, justification must be made for the additional copies.

- E-4 EXAMS IN MAY — Certain Regular Navy and Reserve personnel on active duty will have a chance to take service-wide competitive examinations on 2 May 1957 for advancement to pay grade E-4. Those who may take the exams are: (1) men who are eligible for the February examination but who did not compete for some reason; and (2) those who have newly become eligible in accordance with the criteria set forth in BuPers Inst. 1418.7C, BuPers Inst. 1414.3A, and the Manual of Qualifications for Advancement in Rating (NavPers 18068), as amended.

It should be noted that performance tests must be successfully completed before the examination date. Air controlmen who are not assigned to control tower duties are granted a waiver of the CAA certificate requirement.

The May exams will not be administered to TAR personnel. Regular Navy personnel who compete for advancement in those ratings in which selective emergency service rates have been activated will be recommended for and advanced only to the selective emergency service rates. Those examined in pay grade E-4 of other ratings will be advanced in the general service rates. Reserve personnel on active duty with the Regular Navy will be advanced to the related emergency service rating which is in their normal path of advancement and for which they have been trained.

Ratings for which the E-4 examination will be given are: ACW, ACR, ACT, GD, CT, AQF, AQF, GF, QM, SM, RD, RM, MR, ME, BT, IC, CE, AMS, AMH, ATR, ATS, ATN, AEM, AEI, PHS, PRM, MM, EM, ETR, ETN, ETS, FTM, FUT, FTA, FTE, FTL, FTO, SO and TM.

Requests for examinations must reach the Naval Examining Center on or before 15 Mar 1957, according to BuPers Notice 1418.

- WANT TO BE A MUSICIAN?—If you have had training and previous experience in playing a musical instrument and want to become a Navy musician, you may apply for entrance to the Naval School of Music. All enlisted men, except petty officers in the ratings of OM, RD, CS, FT, ET, RM, CT, DM, MM, MR, EM, IC, CE, BU, UT, AT, AQ, GF, AC, AE, and PR, are eligible to submit a request if they can meet the basic requirements.

As an applicant, you must take a musical audition administered by a Bandmaster, Chief Musician, or other competent musical authority. You must demonstrate technical proficiency on your chosen instrument, ability to sight-read, and produce the characteristic musical tone of the instrument throughout its range.

Applications for the Class A course at the Naval Music School must be submitted on the Enlisted Evaluation Report to the Chief of Naval Personnel. Your request must also include a completed Inservice Music Application Form (NavPers 759), which may be obtained from the leader of any Navy band or the OIC Naval School of Music.

If your request is accepted, you will be ordered to the U.S. Naval School of Music, Washington, D.C., with a possibility of future advancement in the Musician rating after successful completion of the school.

It is important that you note that once you’re accepted into the school, you must have or obligate yourself to three years’ active duty. The
Basic Course, which convenes monthly, qualifies personnel as playing members of unit bands. The course of instruction lasts from 26 to 36 weeks.

Included in the curriculum of the Class A basic course is training in concert band, dance band, harmony, ear training, seaman training course, general training course and private instrumental instruction.

The Naval School of Music also has an advanced Class B School and a refresher course Class C-1 School. The Class B School is to train qualified Musicians first class for advancement to Chief Musicians and as leaders of unit bands. The Class C-1 school is open to qualified petty officers in the Musician rating. This course gives the students remedial training, improves their instrumental proficiency and gives them additional theoretical instruction.

The method to use in applying for a course of instruction at the Naval School of Music and information regarding the courses may be found in BuPers Inst. 1336.2B.

- **NAVY UNIT COMMENDATION INSIGNIA**—Navy and Marine Corps units, ships and aircraft which have been awarded a Navy Unit Commendation are now authorized to display a distinctive pennant, plaque or streamer.

The burgee pennant will measure 44 units on the hoist by 92 units on the fly. It will have seven horizontal stripes, with hunter green as the center stripe. From top to center, the stripes will be royal blue, Spanish yellow and scarlet, with the same color arrangement below the green stripe.

The bronze plaque, for ships, aircraft, tank units and the like, will have the NUC insignia centered in the upper part and the citation engraved below it. Individual aircraft and tanks may also have the design painted on it in an appropriate spot.

For companies, battalions, regiments and similar organizations awarded the NUC, a streamer of appropriate size and will have the NUC insignia centered in the upper part and the citation engraved below it. Individual aircraft and tanks may also have the design painted on it in an appropriate spot.

- **MSC APPLICATIONS**—A revised time table has been set up in BuPers Inst. 1120.15B for processing applications for appointment to the grade of ensign (2300) in the Supply and Administration Section of the Regular Navy's Medical Service Corps. In the new instruction, the dates for each step of the application process have been set forward approximately one month. The initial request must now be submitted by 1 November; the previous deadline was 1 December.

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**QUIZ AWEIGH**

Start the new year out right and score a 4.0 in this relatively easy quiz. If you're a constant reader of All Hands, and we assume you are, this month's quiz should prove no puzzler to you. In case you do run into trouble, turn to page 54 for some help.

1. This ship is (a) Haverfield. She is designated a (b) escort (c) destroyer. Which means she is (a) rocket destroyer (b) destructor (c) radar picket escort vessel.

2. Haverfield is assigned to the (a) Continental Air Defense Command (b) U.S. Naval Forces in the (c) Continental Air Defense Command (b) U.S. Naval Forces in Korea (c) Rhine River Patrol.

3. Look closely, is this ship a (a) submarine chaser (b) patrol frigate (c) minesweeper?

4. Ships of this type are usually named after (a) Indian tribes (b) lakes and rivers (c) birds.

5. The gun that these two crew members help to man is a (a) 40mm antiaircraft gun (b) 3"/50 rapid fire twin mount (c) 20mm twin mount antitank gun.

6. As in every gun crew, each man has a specific job. These men are, left to right, (a) loader and aimer (b) trainer (c) trainer and aimer.

You'll find the answers to this month's quiz on page 54.
This Is Your Big Chance to Get into the Nucleonic Navy

Developments in the new Navy are such that careers with well-nigh unlimited opportunities are opening up for many enlisted Navy men. Three nuclear power programs—nuclear powered submarines; nuclear powered ships; and Army package power reactor—for which qualified naval personnel may volunteer for training and duty, are now available.

The shipbuilding programs for nuclear powered submarines are continuing and the programs for nuclear powered surface ships are just commencing. These shipbuilding programs are expected to continue until a majority of the Navy's combatant ships will have nuclear powered propulsion plants.

Training in nuclear power plant theory and operations is required of all those assigned to the engineering departments in nuclear powered surface ships and subs.

As a result, enlisted men selected for duty in the engineering departments will receive a course of instruction in nuclear power plant operation of approximately one year in length before assignment to nuclear power plants.

The development of the Army package power reactor has just started and the Navy is participating in the program.

As stated earlier (SecNav Inst. 1000.3), individuals chosen for these programs will not only be given every opportunity for advancement, but also will "have enhanced their career opportunities."

Here are the eligibility requirements:

Submarine—Regular Navymen in MM, EN, ET, EM and IC ratings in pay grades E-6 through E-7 and HM in E-6 and E-7 only may qualify if they:
- Have four years' obligated service.
- Are designated as "qualified in submarines."
- Are physically qualified for submarine duty.
- Volunteer for the program.
- Are less than 30 years of age.
- Have a combined ARI/MECH of 105.
- Are high school graduates (or have GED equivalent).
- Have a clear record.
- Are recommended by their commanding officers.
- Have a minimum of four years' obligated service, or be willing to extend their enlistment, or reenlist at the time of reporting for instruction.

Surface—Regular Navymen of the HM rating in pay grades E-6 and E-7, or of MM, BT, FP, MR, ET, IC, EM and IM ratings in pay grades E-3 through E-7, may qualify if they:
- Are less than 30 years of age.
- Are volunteers for the program.
- Have a minimum test score in GCT, ARI and MAT/MECH of 55 each.
- Are high school graduates.
- Are recommended by their commanding officers.
- Have a minimum of four years' obligated service, or be willing to extend their enlistment, or reenlist at the time of reporting for instruction.

If qualified for nuclear powered subs, you may submit your request on NavPers form 1339, Enlisted Evaluation Report, via your commanding officer, directly to the Chief of Naval Personnel (Attn: Pers B2131). The best qualified individuals are selected on their records.

Nominations of qualified volunteers for the nuclear powered surface ships are requested by the Chief of Naval Personnel from the Service Force Commanders as required. Individual requests should be submitted in accordance with the directives of the Service Force Commanders.

Nomination and selection procedures have not yet been formalized for the Army Package Power Plant Program.

Training for submarine personnel is divided into two phases, basic and operational. The basic nuclear power course is conducted at the Naval Submarine School, New London, Conn., and is 21 weeks long for all ratings.

Here, you receive a broad academic background in subjects related to the nuclear field and a knowledge of nuclear power plant construction, instrumentation, designed operation, and mechanical and electrical components.

The operational nuclear power course is conducted at Idaho Falls, Idaho, and Schenectady, N. Y., and this course is approximately 24 weeks long.

During this period you apply the knowledge received in the basic course and, by practical operating experience, qualify for the duties to which you will be assigned. Your ultimate duty assignment determines which course you will attend.

Training for surface ship personnel is also divided into basic and operational phases.

Both courses will be held at Idaho Falls with instruction provided by contract engineers and naval personnel of the staff of the Naval Nuclear Power Training Unit. The scope of the instruction is the same as that for submarine personnel.

Training for Army Package Power Reactors has not yet been fully developed but it is expected that it will follow lines similar to those described above.

Each course will offer approximately six months of theoretical training followed by approximately six months of operational and maintenance training either at land prototypes or on board nuclear powered ships.

Most of this training will be in a new and technical field and will involve much out-of-rating, or cross-rating work. In recognition of this situation, it is planned to provide special examinations for advance-
ment in rating, based partially on the qualifications acquired in nuclear power and partially on the qualifications required in the rating held.

The examination period during which these special exams will be first provided will be announced as soon as the necessary examination material has been compiled.

Certain qualified men, primarily in the EN, MM and FP ratings, will also receive highly specialized stainless steel welding training.

Complete details, including recommended study texts and courses, may be found in BuPers Inst. 1540.33. The instruction also notes that experience to date has shown that a high GCT is not necessarily the most important requirement. Rather, it is the sincere desire to absorb the necessary fundamentals, the adaptability to new concepts of nuclear power, and the willingness to work that will insure success.

**List of New Motion Pictures Scheduled for Distribution To Ships and Overseas Bases**

The latest list of 16-mm. feature movies available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn 1, N. Y., is published here for the convenience of ships and overseas activities. The title of each picture is followed by the program number. Those in color are designated by (C) and those in wide-screen processes by (WS). Distribution began in December.

These films are leased from the movie industry and distributed free to ships and most overseas activities under the Fleet Motion Picture Plan.

**The LT Wore Skirts** (674) (C): Comedy Drama; Tom Ewell, Sheree North.

**The First Traveling Saleslady** (675) (C): Comedy Drama; Ginger Rogers, Barry Nelson.

**Storm Center** (676): Drama; Bette Davis, Kim Hunter.

**Yaqui Drums** (677): Western; Rod Cameron, Mary Castle.

**Santiago** (678) (C): Drama; Alan Ladd, Rosanna Podesta.

**The Maverick Queen** (679) (C) (WS): Drama; Barbara Stanwyck, Barry Sullivan.

**Abdullah's Harem** (680) (C): Comedy Drama; Gregory Ratoff, Kay Kendall.

**Footsteps in the Night** (681): Drama; Bill Elliott, Eleanor Tanin.

**Calling Homicide** (682): Drama; Bill Elliott, Kathleen Case.

**Somebody Up There Likes Me** (683): Drama; Paul Newman, Pier Angeli.

**Pillars of the Sky** (684) (C) (WS): Drama; Jeff Chandler, Dorothy Malone.

**The Young Guns** (685): Western; Russ Tamblyn, Gloria Talbot.

**The Black Sleep** (686): Horror; Basil Rathbone, Akim Tamiroff.

**The Three Outlaws** (687): Western; Neville Brand, Alan Hale.

**Run for the Sun** (688) (C): Drama; Richard Widmark.

**Walk the Proud Land** (689) (C) (WS): Adventure Drama; Audie Murphy, Pat Crowley.

**A Cry in the Night** (690): Drama; Edmond O'Brien, Brian Donlevy.

**Davy Crockett and the River Pirates** (691): Adventure Drama; Fess Parker, Buddy Ebsen.

**Seven Men from Now** (692) (C): Drama; Randolph Scott, Gail Russell.

**These Wilder Years** (693): Drama; Cagney, Barbara Stanwyck.

**Navymen Commended for Nighttime Rescue at Sea**

Two Navymen on board the Requin (SSR 481) were recently presented the Navy Commendation Ribbon with Metal Pendant. The awards recognized the heroism displayed by William P. Schlosser, CS3, USN, and Dallas R. Pendergraph, ET1, USN, for their parts in a nighttime rescue at sea last year.

The story of their exploit is told in the following citation signed by Secretary of the Navy Thomas: “Approximately 12 miles off the coast of Bermuda, as members of the Requin maneuvered the submarine to recover six members of a swamped Royal Canadian Navy pulling whale boat, Schlosser and Pendergraph, despite the personal risk involved, dived into the choppy seas and swam a distance of approximately 50 yards to take a line to the six men. After aiding the six men to the side of the ship, they shielded them during the recovery from being pounded against the side by the swells.”
Going to Guam? This Is the Latest on Living Conditions

Let's Face It. Guam is home only to "Guamanians." However, even if it isn't home to you, Guam can be good duty. It's no longer an isolated spot in the Pacific. There is plenty of activity for all tastes but, if you wish, it provides a good opportunity to improve your educational and cultural background in a spot relatively undisturbed by the outside world. Here's the straight scoop as reported by those on the scene.

Passports — Passports for your dependents are required, but before applying for a passport, dependents must have authorization for travel abroad. This authorization will be either in the form of the message permitting concurrent travel, or in the form of a letter issued by Commander Naval Forces Marianas before travel is authorized. To avoid delay in sailing, application for passport should be made as soon as this authority is received.

Passports, when issued, must be forwarded to the District Passenger Transportation Office, Twelfth Naval District, San Francisco, Calif., for delivery to your dependents just before sailing.

Housing—Lieutenant commanders and above are authorized concurrent travel and are assigned Navy housing upon their arrival on Guam. Officers below the rank of lieutenant commander, on the average, must wait four to six weeks after arrival before Navy housing is available.

Enlisted personnel of all grades or ratings have to wait, on the average, about four months after their arrival for Navy housing.

Navy clearance for entry of dependents is usually given approximately one month or more before they arrive. Housing units, mainly single and duplex dwellings of the Quonset wooden ranch house, or permanent concrete types are assigned as they become available.

Navy housing is furnished with "essentials" — beds, mattresses, chairs, tables, divans, electric stoves, refrigerators, and in some cases deep freezers. Kitchen cabinets and "hot locker" (closet space) are adequate. Water heaters are provided for laundering and bathing. Bring your own washing machines and/or electric (not gas) driers if you have them.

You will probably be more comfortable with your own furniture which will provide not only additional equipment for your home, but may release some items which could be used to outfit some other quarters for those who do not have their own equipment. Do not bring furniture of the antique or overstuffed variety. Other items that are susceptible to damage from excessive moisture and humidity should be left stateside. All types of electrical appliances will be most useful and should be brought along. An additional refrigerator would be most useful to the average family. Numerous items of household appliances and equipment are available at the Navy Exchange at prices which make it unnecessary to purchase electrical appliances which you do not own at the time of your departure for Guam.

All other types of household furnishings such as sheets, pillows (preferably foam-rubber), pillow-cases, towels, table cloths, linens, kitchenware, dishes, cutlery, and other items of personal equipment MUST be furnished by you. Light, electric power, sewage disposal, and water are provided with Navy housing. Phone service is also available at low monthly rates. If you occupy Navy housing you will be required to forfeit your housing (rental) allowances.

A limited amount of privately owned housing is available. However, most of the houses are unfurnished or only partly so, and in general are substandard and overpriced. Rentals range from $40 to $150, with the majority at $75 and up.

Shipment of HHE and Automobile—The shipment of your automobile to Guam should be arranged as soon as you receive your orders. Submit a request for shipment (SandA Form 322) direct to the Naval Supply Center, Oakland, Calif. The shipment of your household effects can be arranged through the Supply Officer of any Navy or Marine Corps installation, preferably the one nearest your residence or last duty station. Government storage of household effects that you do not want to bring to Guam can be arranged at the same time. A complete request for shipment (SandA Form 34) together with certified copies of your orders will be required for each type of shipment. Certified copies of authority for entry of dependents are required for shipment of household effects to Guam.

Guam has a limited civilian transportation system at present, and a private car is most desirable. The Navy provides bus transportation for school children to and from school. Bus transportation is also provided between certain areas for armed forces personnel and civil service employees. Taxi service is available, but rates are high. It is possible to get along without a car on the island, but it is highly inconvenient.

Have your vehicle in tip-top mechanical condition before shipping. Undercoating is a very wise precaution. A good paint job will also help to keep the car more serviceable. Guam's humid climate and side roads are rough on cars. Body sur-
Personal Effects — Remember, the personal type of household equipment MUST be provided by the occupant. Clothing, linens, kitchenware, dishes, cutlery, and such other personal items that you may need for immediate use in your new home should be brought along with you in your luggage and hold baggage. All other items of personal effects not needed immediately should be shipped as household effects.

Almost any article of household equipment and personal effects may be purchased on Guam at the various armed forces exchanges or the numerous civilian stores. Prices in the exchanges compare favorably with stateside costs and in some instances, especially luxury items, are lower. Travel light so far as cabin and hold baggage is concerned; bring the essentials and forget the extras.

Foods — Guam produces only a small quantity of meat and vegetables. However, ships equipped to carry refrigerated and frozen foods make frequent trips to Guam and bring in a fairly adequate supply of meats and vegetables as well as all staple products. Food prices, in general, average slightly higher than for most of the United States.

Schools — Education is compulsory for all youngsters between the ages of six and sixteen. School facilities and curricula below high school level compare favorably with the stateside school systems. High school facilities and curricula are somewhat below stateside standards, but are rated as adequate. There are both public and parochial schools covering all grades from the first through high school. Several kindergartens are operated for pre-school children.

The Guam Territorial College provides dependents as well as military personnel and their dependents on Guam. Sunday schools, Bible classes and other religious activities are conducted regularly.

Medical and Dental Facilities — The Naval Hospital is a completely equipped and staffed facility. It is located in new, modern and permanent construction. Dispensaries are located at several of the larger installations on the island. These provide emergency treatment, and are staffed to care for minor ailments and ills which do not warrant hospital care. Ambulance service is provided when necessary. The Naval Dental Clinic can provide only emergency dental service to dependents.

There are civilian doctors, dentists, optometrists and oculists on the island. Their professional skills generally correspond to those that might be found in small communities in the States.

Clothing — For dependents, generally speaking, washable materials are the most practicable and desirable because of the warm climate.

Excellent dry-cleaning facilities are available for non-washables.

For men, light summer suits for dress, slacks and sport shirts for casual wear are the order of the day. Summer tuxedos are worn occasionally. Don’t bring heavy clothing or good woolen clothing.

For women, beach-type garb, slacks, blouses, shorts and shirts and sun-back dresses are used for everyday wear. There are many parties requiring the cocktail type dress. During the winter months, taffeta, laces and chiffons, are worn. If you have this type dress, be sure to bring it. During the summer, dressy cottons are suitable. Several formal dresses are useful, since there is an occasional formal dance at the Officers’ and CPO’s Messes (Open).

For the teen-agers and the younger fry, play suits, dungarees, sport shirts, cotton dresses, shorts, slacks, bathing suits, and trunks answer the clothing problem. There are many teen-age parties where party dresses are worn.

Shoes take a severe beating from marine conditions. Excellent dry-cleaning facilities are available for non-washables.

For men, light summer suits for dress, slacks and sport shirts for casual wear are the order of the day. Summer tuxedos are worn occasionally. Don’t bring heavy clothing or good woolen clothing.

For women, beach-type garb, slacks, blouses, shorts and shirts and sun-back dresses are used for everyday wear. There are many parties requiring the cocktail type dress. During the winter months, taffeta, laces and chiffons, are worn. If you have this type dress, be sure to bring it. During the summer, dressy cottons are suitable. Several formal dresses are useful, since there is an occasional formal dance at the Officers’ and CPO’s Messes (Open).

For the teen-agers and the younger fry, play suits, dungarees, sport shirts, cotton dresses, shorts, slacks, bathing suits, and trunks answer the clothing problem. There are many teen-age parties where party dresses are worn.

Shoes take a severe beating from

Rockoon System

"Rockoons"—a combination of balloons and rockets—are used in addition to the other tests in the summer of 1952. The balloon lifts the rocket to altitudes above 70,000 feet and when it reaches a predetermined height, a fixed pressure switch fires the rocket from an almost vertical position. With the aerodynamic drag of the lower altitudes eliminated, the rocket achieves a near vacuum ballistic trajectory and attains altitudes in excess of those that can be reached by the same rockets when fired at sea level. Rockets launched by the rockoon method have gone up more than 60 miles while the same rocket fired at sea level reaches only 20 miles.

In recent months, 10 rockoon flights have been made in the Pacific from USS Colonial (LSD 18). These flights were made to investigate the effect of solar disturbances as a preliminary to the Navy's upper atmosphere research to be conducted during the International Geophysical Year.

During these operations, Colonial served as the launching and observation ship while USS Perkins (DDR 877) was the support ship and tracked the rockoons by radar. These tests were highly successful and increased the Navy's general knowledge about a relatively little-known area—electromagnetic radiation of the sun caused by solar flares with a direct effect on radio communications.

WHAT'S IN A NAME

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the rainy season and the sharp-toothed coral. If practicable, women are advised to bring several pairs of their favorite shoes. However, shoes can be obtained in the armed forces exchanges and at the local civilian stores. Some of the smaller sizes for women and the fancy brands as well as shoes of the walking type with a medium heel are not always available. "Flats" and high heels can be purchased easily.

Mildew is hard on leather footwear, especially during the rainy season. Sandals and open-toed shoes are the most popular for women. Sneakers are fine for the young folks. Rubber, crepe and composition soles and heels provide the most wear. For the beach, swim shoes or sandals are smart. Sharp coral can cause nasty scratches, cuts and bruises.

Rain gear is also needed; light plastic material is recommended. Bring your own if you have it, but any suitable type can be obtained on Guam.

Other than clothing needed for the trip to San Francisco and for the first few days at sea after leaving San Francisco, all of your heavier clothing and woolens, as well as furs, should be stored before your departure.

Recreation — The Armed Forces Golf Course is a well tended modern course of 18 holes. It is operated as a recreation facility for military and civil service personnel and their dependents. There are also a 9-hole pitch and putt course and driving range.

Except for winter sports, you can find almost every sport imaginable.

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Silver Dollar Pay Plan

Fifty thousand clinking silver dollars produced a pleasant sound as they were passed by Navymen across the counters and into the tills of merchants operating in and around Minnesota's Twin Cities, Minneapolis and Saint Paul. A one-shot "hard money" pay plan had been put into effect for the sailors by the Naval Air Station at Wold Chamberlain Field.

The unusual pay scheme was designed to show Twin Cities merchants and residents in the air station vicinity just how much the Navyman's semi-monthly income means to the area's economy. The silver dollar pay program was made possible by the cooperation of a Nevada bank and the Las Vegas, Nev., Chamber of Commerce.

To carry out the scheme, "weekend warriors" on training flights were assigned to pick up the silver hoard in Las Vegas, along with souvenir canvas money bags for use in haul- ing the "loot" away from the NAS.

Hidden somewhere among the rolls of hard dollars which went over the pay table there was one cart wheel which had been specially fitted with a copper rim; the business proprietor who received this "lucky buck" was entitled to assume the privileges and prerogatives of air station "skipper for a day."

The lucky coin was spent at a utilities payment service whose lady proprietor—quite by accident—was born during the same year in which the coin was minted, 1898. The lady "captain," appropriately decked out with a four-striper's shoulder marks on her cloth coat, proceeded to take over the duties of the air station's regular skipper, CAPT Frank F. Gill, NAVPERS 580.

"All the islands in the Pacific and you pick a submerged one!"

The lady "captain," appropriately decked out with a four-striper's shoulder marks on her cloth coat, proceeded to take over the duties of the air station's regular skipper, CAPT Frank F. Gill, 1898— but with a difference. In addition to such regular duties as reviewing "Hawaii's Week End Warriors," making orientation flights in various aircraft, attending a meeting of department heads and lunching in the BOQ, the "captain-for-a-day" also took time to show the duty cook how the turkeys should be stuffed for Sunday dinner.

Several beaches are suitable for swimming, picnics and other beach activities. Shell-collecting and fishing as well as skin-diving are popular.

Among the various additional sports activities are tennis, archery, fishing (including deep sea fishing), hiking, handball, and badminton. Baseball, basketball, and even football are played.

Other recreational activities include hobby shops, bridge clubs, Little Theatre groups, as well as almost unlimited opportunities for the camera fan.

Officers' and CPOs' Messes (Open), enlisted men's clubs and numerous island "nite spots" offer good food and entertainment.

Six New Correspondence Courses For EMs Are Ready

Six new Enlisted Correspondence Courses are now available to all enlisted personnel.

Enlisted Correspondence Courses will be administered (with certain exceptions) by your local command instead of by the Correspondence Course Center.

If you are on active duty, your division officer will advise you whether the course for which you have applied is suitable to your rate and to the training program you are following. If it is, he will see that your application (NavPers 231) is forwarded to the Correspondence Course Center, which will supply the course materials to your command for administration.

Personnel on inactive duty will have their courses administered by the Correspondence Course Center just as in the past, using application form NavPers 580.

The new or revised courses are:

<table>
<thead>
<tr>
<th>Course</th>
<th>NavPers No.</th>
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<tbody>
<tr>
<td>Torpedoman's Mate 2, Vol 2</td>
<td>91297</td>
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<tr>
<td>Aerographer's Mate 3</td>
<td>91663</td>
</tr>
<tr>
<td>Mechanic, Chief</td>
<td>91581-1</td>
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<tr>
<td>Aerographer's Mate 2</td>
<td>91664</td>
</tr>
<tr>
<td>Mechanic 1</td>
<td>91580-1</td>
</tr>
<tr>
<td>Construction</td>
<td>91568-1</td>
</tr>
<tr>
<td>Electrician's Mate 3</td>
<td>91568-1</td>
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</tbody>
</table>

The last roundup of Enlisted Correspondence Courses was in ALL HANDS, June 1956 (p. 50). New courses will be listed as soon as they are available.
Off to Okinawa? Here’s More Duty You’re Likely to Like

Many a man in the Navy today has vivid—and not too pleasant—recollections of an earlier Okinawa, but these memories have little relationship to present day duty on this island. If you—or maybe your pappy—saw Okinawa service during World War II, you’d never recognize the place today. Here’s the rundown on living conditions at the present time.

Climate. Owing to the influence of the Japan Current, Okinawa has a sub-tropical marine climate with a temperature range from an extreme low of 41 degrees to a high of 91 degrees. The average annual moisture content of the air is very high, averaging 76 per cent. Typhoons occur with the greatest frequency from May to September. An average of three to four typhoons yearly do some damage; however, because of specialized building construction and established safety practices, there is little damage and no casualties.

Housing. Government quarters of both permanent and temporary construction are available to dependents. The permanent-type quarters are of concrete blocks with asphalt tile floors. The temporary types are quonset huts and buildings constructed of prefabricated metal materials. A cookstove, refrigerator, and water heater are installed in the quarters, and basic items of furniture are provided. At present, there are eight MOQs (married officer quarters) and 10 MEQs (married enlisted quarters) available. The current waiting period for government quarters is eight to 10 months. No private rentals are available; however, some houses are for sale in approved living areas. Hotel accommodations for dependents are not available.

Household Effects. All Navy quarters and housing are equipped with essential items of furniture. Expensive items of furniture are not recommended, because of the high humidity and termites. Grass and fiber rugs are available on the island at low prices. Most people have found them highly satisfactory and not nearly so susceptible to mildew and mold as rugs you would bring from home. China, silverware and kitchen utensils should be shipped, or they may be purchased at a very reasonable prices at the PX. It is suggested that you ship the following: household linens (including blankets, sheets and pillows), dishes, ironing board and iron, hardware items (such as nails, tacks, screws), oil-cloth, small oil heaters, shower curtains, all equipment and furnishings needed for infants and small children, alarm clocks, clothes hangers, and, if desired, innerspring mattresses.

Electricity. Your electrical appliances will work without adjustment, since power on Okinawa is 110-volt, 60-cycle, AC, as in the States. All cooking is done by electricity. Take any of your appliances such as washing machine, vacuum sweeper, radio, sewing machine, fans and other electrical appliances which make life more pleasant for you. Your television set can also be used.

Servants. Servants are readily available with the average wage ranging from $10 to $15 per month on a full or part-time basis. Social security and health insurance are included in the wage.

Clothing. The winter uniform is worn approximately three months out of a year; therefore, bring both summer and winter uniforms. Off duty, civilian clothes may be worn. Temperature and humidity make clothing hard to care for and have made Okinawa a pretty casual station in this respect. For women, summer clothing of cotton, light silk, rayon, and linen is desirable most of the year, but warmer clothing is needed for approximately three months of the year, as mentioned above. It is suggested that you take a complete wardrobe for each member of the family. Make certain you take plenty of shoes, lingerie, children’s clothing, women’s sweaters, dresses, suits, blouses, rainwear, heavy coats, sports clothing and all clothing and toilet items for infants.

Dry cleaners on the island are not equipped to handle delicate materials. Women wear hats occasionally, but kerchiefs are popular headgear, providing protection against the rain and wind. Hose are seldom worn except for the few cold months. Furs and leather items such as luggage are very susceptible to the molds that are prevalent in damp climates, therefore, you should avoid bringing them. Many find it to their liking, and also cheaper, to buy material, of which there is usually an excellent stock, and have clothing made by the local tailors or dressmakers. However, ready-made clothing is available at the PXs and at local stores. Okinawa is a coral island and hard on footwear; therefore, take a good supply of shoes for the whole family.

Religion. Religious activities including Sunday schools are available for all faiths at the various bases. Protestant and Catholic missionaries from the States are active on the island, and draw much of their support from the military.

Schools. The schools on Okinawa are very good. They are operated by the Army and Air Force and run from kindergarten through the twelfth grade. School buses carry the students back and forth, and inex-
pensive lunches are available at the school.

There has been a university on the island since the war, but college-level study for dependents of military personnel is not available.

**Food.** The commissaries are good, carrying a full line of canned goods, frozen fruits, and vegetables and an excellent supply of meat. There is a milk reconstitution plant on the island, so milk is no problem. There are also several approved vegetable markets and grocery stores available.

**Medical and Dental Care.** Medical facilities are available and provide routine medical care. Patients who need specialized care are taken to the nearest armed forces medical facility in the States that can give the care required.

Essential drugs and medicines are furnished by dispensaries and hospitals when required in treatment of a case. Common medical and drug items, such as aspirin, band aids and antiseptics, may always be purchased at the PX.

**Automobiles.** Although there is adequate bus and taxi service available on the island, you will enjoy having your own automobile. It should be in good shape before you leave the States, and it should be undercoated and well waxed. The military license fee is $1. Parts for most makes of cars are readily available and garage service is easily obtainable. Automobile insurance is required and, if purchased locally, will cost about $35 annually.

**Recreation.** Recreation facilities include swimming, baseball, golf, softball, tennis and hobby shops. In addition, theaters are located at most of the military installations on the island.

Many Americans turn to deep-sea fishing although there is also some reasonably good fresh-water fishing on the island. As for hunting, there are ducks, doves, and quail.

One of the most popular hobbies on the island is photography. The scenery furnishes a wide variety of subjects — beaches, rugged hills, primitive villages, terraced rice paddies and checkerboard gardens on the hillsides.

**Currency.** Currency used in the military installations is Military Payment Certificates which may be changed to Class B Yen for use in villages and towns. For convenience it is advisable to keep a checking account in the States. Postal money orders may be purchased locally.

**Pets.** It is recommended that pets be left at home. However, in the event you decide to bring a pet, the only formal entry requirements are complete immunization and a restriction of two pets to a family. Dogs under 18 months of age must be permanently immunized against distemper. No quarantine period is imposed upon arrival of pets except the time required for examination and the checking of vaccination.

**Passports.** Passports are required for dependents. Upon receipt in the headquarters of the 12th Naval District, of the application for dependents transportation overseas, pertinent information will be forwarded concerning passports and other helpful information.

**USNR and Temporary Officers Recommended for Regular Navy**

The names of 201 Naval Reserve and temporary officers recommended for permanent appointment in the Regular Navy have been announced.

Those to receive appointments, provided they meet all administrative requirements, are: Line (Men and Women), 64; Aviation Line, 89; Supply Corps, 21; Chaplain Corps, seven; Civil Engineer Corps, seven; Medical Service Corps, two; and Nurse Corps, 11.

**Promotions Announced for Line and Staff Officers**

The names of 867 staff corps and 2270 line Regular Navy and Naval Reserve officers recommended for selection for temporary promotion have been announced.

Those recommended included: captain: Civil Engineer Corps, 14; lieutenant commander: Medical Service Corps, 96, Supply Corps, 163, Chaplain Corps, 24, Civil Engineer Corps, 61, Dental Corps, 22, Medical Corps, 75, and Nurse Corps, 3; lieutenant: Medical Service Corps, 46, Supply Corps, 156, Chaplain Corps, 53, Civil Engineer Corps, 58, Nurse Corps, 96, unrestricted line, 2134, and restricted line and limited duty, 136.

**QUIZ AWEIGH ANSWERS**

QUIZ AWEIGH IS ON PAGE 47

1. (c) Radar picket escort vessel
2. (a) Continental Air Defense Command
3. Minesweeper, coastal
4. (c) Birds
5. (a) 40mm antiaircraft gun
6. (b) Trainer and pointer.
Roundup on Sources of Information for the Career Navyman

In the normal day-to-day naval operations there is a continuing flow of information on your Navy career, service advantages, opportunities and benefits. This information appears in a variety of forms—in manuals, handbooks, regulations, pamphlets, catalogs, instructions and notices.

Although most of this information is generally available to all ships and stations, it is frequently difficult to locate, changes are frequently made and, at times, some information is unintentionally overlooked.

So here's an up-to-date list of the directives dealing with career opportunities and programs available to Navy enlisted personnel and officers, classified according to subject. It supersedes that presented in March 1956 ALL HANDS, pp. 50-52.

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<thead>
<tr>
<th>Subject</th>
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<td>ADVANCEMENT OR CHANGE IN RATE OR RATING</td>
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<td>GENERAL PROGRAMS</td>
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<tr>
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<td>Policy:</td>
<td>BuPers Manual (Pt. C, Chap. 7, Sec. 2)</td>
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<td>Qualifications:</td>
<td>Manual of Qualifications for Advancement in Rating (NavPers 18068)</td>
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<td>Eligibility:</td>
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<td>Service-wide Competitive Examinations for Advancement to Pay Grades E-4, E-5, E-6, and E-7</td>
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<td>Changes in Rate, Rating, and Rate Symbols</td>
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<td>Future Input to GS, OF and AQ Rating</td>
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<td>Program for Adjustment of the Enlisted Rating Structure through Formal School Training and Through In-service Training; establishment of</td>
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<td>APPOINTMENT TO COMMISSIONED GRADE</td>
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<td>Naval Preparatory School</td>
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<td>Aviation Cadet Training Program; eligibility requirements; procedures for applying</td>
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<tr>
<td>Selection of Qualified Members of the Naval Service for Aviation Officer Candidate Training and Appointment to Commissioned Grade in the Line; policy, eligibility</td>
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<td>Regular Navy Augmentation Program; policy, eligibility</td>
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<td>Appointment to Commissioned Grade, SDO (LAW), 1620; policy, eligibility</td>
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<tr>
<td>Appointment to Commissioned Grade in Administration and Supply Sections, Medical Service Corps, Regular Navy; policy, eligibility</td>
<td>BuPers Inst. 1120.-</td>
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FEBRUARY 1957
### PROGRAMS AND OPPORTUNITIES OF PARTICULAR INTEREST TO OFFICERS

#### TRAINING

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<tr>
<th>Subject</th>
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<td>Schools and Courses</td>
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**Officer Correspondence Courses**

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<td>Five-Year College Training Program</td>
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<td>Completion Naval Aviation Program for USN Officers</td>
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**Other Training**

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<tr>
<th>Subject</th>
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#### MISCELLANEOUS

**PRIVATE LIFE INSURANCE**

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<td>Ship's Officers</td>
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**EVALUATIONS**

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<td>Separation of Personnel</td>
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**REHABILITATION**

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<td>Rehabilitation aides</td>
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**PERSONNEL**

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<td>Reserve Officers</td>
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<tr>
<td>Retirement, Voluntary and Naval Reserve</td>
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**PERMANENT ASSIGNMENTS**

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<tr>
<td>Permanent Assignments to Reserve Training Submarines</td>
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**PENSIONER**

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<td>Retirement and Separation</td>
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DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs and NavActs as well as current BuPers Instructions, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Specific directives should consult Alnavs, NavActs, Instructions and Notices for complete details before taking action.

In Alnavs apply to all Navy and Marine Corps commands; NavActs apply to all Navy commands; BuPers Instructions and Notices apply to all ships and stations.

No. 62 — States that, under certain limited conditions, anyone paid a reenlistment bonus under Section 208 of Career Compensation Act between 16 Jul 1954 and 29 Mar 1955, may reelect to have this bonus paid under Section 207 of the same Act.

No. 63 — Announced approval by the President of the report of a selection board which recommended Regular Marine Corps and Marine Corps Reserve for temporary promotion to grade of captain.

No. 64 — Announced an emergency appeal by the American Red Cross to assist the Hungarian people.

No. 65 — Conveyed Christmas greetings from the Chief of Naval Operations to the U. S. Navy.

No. 66 — Conveyed Christmas greetings from Secretary of the Navy to U. S. Navy and Marine Corps.

Instructions

No. 1120.15B — Establishes the policies and procedures for the submission of applications for appointment to Ensign, USN, Medical Service Corps.

No. 1306.58A — Establishes revised procedures relative to the transmission of personnel data via transceivers and to the use of punched cards in the assignment and reassignment of enlisted personnel.

No. 1306.62 — Presents revised criteria and procedures governing the shore/sea and sea/shore rotation of enlisted personnel.

No. 1540.33 — Provides information concerning the Navy Nuclear Power Training Program and informs enlisted personnel how to apply for training in the program.

No. 1750.6 — Provides administrative regulations for immediate pay of the death gratuity authorized by Title III, Public Law 881, 84th Congress.

No. 1926.1C — Promulgates revised policies governing the extension of, and release from, active duty of USNR and certain USN officers.

No. 5321.1B — Promulgates instructions for the preparation of the Roster of Officers.

No. 1085 (23 November) — Introduced a standard document for the Officer's Service Record maintained at his duty station and the officer's record maintained within the Bureau of Naval Personnel and provided instructions governing its preparation.

No. 1418 (3 December) — Invited attention to the schedule of service-wide competitive examinations for advancement to pay grade E-4 of certain ratings in May.

No. 1800 (3 December) — Announced the publication of a guide book for retired and Fleet Reserve personnel.

No. 1088 (10 December) — Advised activities of certain changes, occasioned by the enactment of the Servicemen's and Veterans' Survivor Benefits Act, Public Law 881, 84th Congress, in the Casualty Assistance Calls Program.

No. 1741 (11 December) — Announced distribution to commands of pamphlets about Survivor Benefits and Medical Care Acts of 1956.

No. 5802 (18 December) — Calls attention to the provisions of BuPers Inst. 5802.1, which is concerned with the report of aliens' addresses.

FEBRUARY 1957
hits on the conning tower and causing
bushed by a superior enemy force and
reconnaissance patrol operating forward
the night of 16-17 Jul 1953. When a
*Km, Alex
members of his force. In the final action
its return to a repair base. Subse-
search group, Commander Kinney
was in a favorable position to fire tor-
of the night, he detected U-603 which
pedoes at a friendly carrier. Immedi-
approach and submerge. After avoiding
MSTS Arctic Operations 1955 in con-
dition wih Project 572 (Central Group)
from 3 Aug to 15 Sep 1955. Com-
mander De Laureal skillfully carried
out the hazardous task of delivering
vital cargoes on the beaches of the
dangerous conditions of uncharted
water, heavy ice, fog and cold while commanding the ocean
transportation of personnel and equip-
ment in support of the construction of the Distant Early Warning Line across
Northern Alaska and the Canadian
Northwest Territories. Under his force-
fu and inspiring leadership, ships of the Task Group penetrated the Cana-
dian Arctic during one of the worst
shipping seasons to deliver cargo at
designated sites along a fifteen-hun-
dred-mile beachhead.
Today's minesweepers are relatively plush craft, designed specifically for the job at hand. It wasn't always that way. During World War II, the demand for minesweepers exceeded the supply that the versatile destroyer was frequently converted to that purpose. Here's the story of one such destroyer—which might be regarded as the prototype of all such heroic ships—USS Ellyson (DMS 19, ex-DD 454).

USS Ellyson was named for CDR Theodore G. Ellyson, USN, the first naval officer to qualify as an airplane pilot, and one of the most distinguished pioneers of U.S. naval aviation. Five years after his graduation from the Naval Academy in 1903, CDR Ellyson was ordered to Los Angeles, Calif., for instruction in aviation under VERSATILE DESTROYER, USS Ellyson was named after CDR Theodore G. Ellyson, the first Naval Aviator.

Glenn Curtiss, who had offered to train a pilot for the Navy free of charge.

Aside from a three-year sojourn with a sub chaser squadron during World War I and destroyer commands until 1921, CDR Ellyson was actively engaged in furthering the naval air arm. His career was cut short on 27 Feb 1938, his 43rd birthday, when he was killed in an airplane crash while on a routine flight.

COMMISSIONED in November 1941, Ellyson had been on patrol duty in the Atlantic only 10 days when she first witnessed the results of submarine warfare. While she was on the Halifax-Panama Canal run, she sighted a life-boat and the sinking hull of the Norwegian steamer Horsens and was able to rescue 24 of the crew, all that remained of the sinking.

In June of 1942, in Argentia, Newfoundland, CDR J. L. Holloway (now VADM, present Chief of Naval Personnel) broke his command pennant as Commander, Destroyer Squadron 10 in Ellyson, and she was to remain a flagship for the rest of the war. DesRon 10 consisted of Hambleton (DD 455), Rodman (DD 456), Emmons

From History of USS Ellyson, made available through the courtesy of Division of Naval History, Ships' Histories Section, Navy Department.
“Routine” escort duty was Ellyson’s lot until July 1942 when she escorted a cargo of Army planes to Africa and then jobs of this sort became another type of routine until November D-Day at Casablanca when Elly Mae screened aircraft carriers during the action which followed.

At Fedela, Ellyson first showed she was a lucky ship when, a few minutes after she pulled away from a refueling tanker, Hambleton came alongside to refuel, and received a torpedo hit in the engine room spaces.

For a change of climate, the destroyer reported on 19 May 1943 with South Dakota for duty in the British Home Fleet. Escorting battleships and convoys, she saw months of duty at sea protecting Allied shipping from Iceland to Murmansk and the Firth of Forth; in attempts at luring Tirpitz and other German units from their Baltic lairs; and in innumerable anti-submarine engagements. On 7 Jul 1943, Ellyson evacuated Scapa Flow for a mock invasion of Southern Norway—two days before the invasion of Sicily.

During operations in Iceland shortly afterward, an encounter with an ice floe slashed a 4-by-20 foot hole in Ellyson’s bow. Nevertheless, within a month she was at sea again, bound this time for Argentia, Newfoundland, to screen the battleship Iowa, which was to carry President Roosevelt to the Tehran Conferences. Before this journey was over, Ellyson visited the Azores, Brazil, Freetown, Dakar, and Bermuda.

From January through March 1944, Ellyson worked with USS Ranger (CV A), Tuscaloosa (CA 37), and Augusta (CA 31), training for the Normandy invasion.

Arriving in the Mediterranean near the end of April 1944, Ellyson soon afterwards led a hunter-killer group in an operation which was to become a classic of its kind, and which resulted in the destruction of U-616 after 72 hours of the longest and most persistent sub chase in history. It ended in a spectacular surface engagement and the capture of more than 50 enemy crew members. Here’s the story, based on war records:

FOLLOWING THE REPORT that two merchant vessels traveling in convoy had been torpedoed early on the morning of 14 May, DesDiv 19, consisting now of Ellyson, with Rodman, Hambleton and Enmons, promptly got underway from Oran and sped to the scene of the attack, latitude 36°-46' N, longitude 0°-52' E. Upon their arrival, they found USS Hilary P. Jones (DD 427) and two DEs conducting a submarine sweep. Jones had already delivered a depth-charge attack, and one of the DEs had followed by a hedge-hog attack. (It was later learned from the survivors that Jones’ attack had caused some damage to the submarine—the first of a repeated series of blows which ultimately resulted in the destruction of the sub.)

Shortly after Jones and the DEs were detached to rejoin the convoy, DesDiv 21, consisting of USS Gleaves (DD 423), Nielses (DD 616), and Macomb (DD 458), joined DesDiv 19 to assist in the search. A box search was conducted for several hours until a Coastal Command aircraft reported a radar contact some 30 miles to the west of the scene. Gleaves, Nielses and Macomb dashed off to investigate, while the remainder continued to sweep the original site, working slowly northward.

One of the reasons for the success of this attack was the complete cooperation of the various elements of the combined hunter-killer group. As soon as the report of the sinking of the merchant ships had been received, a vast network of planes and ships had been sweeping the area. Search planes would make the original contact and it was then up to surface craft to follow up. Extensive work had earlier been done to ensure the greatest cooperation between Coastal Command aircraft and surface ships in an operation of this nature.

During the night of Sunday, 14 May, a Coastal Command aircraft made another contact well to the north of the original site and dropped flares to mark the spot. DesDiv 19 proceeded at high speed to the scene, slowing just before arrival. On the first pass, Ellyson made a sound contact and dropped a full depth-charge pattern on a shallow setting. Unfortunately, contact was lost and

USS ELLYSON as (DD 454) was a Benson class destroyer before conversion to a destroyer minesweeper in 1944.

‘ELLY MAE’ commissioned in November 1941, first pulled duty
the four ships began a tedious box search which con-
tinued until daylight.
However, all hands were reasonably sure that their
quarry was wounded to some extent, for a strong smell
of diesel oil was detected by at least two of the ships.
The next morning a prominent oil slick, approximately
10 miles long, was found several miles north of Ellyson’s
attack. Acting on this evidence, the division continued to
sweep slowly northward.
Meanwhile, aircraft continued in their search and one
reported that he had made a radar contact and had later
attacked a surfaced sub. The consensus of reports indi-
cated that the sub commander was now traveling west-
ward and, in spite of the many search planes, was using
every opportunity to surface and run. During the day,
DesDiv 19 proceeded to the scene of contact and DesDiv
21 covered the northeast to prevent retreat in that
direction. Tension mounted with the growing convic-
tion that the hunt was drawing to a close.
During the following night, both divisions moved to
the westward, and the next day swept to the Spanish
coast in the vicinity of Cap de Santa Pola in an attempt
to keep the sub from reaching the coastal waters and
losing himself among the many fishing vessels to be
found there. Both groups continued this close-in sweep
during the night of 16-17 May, but the sub commander
apparently decided to run to the northeast, as a Wellin-
ton bomber finally reported another contact with him
about 30 miles from the point of search. Both surface
groups abandoned their search and headed at high speed
to the point of contact on converging courses. The time
was about midnight.
The sub was running at top speed on the surface
between these two groups and, for a time, succeeded in
baffling them by releasing decoy balloons. However, his
own pip was stronger and steadier, and could be identi-
fied by the speed he was making.
The sub sighted DesDiv 19 first and, in running from
them, was completely surprised when Macomb caught
him dead in her searchlight at some 2400 yards.
The sub (according to prisoners’ remarks) mistook
the searchlight for that of an aircraft and opened fire
with 20mm armor-piercing projectiles. No one was
injured and only minor structural damage was suffered
by Macomb.
Macomb got in six rounds of 5” 38 before the sub
submerged. She then made a depth-charge attack and
followed up 15 minutes later with another attack.
At 0145, Nielsis dropped a pattern of charges and
Enmons dropped a pattern somewhat later. Remarks of
prisoners upon first being taken, indicated that damage
was progressively worse throughout the three days of
the operation.
When contact was finally lost about 0230, 17 May,
box search was commenced with all seven ships. Diesel
oil smells were noticed whenever a ship passed through
the position of these last attacks.

A T DAYLIGHT the next morning, about 0645, Hambleton
made sound contact about 10 miles south of the
attacks of the previous night. She reversed course and
attacked with depth charges; regained contact and made

IN SOUTHERN FRANCE Ellyson assisted the invasion with bombardment of enemy shore installations.
a second attack. Meanwhile, the remaining ships formed a circle with a four-mile radius about Hambleton, Ellyson and Rodman.

About 25 minutes after Hambleton’s last attack, and while the three ships were attempting to regain contact, the sub surfaced in the approximate center of the three ships at about 2500 yards. All ships immediately opened fire with 5-inch, 40mm and 20mm guns. The sub crew, meanwhile, scrambled out of the conning tower into the water, and tried to surrender by waving their clothing. Since the sub had way on when surfacing, the crew rapidly drifted aft. All were recovered, although a gun crew may have been abandoned when the sub submerged the previous night.

The submarine sank on 17 May at 0812. A heavy submarine explosion was heard about three minutes later and large bubbles of air came to the surface. Little debris and no oil were noticed.

A total of 53 survivors was rescued by Ellyson and Rodman.

A week or so later, Elly Mae was in Plymouth, England, preparing for her role in the invasion of Normandy where she showed a remarkable prowess for shore-bombardment. Particularly outstanding was close-fire support work in the action at Pointe de Hoe, where Ellyson was a major factor in the final victory of the Rangers over the defending Germans. It was here, too, that Ellyson was fired upon for the first time, several enemy shells landing nearby or slipping through the superstructure but never quite hitting. While DD 454 was engaging shore batteries on D-Day plus 1, a nearby sister ship, Corry, struck a mine and was sunk.

On June 25th, the ship was among the attacking units at the bombardment of Cherbourg, knocking out two major enemy guns, sinking mines, and laying smoke screens for larger ships such as USS Texas (BB 35), Quincy (CA 39), HMS Glasgow, and others.

ENEMY ADRIFT—German sub crew awaits rescue after abandoning ship. Ellyson and Rodman picked up 53.
That afternoon, *Elly Mae* left Rodman, which was screening YMSs off the northwest coast of Okinawa, to refuel. Then *Emmons* and quickly thereafter *Rodman* reported heavy air attacks.

*Ellyson* escaped attack, but she could hear the reports from the other two ships. *Emmons* announced plane after plane making runs on the ship. Some were shot down, others hit the ship, while some missed and splashed into the water. Both ships were bombed. With darkness closing, *Rodman*, then *Emmons*, announced that they were abandoning ship. Small craft were standing by to pick up survivors.

*Ellyson* went to the aid of *Emmons*. *Hambleton* was dispatched to stand by *Rodman* which was creeping southward under her own power. At 2000 *Ellyson* found *Emmons* lying demolished, the port side of her bridge blown off, almost everything topside was damaged, and fires raging throughout the hull.

With fires on *Emmons* making it too hot to fasten a line and to tow her away, it was decided to sink the ship to prevent her from being washed on Ie Jima, then held by the Japanese.

**Balancing the U-Boat** sunk in the Mediterranean, three Japanese planes were painted on *Elly Mae*’s bridge, all splashed by her guns during the Okinawa operation. On one occasion she fooled a Kamikaze making a run on the ship, by turning directly into the plane, confusing the pilot so that he pulled up at the last moment and crashed off the bow. In June, the final plane was splashed killing one man and wounding six more.

During the month of July, *Ellyson* was flagship of a task group which swept 7900 square miles of the East China Sea—the largest minesweeping operation heretofore registered in the records of naval warfare.

At the completion of the China Sea work, *Ellyson* operated with the Third Fleet off Tokyo, and on 8 Aug 1945, following some YMSs and AMs, probably became the first major warship to enter Tokyo Bay. She went out again and reentered later as escort for the cruiser *USS San Diego* (CL 53) and the battleship *Missouri* (BB 63).

Tokyo Bay cleared, DMS 19 was the command ship for the task group which swept the southern approaches and entrances to the Inland Sea, Hiro, Kuro, and Hiroshima harbors, clearing the way for the forces of occupation which were to follow.

For her activities after the war, *Ellyson* earned dual eligibility for the Navy Occupation Service Medal; in Asia during the period 2 Sep to 6 Dec 1945, and in Europe from 11 Jan to 22 Feb 1945. She earned four Battle Stars on the European - African - Middle Eastern Service Medal and three Battle Stars on the Asiatic-Pacific Area Service Medal.

*Facing All the enemy’s suicide weapons* *Ellyson* with her squadron cleared the way for Okinawa invasion.
**TAFFRAIL TALK**

WE KNEW IT would come to this sooner or later, and you can't say we didn't warn you. The Naval Ordnance Laboratory reports that it has an electronic machine which checks on the accuracy of its other electronic devices. Assuming, of course, that its checker is accurate. Verification is made, no doubt, by another electronic gizmo.

On the other hand, it's pretty hard to fool cows. A local Aeronautics Commission recommends that pilots check their instruments which indicate the direction of the wind by observing the behavior of cows. The Commission has noticed that cows always point their tails toward the wind.

"Just remember to land facing the cows," the Commission suggests, "and you are landing upwind. When cows point in several directions, there is little or no wind." One cow per direction, we assume.

Don't scoff at the idea. There's plenty of room for a herd of cattle on the flight deck of our modern carriers.

A herd of cattle would be a pleasant relief to crew members of USS Aler (AK 259). Recently included among its Stateside cargo from Gibraltar—ultimate destination the Columbus, Ohio zoo, via Norfolk—was a Barbary Ape, one of four surplus beasts offered by the governor of Gibraltar to U. S. zoological societies.

No doubt you've heard of the superstition of the Big Rock. As long as the Barbary Ape continues to hold residence there, Gibraltar will remain under British rule, but if all the apes were to die, Great Britain would be driven from that area.

Remember a few months ago we made admiring reference to the phrase: "Wind-kissed playground of the Bering Sea?" We now pay tribute to the unknown genius who sweat out the slogan for NAAS El Centro, Calif: "The hottest naval air station in the United States."

Ever hear of a DC—or any other rating, for that matter—who has worked on every type of ship in the Navy? We have. Know him well, in fact. He's Thomas R. Patrick, DC1, who is not only a damage controlman but also happens to be a first rate cartoonist and illustrator, and is now attached to ALL HANDS. He bears a major part of the responsibility for this month's centerspread and worked on every ship depicted there.

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**THE UNITED STATES NAVY**

**Guardian of our Country**

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

**We Serve with Honor**

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future. At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families. Our responsibilities sober us, our adversities strengthen us.

**Service to God and Country** is our special privilege. We serve with honor.

**The Future of the Navy**

The Navy will always employ new weapons, new tactics and greater power to protect and defend the United States on the sea, under the sea, and in the air. Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keynotes of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to the task, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

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**ALL HANDS**

The Bureau of Naval Personnel Information Bulletin, with approval of the Bureau of the Budget on 23 June 1955, 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. Original articles of general interest may be forwarded to the Editor.

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The Bureau should be kept informed of changes in the number of copies required.

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**AT RIGHT**: THE PIG, float that holds the outboard end of the sweep cable, is made ready for its plunge overboard during MinPac sweeping practice.

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**THE ALL HANDS STAFF**
ADVANCEMENT OPPORTUNITIES THROUGH STUDY