

ALL HANDS



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OCTOBER 1962



ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

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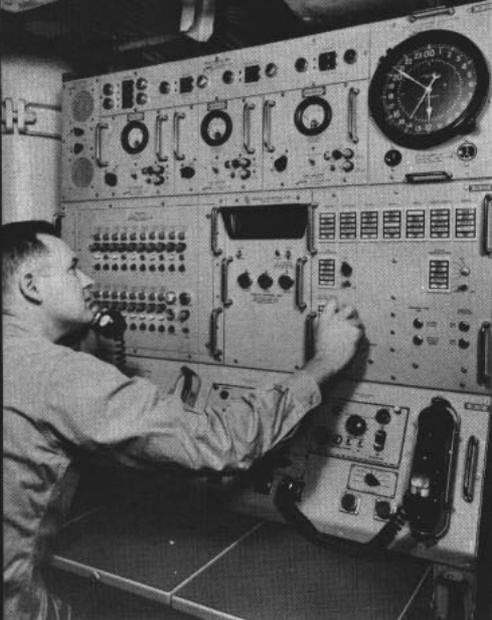
French Crawford Smith, Reserve

• FRONT COVER: MISSILE MISS — USS *Galveston* (CLG 3) passes through the Panama Canal en route to her new home port in San Diego. During two days of open house at Balboa, C. Z., she was visited by more than 4000 guests.

• AT LEFT: GRAND OLD LADY — Mothballed battleship USS *New Jersey* (BB 62) gets under way from her berth at Bayonne, N. J., for a two-day 'cruise' under tow of three tugs to her new home with Atlantic Reserve Fleet Group in Philadelphia.

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Navy Bird



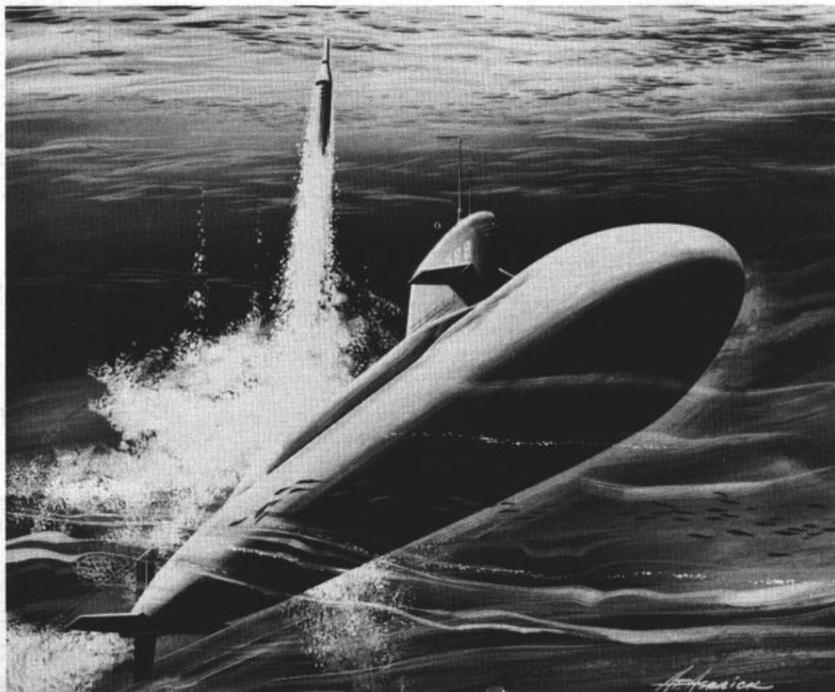
H. L. Wilcox, ETCS, USN

CHECKING — Team members check instrumentation that will record sub's reactions during *Polaris* firing.

E. F. Whitlatch, ET1, USN



SUB SUBJECT — Navy's Test Instrumentation Team checks FBM submarines.



TAKE A SUBMARINE cruising along beneath the surface of the ocean, launch a ballistic missile from it with the intent of hitting a specific point some 1200 to 1500 nautical miles away, and—something goes wrong.

Now, find out what happened and why.

T/I will help find the answer for you. That terms stands for "test instrumentation." In this age of the missile, the art of instrumentation is as difficult and almost as important as the art of missilery itself.

Every time a missile is fired at Cape Canaveral it carries an exercise warhead jampacked with equipment which beams missile behavior data to the various tracking stations along its flight path.

Scientists and engineers study these records to find flaws so they can make corrections in the following tests, and ultimately provide workable and reliable missiles.

Polaris is one of the most thoroughly tested missiles in our arsenal today. Well over 100 flight tests of *Polaris* have been conducted since the first was sent skyward in September 1958.

THE EXTENSIVE TESTING program put the 1200-nautical-mile-range *Polaris* A-1 on station almost three years ahead of the original schedule, and put the 1500-mile range *Polaris* A-2 on station less than two

years later. Further tests are planned so the third generation 2500-mile *Polaris* A-3 can be on the line by the middle of 1964.

These flight tests are of various levels of intricacy, but when the *Polaris* missile is mated to the FBM submarine, the acid tests are made.

Each FBM submarine goes through a Systems Development Analysis Program (SDAP) before it heads out on operational patrol.

Both crews (Blue and Gold) are required to complete successful missile launches before the submarine gets the stamp of approval from the Navy's Special Projects Office and is turned over to the Fleet.

If the missile is launched, ignites when it is supposed to, follows its intended range and comes in on target, the team is a winner.

But if there's trouble, it must be found and eliminated.

As far as the missile is concerned, *Polaris* offers much the same problems as any other missile when it comes to obtaining and analyzing flight information.

However, analysis of the performance of the submarine is just as important. For this, the Navy has come up with a small group of Navymen who maintain and operate gear used to monitor the ship's performance.

KNOwn AS THE Test Instrumentation Team, these men have the job of gathering data during submarine operations at the Cape.

In general, the team operates the electronic and photographic equipment which records the behavior of the submarine and its various subsystems during a test launch.

In addition, they monitor the status of the missile itself while it is still in the launch tube.

As presently constituted the team has two officers and 38 enlisted men. The officer in charge, LT Edward J. Augustyniak, USN, and his assistant, LTJG William E. Clifton, USN, are both LDOs.

By rating, the group breaks down into 23 electronic technicians, six missile technicians, two fire control technicians, three photographers' mates, two quartermasters, one yeoman and one machinist's mate.

The enlisted group contains 13

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Watchers

chiefs and only four seamen. Three of the four seamen have been ticketed for third class, so the Indian ranks are almost depleted. This doesn't make too much difference since the heavy labor is an all hands evolution.

The group has been involved in the *Polaris* program since mid-1959. At that time the first two FBM submarines, *uss George Washington* (SSBN 598) and *uss Patrick Henry* (SSBN 599), were nearing completion at Groton, Conn., and the flight test program on *Polaris A-1* was moving right along.

TO LEARN SOMETHING of what they were about to do, orders were issued for two small groups of men to attend special two-month courses at Anaheim, Calif.

The million-dollar equipment they learned to operate and maintain is designed and constructed in modules, each roughly the size of a portable TV set.

Built to stand up under rough treatment, the equipment is installed at the shipyards and taken off when the submarines have completed their tests at the Cape.

When installed, the modules are set up in stacks about six feet high and the stacks are arranged in complexes. Each complex monitors a major subsystem.

In operation the equipment monitors the submarine's launch, fire control and navigation systems, records the ship's own functions, provides time-of-day signals as a common reference for all events, records missile data, and provides radio links between the sub and the range instrumentation ship.

In addition, specially designed automatic cameras provide visual proof that what is being recorded by the rest of the instrumentation system is actually happening when it is supposed to. In effect, the cameras provide a check on the check.

Motion picture cameras mounted on the outside missile deck are also operated by the T/I team.

THE MAJOR ARRAY of instrumentation gear is set up in the center level of the missile compartment, known as Sherwood Forest. The launch and telemetry complexes are

located here, and the supervisor's console is sandwiched between them.

When the gear is offloaded from this space the submarines turn it into crew's berthing and shop and stowage space.

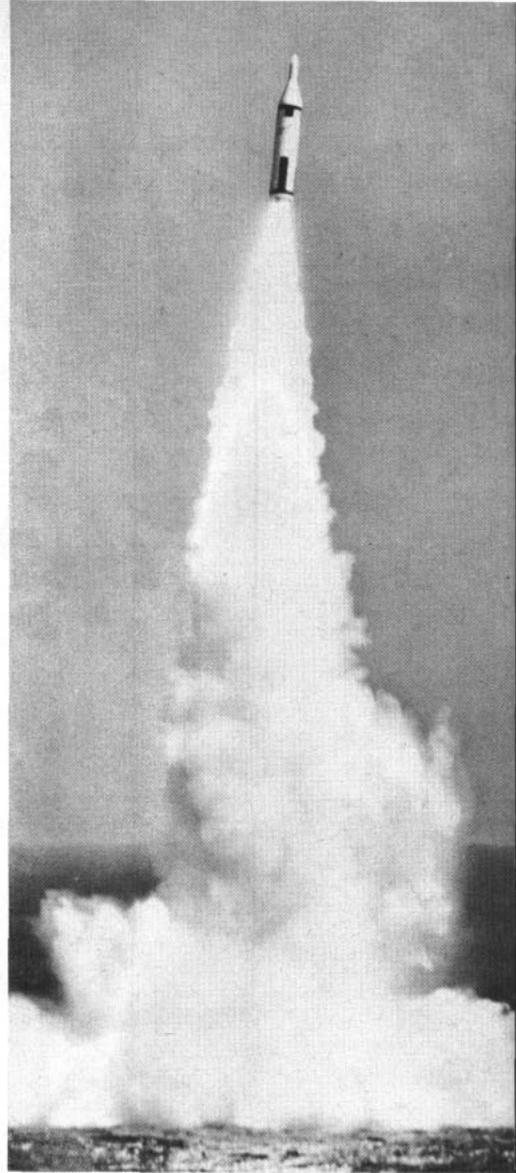
The fire control complex is fitted in a corner of the missile control center on the lower level, and the navigation recording equipment is located in the ship's control center.

Three types of records are used to store the information; tape, oscillograph and brush. Magnetic tape is about the same as that used on the common variety of recorders, though the reels are much bigger and wider. Oscillographs make use of a light beam hitting photosensitive paper, and a brush recorder is, in effect, pen and ink on paper.

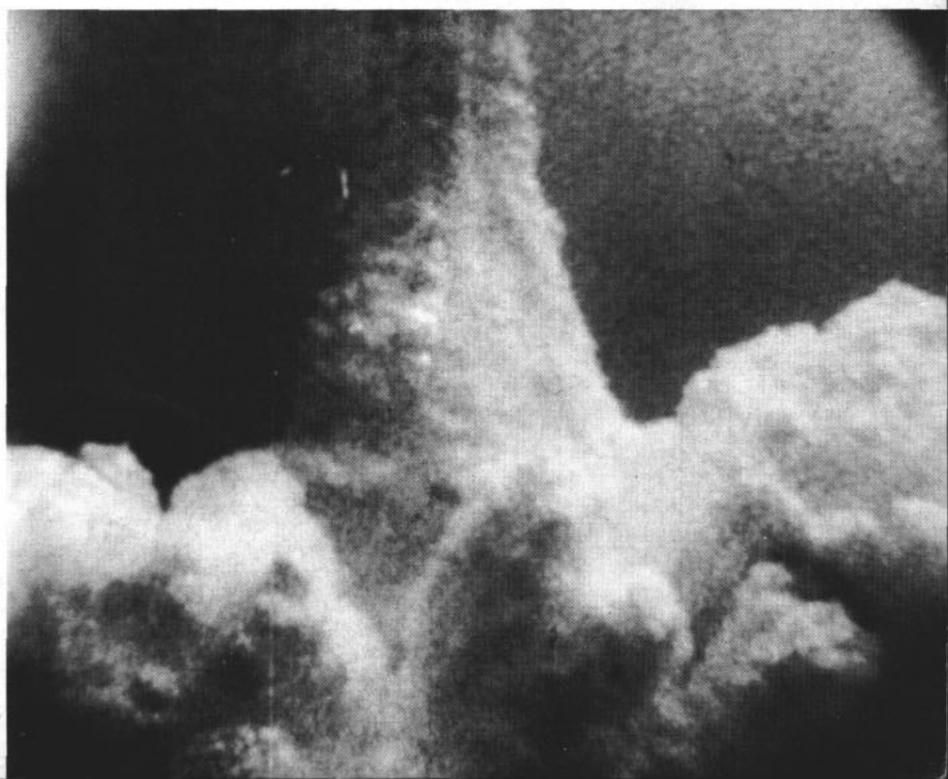
After the two-month cram courses working with this gear at Anaheim, the men shepherded two sets of the newly developed equipment across country to install it on *George Washington* and *Patrick Henry*.

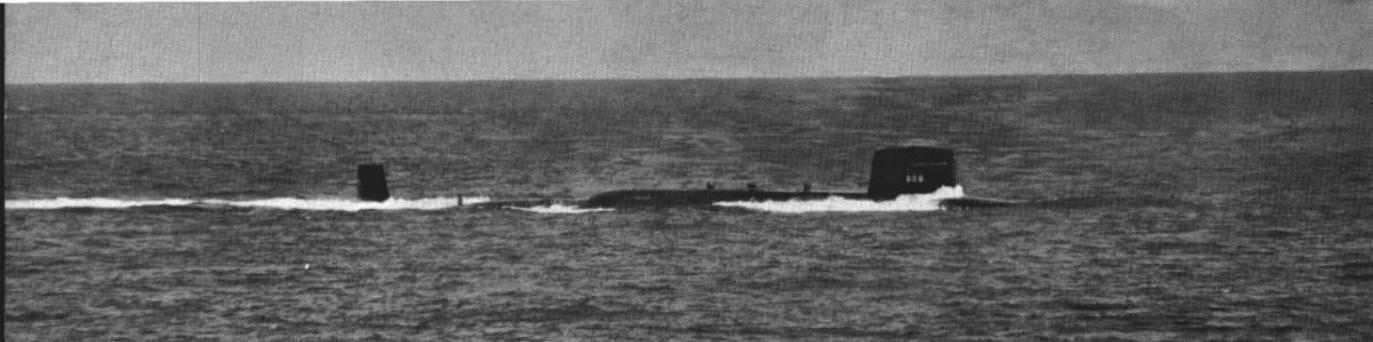
After they had installed and checked out the gear most of the crew flew down to Cape Canaveral, while part of it remained behind and rode the ships south.

AT THE CAPE the men were attached to the Naval Ordnance



TEAMING UP — Photos show *Polaris'* under-water wake and surface flight.





FINAL EXAMS — USS Ethan Allen (SSBN 608) heads for SDAP to test her missile muscles before joining Fleet.

Test Unit (NOTU) at Patrick Air Force Base. This became the crew's permanent home.

The team set up shop in a cinder-block building at Port Canaveral, where the FBM submarines come in to load test missiles and conduct pier-side tests. The port is located just outside the Cape itself, and is about 15 miles from Patrick.

Since the group as a whole is fairly senior, and housing in the area is allotted on that basis, finding housing was not a difficult problem. Most of the married men are living in high-standard Capehart housing. The single men live in the Navy section of an air-conditioned barracks.

Only two things keep their duty from being ideal shore duty. They spend as much time on the submarines as they do at home, and the hours are long.

When an FBM submarine is in for SDAP tests the team has a fairly simple work order of the day—three eight-hour shifts, seven days a week.

When two submarines are in at the same time (and this will happen more and more as the *Polaris* fleet grows) it becomes even simpler—12 hours a day, seven days a week.

In addition to their work when the subs are in, the T/I team is responsible for refurbishing the instrumentation gear and shipping it to various yards where new construction is coming along. The job of installing the

gear has been turned over to the manufacturers.

Maintenance work on the equipment provides the team with a normal work week during the few periods when submarines are not in. An accelerated shipbuilding schedule will soon start turning the subs out at the rate of one per month, so this will pretty well eliminate the rest periods.

JUST TO MAKE SURE NO ONE runs out of things to do, there are several other requirements laid on team members individually.

They attend special schools from time to time in addition to conducting their own courses for new members. Some of them are back at Anaheim right now studying the insides of a new instrumentation system which will be used on the larger 616-class submarines.

Whenever a new sub is about ready for sea, five members of the T/I team are sent to inspect the gear for the Navy before acceptance. Two of them ride the ship back to the Cape to trouble-shoot the equipment and make sure it is ready to operate on arrival.

The best way to describe what the team does is to join it on a launch day.

This leaves out the round-the-clock work required every day a sub is at the port which, in effect, consists of

dry runs for the big day of launching.

A few months back *uss Sam Houston* (SSBN 609) was at the Cape and her Blue crew had already gone through its paces.

Now, after days of drill, it was the Gold crew's turn.

Sam Houston got underway at 0500, so it was a 0300 reveille for the T/I team members who have to be on board 45 minutes ahead of sailing time and have quite a distance to travel.

The entire T/I team is involved with every submarine, but it is the practice to assign a specific section for each submarine crew in its at-sea operations.

BOTH OF THE TEAM'S officers were on board this time, though LT Augustyniak had just returned from the Pacific where he and two other members of the team, Leroy M. Peterson, ETCA(SS) and James A. Randall, ETN3, had been on *uss Ethan Allen* (SSBN 608) when she successfully fired a live *Polaris* missile as part of the U. S. atomic tests in the vicinity of Christmas Island.

James M. Jones, MTCA(SS), was the day's instrumentation supervisor and the men in his section were Rolfe B. Dean, MT1(SS); Ernest F. Whitlatch, ET1; Oscar W. David, MTSN; Thomas A. Meek, ET1(SS); Edwin L. Ramey, ET1; Larry W. Beam, FTGSN; Newell C. Hayes, ET1; and

TIME FOR LAUNCH — Skilled hands man batteries of complex testing gear as sub prepares for missile firing.

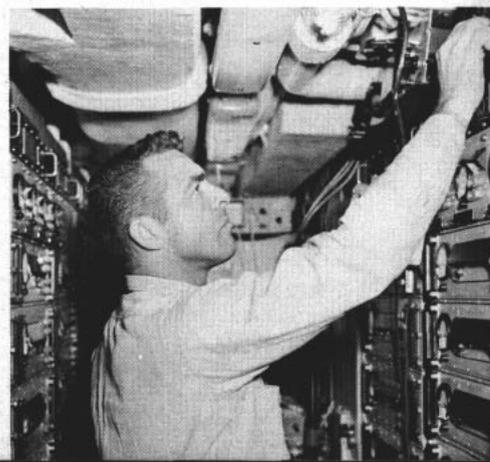
R. D. Fulghum, MTSN, USN
O. W. David, MTSN, USN



R. B. Dean, MT1(SS), USN



E. L. Ramey, ET1, USN



Robert D. Fulghum, MTSN.

Four other team members whose jobs are primarily concerned with launch operations were also along.

Eugene E. Allen, MMCA, the team's jack-of-all-trades, was on board and spent the whole day operating a special trailing buoy used for telemetry and communications during SDAP only.

Donald E. Gerdus, PHC, and Randleson L. Lyles, PH3, were on board to load and check the cameras. These two had solved the early rising problem by bedding down the night before in sleeping bags on the missile deck of the submarine.

Roy F. Bronzovich, QMCA, operated throughout the day in the navigation center, where the instrumentation gear monitors the ship's SINS.

AS SOON AS the members of the team got aboard they began tuning up the equipment to get ready for the countdown. The countdown was to start when the ship got underway.

LTJG Clifton and Chief Jones took up stations at the supervisor's console where they could exercise control over the complete instrumentation system.

With sound-powered phones LTJG Clifton was hooked into the ship's system and Chief Jones with the rest of the T/I team.

Meek, Hayes and Beam were stationed at the launch complex, Witlatch, David and Fulghum operated the telemetry setup, and Ramey and Hayes were down in the missile control center operating the fire control instrumentation complex.

After everything was set up and operating the men took off in turns to eat a quick breakfast.

While the T/I team was going about its job, the submarine crew was going about the business of

launching their *Polaris* missiles.

The whole purpose of the day's events was to prove that the submarine, and in this case the Gold crew, could perform the mission assigned—launch a missile and hit a target while submerged.

ORIGINALLY T-TIME was set for noon, but 1200 came and went long before the day's work was over.

Holds in a missile countdown come for many reasons. A countdown under test conditions is much more complicated than in an actual tactical situation. Range requirements for telemetry and destruct capability are stringent.

Sometimes a delay is necessary because a merchant ship or fishing boat has sailed into the firing area and "fouled" the range.

Whatever the reasons, it seems to be a standing joke to blame it on the instrumentation team, but they take it in stride.

Before the day was over T-time was 2230.

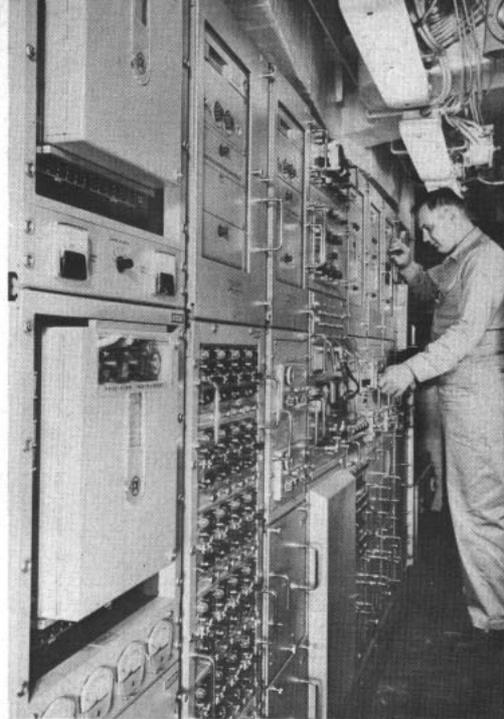
Sam Houston's Gold crew had proved it knew how to fire a missile and the ship was ready to take its place in the Fleet. The Gold crew's job was done for a while and they could look forward to the relative calm of their first patrol after months of straining to get ready.

Before the ship got back into port, the T/I team had completely dismantled the equipment and had it ready for offloading.

At the pier the rest of the team was standing by to give a hand in getting the gear off the ship.

When dawn broke *Sam Houston* slipped out of port. She sailed right past *USS Thomas A. Edison* (SSBN 610) where the Test Instrumentation Team was back to three shifts a day, seven days a week.

— John Scholzen, JOCS, USN.



EXTRA GEAR — Modules of testing equipment are readied aboard *USS George Washington* (SSBN 598) and (below) *USS Sam Houston* (SSBN 609).



L. W. Beam, FTGSN, USN

FOR THE RECORD — Telemetering team records action with electronic devices and cameras installed for the event.

LTJG W. E. Clifton, USN



R. L. Lyles, PH3, USN



LT E. J. Augustyniak, USN





LONG SHOTS — MCB-6 Seabees fire on rifle range as Marine instructor gets telescopic view of target.

Seabees Review the Art

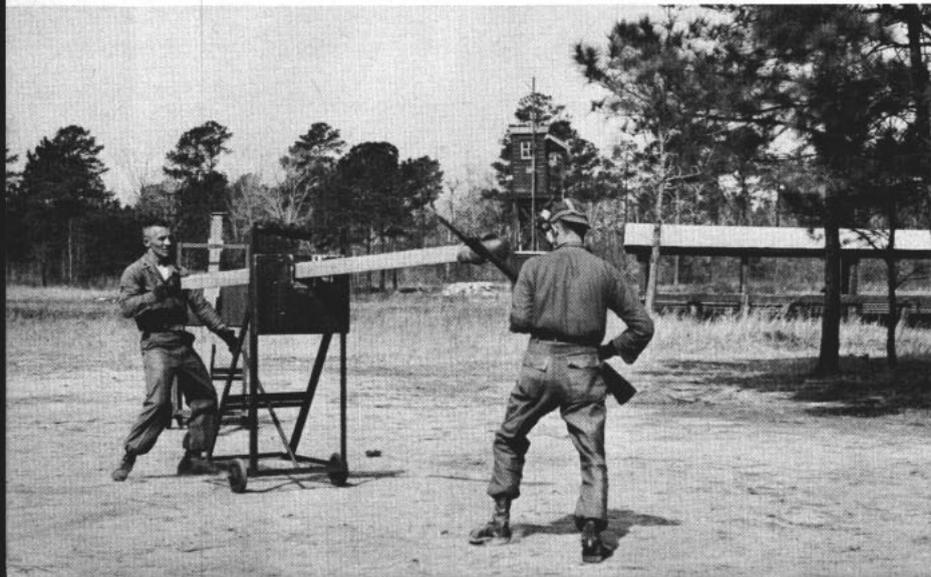
EVERYONE KNOWS the Seabees are tough and versatile. These qualities made them legendary during World War II and they have maintained their reputation since.

Living up to a reputation usually isn't easy. It takes hard work, ingenuity and organization. Here's how the Seabee's Mobile Construction Battalion Six does it.

Earlier this year, MCB-6 finished six weeks of training at Camp Lejeune, N. C., which was designed to improve Seabee effectiveness in limited war situations.

To achieve this aim, MCB-6 plucked inactive Seabees from civilian life and integrated them into the military training program of the active duty mobile construction unit.

STIFF ARM — Seabee approaches bayonet machine handled by Marine.



one unit.

The program lasted only two weeks for the Reserves. The first was occupied with qualifying on the M-1. During the second week, they took part in infantry exercises.

TO BECOME PROFICIENT with a rifle, the Seabees, both Reserve and Regular, spent their time kneeling, squatting, sitting, or lying on their bellies out on the firing range, learning the technique of shooting which, for many, was a completely new experience.

They fired 60 rounds for a possible score of 300. If they scored 220, they qualified. A score of 270 earned them the expert badge.

A bull's-eye rated five points with diminishing returns of one point on each of the other three circles.

They fired from distances of 200, 300 and 500 yards. At 500 yards, the bull's-eye looked like a tiny, fuzzy, moving dot.

A minuscule flinch of the trigger finger at that distance is often magnified enough to miss the target completely. When this happens, a red flag, derisively dubbed "Maggie's Drawers," pops up.

The second phase—infantry training, told the story of how the Reservists could be molded to become an integral part of an active Seabee battalion.

To the Reserves, as they ruefully massaged their aching muscles and washed away the mud, the final phase was known as groundwork. Groundwork started at dawn and ended at midnight.

Both Regulars and Reserves stormed the obstacle course as a single unit, crawling over, under and through barbed wire, running on logs over streams, climbing barriers and ropes, swinging across streams and jumping waterholes in which a goodly number got dunked.

The Reserves' two weeks of active duty for training ended with three problems: How to use the compass at night; techniques of fire at night; and individual movement at night.

AFTER THE RESERVES had gone home, the Regulars continued with individual combat lessons before entering specialized schools.

The lesson which earned the

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SEABEES crawl under barbed wire.

of War

booby prize in the battalion popularity contest was the class on how to use a bayonet.

The teacher for this class was a boxing glove mounted on a two-by-four fist. It was backed up by a Marine.

The object of the game was to see whether the Marine could jab the Seabee with the boxing glove or whether the Seabee could duck its blows or ward off the glove with his bayonet.

The fourth and fifth weeks were spent at specialized schools learning the intricacies of the 3.5 rocket launcher, the 106 recoilless antitank rifle, the .30 light machine gun and the 81mm mortar.

There were also schools in field cooking, logistics, communications, NCO leadership, battalion staff and engineering.

ONE OF THE MORE UNUSUAL events during the school phase was a Marine demonstration of the HUS1 and the HR2S helicopters.

The HUS1 hovered over a stack of cargo wrapped in a sling while several Seabees hooked the sling to the plane's underside.

In a few seconds, the helicopter was waved away with its payload swinging beneath it. When the chopper reached the drop point, the cargo was lowered gently to the ground.

The HR2S helicopter can carry troops or vehicles in its interior, which is about the size of a large



AFTER DARK — Night firing by Seabee infantry platoon lights sky.

bus. During the exercise, the HR2S carried the battalion staff and two jeeps and a trailer.

The final examination was a combat problem. The premise: That MCB-6 was constructing a two-mile critical road on a southern European peninsula.

At a fork in the road, construction had to stop in favor of defending the junction against overwhelming odds.

When the shooting started, cooking facilities, ammunition supply and communications and command post tents were set up.

Since the command post and the communications tent were prime objectives for the enemy, they had to be camouflaged.

The fork in the road was used as a center with the main line of resistance (MLR) stretching in a perimeter about 500 yards in diameter.

Two companies formed the MLR and a third was dug in behind for reserve strength.

Camouflaged men on the MLR were armed with M-1 rifles, Browning automatics and .30-cal. machine guns. They were placed on terrain which would make enemy penetration as difficult as possible.

The company in reserve was armed with 3.5 rocket launchers and 81mm mortars for defense against heavy artillery.

Meanwhile, back at the command post, the boss, with the assistance of his operations and intelligence officers, made the decisions based on information received by means of walkie-talkies, sound powered telephone and messenger runners.

The Seabees got the picture complete with scouting, drenching rains and aggressor attacks.

—Harry H. Larson, JOSN, USN.

EYES — HR2S helo is unloaded during exercise staged by Marines.

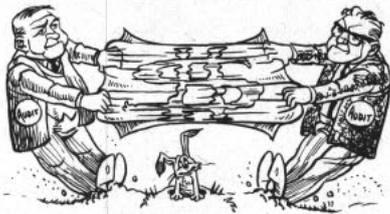




Taxpayer's Friend

MOST NAVYMEN HAVE, at one time or another, shaken themselves awake and steeled themselves against the onslaught of another late-late show.

If they have done this often enough, they will undoubtedly have seen the picture in which a group of steely-eyed auditors, wearing severe business suits, have marched into an



office to be greeted with frozen smiles.

As they go about their work, it becomes increasingly evident that some trusted employee has been playing the horses with the company's cash.

The situation usually resolves itself in cataclysmic retribution.

Like most late-late shows, this one was pretty antique. Auditing was widely used in the 19th century to detect high jinks involving a company's finances and, for years, this was its primary purpose.

Today, however, this function is minor. When auditors from the Navy Comptroller's Office tackle what their professional lingo terms an internal audit, they concentrate on assisting Navy management in getting the most out of each dollar it spends. The benefits of their efforts touch not only management but every Navy-

man—in the form of increased facilities and lower taxes.

Many times, auditors don't arrive at an installation, they are there permanently and their audit is continuous. This is true of big installations, such as naval shipyards and large air stations. The auditors' job is to keep the long green stretched over as much territory as possible.

It is also the auditors' duty to see that management doesn't undertake a course of action that could lead to legal complications for the government.

A good example of this took place at a shipyard which, as you might suppose, was built on a river. When the shipyard property was bought, the deed located the yard's boundary at the shoreline.

Later, the shipyard management proposed erecting a number of buildings on land bordering the river but, after the auditors investigated the situation, the plans were dropped. The reason—a little detective work disclosed the land on which the buildings were to be erected was artificial. It was created by fill some years before.

The shipyard would, in effect, have been building on land belonging to someone else, inasmuch as the bank of the river had been altered since the deed was recorded.

Had the buildings been erected, legal action would undoubtedly have been brought against the government, and loss of the buildings could have been the result.

So why can't management find out these things itself, you ask. Properly speaking, auditing is an extension of

management. It provides a service for management which, in effect, integrates the two.

Here are a few more instances in which management has been given an assist toward smoother operation and in which you, the taxpayer, have been saved money through the efforts of the auditor.

- A shipyard submitted plans and cost estimates for the purchase of new coal-burning equipment to replace similar equipment it had been using.

Auditors found that gas burners, while initially more expensive than coal burners, would cost considerably less to operate. Consequently, in the long run, they would be less expensive to the man who ultimately pays the bills, namely you.

- A naval station in Alaska used diesel fuel to produce heat and power. Auditors discovered that \$25,000 would convert the plant to the use of Navy special fuel oil and result in an annual saving of \$70,000.

- Vehicles operating in a terrain consisting almost entirely of loose sand were costing Uncle Sam a lot of money for repair. All, that is, except vehicles equipped with sand tires. Auditors recommended spending money to buy sand tires, thereby

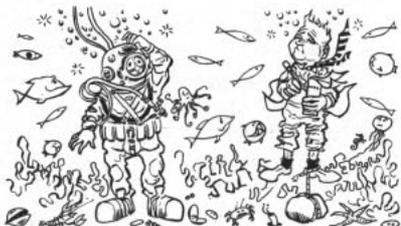




saving a large amount on vehicle repair.

• Auditors even look into such unlikely subjects as trash and garbage. They made a survey of methods of waste disposal in an area in which there is a large concentration of naval installations, and found each installation had contracted for its own trash removal.

The auditors discovered that, if the Navy invested in trucks suitable for this job and hired enough men to take care of the entire area, the Navy would save several thousand dollars



a year—even after buying the necessary trucks and paying the salaries of the men employed.

Sometimes an audit lays bare areas in which points of law must be clarified. Procedures are audited and found to vary over large areas, although all the procedures are found to be legal.

Diving pay is a good case in point here. There was a time when the law wasn't quite clear on what diving pay requirements really were. This resulted in a number of interpretations, none of which could actually be called incorrect.

A number of audits were made and the law was clarified. This resulted in more equitable distribution of diving pay under conditions which, for most Navy divers, were less stringent than those previously imposed by various commands because of unclear legal phrasing.

Skippers who bring their ships to the shipyard have reason to think kindly of auditors because they often make it possible for a ship to receive more for its repair dollar.

Here's how the Navy allots a portion of its appropriation to Navy shipyards for materiel, salaries and what-have-you. Captains of ships also receive a part of the appropriation to purchase repair services.

When the shipyard presents its bill to the captain, a big item is marked *overhead*. The captain has no way of knowing precisely what items go into *overhead*. He pays it.

The captain doesn't know, but the auditors can find out. When they find items charged to *overhead* which should be included elsewhere in the shipyard accounts, they recommend correction.

This, of course, is only a matter of bookkeeping, and saves the taxpayer no money whatsoever. However, it does reduce the captain's *overhead* bill, thus giving him more money to spend in areas where the Navy intended it to be spent. This often results in added comfort and safety features for you, the man who serves in the ship.

Sometimes an audit will have a direct, beneficial effect on a Navyman's pocketbook—like the time the auditors checked commissary store prices and found the commissary could avail itself of different sources of supply, which would reduce its operating costs. The savings were passed on to you, the consumer, in the form of lower prices.

In another instance, Navy men were directly benefited when the auditors found two almost neighboring messes operating at low standards. They combined the messes in a new building, and the result was better food served in a more efficient way

to the Navymen who ate there.

All these examples are, to a greater or lesser degree, occasioned by the fact that the Navy is big. Because it is big, it sometimes needs to be pulled together so its left hand knows what its right hand is doing.

This can be illustrated by the case in which auditors discovered automotive equipment headed for the tropics was being equipped with heaters—for which the Navy, of course, was paying.

Since Navymen at this location have even less need for heaters than Eskimos have for refrigerators, the heaters were taken out upon the vehicles' arrival and stored in a local warehouse awaiting shipment to the United States, for which the Navy would again be billed. The situation was rectified.

Occasionally auditors are the causes of some very red faces. There was once a manufacturer who produced some JATO bottles for the Navy. They were delivered, and stored until the time came to fill them.

The Navy then returned the bottles to the same manufacturer for filling, and was later informed by the manufacturer that he could not fill the bottles because the knucklehead who made them didn't meet the required standards.

Confusion was difficult to hide when the manufacturer learned he had condemned his own bottles as





sub-standard and had to make good.

Internal audits are, so to speak, concerned with the Navy's own house and therefore have a more direct bearing on the lives of individual Navymen. They also save the taxpayer a considerable amount of cash. However, the big dollar savings are made by the men who, in auditors' terms, are called contract auditors.

These are the men who cope with such multi-million dollar projects as the building of ships, rockets and other hardware.

Standard items like a Navyman's black shoes or his white hat are bought by the Navy on a sealed bid basis. There are specifications to be met, and anyone who can meet them is invited to submit a bid.

The company which furnishes the lowest bid gets the contract. It's all very simple.

However, when the Navy starts looking around for a company which can produce a rocket, for instance, things are not so simple, and the auditors are called in before a contract is even given.

Let us say, for example, that the Navy is reasonably convinced Company X is capable of producing the necessary rockets.

Auditors examine the company's cost estimate for producing various

components of the rocket and compare the estimate with records of the company's past performance on the same or similar work.

If they find the estimate to be out of line, they mention it in their report. Frequently, estimates are lowered as a result of these audits.

Auditors also delve into the labyrinthine recesses of subcontracts—that is, the manufacture of small parts which the prime contractor farms out to smaller companies.

Auditors learn whether or not these small manufacturers are capable, financially, of producing the part they have contracted to make.

After all, delivery on a high priority million dollar missile could be seriously delayed if the subcontractor of one solenoid went into bankruptcy before he could effect delivery.

Since the manufacturers who are able to produce terrifically complicated weapons for the Navy are something less than legion, there is usually a contract auditor right on the premises already.

If he is not a Navy auditor, he is an Army or Air Force auditor, for they all work together in things like this. The service which does the most business with a manufacturer is usually the one which has the auditor at the plant.

This must take a host of auditors,

you say. It does take quite a few. However, the number of auditors required to do a good job is decreasing because of improved auditing methods. Even auditors are subject to improvement!

All in all, contract auditors examine about 60 per cent of all the money the Navy spends on materiel. When auditing expenses were totaled up for last fiscal year, the Navy discovered contract auditors were responsible for a savings of 40 dollars for every dollar of auditing costs. During 1961, this amounted to a saving of 420 million dollars on 10 billion dollars examined.

As you can readily see, today's auditors help solve far-flung fiscal problems which management, because it is concerned with other specifics, may overlook.

There are numerous instances, too, in which management may be aware that irregularities exist and savings might be effected, but needs an agency capable of cutting across lines of authority and legal responsibility to straighten out a tangled situation.

Although their recommendations are primarily designed to help management, they incidentally make a winner out of every Navyman by paying him dividends in better service and helping him save his tax-paying dollar.

— Robert Neil





NEW AT PEARL — USS *Arizona* Memorial looks like this from water level and (below) like this from the air.

Arizona Memorial

Visitors to Pearl Harbor are being treated to a brand new, and impressive, sight these days. Smack dab in the middle of Battleship Row, and suspended athwartships over the sunken USS *Arizona* (BB 39), is the gleaming white concrete and marble USS *Arizona* Memorial—a monument from a grateful nation to nearly 1200 of her most honored dead, and the culmination of a 20-year dream.

A fly-over by eight Marine Corps jet aircraft from MCAS Kaneohe marked the beginning of dedication ceremonies. Some 200 dignitaries and officials assembled inside the Memorial itself, while upwards of 700 other spectators gathered on nearby Ford Island.

Eleven hundred and seventy-six *Arizona* crewmen went down with their ship on 7 Dec 1941, and the rusting hulk has served as their final resting place ever since that fateful day.

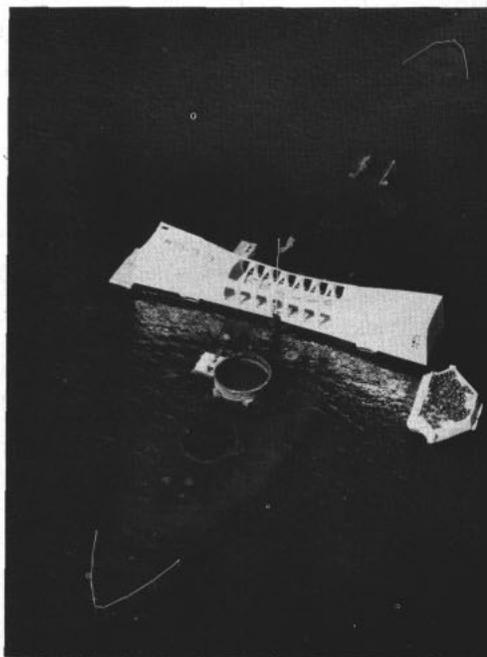
In tribute to her crew, the Navy has continued to carry *Arizona* on the rolls as an active, in-commission ship. Thus, each day since her end, the U. S. flag has been raised at 0800 and lowered over her at sunset, just as it is over every commissioned U. S. Navy ship.

The idea for a permanent memorial over *Arizona* was born even as the dust was still settling from the attack. Little could be done dur-

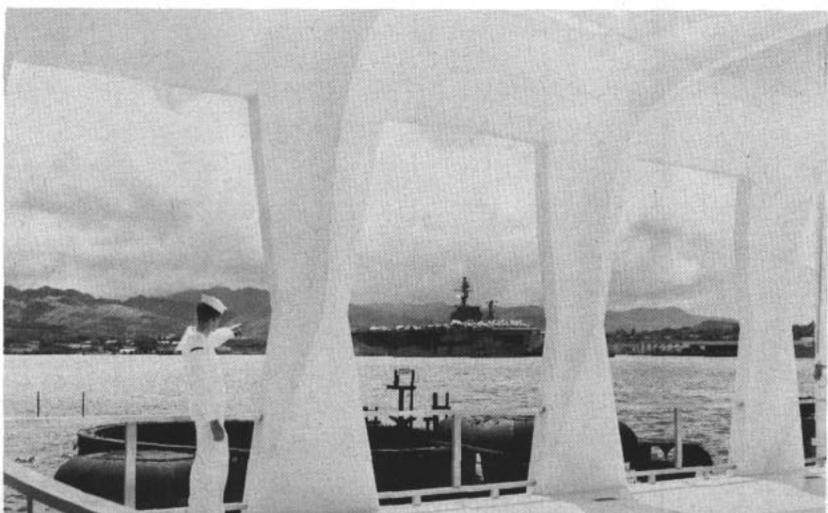
ing wartime however, and it was not until 1946 that several groups were formed to help make the idea a reality. These groups began investigating ways to pay tribute to the victims of the Pearl Harbor attack and, indeed, to all the war's dead.

The completed memorial is an enclosed bridge, 184 feet long, and varying in width from 27 feet at the center to 36 feet at the ends. It is 14 feet high at the center and 21 feet at the ends. The supporting structure consists of two concrete girders weighing 250 tons each. They rest on 36 pre-stressed concrete piles.

A Navy shuttle boat service now takes visitors to the memorial. It runs six days a week, Tuesday through Sunday.



ON DECK — Memorial is suspended athwartships over the sunken BB 39.



Cat and Mouse at Play

RECENTLY THE SHIPS of DESFLOT Two departed Newport for a standard ASW exercise. This in itself is not necessarily noteworthy, for these ships and hundreds like them have been conducting such exercises for years. Nevertheless, it might be salutary for the rest of the Navy to know what they are up to—and up against. In a sense, this might be called a progress report.

At that time, included in DESFLOT Two were CORTRONS 10 and 14, consisting primarily of *Dealey*-class DEs. (Since that time, the two have been combined into a new CORTRON 10.) No matter what its designator, the purpose of an escort squadron is to provide protection for convoys. As a convoy's worst enemy is a submarine, a DE's basic purpose in life is to kill submarines. It can do it, too.

Although each exercise is more or less routine, each has a definite objective. In this instance, during the first week CORTRONS 10 and 14, each consisting of four DEs, were intent on sharpening their maneuvering techniques, developing improved formations, and giving their sonarmen practice in detecting subs. Their targets were the two submerged conventional submarines *uss Cavalla* (SS 244) and *uss Cutlass* (SS 478).

Although each ship and sub would appear to be steaming at random, they were not. Their every action for the two weeks in question was minutely regulated by a set of instructions of more than 100 pages, carefully compiled by RADM Louis A. Bryan, USN, Commander Destroyer Flotilla Two and Commander Task Group Charlie, and his staff.

DURING WORLD WAR II, because of shorter range of radar and sonar, the escorts stayed relatively close to their convoys. All would zigzag in unison, but this procedure frequently became so stereotyped that a reasonably good submariner could anticipate the next zig as well as the members of the convoy, and would thoughtfully place a torpedo where a merchant ship was going to be, not where she was.

Such tactics have changed considerably in the past 20 years. Earlier, on a clear day you could stand on the bridge and see almost every ship in the convoy as well as the escorting forces. Today, this is not necessarily true. Most of the time, even with a relatively small group such as the ships in this exercise, only one or two are faintly visible on the horizon. To all appearances, your ship is sim-

ply cruising along on a somewhat eccentric course, all by itself.

Today, the escort still stays between the convoy and the enemy, but at a greater distance. This is made possible by longer range sonar and radar and is desirable because of increased capabilities of weapons. As submarine tactics and weapons have improved, so have those of the escorts and their convoys.

AN EXERCISE such as this cannot, of course, be carried out with true wartime realism. The long hours of work, continual GQs, tension and broken sleep are there, but the knowledge that any mistake may be the last one is missing. For most men, shipboard routines such as chipping and painting, underway shipboard drills, plus lessons and study go on as usual, but for a few on the bridge, in CIC, sonar and communications, the feeling of the hunter and hunted is present.

This is known as a "controlled exercise." All is planned in advance. First, an operating area some 100 by 60 miles, about 180 miles from Norfolk, Va., is reserved. A "reservation" in this case applies to U. S. military surface ships, military aircraft and submarines. Navy ships not taking part in the exercise avoid the area but merchant ships can, and do, plow placidly along and, at times, completely disrupt a hot game of cat-and-mouse.

The operating area is further broken down into grids consisting of an attack zone, with buffer zones at either end (all carefully laid out in the set of instructions). The screening ships and the main body fall into formation in one of the buffer zones and start on a course through the attack zone.

In the attack zone, an area 20 by 30 miles, the sub can attack screen or main body as she elects. When the convoy and its screen safely reach the opposite buffer zone, they reform, the sub continues on into her buffer zone to the north, let us say, then turns and comes back south. Meanwhile, the convoy has turned and started back from *its* buffer zone. This is repeated until all hands become dizzy and the navigators are approaching the short-tempered stage.

KEEPING SHARP — Crew in pilot house of *USS Forrest Sherman* (DD 931) point up their shiphandling techniques during the anti-sub exercise.



ALL HANDS



WELL GUARDED GROUP — Convoys, like this one during WW II, are protected by hard hitting ASW experts.

DURING THE FIRST WEEK, the two escort squadrons conducted their own private exercises and maneuvers, each sharpening techniques for the following week when they would be under the eye of the admiral and his relief, RADM Carlton B. Jones, USN. During the earlier part of the week, the respective commodores, CDR W. N. Homer, USN, of CORTRON 14 and CDR F. E. McKenzie, USN, of CORTRON 10, had occasional opportunity for a display of temperament at the antics of their respective squadrons, as they were getting in shape for the big test.

It was a tough assignment for the squadrons and their men. Not only were the ships working out details of new maneuvers to which they were expected to respond at a single command (the whole thing closely resembled a series of football plays with the commodore calling the signals), but they were also toying with a new concept of layer depth control developed by the Hydrographic Office.

On Friday, the two squadrons consisting of *USS Lester* (DE 1022), *Joseph K. Taussig* (DE 1030), *Hammerberg* (DE 1015), *Dealey* (DE 1006), *John Willis* (DE 1027), *Hartley* (DE 1029), *Van Voorhis* (DE 1028), *Courtney* (DE 1021) and *Cromwell* (DE 1014), were joined by *Forrest Sherman* (DD 931), the admiral's flagship, plus the Naval Reserve ships *Albert T. Harris* (DE 447), *Thaddeus Parker* (DE 369) and *Robert F. Keller* (DE 419), two oilers, *Kankakee* (AO 39), and *Chuckawan* (AO 100), and the



SUB HUNTING — Crew members stand by on board *USS Courtney* (DE 1021) as squadron stops sub attack. Below: *USS Van Voorhis* (DE 1028) joins hunt.





ESCORT squadron skipper, CDR W. N. Homer, USN, plans tactics from the bridge of his flagship.



JUST IN CASE — Emergency steering is rigged during drill on USS Courtney. Below: Lookouts receive instructions on Forrest Sherman.



TOPSIDE TEAM MATE — Neptune patrol plane from VP-26 works with DEs to help protect the convoy of service ships from attack of nuclear sub.

ammunition ship *Great Sitkin* (AE 17) which were to act as the convoy. They were joined by planes from Patrol Squadron 26 which, normally stationed in New Brunswick, Maine, were based at Norfolk for the purposes of the exercise. Their opponent was *USS Triton* (SSN 586), one of the more formidable of the nuclear subs.

AFTER JOINING UP, the monotonous pacing back and forth between buffer zone, attack zone, buffer zone, turning point and then repeat again and again continued. Now, however, there was a difference. The screening ships had a real convoy to protect and the two DE squadrons now needed refueling and replenishment. It was a good time to attack and *Triton* made the most of it.

Triton's objective was, of course, penetration of the screen into the main body where the oilers and ammunition ships were handicapped by their replenishment at sea lines to the DEs. It was still possible for them to maneuver but not as radically as if each ship were free. According to current doctrine, *Triton* was not too interested in the screening ships unless she was detected. (She was. The red X which indicates the enemy frequently appeared on the maneuvering board in CIC. When the screening ships would close in for the kill, *Triton* would simply fade away under a favorable layer depth. However, on this par-

ticular day, *Triton* didn't break through the screen, either.)

There were times during the week when *Triton* was permitted to penetrate the screen so the sonar operators could gain experience in spotting and tracking contacts. During these unopposed screen penetrations, *Triton* operated in and out of the screen of ships at will.

It might be mentioned here that at no time were any of the subs visible. There was a brief rumor aboard *Sherman* that one of the wing lookouts had spotted the sail of *Triton* about 10 miles distant but a check of the schedule showed that *Triton* could not possibly have been in that general area.

As a rule, the ships worked on their random patrol technique. Although each ship was assigned a definite area of the screen as her responsibility for protection, they did not follow a fixed pattern.

ON THE ASSUMPTION that their sonar was effective through a given arc of their bow, the ships ranged at will within their assigned areas. If the layer depth and sonar conditions were not favorable, the screen would retreat into a tighter circle, always making sure that their sonars continued to overlap. If one were to sidle too far off to one side inadvertently, thus leaving a gap in the screen, it was the responsibility of the other ships to cover the hole.

If one of the screening ships were

to receive a sonar contact, the OOD would promptly get on the radio telephone and notify the officer in tactical command, then, still using the random patrol technique, inch toward the area to investigate. The tactical commander would order the other screening ships to close up the gap with, perhaps, the exception of one who would be ordered to assist the investigating ship as a backup.

Should the sub break through the screen, the screen would close in toward the main body in an attempt to flush the sub. Obviously, no sub is a match for a dozen or more fast-moving, well-armed DEs. When it became apparent that her opponents were closing in for the kill there was only one thing for the sub to do—tear out of there as fast as her engines would permit—thus living to attack again another day.

Should the defense operate perfectly, the only surface signs of activity would be an increase in the number of ships visible, each one wheeling and circling in apparent confusion. Then, the crisis over, the DEs would slip away to their assigned areas and you would be alone again.

In the CIC, however, it is possible to watch the circle become tighter and tighter about the red X. On very rare occasions, an eraser would wipe one of the attacking ships from the maneuvering board. The “sunk” ship would drop out of the circle for the time being, then when the attack was over, she would again resume her position. On equally rare occasions, even when the red X was *Triton*, one



LOADED — USS Lester (DE 1022) pulls away from USS Great Sitkin (AE 17) after taking on ammunition to be used on extensive submarine hunt.

or more of the attacking ships would claim a kill. Then, in a dozen CIC rooms and on a dozen bridges, men would straighten up, grin, and give a deep sigh of relief.

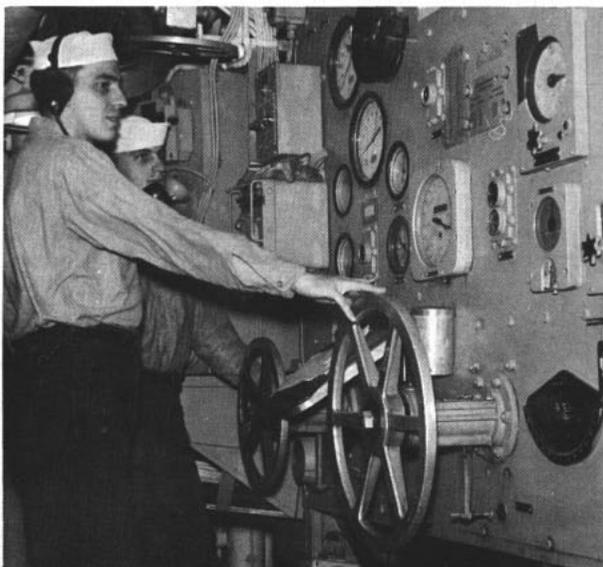
DEFINITE RULES for determining kills have been established. If the sub makes an approach without the screening ships detecting her, and succeeds in getting within torpedo firing range of her intended victim, she fires a green flare instead of the anticipated torpedo. That ship is “killed,” and is then out of action. On the other hand, if a ship succeeds in getting off three rounds of any kind of weapon—depth charges (hand grenades), Minnie Mouse (Weapon ALFA) or torpedoes—within firing range, before the sub gets off her green flare, then the ship has sunk the sub. Both ships and subs were sunk during Transex, the exer-

cise under description here.

When either weapon is fired from a DE, the results can be heard by the sub, who promptly gives the attacker an evaluation of its effectiveness. Strict honesty is the rule here, for it is understood that the entire exercise could be negated through unduly favorable shadings of opinion. If the sub has reason to believe the attack is successful, she candidly admits that she is out of action. It's all very sporting.

However, subjective opinion is not the final determinant. Flares and grenades may serve as a rough approximation of the success or failure of the respective combatants, but the final evaluation must wait until all hands return to Newport. There, the plots of each ship and sub are carefully compared with the claims made and only then is final judgment rendered. — Erwin Sharp, JOC, USN.

ACTION BELOW — Crewmen below decks were kept busy while their ships were protecting the convoy.





They Do the Hull Job

LESS THAN FORTY YEARS AGO there were only a handful of divers in the Navy who were qualified to work at depths greater than 90 feet on underwater salvage missions.

Today, however, deepwater divers are plentiful and many are qualified

SPLASH — Navy diver enters the water to check ship's hull damage.



to work at depths below 300 feet.

Several factors are responsible for this change. The submarine disasters of 1925 and 1926 pointed to the necessity of having Navy divers who were capable of descending to greater depths than were then considered safe.

Increased training in the Navy's diving school plus improved techniques devised by experimental diving units greatly increased divers' range and flexibility.

Today's Navy divers are qualified in Scuba (Self Contained Underwater Breathing Apparatus) and the standard "hard-hat" (Surface Supplied Air Apparatus) diving.

They do underwater demolition work, dispose of explosive underwater ordnance, do salvage diving and rescue Navymen from disabled submarines.

They also act as hull repairmen and inspection divers.

Much has been written concerning the feats of divers who detonate un-

derwater weapons, salvage sunken ships and rescue men from submarines. However, little is known about the groups of men whose job it is to look up at a ship's hull from underwater and repair the defects they see there.

One such crew is on board the destroyer tender *uss Frontier* (AD 25). The team is made up of one first-class diver who is qualified to make dives up to 385 feet and four second-class divers who can work in depths up to 150 feet.

The men are assigned to regular shipboard billets but they spend much of their time underwater. In an average week, they inspect and do underwater repair work on the hulls and sonar domes of three ships.

A while back, the crew had the sizable task of repairing the propeller of *uss Mansfield* (DD 728) while *Mansfield* was alongside the tender.

Although repairing a propeller under water is not unusual for some ships, destroyers usually bring their

propeller troubles into drydock because there is, more often than not, other damage which necessitates repair.

When underwater repair is feasible, the divers have a big job on their hands because of the tremendous weight of the propeller (in the neighborhood of seven tons) and the difficulty in getting the propeller off. Usually a pretty hefty explosive charge is needed to dislodge it.

Frontier's divers were submerged for more than 116 hours total time to repair the propeller on *Mansfield*.

Home for *Frontier's* divers is the diving locker just aft of the forecastle on the main deck. Here the crew members do minor repair work on their gear and make whatever adjustments are necessary.

The diving locker also serves as an office and berthing compartment.

While working, the sub-sea-men use a 50-foot converted motor launch as a base. The boat is equipped with a compressor powered by a four-cylinder model "T" engine. This is their source of air supply.

The boat is rigged for most diving operations. It has a standard deep-sea diving suit and a two-way intercom which can be used by as many as three divers at a time.

Most of the crew's diving work is done in comparatively shallow water and can be done while wearing wet suits and shallow water masks.

These are the working clothes in which they do most of their underwater welding, cutting and minor repairs such as installing hull zincs, fairwaters and doing a multitude of other underwater jobs.

Hull zincs are, of course, pieces of zinc put on the hull to control the

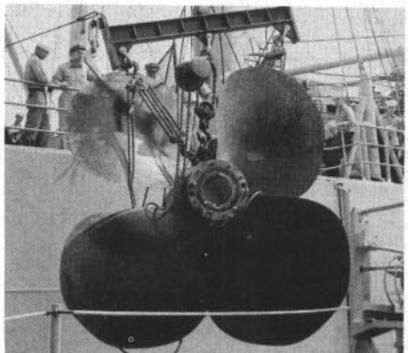


WATER WORK — Navy diver in tank gets feel of using tools under water.

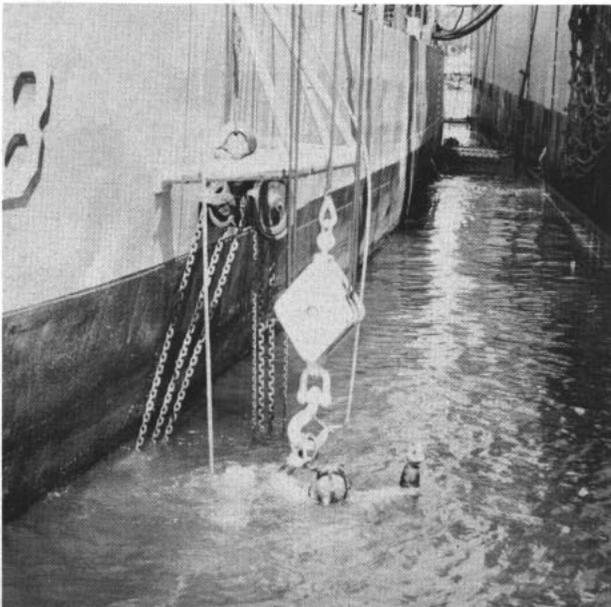
chemical reaction known as electrolysis caused by the effect of salt water on the various metals of which a ship is built. If they were not installed, deterioration of the ship's hull and struts would be hastened.

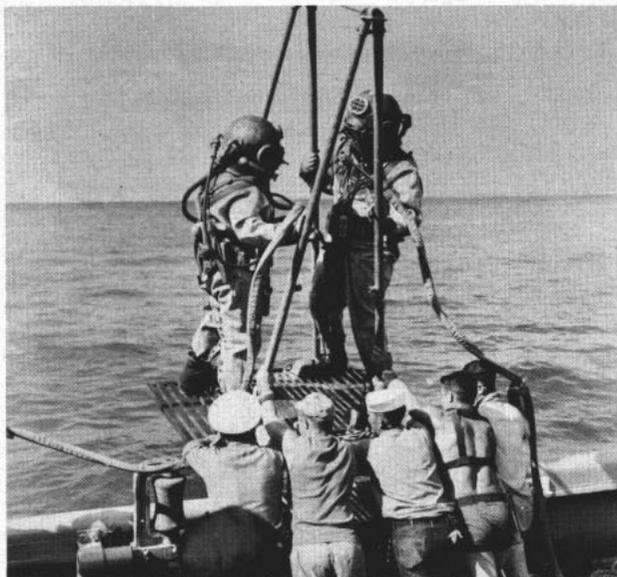
Fairwaters are installed around a ship's struts to prevent line from tangling in strut bearings. The fairwaters are made of fiberglass and are shaped like a soup bowl.

In case you are wondering how a crack or a hole can be repaired in



'HULL DIVERS' of USS *Frontier* (AD 25) work below to install propeller (above) on USS *Mansfield* (DD 728).





DOWN, BOY — Divers of USS Ajax (AR 6) repair prop. *Rt:* Divers head for bottom. *Below:* Student is suited up.



a ship's hull when the damage is underwater, the diver's answer is to place a cofferdam (a wooden box with a rubber gasket and putty) over the hole or crack.

The water is then removed from the box thus creating an air space between the damaged section and the water. The hull can then be patched from inside.

Diving isn't as easy as it looks on TV. Every diver has to understand diving physics, physiology, oceanography and water safety.

To an underwater man such two-and-a-half-dollar terms as air embolism, nitrogen narcosis and spontaneous pneumothorax are very important. Understanding them means the difference between returning safely to the surface or suffering a not-so-sudden, agonizing death.

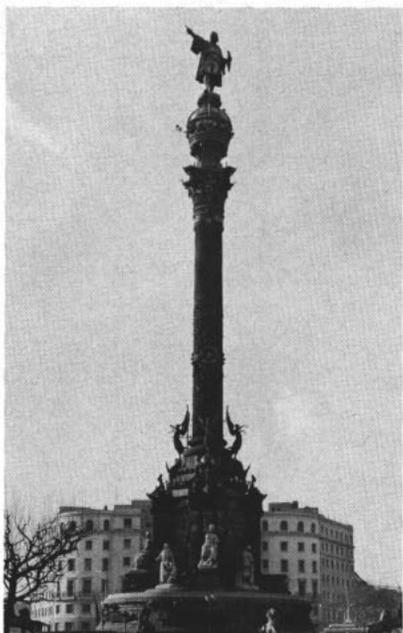
Thanks to modern technology and training, Navy divers are well able to cope with the underwater problems which confront them.

Their equipment and knowledge give them a definite edge over the hardy underwater men who made history salvaging USS S 51 and S 4 when they sank back in 1925 and 1926.— Dennis E. Aufranc, JO3, USN.

lism, nitrogen narcosis and spontaneous pneumothorax are very important. Understanding them means the difference between returning safely to the surface or suffering a not-so-sudden, agonizing death.

DIVING SKILLS and techniques have come a long way since this class in 1918. *Rt:* Sub's hull is checked.





Boston at Barcelona

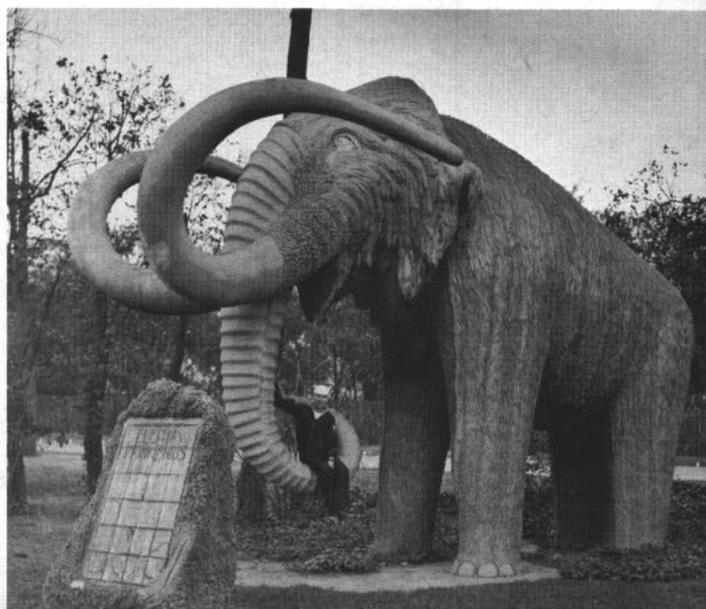
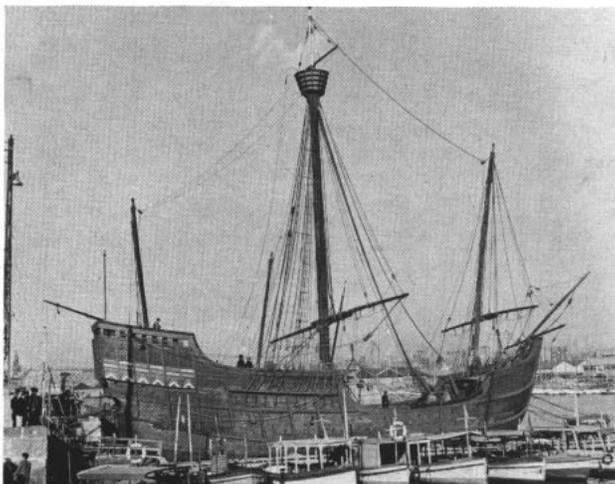
NAVYMEN IN SHIPS of the U. S. Sixth Fleet visit many interesting cities during their stay in the Mediterranean area. One such city visited earlier this year by the crew of *uss Boston* (CAG 1) is Barcelona, Spain.

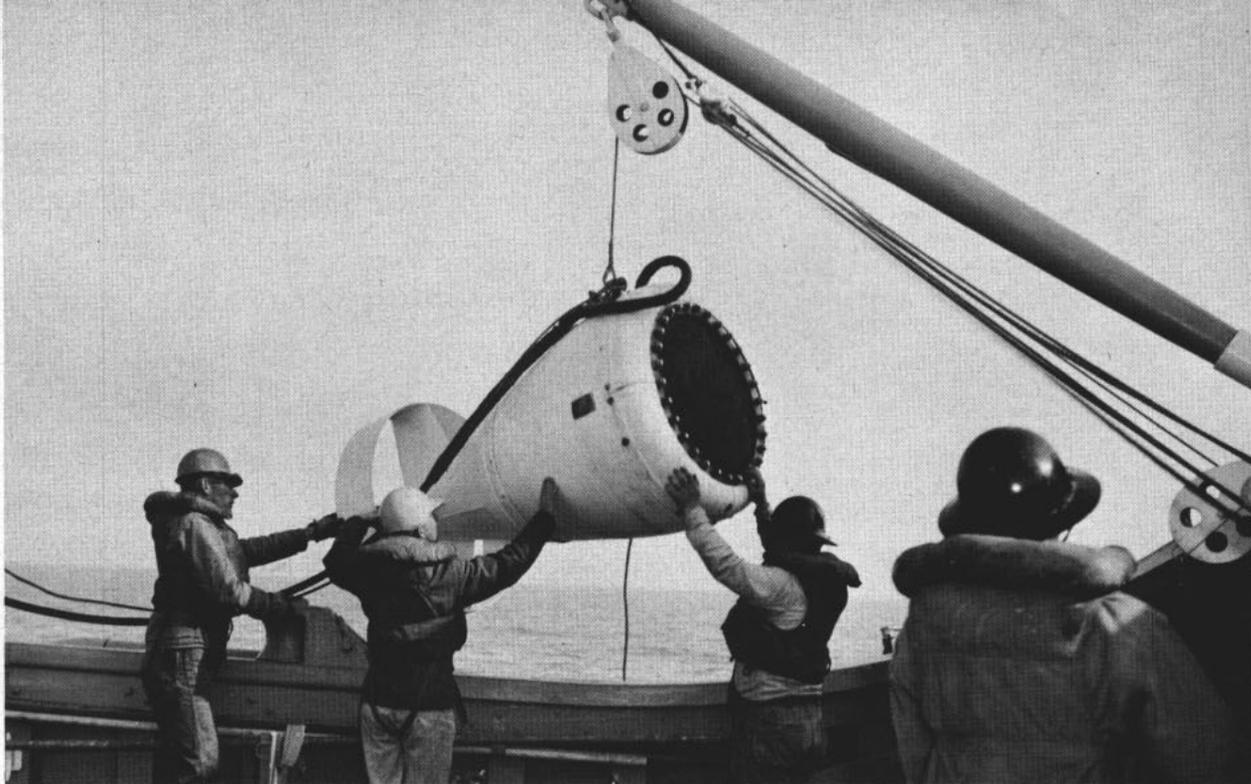
With about 1,500,000 inhabitants, Barcelona is the largest and perhaps the most cosmopolitan city in Spain. Wide streets and beautiful boulevards permit traffic to move at a rapid pace and give one the feeling of being in one of the larger cities back in the States.

Finding something to do while in Barcelona is no problem. Aside from the many sights to be seen, adequate recreational facilities are also available. Among these are the opera,

ballet, soccer, bullfights, jaijai, boxing and wrestling. In addition, there are tennis courts, riding stables, golf courses and a variety of night clubs.

Clockwise from top left: (1) A familiar sight to most Navymen visiting Barcelona, Spain, is this statue of Christopher Columbus which towers over the city near the harbor. (2) C. R. Witt, JO2, USN, and R. D. Puckett, AN, USN, of *uss Boston* (CAG 1) gag it up during a souvenir-shopping tour with a Spanish youth. (3) Orphans tour *Boston's* main deck during a party. (4) C. R. Witt, JO2, USN, poses in the trunk of the stone mastodon in the city zoo at Barcelona. (5) A replica of Columbus' sailing ship, *Santa Maria*, is on display in Barcelona's harbor.





SWEEPS—Mine warfare students stream a hammer box, a noisemaking device that triggers acoustic mines.

Mining Their Own Business

MINE WARFARE, a field long cloaked in secrecy and shrouded in obscurity, has been more or less an unknown quantity to most Navymen in the past. Recent years, however, have brought increasing awareness that mine warfare—both the offensive and defensive variety—is particularly adapted to small, or so-called “limited war” conditions.

Now, when the Navy faces the necessity of being ready to handle any number of such limited war situations, mine warfare training is being given ever-increasing emphasis. More and more Navymen are being assigned to such training. And, officer or enlisted, if you're ticketed for a stint of mine warfare schooling, there's only one place for you to go. That's the U. S. Naval Schools, Mine Warfare, at Charleston, S. C.—the only one of its kind in the naval establishment.

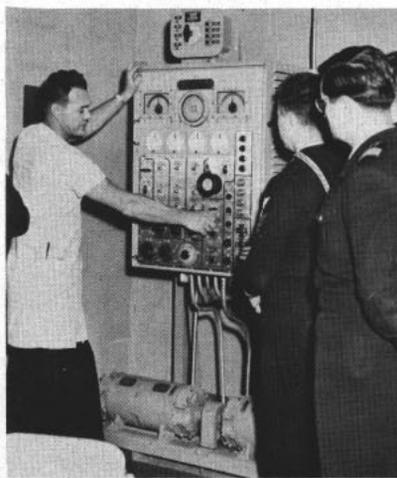
NSMW's assigned mission is a good-sized mouthful, even for Navy officialese. It is:

“To train commissioned and enlisted personnel of the Navy, and such other persons as are authorized by the Chief of Naval Personnel under directives of the Chief of Naval Operations, in the material

and operational details of defensive and offensive mine warfare, including mining, mines, designated mine location systems, mine countermeasures and degaussing, to the extent necessary to meet the needs of the Navy, and to train designated commissioned officers in the operation and administration of a mincraft engineering department.”

Briefly, however, it means that

CLASSY — Instructor points out ways of operating the automatic degaussing unit to mine students.



NSMW teaches all phases of mine warfare, including minelaying, mine-sweeping, planning and tactics, and the use of surface, aviation and submarine mines.

NSMW has taught such skills to more than 30,000 students since its commissioning in late 1940. The majority of these have been Navymen, but they have also included a goodly sprinkling of U. S. Army, Air Force and Marine Corps trainees, plus numerous representatives from 26 allied and friendly foreign nations as well.

During the first 19 years of its existence, NSMW was located on a 209-acre tract adjoining the Yorktown Battlefield Park at Yorktown, Va. Some three-and-a-half years ago, however, in the interests of efficiency, the school was moved to the Naval Base at Charleston. There, next door to the headquarters of Commander Mine Force, Atlantic Fleet, it is better able to work in close conjunction with the operating forces.

NSMW graduates were instrumental in the sinking or damaging of some two million tons of Japanese shipping by mines during World War II. In addition, NSMW-trained Navymen manned the minesweepers

which spearheaded every allied invasion in both the European and Pacific theatres.

The lessons taught by WW II were demonstrated again in the Korean conflict. Korea jolted us with some fairly costly evidence of just how deadly a weapon the mine can be. In just one instance there, for example, the enemy—with poor transportation facilities, little technical knowledge and improvised equipment—succeeded, through the use of mines, in stopping one of our invasion fleets for eight days—a first-hand taste of what we might expect in a conflict with a really mine-conscious enemy.

Since Korea, the Navy has put these lessons to good use.

All of our new minesweepers, for instance, are non-magnetic, even to their engines, tools and anchor chains. Their hulls are made of wood, and the arrangement of their mine-sweeping equipment has been greatly improved over that of their predecessors.

In addition, most U. S. minesweepers are now equipped with mine-hunting sonar. Augmenting the sweepers, too, are special mine counterbalance ships with teams of explosive ordnance disposal swimmers. Experiments have been carried out with minesweeping helicopters.

Together they form a strong and highly effective mine warfare team—and more and more graduates of NSMW stand ready to put all of this hardware to good use.

Here is a listing of the officer courses taught at NSMW:

<i>Course Title</i>	<i>Length (weeks)</i>
Aviation Mine Warfare Familiarization	3
Aviation Mines Maintenance	9
Submarine Mine Warfare Familiarization	1½
Submarine Mines Maintenance	7
Introduction to Mine Warfare	1
Surface Mine Warfare Familiarization	3
Surface Mine Warfare Familiarization (Reserves)	2
Prospective Engineering Officer	5
Mine Warfare Staff Officers	24
Mines Maintenance	20
Mines Maintenance (Reserves)	2
Minesweeping Officers	8
Degaussing, Ranging and Deperming	8
Degaussing—Shipboard	

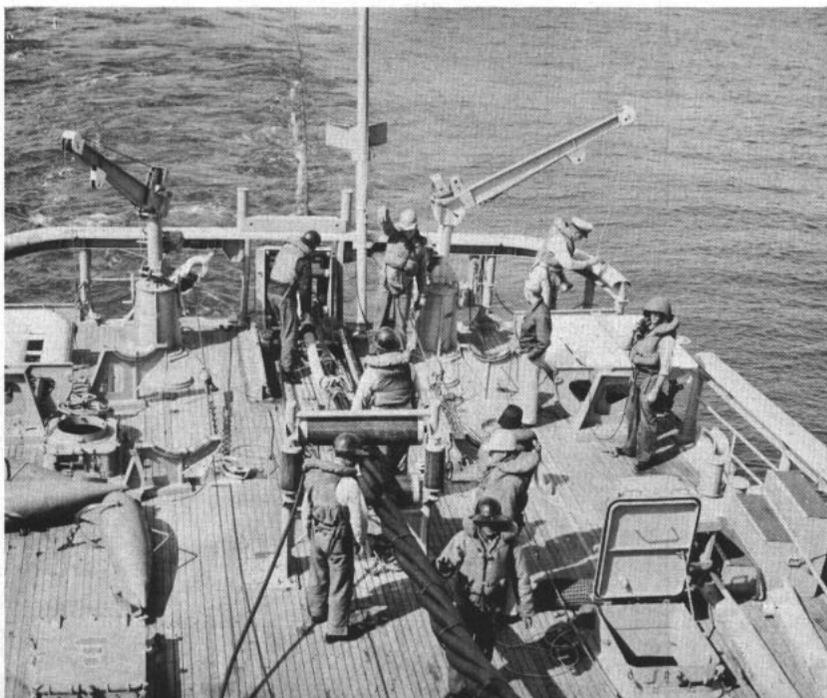
OCTOBER 1962



TOUCHY BUSINESS—Student works on mine under instructor's watchful eye.

Installation and Repair	3	Degaussing (Class "C")	5
Magnetic Compass Compensation	3	Minesweeping EM (Class "C")	11
Senior Friendly Allied Officers	9	Reserve Minesweeping BM (Class "C")	2
The following courses at the Mine Warfare School are available to enlisted men:			
Mineman (Class "A")	15	Reserve Minesweeping EM (Class "C")	2
Mineman (Class "B")	20	Minesweeping BM (Class "C")	6
Mines Assembly Refresher, Reserve Mineman (Class "B")	2	Submarine Mines Assembly (Class "C")	7
Aviation Mines Assembly (Class "C")	9	If you're interested in attending any of these courses, your first move should be to check NavPers 91769-E—the <i>Catalog of U. S. Naval Training Activities and Courses</i> —to determine your eligibility. Then, see your personnel officer.	
Electrician's Mates Ranging and Deperming (Class "C")	5		
Minesweeper Automatic			

'TALL TAIL'—NSMW students stream a magnetic sweep tail from an MSO.





SIGHTSEEING—Navymen tour Royal Palace (rt.), Temple of the Dawn (left) and (below) The Marble Temple.



Sightseeing in Bangkok

TWO AIRCRAFT of Utility Squadron Five deployed to Bangkok, Thailand, earlier this year in order to furnish aerial target service for gunners of the Royal Thai Navy and Marines.

Twenty-four ships and an anti-aircraft battalion of Marines were involved in seven days of gunnery exercises. All concerned with the operation announced that it was a complete success and once again demonstrated that professional training is a solid foundation for co-

operation and friendship among the navies of the United States and her allies throughout the world.

In addition to the satisfaction of participating in a successful naval operation, members of UTRON Five found time for some very interesting rubbernecking. The Royal Thai Navy arranged for tours of many of the more interesting sights in Bangkok. This included the Royal Palace, several awe-inspiring gilded temples housing Buddhas and a canal tour of the city's floating market.

HERE WE ARE—UTRON Five sailors admire figurehead of a royal barge and pose on temple steps in Bangkok.



LETTERS TO THE EDITOR

EOD Training

SIR: After reading the April 1962 issue of ALL HANDS, I submitted a request chit via the normal chain of command for EOD training.

My request was approved by my department head but was disapproved by the personnel office. The reason given for disapproval was that a tour of shore duty cannot be terminated for the EOD school.

Did I use the correct procedure? If so, what instructions or notices can I use as references? If I must wait until I complete my tour of shore duty, should I request this school on my Seavey/Shorvey card?

Some of my friends tell me I will have to resubmit a request for the school and submit forms for security clearance, physical examination and such. Is this correct? — T. F. H., AO1, USN.

• *Shore tours are not usually broken to send a man to school, unless the school is a reenlistment incentive under STAR, SCORE or some other program. Stability of the service and conservation of travel funds are two good reasons for this policy.*

Since the personnel supply for schools is usually drawn from men rotating to sea duty, you should request the school on your Seavey/Shorvey card when your time for rotation to sea comes up.

Unless specifically requested, it is not necessary to submit forms for security clearance, physical examination or other prerequisites for a school. It certainly wouldn't hurt to have them

No Hats in CPO Mess

SIR: There are two Wave chiefs at this base who remain covered while eating. Are they correct? I believe they should show respect in a messing area by uncovering. It seems to me that if a woman wears a military uniform, she should comply with military etiquette. — R. E. V., DT1, USN.

• *You're right, R. E. In conformance with military etiquette and tradition, uniform hats are not worn in chief petty officers' messes. However, "U.S. Navy Uniform Regulations," Article 1110, para. 2, says in part: "Women may wear the hat indoors in accordance with civilian social customs." Generally, civilian social customs for women with respect to wearing of the hat apply outside the confines of a military activity. — Ed.*

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington 25, D.C.

ready but there is a limit to the amount of work and expense which Naval Intelligence, the medics and others involved would be willing to undertake without having a definite reason. They wouldn't have a definite reason if you had not yet been accepted for the school. — Ed.

Side, Center or Stern-Wheeler?

SIR: In your June 1962 letters to the editor, you stated the first *uss Pittsburgh* was a side-wheel ironclad gunboat of Civil War vintage. I think you may be in error.

The first *Pittsburgh* was not a side-wheeler but a center-wheel steamer; ironclad; 4th rate; 468 tons; and was one of seven such gunboats built by James B. Eads at St. Louis, Mo., in late 1861.

This information was developed by members of the *uss Louisville* Battalion, U. S. Naval Reserve, prior to renaming the Battalion for *Louisville*, a sister ship to the original *Pittsburgh*.

As far as we know, this is the first Naval Reserve unit (Surface Battalion 5-11) to be given a name in addition to the usual number. — J. J. Caulfield, CDR, USNR.

• *A history of Pittsburgh which should have been (but wasn't) unimpeachable, stated the wheel was on the side. Your battalion places it in the center.*

To get to the bottom of the matter, we went back to the specifications and other early data and wheeled out the following information:

As you say, Pittsburgh was one of seven gunboats ordered from the Eads Company at St. Louis. They were launched in October 1861. All seven were described as stern-wheeled, case-mated, ironclad gunboats. They displaced 512 tons and had a 51.2-foot beam and were 175 feet long. They carried 251 officers and enlisted men.

We won't discuss whether a stern wheel qualifies as a center wheel. However, it seems apparent that ALL HANDS slipped a cog by placing the wheel on the side. — Ed.

Temporary Officers

SIR: I am writing for information on the subject of reversion of Regular Navy officers holding temporary appointments.

The question has arisen concerning the group of commissioned officers who formerly were warrants but whose permanent status is enlisted.

My feeling is that these officers would revert to their former enlisted status. However, there are some on board this ship who believe this group of temporary officers who were commissioned from warrant and chief warrant status would revert to their former warrant status and retire as warrant or chief warrant officers.

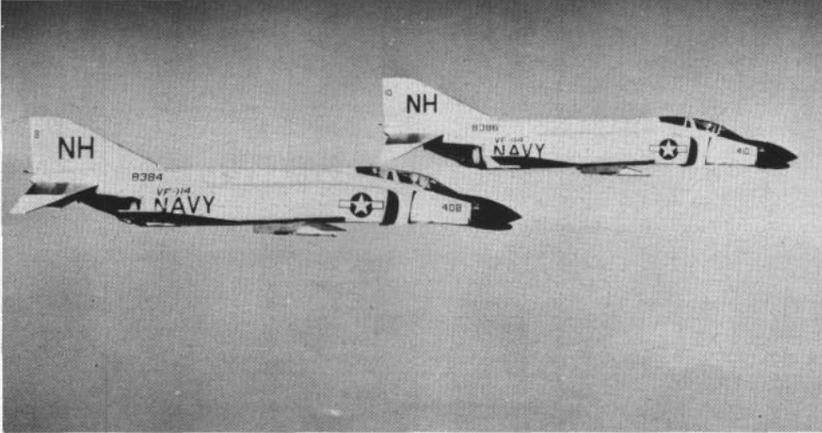
I might add that this is based on the premise that none of these officers has completed 10 years of commissioned service as warrant and/or commissioned officer. — A. L. P., ENS, USN.

• *We're with you. There is no authority for reversion of a temporary officer (ensign or above) with permanent enlisted status to any grade other than his permanent enlisted grade even though he may have previously served under a temporary appointment in a warrant and/or commissioned warrant grade. If reverted to enlisted status, he would not be eligible for voluntary retirement under any law (unless he has completed 30 years of active service for retirement purposes under Title 10, U.S. Code 6326), but may be transferred to the Fleet Reserve upon his own application provided, of course, that he has completed the required service for transfer. — Ed.*

Uniform When Traveling

SIR: Does the Navy have an official travel uniform? Some of my shipmates contend that Service Dress Blue is the official travel uniform under orders, and others say that the uniform of the day is proper. — J. F. R., YN2, USN.

• *There are no specific regulations concerning the proper uniform for traveling. Normally, your travel uniform should be the one prescribed by your current duty station. Many commands state in their Uniform of the Day directive that Service Dress Blue may be worn on leave or liberty even though the normal uniform of the day may be Service Dress White. Upon reporting to a new command you should wear the uniform of the day prescribed for that command. — Ed.*



ONE BY ONE — Two F4H Phantom II all-weather jet fighters, 50 feet long and 16 feet tall at the tail, fly high over Southern California.

Now, There Was a SHIP

SIR: Your story on *USS Enterprise* (CVAN 65) in the February 1962 issue provoked much comment in the petty officer's mess aboard my ship, *HMAS Anzac*. Since the largest ship we Australians have is *Melbourne* (a mere 21,000 tons) most of the interest centered around the living conditions on such a monster.

We'd like to know—does *Enterprise* employ DDs as liberty boats? And what size shore patrol does she land? How long does it take the Doc to inoculate the ship's company? How much do her anchors weigh, and what is the size of her cable? How many hours does it take her captain to inspect the ship's company? And how many divisions of Marines does she carry?

Seriously, though—we are virtually a destroyer-size Navy, and find it difficult to visualize anything of *Enterprise's* size. Could you give us some shipboard statistics, please?

I might add, too, that while we wish the very best of luck to all who sail in her, we just hope we are never in port together, as we feel the supply of beer and sheilas could never meet the demand. Many thanks.—John Whittaker, P.O., R.P.1, *HMAS Anzac*.

• We're flattered to hear from one of our sister navies. Your letter was circulated among the staff, and all of us enjoyed reading it. Several of us have worked with RAN ships, and have a high regard for the seamanship and elan so apparent in all RAN sea work.

You ask about *Enterprise*. You ask if she employs DDs as liberty boats and so on. Well, now. Maybe you have her confused with our most famous man of war—*USS Tuscarora*, no longer in commission. *Tuscarora* was a 17-decker, straw-bottomed, queen-of-the-ocean-seas, mistress-of-inland-waters, pride-of-all-who-beheld warship.

In *Tuscarora*, it is said—and who are we to gainsay?—there was such a ship's company that even the cooks had cooks to cook for them. A boot seaman, it is heard, once reported aboard. Before he finally made his way to report to No. 1 (the XO, or executive officer, we call

him) he had already made CPO.

To provision *Tuscarora*, it took turn-around basis work by ss Hamakura, which, as you'll remember, had no *whicher* when it came to the size of a cargo packet. *Tuscarora*, we find by meticulous research, carried enough NSFO in her bunkers to fuel the entire Fleet, with enough left over to sail her around the world 52 times. That is why, when you examine the records, you'll find that even the oil king was a four-ringer (four-striper, as we say).

Although *Tuscarora* had only 24 fire-rooms, it should be noted that each was a triple-bank of eight boilers. She was, of course, a four-screw job—that is, four port, four starboard and four center.

Despite her size, things usually were shipshape; Bristol fashion. To pay the crew—and perhaps you already know this—the U.S. Mint had a branch aboard. And, naturally, there was a main post office on the 15th half-deck space.

Now—there have been some exaggerations about this ship. To put the record straight, let us tell you it has now been proved that only half of the copper output of *Anaconda* mines went into the telephone system aboard *Tuscarora*. And, you can't believe everything you hear. For example, we have finally been able to track down the size of her saluting battery: Only 24-inch guns, despite anything you may have heard elsewhere.

Did she use battlewagons as liberty boats? Very seldom, according to the logs we have examined. Usually, it seems, a few squadrons of cruisers were entirely adequate to carry the liberty parties ashore, since the transport flotillas were almost always able to take most of them.

Her speed, as you realize, was an official secret. However, we have been given permission to reveal that she was never really opened up. Reason: In her first sea trial, what was originally thought to be a tsunami caused by an under-ocean earthquake turned out to be *Tuscarora* answering the engine order telegraph when it read all ahead two-thirds—and she was out in the middle of the Pacific at the time.

On the other hand, some statistics have been too cautious. She not only used the entire Kansas wheat crop for biscuits (breakfast only), but, moreover, took the entire crop of three Wheat Belt states and that of two Canadian provinces for bread. In one year alone, it has been stated, the entire output of California and Texas orange groves went into the *Tuscarora* shops to make marmalade. At that, it was rationed to once a week.

In the interests of veracity, let it be known that the Marine detachment embarked in *Tuscarora* was only one division. The other division you must have heard about was, to put the matter straight, merely a battalion of provisional infantry used to stand sentry on the after brows, since an economical use of manpower was always something *Tuscarora* took pride in.

The ammunition hoists, we may add (and still, to maintain only the truth), did not travel at 6G—only 4. The flag bags were not racked 14 decks high, only twelve.

Inspections of the lower decks were done by 80 separate parties, and took three days. Inspection of the upper decks, messing and berthing compartments took three days. So, as you can readily understand, the weekly reports did get in on time. They were usually sent topside before 1000 on Saturday, loaded into trucks and sent forward to reach the skipper (a Fleet Admiral) before 1200. Reason for this was that the skipper really loved his liberty. He always had his four-engined passenger plane (his gig) warming up on the port quarter airfield, ready to take off. Then, of course, he would circle the ship (it took 15 minutes) to check if the quartermasters had hoisted his absentee pennant. When he found it was too slow being two-blocked, he ordered another tractor put on the hauling lanyard, since the two in use had trouble pulling the weight.

This might sound like wasting money to satisfy a personal whim, but the skipper was all heart. When the tractors were not being used to two-block flags and pennants, they were shifted topside to the number six boat deck (the smallest one), where there was stored, in an out-of-the-way place, enough soil to cover the area of three baseball diamonds. The tractors, as you have no doubt gathered by now, would spread the dirt to make ball fields, and then would shove the dirt back into the storage area after the games so that ship's work could continue. In case you're wondering, the bleachers and grandstands of number six boat deck were all shifted into position using topping lifts, a part of the rigging that had been set up to highline steam engines and box-cars from deck to deck to facilitate movement fore and aft of coffee bags for the various coffee messes.

The flag officer's swimming pool (the small one) was not used for the mile swim in the Olympic Games. This was a disappointment to everyone. Have you gotten the whole story on that? It seems the surveyors found the length to be only 5265 feet—obviously unsuitable.

So, friend Petty Officer Whittaker, we're glad to set the record straight. The known research ability of ALL HANDS Magazine can be put in motion at any time to dredge up the real, the true, the factual fact. As avid fishermen, we have a reputation concerning truth. That being the case, let us tell you this one last true story.

When one of our staffers was a brash young ensign, he was assigned to Tuscarora. His main duty was overseeing the patrol of one of the shaft alleys (there were 12, as you remember). Well, sir, he had the bright idea one day of stealing some of the dirt used for the ball fields. By dint of much maneuvering and chicanery, he was able to do so. It was put in an after compartment leading off HIS shaft alley (as he so fondly thought of it). His patrol crew was small—only 250 ratings—but there were other fishermen in it. So, tapping into a fresh-water pipe (they blasted with TNT), they fitted a penstock—so small it wouldn't be noticed in the ship's water use report—a mere 20-incher. They soon had a rushing stream. That—ah—you're ahead of me—they stocked with steelhead trout. By proper management, they grew some mighty fine fingerlings in the hatchery. They fed them properly. Result: 20 pounders they threw back in. Record: 158.663 pounds. (I give it to you exactly as a demonstration of absolute truth.)

Incidentally, speaking of Enterprise, sure wish she'd been around when we were in Tuscarora. What a fine boat she'd have made to put in the water when we felt like trolling for whales.—Ed.

Life in the Australian Navy

SIR: Thank you very much for your account of that great ship *Tuscarora*. And I was worried about *Enterprise*? If I ever see *Tuscarora*, I'll request transfer to the Army.

I am enclosing a few notes on the RAN that might be of interest to you and your readers.

A Guide to the Enlisted Man in the Royal Australian Navy:

When you meet an Australian Navyman, don't ask what part of England he comes from. That's like asking a Texan what part of Alaska he comes from. Our uniforms and some of our ships look British, but Australia is worn as proudly on our buttons and cap ribbons as is the Commonwealth flag flown for'd.

We know we have the best beer in the world and the worst licensing laws. We think we have the best beaches in the world, and about the worst railway



SEA STORES — USS *Altair* (AKS 32), ex-AK 257, was reclassified as a stores issue ship in '52, now sports helo platform on fantail.

system. To get back to the Navy side of things, though, here is a rundown on the grades:

- **Ordinary Seaman**—Equivalent to the seaman apprentice, he respects all in authority over him, and this means everyone. Never has enough to eat, frequently has too much to say. Seldom gets the word.

- **Able Seaman**—Thinks he does all the work but doesn't. Respects anyone who has caught him out, and is normally found in dark compartments like messdeck stores. He is seen twice a month on the upper deck for payment, and on every liberty boat. Dislikes all POs, coxswains and officers, in that order. Has always served on a better ship than the one he is on, and is recognized by the cry "We never used to do it like this on the"

- **Leading Seaman**—All same PO2 in the USN, he has the worst job of the lot. He has to rip lumps out of both the above, and then sit down at the mess table and ask them to pass the salt. Speech is normally indecent, as a result of which he is embarrassed when speaking to a civilian or a member of the Air Force, owing to the need to censor his usual reply.

- **Petty Officer**—Similar in uniform to the USN CPO, he cannot remember when he last had a friend. Knows he does all the work, and could tell the Navy Board how to run the Navy anytime. Doesn't believe in officers, and doesn't believe ordinary seamen. Spends his off-duty hours in the mess telling other POs the Navy has had it. Spends his liberty telling old ladies he is not a cab driver.

- **Chief Petty Officer**—Cannot remember anything. Has a senile appearance which belies his ability to do the opposite an officer tells him and still appear to obey. Thinks all petty officers have gone to the pack, and knows all officers have.

- **Gunnery Instructor**—Either a chief or PO, his voice can be heard as far away as that of an enraged pig, and sounds about as musical. Reacts violently to any suggestion that missiles will replace guns. Only smiles when the

next ship astern demolishes the tug instead of the target. Is responsible for training the ship's ceremonial guards and the gun crews. Dislikes everyone, and has never heard of radar.

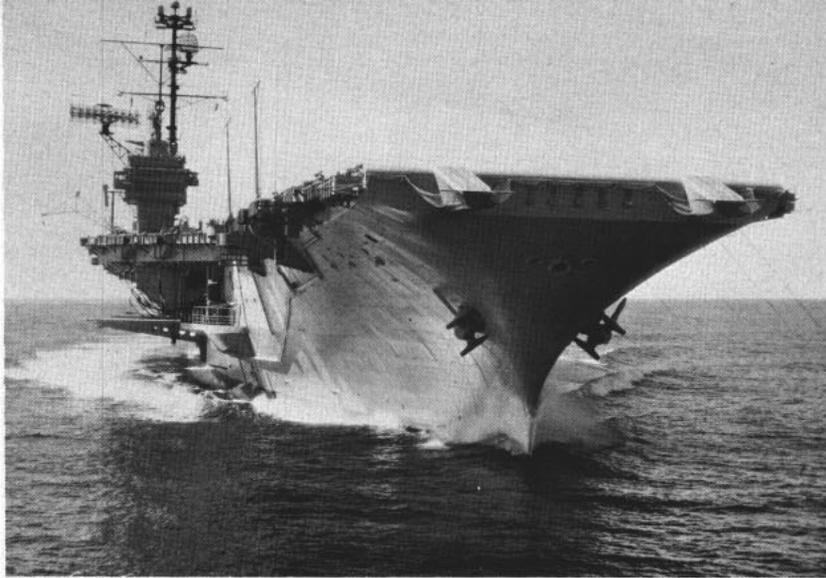
- **Radar Plot Instructor**—Can be recognized by the battery of grease pencils in his shirt pocket. Knows the ship can get along quite well without gunnery instructors. Normally found in the dimly lit CIC (or, as we call it, the Operations Room) his gleaming eyeballs can be distinguished from the other gleaming eyeballs by the cry "Miss that bogey again and you're in the gunnery branch."

- **Torpedo and AS Instructor**—Habitually wears a harried or gloomy appearance, and accuses all critics of having the intelligence of gunners. Is always in evidence, but never appears to do much until a torpedo is about to be fired, when he can never be found. He tolerates the rest of the Navy, except gunners.

- **Electrician**—Normally dressed in overalls with acid burns all over them, he wears a preoccupied look which hides a desire to clobber all seamen who paint over light fittings and then complain when they don't work. He shuffles round the ship, muttering Ohms law to himself, and calling on some electrical deity to protect him from the ignorant. To him this means everybody.

- **Chief Mechanical Engineer**—Wears the same overalls as the above—without the acid burns. Reacts violently to the pipe "Engine Room stop making black smoke." Lives in some dark recess from which he only emerges to smile when a fuel hose parts during replenishment and the seamen see what happens to their paintwork. Hates all seamen, and wonders what the Navy Board is up to when he looks at his recent intake of stokers.

The writer has also made some notes on the officer structure, but feels that publication of same would ensure a draft to the Antarctic—for good. He also wishes to add that he belongs to the fourth category down, if that means anything.—John Whittaker, Petty Officer, Royal Australian Navy.



ON THE MOVE—Attack aircraft carrier USS Forrestal (CVA 59) cuts her way through waters of the Caribbean Sea while on training exercises.

Eligibility Date for E-8

SIR: There has been some discussion on board about an apparent inequity concerning eligibility of certain E-7s for the next scheduled examination for E-8.

According to Para. 3, Article C-7204 of the BuPers Manual, 48 months in pay grade E-7 are necessary for advancement to pay grade E-8. The terminal date for computing time in rate for the August examination is 16 November.

Here is the rub. CPOs who were advanced on a January promotion list will have only 46 months in rate when the cutoff date rolls around.

Is it the intent of BuPers to require this one group of men to have 58 months of service in rate or will waivers be granted?—G.H.W., ENC, USN.

• *BuPers was aware that the cutoff date of 16 November would work to the disadvantage of the men on a January advancement list but, after all factors were considered, the cutoff date was maintained.*

Unfortunately, when you start working with an organization as big as the Navy, it is necessary to adopt and stick to certain requirements. For that reason, the Bureau contemplates no waivers.—Ed.

Navy Payroll

SIR: During a recent group discussion, several questions were asked on Navy Payroll Savings. In particular, where is the money deposited and who pays interest on it? Can you explain other parts of this program?—J. R. K., AT1, USN.

• *A Navyman may deposit not less than \$5.00 each month with his disbursing officer. These deposits can be made either in cash or by pay record checkage. All sums which stay on deposit six months or longer earn four per cent yearly interest. Normally, deposits may not be withdrawn until*

your enlistment expires, except that with your commanding officer's permission, emergency withdrawals may be made.

Payments are redeposited in the U.S. Treasury in a separate fund called "Pay of the Navy, Deposit Fund." Interest comes from the same appropriation from which a Navyman's regular pay and allowances are paid, and is charged to a special expenditure account called "Interest on deposits of enlisted personnel."—Ed.

Right Planes, Wrong Captions

SIR: You goofed badly in the centerspread "Carrier-Based Navy Planes" (pages 32 and 33) in your August 1962 issue when you mistakenly captioned the F4H Phantom as an A2F Intruder, and vice versa.

This type of foul-up, to an airdale, is about as grating as a caption identifying a destroyer as a CVAN would be to a tincan sailor. Wha' hoppin?—S. L. C., AKAN, USN.

SIR: By now I'm sure you've received numerous complaints from jostled and jaundiced jet jockeys regarding the centerspread in your August 1962 issue. May another saddened Stooft driver add his protest over the reversal of captions under the photos of the F4H and A2F?—F. L. K., LCDR, USN.

• *To all you outraged airdales, jostled and jaundiced jet jockeys, saddened Stooft drivers and all others who've written in, as well as you others who've suffered in silence, our humblest apologies. Our research and layout people have been sentenced to two weeks of plane recognition classes.*

If you were planning to mount that August centerspread, or use it in recognition training, transpose the captions for the F4H Phantom and A2F Intruder.—Ed.

Programs for Color-blind

SIR: My nephew has been interested in obtaining a commission in the U. S. Navy since he graduated from high school. At that time, he tried to take the NROTC examination but was disqualified because he was color-blind.

Since then, he has attended college and will graduate with a law degree in December. After that, he is eligible to be drafted. It now appears this will happen early in 1963.

His primary interest is still the Navy and I have been looking for a program for which color blindness is not a disqualifying factor.

I should think one of the staff corps would be the logical place for him but I have been unable to get the exact requirements for them. I think a man of his background would function best as a supply or legal specialist.

Can you tell me if there is a program in the Navy for which color blindness is not a disqualifying factor for a commission? If so, where can I get details on the program?—E. H. M., CDR, USN.

• *Color blindness can be waived for officer candidates in the law specialist category.*

We suggest that your nephew go to his nearest Navy recruiter where he can obtain complete information.—Ed.

Pro Pay and Reenlistment Bonus

SIR: I have been giving the subject of pro pay considerable thought recently and have come up with a few conclusions.

As I understand it, pro pay is designed to provide an incentive to personnel serving in ratings for which long periods of schooling are required and/or in which severe shortages exist.

It's a well-known fact that the Navy loses many of its technical personnel to civilian industry. To even up the pay gap, the Navy instituted the pro pay system to keep its technicians in the Navy. However, it seems to me, the men with seven or more years of obligated service are the ones who benefit from the program. This is not good because they are in less danger of being lost to civilian enterprises than the relative newcomer.

In other words, it is benefiting career men almost exclusively and not accomplishing its purpose of retaining those who have not been in the Navy long enough to consider themselves career men.

It seems to me the reenlistment bonus should be doubled for men in critical ratings who have completed three years of active service in their first enlistment.

I also suggest that eligibility for pay for unused leave and travel allowance to home of record be extended to include E-4s and E-5s in critical ratings who reenlist up to 12 months early.

There is also a morale factor to be considered. Personnel who do not draw

pro pay take a dim view of the men who get it every payday.

If a one-time reenlistment payment were substituted for the added pro pay, there would be less of a difference to serve as a goad to discontent.

Of course, I realize there are some legal aspects which would have to be ironed out. The 2000-dollar limit on reenlistment bonuses is an example of this.

There are undoubtedly a number of other rough edges on this proposal. Nevertheless, I think it would work and serve the Navy and Navymen better than the system now in use.

What do you think? — G. A. W., YN2, USN.

• A plan similar to yours, called "The Variable Reenlistment Bonus," was submitted to the Department of Defense in January 1961. The "variable" in the title was related to the cost of training a replacement.

However, the program was rejected because it wasn't suitable for all the services.

A newer program pertaining to a variable reenlistment bonus is now in the planning stages. — Ed.

Another Basraite

SIR: I constrained myself until the June issue came out before writing about my first trip to Basra in a Navy ship.

I read with interest of all the various ships who claimed firsts, or at least said they were there before Dux.

It has been a long time since I was there and it is difficult to recall the facts accurately, but I believe it was in April 1947 that *uss Harlan R. Dickson* (DD 708) steamed into Basra.

Dickson's gun salute was answered by an antique cannon which surprised all hands when it didn't blow up.

Dickson moored to a lumber yard pier and the British officials and Basra police came on board to pay calls. They told us that *Dickson* was the first United States warship to visit Basra since 1853.

While we were on our way to Basra, we had on board a lieutenant commander whose name I can't recall, but who spoke with a crisp British accent.

He lectured us on the customs and religions of various countries in the area and this proved to be a valuable service both to the men on board and to the people of Basra.

A group of British soldiers was stationed outside Basra and members of *Dickson's* crew were invited to share their rations.

The invitation was appreciated even more by our crew when they realized just how meager the British rations ashore were. Cigarettes, for instance, were issued 40 to a man per month.

In return, the crew had the British troops on board for dinner. Many of them were introduced for the first time to iced tea and when they left, each



Where's the Cut?

SIR: All right, I give up! Where is the cut indicated by "(see cut)" in the box on page 25 of your July 1962 issue? — Joe Harrington, JOC, USN.

• Here 'tis. We happen to know you've had years of experience on publications, and you know how such things can happen. It was drawn by the Canadian Naval officer who sent in the original letter you referred to — pretty good, we thought. So, we had it ready to go. But it didn't. We goofed. Our apologies to LT Chaplin, RCNR.

For the benefit of those who missed the July issue, here's LT Chaplin's letter again. — Ed.

SIR: In the letters section of the December 1961 ALL HANDS a USN correspondent identified as an HMCS, enquired whether badges should be worn on collar and sleeve while serving with a Marine unit. The question does not seem to be valid.

Everyone knows that HMCS stands for Her Majesty's Canadian Ship. Therefore, your correspondent should wear the white ensign at the taffrail, the Canadian blue ensign at the jack-staff, the white masthead pennant at the fore truck, and a red maple leaf on either side of the funnel. I enclose a diagram (see cut). — Philip Chaplin, LT, RCNR.

British soldier had an ample supply of our sea store cigarettes.

There was no people-to-people program then but a warm friendship certainly was formed between many British

and American servicemen.

Before we left Basra, a local firm sent the ship a present of several boxes of dates stuffed with nutmeats, which we later learned was quite an unusual gesture.

After we left Basra, *Dickson* visited a number of other ports in the Persian Gulf among which was Kuwait, where we entertained the Sheik of Kuwait and his family at dinner.

Our duty in the Persian Gulf was long and hot but, as I look back on it, it was most informative and interesting. — W. R. Chandler, BTC, USN.

• It's really a pity we can't appreciate more what we have when we have it.

Thanks for your very interesting letter. We suppose it is too much to hope for to hear from one of the descendants of the crew that stopped at Basra in 1853. — Ed.

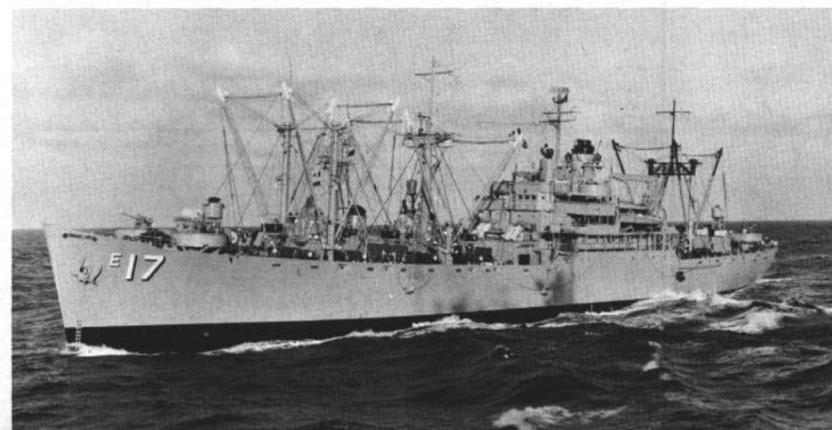
Preferred Sea Duty

SIR: Would you please describe the procedure by which a billet is classified as sea duty, preferred sea duty, or shore duty? Also, would you define "preferred sea duty" and the assignment procedure for it? Take the following case:

Upon completing a tour of shore duty, an LDO (Engineer) officer received orders to what was considered sea duty, aboard a YR, which was headquarters of a COMRADRON. Later, due for normal rotation, he received orders to a second sea duty billet. He was told that the YR was "preferred sea duty" and that in consequence he could be assigned to either sea or shore duty. — F. W., LT, USN.

• There is no official definition, per se, of "preferred sea duty" as it applies to officers in this category. In the assignment of officers, the designation "preferred sea duty" is usually determined by the arduousness of the duty, particularly the deployment schedule of the unit. The YR in question is a floating workshop, which stays in one place. While attached to the forces afloat by virtue of the administrative organization and while it is considered "sea duty" to meet the sea duty requirements for promotion, it is not considered sea duty for rotation. — Ed.

SHELL STOCKED — *USS Great Sitkin* (AE 17) displaces 15,295 tons when fully loaded and is capable of speeds in excess of 16 knots.



Data Systems Technician

SIR: I have been unsuccessfully searching for some information about the Data Systems Technician Rating (DS).

My primary job is maintaining the computer used with the underwater battery fire control system.

Inasmuch as I am in this type of work, it seems logical that I should be in the DS rating.

Where can I get information on this subject? — S. C. S., SOG2, USN.

• *You have been looking for BuPers Notice 1440 of 19 Mar 1962. The rating was established with that notice and it contains quite a bit of information. Here are some of the high points:*

The rating was established primarily to provide men to maintain electronic digital data system equipment in ships and in operation control centers.

It does not include the operation or maintenance of business machine type equipment, such as that in personnel accounting machine installations. This is still the job of the MA rating. Nor is the rating intended to be applied to everyone who works on computers.

On 1 May of this year, everyone, including strikers and inactive personnel, in the ET, FT and MA ratings, who had BuPers-controlled ET NECs 1561 through 1569 and MA NECs 2743 and 2762, were changed to the DS rating.

The above NECs have been changed to new numbers under the DS rating series and appear now in a new "Manual of Navy Enlisted Classifications," NavPers 15105C.

The first advancement in rating examination for the new rating was given in August.

The training course for Electronic Technicians will be the study guide for the DS rating until a new guide based on DS qualifications can be written.

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 Mellette (APA 156)*—Those who served on board during 1950 through 1952, who are interested in holding a reunion, may write to J. L. Krivjansky, 327 Beck St., Norfolk 3, Va.

• *NAVCOMFACPHIL and SECGRU, Sangley Point Naval Air Station, Philippines*—A reunion is being planned for all who served from 1955 to 1960. For details, write to Jerry Dahlstrom, CT3, USNR, 1733 Granville, Apt. 12, West Los Angeles 25, Calif.

There is a 16-week computer basic course given at the U. S. Naval Training Center, Great Lakes, Ill., followed by a basic course in computer programing at the Naval Electronic Laboratory, San Diego, Calif., plus factory training.

There is also Class C school-level training at the Operation Control Centers. Class A, B and C schools will be established for the rating, and information on them will be distributed before they are established.

Everyone who was changed to the new rating and who was receiving pro pay at the time, continued receiving pro pay. The DS rating will probably be listed as a critical rating for proficiency pay in FY 1963.

The path of advancement for the rating is to Limited Duty Officer, Electronics. — Ed.

Pittsburgh's LST

SIR: In regard to the letter from E. J. A., YN1, USN, in the June 1962 issue of ALL HANDS about an LST named *Pittsburgh*. The ship referred to was not named *Pittsburgh*. It was LST 750, launched on Memorial Day, 1944.

Payment for her was made by Allegheny County residents through a special "E" bond drive, which realized approximately \$4,000,000. For this reason, the ship was towed up the Ohio River to Pittsburgh and moored in the Allegheny River at the foot of Sixth Street for display to the public. It was commissioned in early September 1944. — J. F. Johnston, Jr., LCDR, USNR (Ret).

• *Our thanks, sir, for filling us in on some missing history. — Ed.*

Harrisburg, WW I Troop Ship

SIR: Can you give me some information regarding *uss Harrisburg*? Nobody here seems to know much about her and I have been unable to locate any books that even mention her name.

We feel she was a World War I troop transport.—D.R.B., YN1, USN.

• *Harrisburg was designated Section Patrol No. 1663. She had formerly been named Philadelphia and City of Paris.*

Harrisburg was constructed in 1887 at Clydebank, Scotland, and was acquired by the Navy from the International Mercantile Marine of New York.

She was placed in commission on 29 May 1918 and was employed as a troop transport through World War I.

She displaced 15,390 tons, was 527 feet, six inches long and had a beam of 63 feet, three inches. Her speed was 21 knots and her complement was 565. She carried two six-inch, two four-inch and two one-pound guns. She was decommissioned in 1919.—Ed.

...how to send ALL HANDS to the folks at home

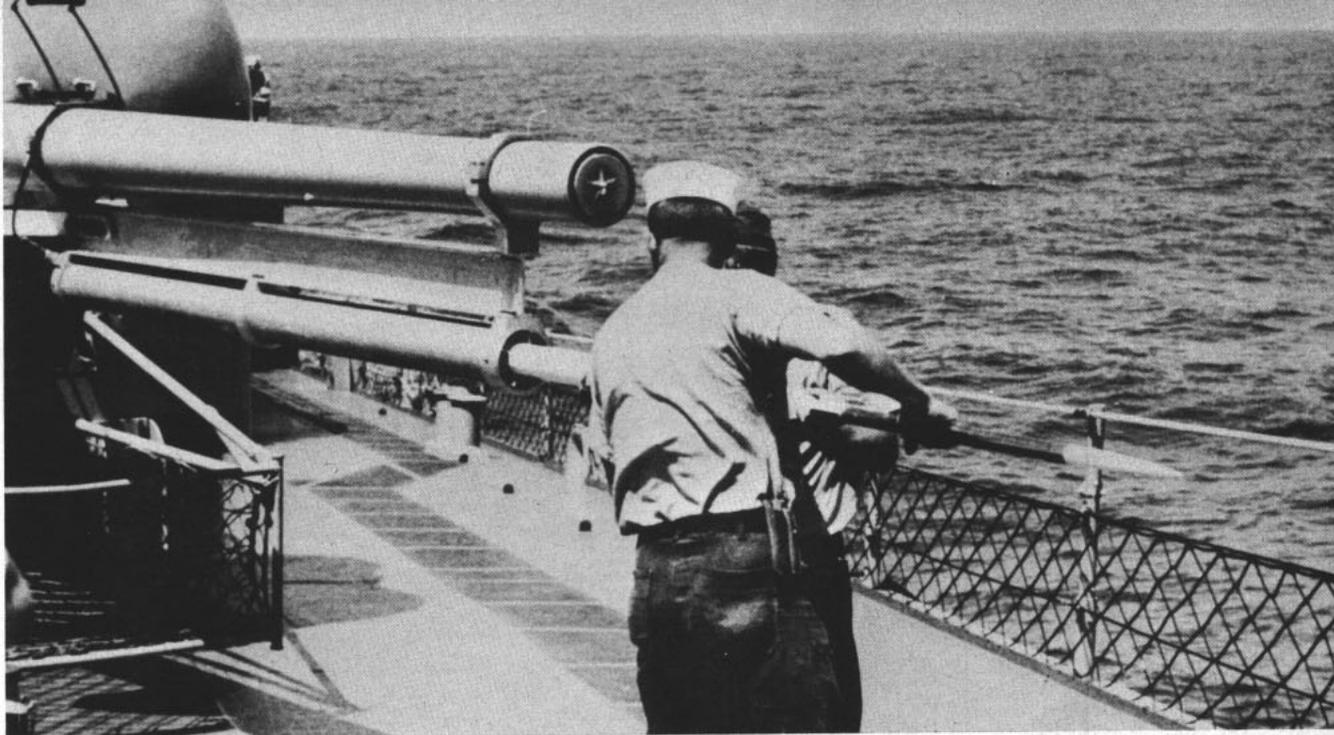
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HIGH ALTITUDE Sounding Projectile (HASP) is loaded into LOKI launch tube. Below: HASP roars skyward.

LOKI Helps HASP Make Good

The Navy has increased the Fleet-wide adaptability of its High Altitude Sounding Projectile (HASP) by successfully firing it from a LOKI launch tube attached to the barrel of a modern 5-inch/54 rapid-fire naval rifle aboard ship.

HASP, a weather rocket, was originally designed to use, as its launching tube, the inside of the gun barrel of the 5-inch/38 rifle found on many Navy ships. However, the automatic handling and loading equipment of the modern 5-inch/54 prevented its use with that gun before now.

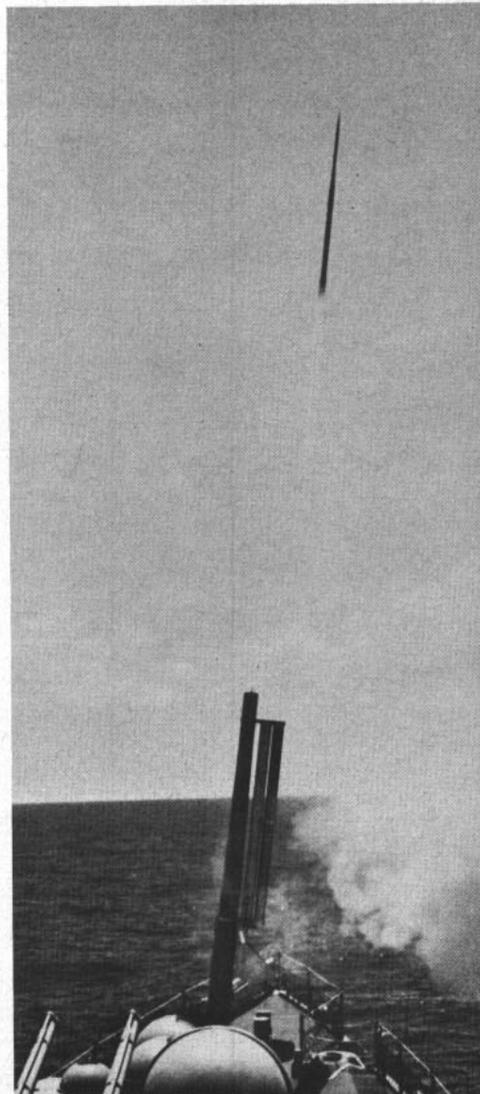
The first firing of HASP with the new technique took place aboard USS *John S. McCain* (DL 3) in the Pacific. According to a representative of the U. S. Naval Ordnance Laboratory in White Oak, Md.,

where HASP was developed, "this launch was a complete success."

HASP was developed for use on land, or aboard ships at sea, to collect weather data from the stratosphere. When launched, the HASP rocket motor boosts a slender payload up to an altitude of 40 miles, where a load of copper chaff is released to float back to earth. Fire control equipment on board the ship tracks this cloud of copper wire to ascertain wind direction and speed at any altitude through which the chaff descends.

HASP's project manager says its payloads will soon include a parachute-supported radiosonde. This package will not only determine wind direction and speed, but temperatures and pressures as well.

CLOSE-UP shows LOKI launch tube under barrel of 5-inch/54 rifle.





SPECIAL DELIVERY — Guided missile cruiser *USS Boston* (CAG 1) receives deckload of stores by highline during replenishment on the high seas.



USS NITRO delivers hot cargo.

These

THE NAVY HAS PROGRESSED considerably since shipboard messes featured powdered foods and ships found it necessary to put into port every time they replenished their ammunition and other supplies.

The big change in eating was brought about by reefers—the refrigerated AFs, the largest of which are in the *Rigel* (AF 58) class. The second largest class is the *Hyades* (AF 28) with an over-all length of 469 feet and a full load displacement of 13,900 tons.

Hyades and her sister ship are floating grocery stores. They come well loaded with staples, chilled fresh foods, and frozen foods. They are big enough to carry sufficient food to feed 30,000 men for 30 days.

To accomplish this, the reefer's cold areas must be kept at different degrees of frostiness—sufficiently varied to take care of frozen meats, chilled produce and other perishables. Staple items such as coffee, flour, sugar and canned goods are, of course, stored in non-refrigerated spaces.

By the time *Hyades'* customer pulls alongside, the deck crew has readied the cargo and the transfer equipment. All hands not actually engaged in operating the ship turn out to get the victuals transferred.

FOR SUPPLIES OF PAINT, nuts, bolts, wire, printed forms and what-have-you, the ship to find is the AKS. These general stores ships are built in two classes—*uss Castor* (AKS 1)





ORDER UP — USS Antares (AKS 33) will have order ready by the time the customer ship is alongside.

Ships Put Go in Cargo

and her sister ship *Pollux* (AKS 4) displacing 11,310 and 13,500 tons fully loaded, respectively, and approximately 460 feet in length, and the *Altair* (AKS 32) class and her sister ship *uss Antares* (AKS 33), displacing 10,440 and 12,000 tons fully loaded, respectively, and just under 456 feet in length. Ships in both classes steam at about 16.5 knots.

Antares, a merchant ship converted to her present use in 1952, is typical of the *Altair* class. The heart of her supply system is her computer room, which has two card punch machines, an accounting machine, a sorting machine verifier, reproducer and collater.

With the help of this equipment, hold supervisors are notified, the needed material is gathered, placed on a vertical conveyor, and carried to the deck. By the time the customer ship is alongside, the order is ready.

There are five holds, three of which have two vertical conveyors each, that are used almost exclusively for transporting supplies to the deck. The holds are opened only for items that are too large for the conveyors.

Antares' wares are so diversified that she can supply carriers, destroyers, cruisers and various amphibious ships as well as her own underway replenishment group ships.

THE SHIPS WHICH PROVIDE the ammunition are the AEs. The largest are in the *Suribachi* (AE 21) class

with a full-load displacement of 17,400 tons.

They diminish in size to the *Wrangell* (AE 12) class (14,450 tons fully loaded), the *Lassen* (AE 3) class (14,225 tons fully loaded) and the *Sangay* (AE 10) class (10,650 tons fully loaded).

Ships of the *Suribachi* class were first authorized in 1954 and were built from the hull up as Navy ships to meet modern rapid replenishment at sea requirements.

Elevators are used for internal handling of ammunition and explosives and the latest methods of cargo stowage are used. *Suribachi*-class AEs also rate high in habitability

improvements.

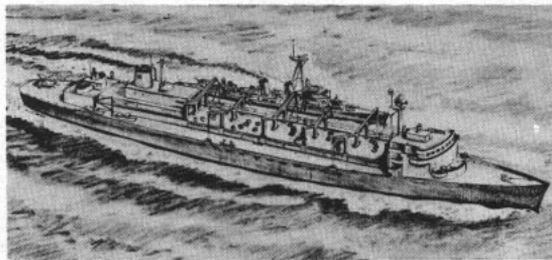
The key words for ammunition handling are speed and safety. Mechanical dunnage, fork lift trucks and cargo hold elevators speed large amounts of ammunition to transfer position. Electric winches with constant tensioning devices permit unusually rapid and safe transfer at sea under all but the roughest conditions.

These types are contributing factors to the tenacity of combat forces at sea—their ability to cover unremittingly the world's trouble spots and, when necessary, to sustain attack without having to return to port for supplies.

AIRLIFT — Copter takes stores from the fantail of USS *Altair* (AKS 32).

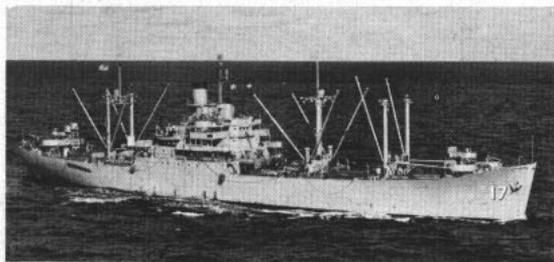


A is fo



AOE (FAST COMBAT SUPPORT SHIP)—This is designed to speed up underway replenishment.

AO (OILER)—Oilers transport fuel, oil, and other petroleum products.



AE (AMMUNITION SHIP)—The latest AEs will have a mechanical loading and unloading system.



AVS (AVIATION SUPPLY SHIP)—This ship's primary issue is aircraft parts. It's our only AVS.



AOG (GASOLINE TANKER)—In addition to gasoline, AOGs provide other petroleum products.



AKL (LIGHT CARGO SHIP)—This ship transports limited quantities of cargo between bases.



AS (SUBMARINE TENDER)—The AS provides various services and limited supplies to subs.



AD (DESTROYER TENDER)—The AD furnishes mobile facilities for repair and small-scale supply.

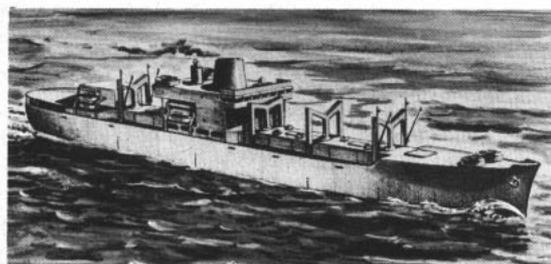
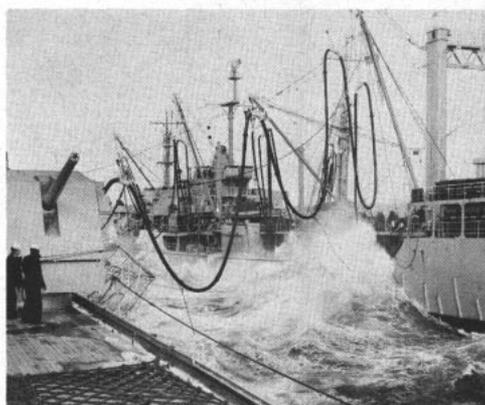
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transport black oil, gaso-
products to ships at sea.



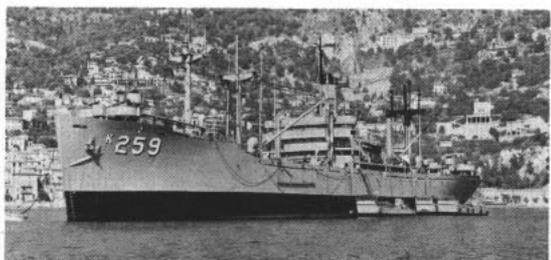
AKS (GENERAL STORES ISSUE SHIP)—An AKS
supplies general stores items and repair parts.



AFS (COMBAT STORE SHIP)—This new ship
will eventually replace the AF, AKS and AVS.



AF (STORE SHIP)—An AF is designed to de-
liver refrigerated food and provide afloat storage.



AK (CARGO SHIP)—The AK transports, and de-
livers to overseas ports, all types of general cargo.



AKA (ATTACK CARGO SHIP)—The AKAs
transport combat cargo for amphibious assaults.

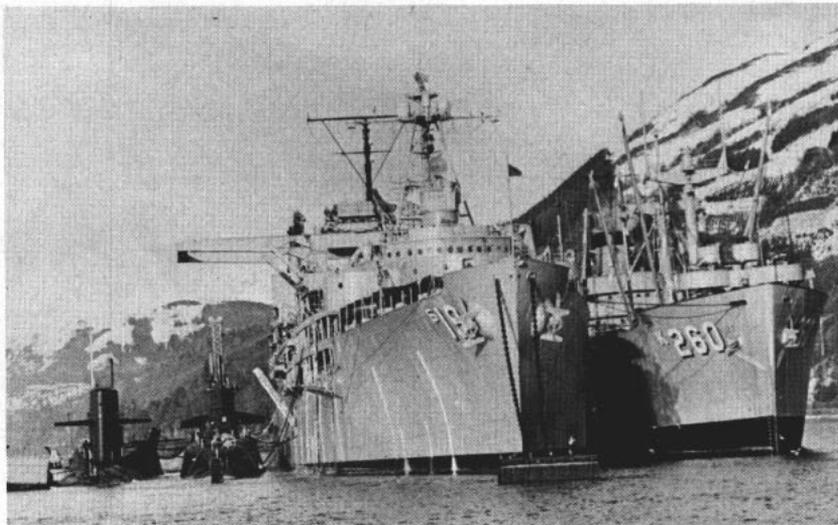


AV (SEAPLANE TENDER)—AVs provide the
local support necessary to operate seaplanes.



AR (REPAIR SHIP)—The AR furnishes repair
facilities and limited support to various ships.

★ ★ ★ ★ TODAY'S NAVY ★ ★ ★ ★



MOTHER LOAD—Submarine tender *USS Proteus* (AS 19) tends to two of her brood in Holy Loch. *USS Betelgeuse* (AK 260) is moored to her port side.

Biggest Missile Frigate

USS Leahy (DLG 16), the largest guided missile frigate in the world, the first of an entirely new class of DLGs, was commissioned in August at the U. S. Naval Shipyard, Boston, Mass.

The 533-foot *Leahy*, first ship named in honor of famed Fleet Admiral William D. Leahy, usn, is the 11th and largest DLG to join the Fleet. She carries a total crew of 373 Navymen.

At 5670 tons (standard displacement) *Leahy* is some 900 tons heavier than the *Coontz* class DLGs which have been joining the Fleet since 1959. She carries the *Terrier* surface-to-air guided missile, and is the first frigate to be equipped with

missile launchers at both ends of the ship. In addition, she is armed with *Asroc*, antisubmarine torpedoes and two 3-inch 50-caliber twin anti-aircraft guns.

Fleet Admiral Leahy, an 1897 graduate of the Naval Academy, served his country with great distinction in a long and brilliant career. One of four naval officers to hold the rank of Fleet Admiral by act of Congress, he served, at various times, as Governor of Puerto Rico, Ambassador to France, Chief of Naval Operations, wartime Senior Member of the Joint Chiefs of Staff and Chief of Staff to President Franklin D. Roosevelt.

Leahy is a unit of the Atlantic Fleet, and is homeported at Boston.

YESTERDAY'S NAVY



In Oct 1795 a treaty of amity, commerce and navigation was concluded between the U. S. and Great Britain. On 1 Oct 1862 the Mississippi Flotilla was transferred from the War Dept. to the Navy Dept. On 1 Oct 1946 the Naval Air Missile Test Center was established at Point Mugu, Calif. On 23-26 Oct 1944 the Battle of Leyte Gulf was fought in three engagements. It was the biggest naval engagement ever fought and it destroyed Japanese seapower. On 28 Oct 1779 a Board of Admiralty consisting of five members was given control of all naval affairs.

Norfolk's CIC School

A wellspring of trained men capable of interpreting what the Fleet's eyes see is located at Norfolk, Va. It is the Combat Information Center School which has been training men for CIC duty with the Atlantic Fleet since 1946.

The school is equipped with about a million dollars worth of electronic gear, which includes radar target simulators, airborne early warning terminal and simulator equipment, radar signal generators and intercept search receivers.

All this is included in several drill rooms and five mock-ups of shipboard CICs at the school.

The object of the school is to instruct Navymen in the latest CIC procedures being used in the Fleet. To do this, the student is given experience with Fleet units.

For instance, in AEW exercises, the student uses either simulated or actual AEW planes in his air defense training with ships in the Norfolk area. He also gets practice in passing operational traffic over the radiotelephone.

In ECM exercises, the school's portable signal generator unit sends out signals that are picked up by ships in the Norfolk area which report them to the exercise control station in one of the shipboard CIC mock-ups at the school.

The school is divided into three sections for classroom and mock-up instruction—the CIC section, the electronic countermeasures section and the air control section.

There are seven courses offered in the CIC section. They range from the basic, which is aimed at personnel with little or no CIC experience, to the more advanced courses in CIC procedures.

The more advanced course covers ASW, AAW, formations and screens, and the maneuvering board.

When the student has completed the advanced course, he is capable of assuming supervisory duties during a CIC watch. He is also ready for advanced courses in ECM and CIC team training.

The team training teaches the

student CIC operations, naval tactics and operating procedures on a group level. Its instruments of instruction are mock-ups of DD, DER and cruiser CICs in which ersatz shipboard drills take place.

The electronics countermeasures section provides the trainee with an elementary knowledge of standard ECM equipment and operation.

Teamwork is also stressed here since many of the problems thrown at the student give him a chance for tactical reporting as a group member.

The course, which also includes preventive maintenance and tactical reporting procedures, is open to both officers and enlisted men, with supervisory aspects stressed in the officer course.

The air control section offers two basic courses—antisubmarine air control and intermediate air intercept control.

The basic antisubmarine course is designed to provide both commissioned officers and senior petty officers with practice in controlling fixed wing and rotary wing antisubmarine aircraft.

When the student completes this course, he is ready to take on studies which will qualify him to handle fast jet aircraft.

The school does not limit its efforts to United States Navymen. It also provides foreign officers with the fundamental knowledge and skills required to operate a modern combat information center.

Last year the school turned out 6996 graduates.—

—C. S. Allen, RDCM, USN.

Camera Party's Last Photo

Like an old soldier, the Atlantic Fleet's Photo Triangulation Group didn't die, it just faded away.

In July the group, which had taken pictures in the Atlantic area since 1941, combined with the Mobile Motion Picture Group to become the Atlantic Fleet Mobile Photographic Unit.

The Photo Triangulation Group, which claimed to be one of the oldest units in the Atlantic Fleet's Service Force, was organized in 1941 and was known as the Camera Party for the Atlantic Fleet. Its job was to photograph gunnery exercises for the United States Atlantic Fleet and for exercises held by ships of allied fleets.

During World War II, the group had units at Portland, Maine; Guan-



UNDER TOW — Mothballed USS New Jersey (BB 62) gets underway at Bayonne, N. J., for new home with Reserve Fleet in Philadelphia.

tanamo Bay, Cuba; Bermuda; Trinidad; and San Juan, Puerto Rico.

Before the Normandy invasion in June 1944, many allied ships employed the group's photographic services in the Virginia Capes area. Its business steadily increased from photographing 10 gunnery exercises per month in 1941 to more than 300 exercises during 1945.

By the end of the war, it had photographed 2026 ships engaged in 5204 gunnery exercises firing a total of 128,074 salvos.

More recently, some of the Group's big jobs included photographic coverage for all *Project Mercury* orbital and sub-orbital flights, the President's early 1962 visit to Norfolk and salvage operations incident to the rescue of *uss Baldwin* (DD 624) and *uss Monssen* (DD 798).

Fish Star on TV

The fact that sea animals make noise is not news to marine biologists. They have been listening for years to the hydrophone recorded voices sounding all the noises which so utterly confuse sonar-men.

The big question, which has hitherto been unsolved, is exactly which marine animals make what particular sounds. Scientists think they know, in most cases, but there has always been that lingering doubt.

That doubt is now in the process of disappearing. The Office of Naval Research (ONR) has contracted with

the University of Miami's Institute of Marine Science for the purpose of ascertaining which animals make what noises.

One answer to the problem was to photograph the animals while they were making the noises. The animals under study were those indigenous to the Florida Straits or those which migrate along the Gulf Stream. Part of the project concerned the sound producing ability of specific animals and their sound scattering and/or absorbing properties. The results are observed at the Lerner Marine Laboratory, Bimini, over closed circuit TV.

In future studies, the University of Miami may resort to some pretty sneaky tactics in which chemical and biological stimuli will be used to get the animals within camera range.

After the pictures are taken, ONR has to separate the sounds made by one particular animal under study from background noises, then compare the sounds made by the same animals in captivity.

The sound samples are taken at several depths and laboratory comparisons are made of all of them. Glass boats and Scuba divers are also used to obtain visual observations.

For Navymen who swim underwater in the Gulf Stream or off the Florida Coast, the moral is clear: when you see a combination of Scuba diver, glass bottom boat and microphone, smile; you're on TV.



HAPPY ENDING — CAPT S. L. Hutchinson, USN, CO of U. S. Naval Communications Station, Wash., D. C., and CDR R. L. Baldwin, USNR (R) W1IKE, and managing editor of QST, check results of armed forces ham operator contest.

Honor Division-of-the-Month

uss *William M. Wood* (DDR 715) has a traveling "E." It is stitched to a banner and it travels from one of *Wood's* divisions to another.

The "E," of course, stands for excellence. Each month, every division's letters of commendation, individual achievements, advancements and commendations are toted up as credits.

The debit side of the ledger shows disciplinary actions, sloppy uniforms and other nasties.

The debits are subtracted from the credits and the division with the highest score gets the "E" banner.

There are advantages other than having custody of the banner for a month and having your division listed on a quarterdeck plaque. For instance, the winning division gets a dinner in its honor and something else—first loading in the liberty boat for 30 days.

Crusader Flies in French

It is possible that the U. S. Navy's F8U *Crusader* jet fighter may also become familiar to the French navy.

The French watched the *Crusader* in action during the March NATO exercises. They liked what they saw and wondered if it could take off and land on a French carrier.

The French were thinking of *Clemenceau*, a carrier having a standard displacement of 22,000 tons. During the March exercises, the *Crusaders* used *uss Saratoga* (CVA 60) as a base. *Saratoga's* standard displacement is nearly three times that of *Clemenceau*.

BuWeps was asked to investigate the compatibility of the F8U with the catapults and arresting gear aboard *Clemenceau*.

Deck handling, maintenance, catapult and arresting teams were borrowed from *Saratoga* and a series of touch-and-go landings, ten arrested landings and ten catapult shots were made by a *Crusader* using *Clemenceau's* flight deck.

The trials were highly successful; the big question now is: Will the F8U *Crusader* also be known as *Le F huit U Croisé?*

Something to Crow About

As the results of last February's Fleet-wide exams were posted on bulletin boards throughout the Navy, many men had something to crow about. So did many commands.

Representative of the land, sea and air commands which joined in the chorus of *Impressive Advancement Statistics* were the Naval Communication Station, Port Lyautey, Morocco; *uss Atakapa* (ATF 149); and the air patrol squadron, VP 24, which is based at Norfolk, Va.

- At Port Lyautey, 14 Communication Station POIs were advanced to Chief last May—the largest group since the COMSTA opened in 1954, and claimed as a record for a unit of its size.

- Twenty-two of *Atakapa's* crewmen were advanced—one third of the entire crew.

- VP-24 had 51 advances in May—20 per cent of the squadron's enlisted complement.

Other commands are singing along.

Uncle Sam's Hams Are Fast

Ham radio operators really showed their stuff when they took part in the annual military-to-amateur cross-band communication tests this year. The test results, pointing up the effectiveness of our amateur radio operators in this year's Armed Forces Day contest, have now been released.

The Washington, D. C., military stations WAR, AIR and NSS, averaged more than five contacts a minute for the sustained operations and had 4161 QSOs (positive contacts with radio stations) during the 13 hours and 45 minutes devoted to this phase of the program.

In SecDef message competition, there were 575 perfect CW copies and 329 perfect RTTY copies.

The SecDef CW message, sent at 25 words a minute, praised amateur radio operators for contributing to technical knowledge, as well as their part in the successful launching of the *Oscar* satellite in December 1961. *Oscar*, carrying an amateur radio, was sponsored by amateur radio enthusiasts.

The SecDef RTTY message, sent at 60 words a minute, gave recognition to the emergency public service potential of amateur radio operators and commended each for his accomplishments.

QSL cards have been mailed to all contacts that could be identified in the summer 1962 issue of the Call Book. If you have not received your card, you should request confirmation from the Armed Forces Day Contest, Room 5B960, the Pentagon, Washington, D. C.

Plans are being made for next year's contest to be held 18 May.

Star Gazing at Hat Creek

Far from being earthbound, the Navy's interests extend into space to the outer reaches of our galaxy and beyond. Helping to satisfy these interests is an 85-foot radio telescope recently dedicated at Hat Creek, Calif.

Among the larger steerable radio telescopes in the world, it will be operated by the University of California with the support of the Office of Naval Research.

The telescope's first project will be a mapping of our own galaxy, the island of stars and gases of which our solar system is a part.

The antenna has been specially designed to make measurements of the clouds of hydrogen which are

thought to make up a large part of the matter in space. By studying these clouds the Navy hopes to make available new information on the shape of our galaxy, its dynamics, and how stars are formed.

A future project of the telescope will be to study the hydrogen clouds which are remnants of exploding stars (called supernovae) in our galaxy. The 85-foot dish reportedly can study the history of a star from its birth to its violent death.

The facility at Hat Creek also includes an ONR-sponsored 33-foot radio antenna, used for testing equipment designed for the larger dish, preliminary mapping of galaxies and training for graduate students. It will also be used in conjunction with the larger instrument to aid in pinpointing distant radio sources.

The Hat Creek radio telescope is one of four major radio dishes operated by universities with the support of ONR, which has been conducting a radio astronomy program since 1947. Others are at Peach Mountain, Mich., operated by the University of Michigan; at Owens Valley, Calif., operated by the California Institute of Technology; and near Danville, Ill., operated by the University of Illinois.

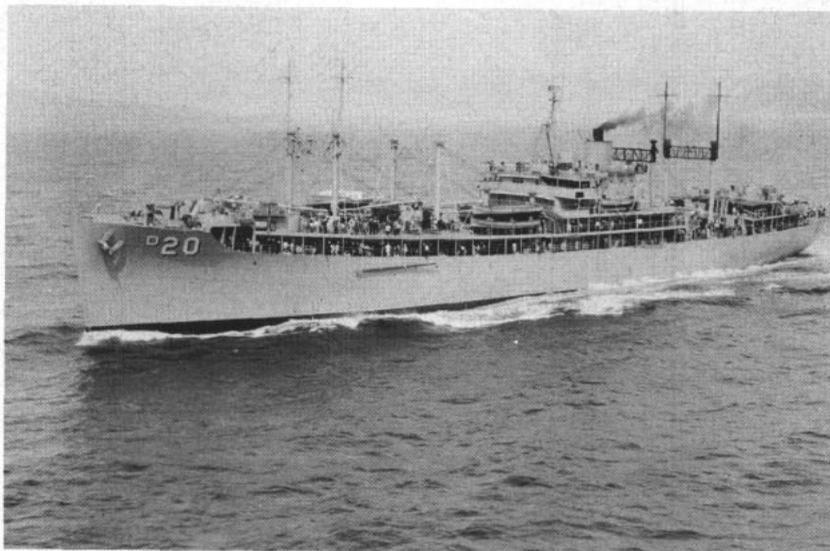
From CV to CVA to CVS

uss *Intrepid* (CVS 11)—the "Fighting I"—has begun a third career, and at an age (comparatively) when many an old girl is thinking more in terms of retirement and a life of ease.

When *Intrepid* returned to Norfolk last spring from a seven-month cruise with the Sixth Fleet in the Mediterranean, she ranked as Uncle Sam's oldest attack aircraft carrier in commission. Her story really starts much earlier than that, however—as CV 11 she won five battle stars in the Pacific during World War II.

A stint in the Mothball Fleet followed her wartime service. Then, in 1954, she was recommissioned as a CVA, and has spent the past eight years alternating between the Second and Sixth Fleets.

Upon her latest return from the Med, *Intrepid* entered Norfolk Naval Shipyard for overhaul, repair and minor conversion. Now, as an anti-submarine warfare support carrier, she has joined the team of aircraft carriers, destroyers, submarines and patrol aircraft which guards the shores of the United States.



RETIRING—A veteran of 21 years' continuous active service, the destroyer tender USS *Hamul* (AD 20) joins the Pacific Reserve Fleet.

Isle Royale Inherits Crew

One old ship faded away while another made a comeback in June at the Long Beach, Calif., Naval Shipyard. To hold confusion to a minimum, the 665-man crew from the retiree was simply transferred intact to the reharnessed warhorse.

uss *Hamul* (AD 20), which was decommissioned, is an old Eastern hand, having served the Navy from the Middle East to Korea for 21 years—ever since she was converted from a merchant ship in 1941.

Hamul has been in the Pacific Fleet since 1950 with her home port at Long Beach since 1952. She has been cited as the outstanding ship of her class in the Pacific Fleet and was awarded the Cruiser-Destroyer Force Battle Efficiency "E" twice consecutively.

uss *Isle Royale* (AR 29) inherits *Hamul's* crew. Although she was completed in 1946, *Isle Royale* is virtually a new ship, having logged only 65 hours before being placed in the Reserve Fleet at San Diego, Calif., at the end of World War II.

Tops in Accident Prevention

uss *Independence* (CVA 62) and *Essex* (CVS 9) have won the annual Admiral Flatley Memorial Award for accident prevention during carrier operations. Both are Atlantic Fleet carriers.

Named for the late VADM James H. Flatley, USN, the award is given to one attack carrier and one ASW carrier each year by the Chief of Naval Operations for furthering the

naval aviation safety program.

The landing accident rate for both the Atlantic and Pacific Fleets was lower this year than for the same period last year. Runners-up in the competition are two Pacific Fleet carriers, uss *Bon Homme Richard* (CVA 31) and *Hornet* (CVS 12).

Ney Awards

The Navy's guide to good eating—the Edward Francis Ney Memorial Awards—this year singled out the Fleet oiler uss *Kawishiwi* (AO 146) as having the best general mess afloat. The Naval Air Station, Miramar, Calif., shared the honors in the shore category.

The afloat runners-up for fiscal year 1962 are the Pacific Fleet heavy cruiser uss *Helena* (CA 75), the Atlantic Fleet destroyer uss *Decatur* (DD 936) and the command ship uss *Northampton* (CC 1) of the Atlantic Fleet.

The Naval Air Station at Patuxent River, Md., and the Naval Station at Argentina, Newfoundland, were runners-up in the shore category.

The Edward Francis Ney Awards were established in 1958 by the Secretary of the Navy to give recognition for outstanding preparation and service of food on board Navy ships and shore installations.

The award is named in honor of the late CAPT Edward Francis Ney, SC, USN, who was head of the Navy Bureau of Supplies and Accounts during World War II.

All Ney award winners and runners-up receive trophies.



ELEVENTH Naval District rifle team displays first place trophies won in All-Navy rifle and pistol match.

Navy's Big Shots Meet in West

THE 1962 ALL NAVY Rifle and Pistol Championships at San Diego, Calif., produced a near-sweep by Eleventh Naval District-based contestants. In contrast to the 1961 meet at NAS Jacksonville, Fla., however, when the Potomac River Naval Command's LTJG Joel Sexton copped all three individual titles, this year's honors were well spread out.

Complete tourney results:

Individual Pistol (Possible 300) First—AMC Robert J. Murphy, USN, NTC San Diego (286); Second—ADRC Leland W. Melching, USN, NAS Moffet Field, Calif., (282).

Individual Rifle (Possible 250) First—EOC D. S. Morine, USN, NTC San Diego (246-24V); Second—AMC R. C. Edwards, USN (Ret.), Memphis, Tenn. (246-19V). Note: Chiefs Morine and Edwards finished with identical 246 scores, but Morine was awarded first place on the basis of scoring more "V's"—hits in inner-most part of the bull's-eye.

Aggregate (Combined Pistol and Rifle Scores—Possible 550) First—AMC J. J. Galica, USN, NAS Jacksonville, Fla., (275-237-512); Second—MMCS O. A. Martini, USN, NTC San Diego (273-235-508).

Team Pistol (Possible 1200) First—Naval Air Force Pacific. Team members were: CDR A. J. Papageorge, USN (Team Captain), COM-

NAVIRPAC Staff; ADRC L. W. Melching, NAS Moffet Field; AKC J. E. Barcus, COMNAVIRPAC Staff; AD2 H. D. Self, VU-3, NAS North Island; AE1 H. M. Hartley, VA-122, NAS Moffet Field; and AEC W. J. Newton, VS-41, NAS North Island (Alternate). Team total was 1094x1200. Second—Submarine Force Pacific. Team total—1070x1200.

Team Rifle (Possible 1500) First—Eleventh Naval District. Team members: YN3 (W) M. J. Johansen, (Team Captain), EOC D. F. Morine, EMCM H. E. Miebs, EMC J. E. Winnings, DC2 V. M. Rothman,

MMCS J. O. Blankenship and BMI C. A. Boatright, all of NTC San Diego; EN1 T. R. Fasy, NavSta Long Beach and SHC R. N. Turnipseed, Headquarters, 11ND (Team Coach). Team total was 1420x1500. Second—NavAirPac. Team total—1409x1500.

Chief of Naval Operations Combat Rifle Team Match (Note: No definite possible score is established for this match, since scoring is based on distance as well as accuracy.) First—Pacific Fleet. Team members: SHC Turnipseed (Team Captain); BMI Boatright; TM2 G. W. Bond; RM1 (SS) S. W. West; FTC (SS) G. W. Pittenger; AG1 D. L. Poorboy, and LTJG G. E. Miller. Team total was 789. Second—Atlantic Fleet. Team total—686.

Nearly 200 of the Navy's top shooters competed for All-Navy honors this year. They included the cream of the crop from each Fleet (Type, District and Fleet eliminations were staged earlier in the summer) and those Navymen holding "Distinguished" credits or National Rifle Association "Masters" classifications. After smoke had cleared the rifle and pistol ranges, top scorers at San Diego packed up their shooting irons and moved on to further competition in the month-long National Matches at Camp Perry, Ohio.

—Jerry McConnell, JO1, USN



CAPTAIN of AirPac's pistol team accepts first place trophy from Vice Admiral C. E. Ekstrom, USN.

All-Navy Bowling, Tennis and Golf

TROY DAVIS, a Norfolk-based gunner's mate third class who can really zero in on a head-pin, has captured his second straight All-Navy Bowling championship.

Representing the Atlantic Fleet Region, the COMDESFLT Four Navyman spread-eagled the field as he toppled 3626 pins (for a sparkling 201-plus per game average) during the three-day, 18-game All-Navy meet at Pearl Harbor. The Stillwater, Okla., native's final total gave him a healthy 81-pin bulge over runner-up Charles McElhaney, an NAS Barber's Point chief air controlman.

Meanwhile WAVE Dorothy Thompson, a yeoman second class serving on the staff of COMOPTEVFOR, NAS Norfolk, rallied strongly from a miserable start to top four North Atlantic Region standard-bearers for the Women's Division title, and give LANTFLT Region a clean sweep of top Navy bowling honors.

YN2 Thompson's 3168 total pinfall just did edge her into the throne room by a slim 12 pins over COM-FOUR's Communications Technician First Class Debbie Debevec.

Twenty men and 16 women (South Atlantic Region did not send a women's contingent) went to the firing line in this year's tourney.

LANTFLT team-mate Senior Chief Sonarman Norm Nicholson, a former two-time (1959-60) champ, trailed Davis by 58 pins after two rounds, but sloughed off badly himself the final day and finished third. McElhaney, meanwhile, bombed away for a big 1220 last-day set.

Two other Pearl Harbor-based sailors—Ship's Serviceman First Class Roy Doss and Yeoman First Class Donald Cass—finished fourth and fifth, respectively, to give the home-standing WESTPAC Region three of the top five placers.

Davis's second-round 1240 stood up as the tournament's highest six-game block, while Cass posted the high single—a 247.

Women's division action took a completely opposite tack, furnishing 50th state bowling fans with an exciting battle every step of the way. It provided the spectacle of all four NORLANT Region entrants waging a real donnybrook for the top rung over the entire 18-game grind—only to see LANTFLT's Thompson bang

out a high-for-the-meet 1164 second round set to climb from 14th to fourth place, then post a pressure-packed 1088 series the final day to grab the crown.

Yeoman Second Class Monie Moynahan, a Headquarters COM-NINE contribution to the NORLANT squad and pace-setter through the first two rounds, tailed off to a final-day 994, and finished third.

All-Navy Tennis

LT Richard Gaskill, usn, an Attack Squadron 44 flier representing NAS Jacksonville, Fla., and the South Atlantic region, bowled over four straight opponents to win the 1962 All-Navy open singles tennis title at NavSta, Newport, R. I.

LT Gaskill, a former Naval Academy star, knocked off the Navy's all-time-champ court "bridesmaid"—Senior Chief Aviation Machinist's Mate Leon Wilson—6-1, 6-2, 6-2 in the finals, thus extending that veteran CPO's amazing saga of frustration. It marked the fourth time in the past eight years that the tennis-playing senior chief has finished in the All-Navy open singles runner-up spot.

In other action, meanwhile, PacCoast's LCDR Elston Wyatt, perennial All-Navy net star (he was Captain of the 1943 Naval Academy team which won the national intercollegiate title) captured the lion's share of senior division honors in a repeat of his 1961 showing. He swept aside SoLant's Chief Aviation Fire Control Technician Jack Candland, 6-0, 6-1 for the senior singles crown, then teamed with CDR William Foulker to crush LantFlt's CDR Burt Smith and CDR E. A. Hamblen, 6-1, 6-1 in the senior doubles finale.

SoLant's Yeoman First Class (W) Jean Farrington successfully defended her women's division singles championship with a rousing 6-4, 6-4 final round triumph over ENS Betty Wylie of NorLant. Miss Farrington then joined Aviation Storekeeper Third Class Margaret Ward in a 6-1, 6-0 romp over two yeoman second class from PacCoast—Sharon Drake and Patricia Dreier—for the women's doubles title.

LT Gaskill, LTJG Bard, Chief Wilson, ENS Karns, LTJG John Oettinger and Seaman James Whitehead from the open division, and CDR Smith and CPOs Candland and Roth

were named to the Navy team scheduled for later interservice competition at Ft. Benning, Ga.

All-Navy Golf

Aviation Structural Mechanic Third Class Earl A. Fennell, usn, is the 1962 Open Division All-Navy golf champion.

Fennell, from NAS Oceana, Va., and representing the South Atlantic Region, posted successive rounds of 73, 71, 72 and 68 over San Diego's beautiful 6560-yard Mission Gorge course. His four-under-par final total of 284 over the 72-hole grind gave him a three-stroke bulge over the Pacific Coast Region's Dentalman Dick Hanscom of NAS North Island.

Two PacCoast Region stalwarts—NTC San Diego's CWO Dudley Jones and Personnelman First Class (W) Estelle St. Clair—copped seniors' and women's division honors, respectively; CWO Jones with a 73-79-72-77-301 showing, and Wave St. Clair with a tense second-extra-hole sudden-death playoff victory over WestPac's LT Nancy Hollenbeck, after the two racked up identical 72-hole totals of 355.

SoLant's Fennell never led until the final round in triumphing over a tough open-division field. His first-round 73 left him trailing teammate Master Chief Aviation Structural Mechanic Ben Jennett of NAS Cecil Field, Fla., by four strokes. NAS North Island's Seaman Charles DeLucca grabbed the 36-hole lead with a 142, while Fennell rested in a four-man second-place tie, two strokes back.

Third-round results set up a real traffic jam at the top, as Jennett, Fennell, Hanscom and WestPac's Chief Electronics Technician John Kalinka knotted up in a four-way tie for first with 216's, while DeLucca and LT Fred Blackmer of NAS Corpus Christi, Tex. (SoLant Region), were just one stroke further back.

Fennell's scorching 68 over the final 18 holes proved too much for the other contenders to match, however. Hanscom's fine 71 still left him three strokes down at 287, while Jennett, with a 73, finished third with 289.

A total of 27 men (18 open and 9 seniors) and 12 women, all of whom had survived earlier district and regional elimination tournaments, participated in this year's All-Navy meet.

Brief news items about other branches of the armed services

PERHAPS FISHERMEN in the North Pacific and Bering Sea will soon be thanking the U. S. Coast Guard for larger catches. The Coast Guard icebreaker *Northwind* (WAGB 282) is gathering information on the Oyashio current, important to the fishing industry in that area.

She is being aided in this year's patrol by the long-range navigation aid, Loran C. Loran C enables precise positioning of the ship, allowing her to plot ocean currents and bottom contours with accuracy. The Loran C radio waves are broadcast from Point Clarence, Alaska, about 100 miles from the Siberian mainland.

Later, *Northwind* will move north, gathering data at 75 oceanographic stations in the Gulf of Anadyr and the Northern Bering Sea, an area important to the nourishment of marine life. *Northwind* will stop at each station about three hours while scientists take bottom samples and make measurements of water salinity, temperature and dissolved oxygen content.

During the third phase of the survey, *Northwind* will gather similar data from stations north of Siberia and Alaska in the Arctic Ocean. She will also resupply the United States station on Ice Island T-3, 800 miles from the North Pole.

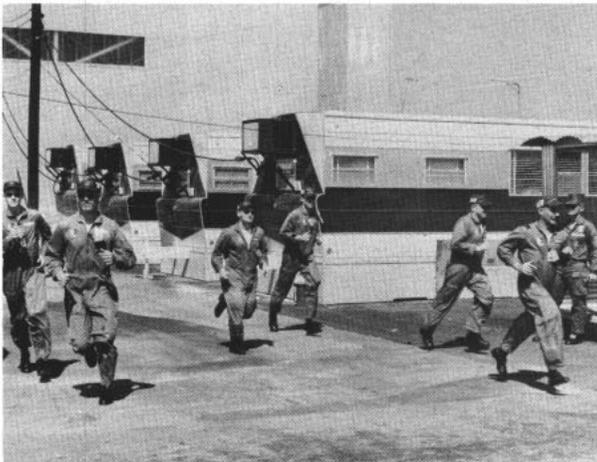
★ ★ ★

THE ARMY HAS DEVELOPED a new 10-pound combat radar unit which can be aimed like a flashlight to detect targets over a mile and a quarter away.

First experimental model of the new radar, designed by the U. S. Army Signal Research and Development Laboratory, Fort Monmouth, N. J., is contained in a box about the size of a portable typewriter. Held like a submachine gun, it is fitted with a pistol grip to aid in aiming the search beam. Controls are within easy reach on the back surface.

The new radar ignores stationary features, and picks out only moving objects. It can perform its detection through fog, darkness and light foliage.

When a moving object, which produces its own characteristic sound, passes through the radar's invisible beam, the unit emits an audible signal. The ex-



ON THE DOUBLE — USAF flight crews rush to bombers during 'alert' training at Offutt AFB, Omaha.

perienced operator can readily distinguish between the two-pitched sound of a tank, caused by the separate motions of the vehicle body and its track; the single whine which varies with speed and which means a jeep or truck; and the distinctive sound created by the leg and arm movements of walking men.

First radar of its kind light enough to be carried and operated by a single soldier, it employs miniature circuitry throughout, and contains only two tubes. All other tube functions are performed by tiny transistors and other semiconductor devices.

The entire system is powered by a lightweight belt battery that will last through at least 12 hours of continuous operation.

★ ★ ★

THE NORTH AMERICAN AIR DEFENSE COMMAND detected more than 20 new earth satellites in just one day last summer—an increase that was explained as old ones becoming new ones overnight. The "new" satellites had been orbiting the earth for some time, but were not counted individually. They were pieces of space junk, or material which goes into orbit along with payloads.

On 28 June, NORAD's Space Detection and Tracking System scoreboard at Colorado Springs, Colo., showed 177 man-made satellites in orbit around the earth. Of these, 42 were payloads; the remaining 135 were pieces of space junk. On 29 June, the scoreboard listed 199 orbiting objects.

It turned out that more than 20 pieces of junk from the Omicron satellite which exploded in space when it was orbited two years ago had moved apart far enough to be tracked and tabulated as individual satellites.

★ ★ ★

AS SPACE VEHICLES grow larger and more complex, their crews will also grow larger. How would several men in a space ship function as a team in space?

Six volunteers from the U. S. Air Force Academy have completed a psychological experiment which shows—from first indications—that a crew of astronauts can perform well as a team.

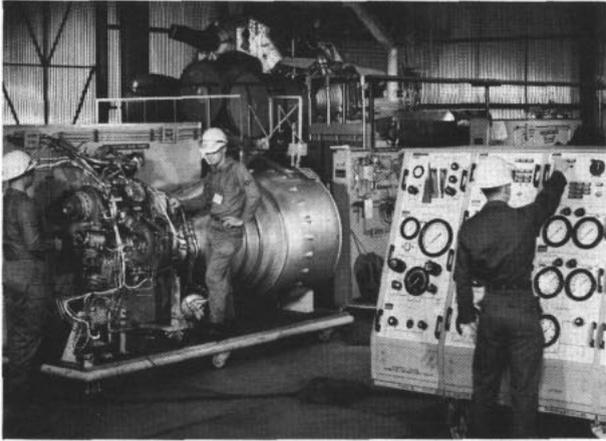
In a study conducted by a private corporation for the Air Force's Aerospace Medical Division, six 20- to 22-year-old Air Force cadets were confined for 15 days in a crew compartment.

The cadets performed operator duties for four hours, and were off duty two hours, around the clock. While on duty, they sat at flight stations, operating consoles in order to solve problems fed to them electronically by psychologists.

The problems involved numbers, hearing, and perception, and required the crew to work together to solve them. Although these tasks were not identical to those required in a space flight, they exercised the same mental processes that would be demanded of the crew.

One of the major findings of the study was that six men were able to perform 16 hours a day on a heavy work schedule in a confined area, and upon leaving were confident they could have continued even longer.

The studies will help the Air Force determine how much efficient work an individual or a crew can do in future space travels. By reducing the number of men needed in a crew, the space vehicle's weight can be kept at a minimum, requiring less thrust at launching.



FUTURE USAF missile mechanics work with Atlas missile operational training aids at Chanute AFB, Ill.

IN MID-JUNE, a 28-million candlepower light flashed from Sullivan's Island on the north side of the Charleston, S. C., harbor entrance.

It is visible for 19 miles at sea and is, according to the U. S. Coast Guard, the most powerful light in the Western Hemisphere.

The new lighthouse was built to replace its 86-year-old predecessor which fell victim to time, erosion and hurricanes.

The original lighthouse was built on the shore but, after time and erosion had run their course, it ended up a quarter of a mile off the coast.

The new lighthouse is somewhat unusual in design and equipment. It is triangular, has an elevator and a 70-mile sequenced radiobeacon.

It is one of more than 40,000 navigation aids operated by the U. S. Coast Guard. It is expected to last for 75 years with a minimum of maintenance.

THE LARC 15, the Army's new diesel-powered, all-aluminum amphibian, has completed land mobility and heavy surf tests in the Pacific Ocean at Coronado, Calif.

Before the Coronado tests, which were held at the Naval Amphibious Base, the amphibian underwent general shakedown tests in the Indianapolis, Ind., area, and environmental and mobility tests at the Army Desert Test Center, Yuma, Ariz.

The LARC 15 (Lighter, Amphibious, Resupply, Cargo) is the middleweight of the Army's new family of amphibious craft. It is capable of transferring 15 tons of cargo from shipside through the surf zone, past the beach line to a transfer point as far as six miles inland. Its smaller counterpart, the five-ton LARC 5, went into production in June 1961. The 60-ton BARC, largest of the family, has been in production for some years.

LARC 15's water speed is about twice that of the World War II DUKW, while it carries six times the amount of cargo. The LARC 15 is 45 feet long, 12 feet-six inches wide and 13 feet-four inches high. It has an aluminum hull which is fitted with a bow ramp for rapid loading and unloading of vehicular cargo. The amphibian is equipped with 24 x 29, 16-ply low-pressure tires. All four wheels drive, giving it excellent

maneuverability on the beach. In the water, the craft is driven by a single propeller installed in a hull tunnel. Fully loaded, it is capable of speeds of ten miles an hour in water and more than twice that speed on land.

★ ★ ★

THE AIR FORCE has added nine more two-stage Titan missiles to its mixed force of intercontinental ballistic missiles and manned bombers. The second squadron of Titan ICBMs, located near Lowry Air Force Base, Denver, Colo., has been declared operational by the Strategic Air Command.

This second Titan squadron gives the Air Force 18 operational Titan missiles, all in underground, protected silos and capable of rapid firing. Additional Titan I squadrons are expected to become operational with SAC some time this year at Ellsworth AFB, Rapid City, S. Dak.; Mountain Home AFB, Idaho; Beale AFB, Marysville, Calif.; and Larson AFB, Moses Lake, Wash. A Titan missile can strike a target more than 6300 miles away in a matter of minutes after it leaves the launching pad.

Acceptance of the second operational Titan squadron by SAC from the Ballistic Systems Division of the Air Force Systems Command came only two weeks and six days after the turnover of the first operational squadron at Lowry AFB.

Before the end of this year, the Air Force expects to have operational: 13 Atlas squadrons, six Titan squadrons, and the first squadron of Minuteman solid-propelled three-stage missiles.

★ ★ ★

THE ARMY HAS ESTABLISHED an Aeromedical Research Unit at the Army Aviation Center, Fort Rucker, Ala.

The new unit will be the central Army reference center for literature on aeromedical problems and, along with medical studies in connection with rotary and small fixed wing aircraft, will provide medical and technical support for Army aviators.

The unit is an activity of the U. S. Army Medical Research and Development Command of the Medical Corps. It will study problems specifically related to Army aviation which are occasioned by the steady increase in number of aircraft and aviation personnel.



ARTIST'S concept shows vehicle-mounted Shillelagh weapons system being developed for the U. S. Army.

THE WORD

Frank, Authentic Advance Information On Policy — Straight From Headquarters

● **UNIFORM CHANGES** — Chiefs and officers are authorized to wear a new single-breasted lightweight blue raincoat as an optional part of their uniform beginning the first of this month. The raincoat will be beltless, box-style with a three-button front fly closure and open-through welt pockets. (This change is not applicable to the women's uniform.)

Beginning 1 Jul 1963, two tropical white shirts will be part of the minimum uniform for all Navymen. When the white shirts become part of the required uniform, enlisted men below chief may reduce the number of jumpers in their seabag from four to three.

The new ratings of AX (Aviation Antisubmarine Warfare Technician) and DS (Data Systems Technician) have been given specialty marks effective 1 Jan 1963. AX is a lightning bolt above and pointing down toward a water surface, with a winged arrow below the water pointing downward.

The DS specialty mark is a helium atom with three surrounding arrows pointing toward its center and one pointing out from it.

● **ECONOMY TRAVEL** — Navy and Marine Corps sponsored air travelers are henceforth going to fly "economy class," rather than first class, except in certain cases.

SecNav Inst. 4632.3 points out that the policy of authorizing first class accommodations for persons

traveling on government orders was adopted before the advent of commercial air travel.

Since the only difference between first class and less than first class air travel is usually only the difference between sitting three rather than two abreast; eating roast beef in flight instead of filet mignon and drinking ginger ale instead of champagne, SecNav feels the prestige of most travelers would be undamaged by the use of less than first class facilities.

The economies are extended to Navymen, Marines, civilian employees, and their dependents when traveling by air. They will be expected to use MATS facilities (including commercial facilities under contract to MATS) for all or a substantial portion of their overseas travel. If MATS transportation is unavailable, less than first class commercial facilities should be used.

There are exceptions to the rule. First class may be used by the traveler:

- Whose level of responsibility or whose business dictates it,
- When first class accommodations are all that are available,
- When use of less than first class would require circuitous routing,
- When use of less than first class accommodations would require travel to begin between 2400 and 0600 or
- Would result in additional direct costs which would offset the saving.

All requests for first class travel (including jet) must be submitted through official channels. When approval is granted, the traveler's orders must bear a notation to the effect that first class is authorized.

● **STAR PROGRAM REVISED** — The STAR program has been revised to make STARs of men who are of higher-than-average caliber, thus giving the Navy a greater return on its training investment.

Here are some salient features in the revised program:

If you reenlist under the STAR program in the future, you will find that the minimum hitch is for six years instead of the former four. This will make longer term training possible.

As of the first of this month, a minimum of one year of naval service and a maximum of three years of active duty in any military service are the limitations for reenlistment under STAR.

For outstanding E5s, the maximum is extended to three years and six months.

Commanding officers no longer have authority to approve reenlistments under the STAR program, even if the applicant is in a critical rating. All applications must now have BuPers approval.

Automatic promotion from E-3 to E-4 is different (perhaps easier). Under the new program, if your final grade, upon graduation from Class A school, is higher than the average of all the previous year's classes, you are eligible for automatic promotion.

The purpose of the STAR program, as almost everyone knows, is to single out, early in his first enlistment, the man who intends to make the Navy his career.



SHOW THE PROPER SPIRIT . . . 9 others are waiting to be brought out of the darkness with this issue.

To protect the Navy from the possible loss of good prospects because of tighter requirements, BuPers has requested commanding officers to continue recommending outstanding men who want to get into STAR, even though they may lack some of the qualifications.

The CO must submit evaluations of STAR candidates with their applications. The evaluation will pull a lot of weight with the selection board.

Full details of the revised STAR program are in BuPers Inst. 1133.13B.

● **ARMED FORCES EXPEDITIONARY MEDAL**—Last December, an Executive Order established the Armed Forces Expeditionary Medal. More recently, conditions under which the medal can be earned have been published.

There are three different categories of operations for which this medal is authorized after completion of the required period of service in the area. They are:

● **United States Military Operations.** If you served in Berlin after 14 Aug 1961; in Lebanon from 1 Jul 1958 to 1 Nov 1958; in Quemoy and Matsu Islands from 23 Aug 1958 to a date yet to be announced; or in the Taiwan Straits from 23 Aug 1958 to 1 Jan 1959, you are eligible for award of the Armed Forces Expeditionary Medal.

● **United States Operations in Direct Support of the United Nations.** If you participated in U. S. operations in direct support of the United Nations in the Congo from 14 Jul 1960 to a date yet to be announced, you are eligible under this category.

● **United States Operations of Assistance for Friendly Foreign Nations.** This category covers you if you participated in U. S. operations for friendly nations such as Laos and Vietnam.

If you served in Laos from 19 Apr 1961 to a date to be announced, and in Vietnam from 1 Jul 1958 to a date to be announced, you are eligible.

To qualify for the award, you must have been a bona fide member of a unit engaged in any of the above operations or must meet at least one of the following requirements:

- Have served at least 30 consecutive days in the area of operations.
- Have been engaged in direct

support of the operation for at least 30 consecutive days or 60 nonconsecutive days provided this support involved entering the area of operations.

- Have served for the full period when an operation is of less than 30 days' duration.
- Have been engaged in actual combat or duty as hazardous as combat duty during the operation with armed opposition regardless of time or place.
- Have participated as a regularly assigned crew member of an aircraft flying into, out of, within, or over the area in support of the military operation and
- Have been recommended or attached to a unit recommended by the chief of a service or the commander of a unified or specified command for award of the medal, although the criteria above have not been fulfilled.

The Armed Forces Expeditionary Medal takes precedence immediately after the Antarctica Service Medal and will be awarded only for operations for which no other United States campaign medal is approved.

● **SCORE CHANGES**—The SCORE program has undergone some minor changes since it was described in the December 1961 issue of ALL HANDS.

CTO and MR have been removed from the list of ratings to which conversions are desired.

A special enlisted evaluation sheet must now be submitted to the commanding officer by the SCORE counseling officer after you have been interviewed. Marks assigned in the special evaluation sheet will not be entered in your service record, but the evaluation sheet will be submitted to the Chief of Naval Personnel along with the request for SCORE conversion.

You are now permitted to extend your enlistment to fulfill your six-year obligation. This removes the requirement for reenlistment and the possibility of having to repay a previous reenlistment bonus. Approval to extend the enlistment will be granted by the Chief of Naval Personnel along with approval for conversion.

The SCORE program is now set forth in BuPers Inst. 1440.27A, cancelling the original instruction.

QUIZ AWEIGH



If you're a petty officer, you may be assigned to a shore patrol unit. For that reason, you should know the responsibilities of an SP. Here are a few situations that may arise.

1. The booklet, *The U. S. Navy Shore Patrol* (NavPers 10095.A) has recently been revised. Chapter one lists the missions of the shore patrol. Which one of the following is not a listed mission? (a) Fosters the welfare and general well-being of enlisted men in a liberty status, (b) Assists military personnel by furnishing travel information and interpreting travel orders, (c) Directs vehicular and pedestrian traffic as required by emergency, or (d) Enforces civil law among the populace if no civilian police are immediately available.

2. Under what circumstances would you, as a shore patrolman, be authorized to apprehend a civilian? (a) Only if you see a citizen committing an aggravated act which constitutes a breach of the peace or a felony, and you cannot contact the local police, (b) Anytime to prevent a situation from developing which could endanger servicemen, (c) Only on a public street, or (d) Only if the civilian prevents you from performing your assigned duties.

3. You are in a foreign port and observe a Navyman having a dispute with a cab driver. As a shore patrolman you should: (a) Insist that the Navyman comply with the cab driver's wishes in order to better people-to-people relationships, (b) Call a local policeman and then maintain order until he arrives, (c) Take the part of the Navyman and help your shipmate in his plight, (d) Listen to both sides and arbitrate.

4. A shore patrolman can ask for assistance when necessary from what other military personnel? (a) Only men who are equal in rate or rank or junior to him, (b) Only enlisted personnel, regardless of rate, (c) Any military personnel, whether they are commissioned or enlisted, (d) Only men who are senior to the accused.

ANSWERS MAY BE FOUND
ON PAGE 49

THE BULLETIN BOARD

Plenty of Leadership Assistance Available If You Need It

NAVAL LEADERSHIP is based upon personal example, good management practices and acceptance of moral responsibility—and the ideal leadership program is the practical everyday exercise of good leadership.

Almost anything can always be improved—and in the case of those charged with the exercise of naval leadership who need to improve it within their command, help is available in several forms. Among these are BuPers leadership field teams, leadership schools and courses, correspondence courses, and films.

None of the above is new or startling—nor are most of the leadership aids we've just mentioned. Most of them have been around for some time. If you and/or your command have not yet taken advantage of them, why not try now? You'll find

they can be of considerable benefit to your organization.

BuPers leadership field teams consist of specially selected officers and chief petty officers who have received specialized training in the use of leadership materials. They will visit and assist a command when requested, but it should be remembered that their function is purely advisory. They assist, *but do not substitute for*, an active command program.

Among the services provided by these teams are:

Command Counseling, in which a team will sit down with a commanding or executive officer and review an active or proposed command leadership program with an eye toward improving or expanding it.

Command Presentations, through

which they explain the various materials and methods developed by BuPers for use in leadership training.

Training of Discussion Leaders, consisting of a short training period for interested commands, to instruct selected and motivated Navymen in the techniques of conducting group discussions on any of the suggested topics contained in the *United States Navy Leadership Manual* (to be distributed to all commands soon), and to demonstrate how command problems in leadership can be developed into discussion topics.

Area Seminars, staged for appropriate senior officers of several commands simultaneously, and aimed at stimulating interest in aggressive, systematic command leadership programs.

Commands desiring team services should address their requests to the appropriate team (see box), stating preferred date or dates, and the type of services desired. To reduce travel costs, commands and Reserve units should also inform their immediate superiors or senior local commanders so that other commands in the same general area can be informed and invited to be included in a coordinated schedule. An information copy of the request should be sent to the Chief of Naval Personnel (Pers 12).

Leadership schools and courses are provided by the Chief of Naval Personnel for officers in Officer Candidate courses, and in the various curricula offered at the U. S. Naval Postgraduate School. Leadership training for EMs is conducted in all Class B schools, and at the three Class C leadership schools located at Norfolk, Great Lakes and San Diego. In addition, many type and unit commanders have established excellent leadership schools and courses of their own.

Among publications available are:

● *The U. S. Navy Leadership Manual (NavPers 15934)*—A compilation of leadership materials designed for ready reference. Much of the content is drawn from previously issued leadership publications which are no

Here's Where to Look for Leadership Field Teams

Field Team Address

BuPers Leadership Field Team, Alameda
c/o CO, U. S. Naval Air Station,
Alameda, Calif.

BuPers Leadership Field Team, San Diego
c/o CO, U. S. Naval Air Station,
San Diego, Calif.

BuPers Leadership Field Team, Newport
c/o CO, U. S. Naval Air Station,
Newport, R. I.

BuPers Leadership Field Team, Norfolk,
c/o CO, U. S. Naval Air Station,
Norfolk, Va.

BuPers Leadership Field Team, Charleston
c/o CO, U. S. Naval Air Station,
Charleston, S. C.

BuPers Leadership Field Team, Jacksonville
c/o CO, U. S. Naval Air Station,
Jacksonville, Fla.

BuPers Leadership Field Team, Great Lakes
c/o CO, Naval Administrative Command,
U. S. Naval Training Center,
Great Lakes, Ill.

PacFlt Leadership Field Team, WestPac,
c/o Commander, U. S. Naval Forces, Japan,
Fleet Post Office,
San Francisco, Calif.

PacFlt Leadership Field Team, MidPac,
c/o Commander Service Force, Pacific Fleet,
Navy No. 128, Fleet Post Office,
San Francisco, Calif.

Areas of Responsibility

12th, 13th and 17th Naval Districts.

11th Naval District and New Mexico.

First and Third Naval Districts; Newfoundland and Iceland.

Fourth and Fifth Naval Districts, less Ohio and Kentucky; Bermuda; European and Mediterranean areas.

Sixth Naval District, less Florida and adjacent Gulf Coast area.

10th and 15th Naval Districts; Florida and adjacent Gulf Coast areas west to and including New Orleans.

Eighth Naval District, less New Mexico; Ninth Naval District, plus Ohio and Kentucky.

Western Pacific.

Hawaiian Area.

longer effective. It is in the printer's hands now and should be distributed this fall.

● *Principles and Problems of Naval Leadership (NavPers 15924)*—Intended primarily as an officer text to explain the principles underlying leadership problems, this book is also useful for petty officers. It contains 32 actual cases drawn from the experience of naval officers. Local problems can be analyzed in the same manner used for the cases in this book.

● *The Armed Forces Officer (NavPers 15923A)*—A guide to the philosophy, ideals and principles of leadership in the armed forces. This book was produced by the Department of Defense primarily for junior officers, but can be of value to all persons in the military services. The "A" edition is an improvement to the earlier version. It explains the meaning of a commission and the formation of military ideals and discusses leadership principles and their psychological foundations. Suggestions are included on writing, speaking, counseling and the handling of problems of discipline and morale.

● *Correspondence Course, Leadership (enrollees only) (NavPers 10903A)*—Course content is drawn from General Order 21; *The Armed Forces Officer* and *Principles and Problems of Naval Leadership*. These publications are used as texts. Enrollment in the course is accomplished by individual application on form NavPers 992 to the U. S. Naval Correspondence Course Center, Scotia, N. Y.

Films available are:

● *Leadership at the Top (MN-9635)* (13 min.-color)—The Under Secretary of the Navy reports on the leadership effort. There are scenes of the Department of the Navy Leadership Working Group and comments by the Chief of Naval Operations and the Commandant of the Marine Corps.

● *The Challenge of General Order 21 - (MN - 8829a)* (25 min. - color) (This is a 1958 movie which will be replaced soon.)—Explains the conditions which led to General Order 21 and the Naval leadership program, and shows how a command leadership revitalization effort can succeed. Useful before audiences unfamiliar with leadership program.

● *Case of the Early Leave (MN-829e)* (15 min.-B & W).

● *Case of the Unmoved Files (MN-8829f)* (15 min.-B & W).

● *Case of the Penurious Personnelman (MN-8829g)* (15 min.-B & W).

● *Case of the Unwashed Seaman (MN-8829h)* (15 min.-B & W).

These four films are based on cases from *Principles and Problems of Naval Leadership (NavPers 15924)*; they are designed to assist the leader to generate discussion around the leadership deficiencies portrayed in the films and to show how to develop a case study from a local command problem. All of the deficiencies of the characters are not mentioned in the

narration. These additional deficiencies are designed to challenge the group's interest and alertness, as well as encourage further discussion. They are suitable for officer or enlisted discussion groups within a command.

● *The Truxtun Story (MN-8829d)* (28 min.-color)—Based on incidents from the life of CAPT Thomas Truxtun, the commanding officer of USS *Constellation*. It portrays the leadership qualities which CAPT Truxtun possessed. To be distributed this month.

● *The Farragut Story (MN-8829-l)* (28 min.-color)—Dramatically recounts incidents in the life of David

WHAT'S IN A NAME

How Burke Was Christened

By late 1943 American successes in the Solomons and elsewhere in the Pacific had helped put the war against Japan on a one-way street toward the enemy's home islands.

One of the battles of this era, which the Naval War College has called "The almost perfect surface action," was the Battle of Cape St. George.

It was incidental to this fight that Captain Arleigh A. Burke, later to become Chief of Naval Operations, was dubbed "31-knot" Burke.

On 24 Nov 1943, Admiral William F. Halsey ordered Captain Burke, who commanded Destroyer Squadron 23, "The Little Beavers," to intercept Japanese forces from Buka.

When the order came, only five of "The Little Beaver" squadron's destroyers were operational—USS *Converse* (DD 509), *Spence* (DD 512), *Charles Ausburne* (DD 570), *Claxton* (DD 571) and *Dyson* (DD 572).

Spence was having some trouble with a boiler tube but CAPT Burke ascertained that she would be capable of making 31 knots. To do that, however, she would have to cross-connect her power plant, a technical violation of regulations, since a cross-connected plant was more vulnerable in combat than the regulation split plant. Nevertheless, the Little Beavers had to take that chance. Burke ordered the ships under way.

The Little Beavers' boss advised Admiral Halsey's headquarters of his squadron's status. In each communication Capt Burke had occasion to repeat

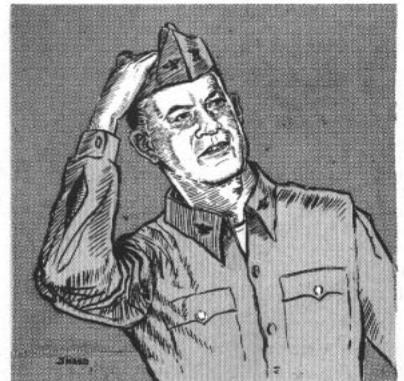
that they were moving fast—"at 31 knots."

Then came a communication back from Admiral Halsey. It was addressed to "31-knot Burke." The name stuck.

At that time, Burke did not know the composition of the enemy force. It developed that it was an even match so far as numbers were concerned. When the gap between the Japanese and American ships was closed, two Japanese destroyers, which formed a forward screen, were quickly dispatched. The others began fleeing at 32 knots.

Destroyer Squadron 23 pushed its speed up—past the 31-knot level—to 33 knots and the gap between the pursuers and the pursued again closed.

When the smoke cleared away, three of the Japanese destroyers had been sunk; one was badly damaged and one escaped. Only one of "31-knot" Burke's destroyers had been damaged and not a single man had been lost.



Glasgow Farragut, our first admiral. It illustrates the leadership principles applied to his career which are as valid today as they were a century ago. It was distributed in September 1962.

● *Five Steps toward Effective Naval Leadership (MN-8829k)* (15 min.-color)—A filmograph outlining five simple steps by which a CO can implement a leadership program. To be distributed this fall.

● *An Aid to Group Discussion (MN-8829n)* (15 min.-color)—A filmograph used to demonstrate the group discussion technique. It outlines how group discussion can aid in implementing a naval leadership program by enabling people in small groups the better to understand common problems. To be distributed November 1962.

Additional publications may be requisitioned from the U. S. Naval Supply Center, Norfolk, Va., or Oakland, Calif., in accordance with *Nav-SandA Publication 2002 (Navy Stock List of Forms and Publications, Cog. I)*. Films are obtainable from Navy and Marine Corps film libraries and are held by major commands.

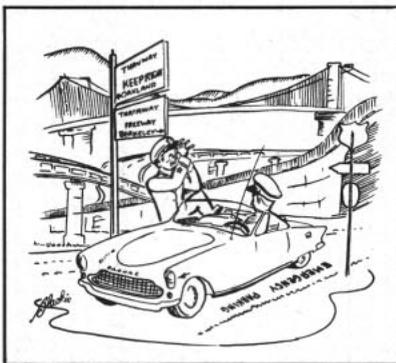
Striker Selection Board Helps SNs Choose Career

Non-rated men aboard the destroyer *uss Forrest Sherman* (DD 931) have the opportunity to weigh and evaluate carefully the rate in which they hope to work. No jumping blindly into a lifetime career for them.

The *Sherman* system of channeling men into the rating that is best for the individual, the ship and the Navy starts when a non-striker reports aboard. He is not told in which rate he will strike nor is he allowed to choose his own field immediately. *Sherman's* attitude is based on the conviction that a seaman apprentice fresh from recruit training isn't familiar enough with the Navy to choose a Navy occupation intelligently. For that reason, aboard *Sherman*, he is given a seasoning period in the deck gang.

This interim period topside usually lasts approximately three months. However this period may become longer or shorter. The longer periods are reserved for those who choose to strike for a deck rating or who fail

All-Navy Cartoon Contest Emmet J. Geisler, YN1, USN



"Alright now, you navigated across the Pacific; now get us on the other side of the bay!"

to show sufficient interest in other fields, while the shorter periods go to those men who work hard at their assignment and also prepare themselves for a rating in which they hope to qualify.

This period in the deck gang is important to the new Navyman. It allows him to learn the ship from the top down and also gives him time to watch other divisions at work. If he sees a job that appeals to him, he investigates.

It is the individual's responsibility to learn something about the job in which he is interested, check the minimum requirements for that rating, and decide if he would enjoy, and be able to do, the work. If he finds all these things in his favor, he breaks out a third class manual for that rating and learns more about the technical aspects of the work.

When he is convinced he has chosen the right rating, he submits a request to the executive officer for transfer to that department of the ship. This request is referred to the Striker Selection Board.

This board is made up of division officers and leading petty officers from each department of the ship. Usually about five officers and maybe five or six enlisted men sit on the board which meets whenever needed. These men are experienced in every phase of shipboard work and are ready and able to help the individual help himself.

The secretary of the board is the chief yeoman. He screens the applicant's service record and presents his case to the members of the board.

When all the board members are familiar with the case—the individual's educational background, GCT, conduct, and experience—the young man is invited into the meeting to be interviewed by board members. The interview generally begins with the chief yeoman and then goes around to every member of the board.

Board members are interested in several things about this man. They want to know, for example, his reasons for wanting to strike for some particular rating. Are these reasons valid and is he more interested in this rating than several others which may be open to him? Advancement possibilities and pro pay, if applicable, are explained. This is also the time he may be questioned about his lack of education or lack of initiative. In other words, the board wants to make sure the man gets what is best for him.

The session before the Striker Selection Board is important for reasons other than selecting a rating for which to strike. If the young Navyman quit high school, he is encouraged to study and get his diploma. If he hasn't received his seaman correspondence course, he is encouraged to order it. In other words, this is an opportunity to impress on a young Navyman his responsibilities to himself and to the Navy.

Many men do not have their chits for transfer approved the first time before the board. The board is not just a formality before being transferred. If a man is allowed to transfer to a chosen department, it is because he has earned it. If he doesn't show enough initiative to impress the experienced Navymen on the board, he spends a little more time in the deck gang. Some men, however, prefer to stay in the deck gang. They like it.

A new man hears about the Striker Selection Board when he first comes aboard. Most men recognize the board as a means to their objective, but at the same time a group that will not give them anything they have not earned.

Forrest Sherman doesn't claim that her Striker Selection Board is unique. The idea was borrowed from another ship; they're not sure which one. Someone brought the idea aboard, it was adopted, and now is a routine part of shipboard life.

Investigate When Looking For A Place For Your Savings

EARLIER THIS YEAR a large number of state savings and loan associations in an eastern state went into receivership and the life savings of many Navymen went down the drain.

Here are a few things you should know about savings and loan and building and loan associations. A little knowledge and a wary eye will go a long way toward keeping the long green in a safe place for a rainy day.

Savings and loan (and building and loan) associations may be incorporated and supervised under either federal or state laws. These associations make real estate mortgage loans by investing other people's savings accounts.

All federally incorporated associations are supervised by the Federal Home Loan Bank Board and have their savings insured by the Federal Savings and Loan Insurance Corporation. Both of these organizations are agencies of the United States government.

The Federal Savings and Loan Insurance Corporation also insures the savings of many state incorporated associations, and the states of Ohio and Massachusetts have state insurance funds which insure savings of associations incorporated in these states.

Federal savings insurance is limited to \$10,000 for each account name. Thus, a Navyman who is lucky enough to have sufficient money may maintain one insured account, his wife another, and the two jointly still another insured account.

Terms for acceptance of savings deposits, just as in the case of savings accounts of commercial banks, provide that the savings and loan association may defer withdrawals for a limited period when required.

Such deferrals are not to be expected except in extremely unusual circumstances. This provision is normal in all kinds of banks which receive savings for investment.

A SAVINGS AND LOAN association must receive sufficient interest income from its real estate loans and other investments to cover the dividend payments on its savings accounts, its operating expenses and a small margin to cover possible

losses on its loans. Therefore, the interest rate which is charged on real estate loans automatically places a limit on the dividend rate which can be paid on savings accounts. Dividends credited to savings accounts (usually quarterly) have the effect of compound interest.

You may make an allotment to a savings and loan association, as one class of banking institution, for credit to your account. The allotment can be made for payment on a loan or for addition to your savings account. However, only one such allotment of this type is allowed.

The Navy Department cannot assume the responsibility for screening allotments to banking institutions to determine the character or quality of the allottee institutions. You must

take this responsibility yourself.

While most savings and loans institutions are sound, the recent situation showed the necessity to be on guard. You should determine the reliability of any savings and loan association in which you invest and consider insurance limits as well as the general restriction on savings withdrawals.

FOR ALL PRACTICAL PURPOSES, reliable savings and loan associations generally may be considered to be those whose savings are insured by the Federal Savings and Loan Insurance Corporation, or those institutions in Massachusetts and Ohio that are insured under state insurance funds.

You are also cautioned to read

HOW DID IT START

Quonset

This year, Rhode Island's Quonset Point Naval Air Station observes its 21st birthday. In 1940, Quonset Point was a beach, with rows of summer homes. One year later, it had been transformed into a huge naval air station, destined to become one of the largest in the U. S.

Besides training hundreds of combat airmen for carrier duty in all theaters of war, Quonset Point repaired and rejuvenated hundreds of Navy bombers in its overhaul and repair department during World War II.

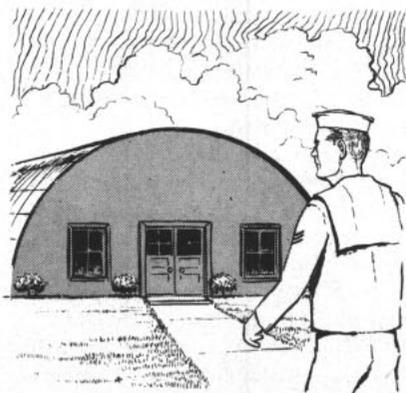
But perhaps the most famous of Quonset Point's accomplishments was the quonset hut, designed by a contractor who was building the naval air station in 1941. The arched-rib design was adapted from the English Nissen hut, used as a barracks for the British military. During World War II about 152,000 standard quonsets, 20 feet by 48 feet, were erected at naval and other military installations throughout the world. In addition, 17,000 utility type quonsets, 40 by 100 feet, were built. These structures served as hospitals, chapels, mess halls, recreation centers and wartime homes for American servicemen.

Throughout its 21-year history, Quonset Point has had its share of excitement. For example, on 26 May 1954, when *USS Bennington (CVS 20)* was shaken by a series of explosions about

75 miles south of Newport, R. I., Quonset Point dispatched every available helicopter to Bennington to assist in evacuating the casualties.

Hurricanes also caused excitement at Quonset Point from time to time. Among the infamous ladies calling at the air station were hurricanes Carol and Edna in August and September 1954. Both caused extensive damage to Quonset, drowning runways in towering seas, ripping buildings apart and knocking down power lines.

Quonset Point claims to be Rhode Island's largest single industry and has established itself as an integral part of the state.



carefully advertising or mail solicitations if you use these as a basis for selecting a savings and loan association for investment, and be on guard against offerings of unusually high interest rates and premiums.

In selecting a place to stash your savings, you will probably want to consider all kinds of savings institutions and other media. Here are a few:

- Many commercial banks have recently increased the interest rates allowed on savings deposits within the permissible limit. A higher rate may be allowed on deposits left for a year or more than on those which are subject to normal withdrawal.

Here the insurance protection of the Federal Deposit Insurance Corporation is more or less general and should be looked for.

- U. S. Savings Bonds offer an excellent safe medium for accumulating savings. U. S. Savings Bonds currently earn 3.73 per cent interest, compounded quarterly, when held to maturity (seven years, nine months). A bond may be cashed at any time after 60 days from purchase, but only with reduction of the effective rate of interest.

- Navy savings, also representing a direct obligation of the U. S. government, accumulate at 4 per cent simple interest per annum until withdrawal. Except in hardship cases, such deposits cannot be withdrawn until separation, discharge and reenlistment, or expiration of a three-year period of any enlistment greater than three years. Four per cent simple interest for four years is equivalent to 3.79 per cent compounded quarterly.

- Investments in credit unions (generally in the form of purchase of shares) are much like savings accounts. Dividends are credited to the accounts, usually semiannually, and have the effect of compound interest. Credit unions are organized under both federal and state laws. While they are subject to governmental supervision, based upon periodic examinations, the share accounts or deposits are

not insured.

Credit unions are cooperative ventures which are based upon the philosophy of closer relations with borrowers and investors than is the case for other kinds of banks. You would be wise to know something about any credit union in which you invest.

Pay deductions for U. S. Savings Bonds and Navy Savings are authorized in addition to the one-allotment limitation to a service member for all kinds of banking institutions or associations.

List of New and Re-Issued Motion Pictures Available To Ships and Overseas Bases

The latest list of 16-mm feature movies available from the Navy Motion Picture Service is published here for the convenience of ships and overseas bases.

Movies in color are designated by (C) and those in wide-screen processes by (WS).

Harold Lloyd's World of Comedy (2034): Comedy; Harold Lloyd.

Five Finger Exercise (2035): Drama; Rosalind Russell, Jack Hawkins.

Jack the Giant Killer (2036) (C): Comedy; Kerwin Mathews, Judi Meredith.

Desert Patrol (2037): Melodrama; Richard Attenborough, Jack Gregson.

Safe at Home (2038): Drama; Mickey Mantle, Roger Maris.

Rome Adventure (2039) (C): Troy Donahue, Angie Dickinson.

**All-Navy Cartoon Contest
John R. Thornton, SOG2, USN**



"Uh . . . Sir . . . that new Engineering Officer says we can't get underway right now . . . he's still looking for the ignition key to the main engines!"

Moon Pilot (2040) (C): Science Fiction; Brian Keith, Edmond O'Brien.

Cape Fear (2041): Drama; Robert Mitchum, Polly Bergen.

Zotz (2042): Comedy; Tom Poston, Julia Meade.

Escape from Zahrain (2043) (C) (WS): Drama; Yul Brynner, Sal Mineo.

Ride the High Country (2044) (C) (WS): Western; Randolph Scott, Joel McCrea.

Confessions of an Opium Eater (2045): Melodrama; Vincent Price, Richard Loo.

Hell is for Heroes (2046): Drama; Bobby Darin, Steve McQueen.

Lucky Nick Cain (2047): Drama; George Raft, Coleen Gray (Re-issue).

I Can Get it for You Wholesale (2048): Drama; Susan Hayward, Dan Dailey (Re-issue).

For Heaven's Sake (2049): Comedy; Clifton Webb, Edmund Gwenn (Re-issue).

The Steel Trap (2050): Drama; Teresa Wright, Joseph Cotten (Re-issue).

Lonely are the Brave (2051) (WS): Drama; Kirk Douglas, Gena Rowlands.

Reprieve (2052): Drama; Ben Gazzara, Stuart Whitman.

Three on a Spree (2053): Comedy; Jack Watling, Carole Lesley.

The Man Who Shot Liberty Valance (2054): Western; John Wayne, James Stewart.

The Horizontal Lieutenant (2055) (C) (WS): Comedy; Jim Hutton, Paula Prentiss.

The Notorious Landlady (2056): Comedy; Kim Novak, Jack Lemmon.

The Boy Who Caught A Crook (2057): Melodrama; Wanda Hendrix, Don Beddoe.

Road to Hong Kong (2058): Comedy; Bob Hope, Bing Crosby.

That Touch of Mink (2059) (C) (WS): Comedy; Cary Grant, Doris Day.

Miracle Worker (2060): Drama; Anne Bancroft, Patti Duke.

The Night They Killed Rasputin (2061): Drama; Edmund Purdom, Yvette Lebon.

Burn Witch, Burn (2062): Melodrama; Janet Blair, Peter Wyngarde.

A Millionaire for Christy (2063):

Comedy; Fred MacMurray, Eleanor Parker (Re-issue).

Kid From Left Field (2064): Drama; Dan Dailey, Anne Bancroft (Re-issue).

As Young as You Feel (2065): Comedy; Monty Woolley, Constance Bennett (Re-issue).

A Blueprint for Murder (2066): Drama; Joseph Cotten, James Mason (Re-issue).

The Four Horsemen of the Apocalypse (2067) (C) (WS): Drama; Glenn Ford, Ingrid Thulin.

War Hunt (2068): Melodrama; John Saxon, Charles Aidman.

Make Mine a Double (2069): Comedy; Cecil Parker, Leo Franklyn.

Postman's Knock (2070): Comedy; Spike Milligan, Barbara Shelley.

Rio Grande (2071): Western; John Wayne, Maureen O'Hara (Re-issue).

Oh Susannah (2072): Western; Rod Cameron, Adrian Booth (Re-issue).

The Quiet Man (2073): Drama; John Wayne, Maureen O'Hara (Re-issue).

Mother Didn't Tell Me (2074): Drama; Dorothy McGuire (Re-issue).

Geronimo (2075) (C) (WS): Melodrama; Chuck Connors, Pat Conway.

Panic in Year Zero (2076) (WS): Drama; Ray Milland, Joan Hagen.

Rider on a Dead Horse (2077): Western Drama; John Vivyan, Bruce Gordon.

The Interns (2078): Drama; Suzy Parker, Dick Adams.

Bloodhounds of Broadway (2079): Melodrama; Mitzi Gaynor, Scott Brady (Re-issue).

I'll Get By (2080): Musical; June Haver, William Lundigan (Re-issue).

The I Don't Care Girl (2081): Drama; Mitzi Gaynor, David Wayne (Re-issue).

Lisa (2082) (C) (WS): Melodrama; Stephen Boyd, Dolores Hart.

Cabinet of Caligari (2083) (WS): Drama; Glynis Johns, Dan O'Herlihy.

Operation Snatch (2084): Comedy; Terri Thomas, George Sanders.

Don't Knock the Twist (2085): Musical; Chubby Checker, Gene Chandler.

Television Programs

5268: TV-1 *Perry Mason*—Wintry Wife. TV-2 *The Dick Powell Show*—

All-Navy Cartoon Contest LTJG Thomas K. Dean, USNR



"You did it, Sturdley. You just set a new base record for the standing broad jump!"

Who Killed Julie Greer.

5269: TV-1 *Perry Mason*—Missing Melody. TV-2 *The Dick Powell Show*—Out of the Night.

5270: TV-1 *Perry Mason*—Irresolute Reformer. TV-2 *The Dick Powell Show*—Someone's Waiting.

5271: TV-1 *Perry Mason*—Fickle Fortune. TV-2 *The Dick Powell Show*—The Geeta's Box.

Voting Officer Has Pertinent Pointers for Absentee Voters

If, when election day rolls around, you wish to cast an absentee ballot for the candidate of your choice, here is a follow-up to the recent observance of Armed Forces Voters Day with a reminder of voting requirements in various states and sources of information on voting.

In order to vote, of course, you must be eligible under the laws of the state in which you claim residence. Each state is responsible for its own voting requirements and, therefore, has its own rules.

QUIZ AWEIGH ANSWERS

1. (d) Enforces civil law among the populace if no civilian police are immediately available.
2. (a) Only if you see a citizen committing an aggravated act which constitutes a breach of the peace or a felony, and you cannot contact the local police.
3. (b) Call a local policeman and then maintain order until he arrives.
4. (c) Any military personnel, whether they are commissioned or enlisted.

Quiz Aweigh is on page 43.

Since 1955, however, the trend for absentee voters with regard to qualifications has been toward uniformity.

In most states, the legal age for voting is 21. If you are registered in Georgia or Kentucky, you may vote when you are 18 years old. Alaska has fixed the minimum age at 19 while Hawaii bestows the voting privilege on its citizens at age 20.

If you satisfy the voting requirements in your state, you must register before you will be allowed to vote. Many states permit registration by absentee process and some will even register a qualified voter at the same time they accept a voted absentee ballot. In others, a voter must be registered before applying for a ballot. Your voting officer should be able to give you the requirements for your state.

Here are some pertinent points for would-be voters.

- If you are eligible to vote in your state, you should receive a Federal Post Card Application for Absentee Ballot (FPCA Standard Form 76, Rev. 1955) from your voting officer.

Personnel in the United States should have received their FPCA by 15 September. Overseas personnel usually receive theirs earlier.

- Your voting officer can give you the voting requirements for your state.

- Your ballot is secret. Nobody will attempt to influence your choice of a candidate. This is the law.

- The law requires your CO to make a statistical report on the number of personnel in his command of legal age to vote in general elections, the number who voted by absentee ballot and the number who voted at the polls.

These facts are included in a report to the President and the Congress. Collecting information for this report is, in no sense, an attempt to invade your voting privacy or determine for whom you cast your vote.

Voting officers who don't know all the answers to the questions you ask will find a list of helpful reference pamphlets and other useful information on the subject in BuPers Notice 1742 of 10 Jul 1962.

Plenty of Job Opportunities Found in Rating Structure

THE NAVY may have more job opportunities than you thought. On 1 Aug 1962, the Permanent Board for Review of the Enlisted Rating Structure compiled an up-to-date listing of Navy ratings. The total: 118. Of these, 64 are the General Ratings (GR) with which you

are probably familiar. Forty-three are Service Ratings (SR), which are specialties within General Ratings, and 11 are Emergency Ratings (ER) which are used only during wartime (see box at bottom of next page.)

Here's a rundown:

RATING GROUP AND TITLE	TYPE OF RATING	PAY GRADE	RATING GROUP AND TITLE	TYPE OF RATING	PAY GRADE
GROUP I — DECK			GROUP VII — ENGINEERING AND HULL		
Boatswain's Mate (BM)	GR	E-4 thru E-9	Machinist's Mate (MM)	GR	E-4 thru E-9
Quartermaster (QM)	GR	E-4 thru E-9	Engineman (EN)	GR	E-4 thru E-9
Signalman (SM)	GR	E-4 thru E-9	Machinery Repairman (MR)	GR	E-4 thru E-9
Radarman (RD)	GR	E-4 thru E-9	Boilerman (BT)	GR	E-4 thru E-9
Sonarman (SO)	GR	E-6 thru E-9	Boilermaker (BR)	GR	E-6 thru E-9
Sonarman G—Surface (SOG)	SR	E-4 and E-5	Electrician's Mate (EM)	GR	E-4 thru E-9
Sonarman S—Submarine (SOS)	SR	E-4 and E-5	Interior Communications Electrician (IC)	GR	E-4 thru E-9
Stevadore (ESB)	ER	E-4 thru E-9	Shipfitter (SF)	GR	E-6 thru E-9
Harbor Defense Sonarman (ESH)	ER	E-4 thru E-9	Shipfitter M—Metalsmith (SFM)	SR	E-4 and E-5
GROUP II — ORDNANCE			Shipfitter P—Pipefitter (SFP)	SR	E-4 and E-5
Torpedoman's Mate (TM)	GR	E-4 thru E-9	Damage Controlman (DC)	GR	E-4 thru E-9
Mineman (MN)	GR	E-4 thru E-9	Patternmaker (PM)	GR	E-4 thru E-9
Gunner's Mate (GM)	GR	E-8 and E-9	Molder (ML)	GR	E-4 thru E-9
Gunner's Mate G—Guns (GMG)	SR	E-4 thru E-7	Underwater Mechanic (ESM)	ER	E-4 thru E-9
Gunner's Mate M—Missiles (GMM)	SR	E-4 thru E-7	GROUP VIII — CONSTRUCTION		
Gunner's Mate T—Technician (GMT)	SR	E-4 thru E-7	Engineering Aid (EA)	GR	E-6 thru E-9
Fire Control Technician (FT)	GR	E-7 thru E-9	Engineering Aid D—Draftsman (EAD)	SR	E-4 and E-5
Fire Control Technician G—Gun			Engineering Aid S—Surveyor (EAS)	SR	E-4 and E-5
Fire Control (FTG)	SR	E-4 thru E-6	Construction Electrician (CE)	GR	E-6 thru E-9
Fire Control Technician M—Missile			Construction Electrician W—Wiring		
Fire Control (FTM)	SR	E-4 thru E-6	(CEW)	SR	E-4 and E-5
Missile Technician (MT)	GR	E-4 thru E-9	Construction Electrician P—Power (CEP)	SR	E-4 and E-5
GROUP III — ELECTRONICS			Construction Electrician T—Telephone		
Electronics Technician (ET)	GR	E-6 thru E-9	(CET)	SR	E-4 and E-5
Electronics Technician N—			Construction Electrician S—Shop (CES)	SR	E-4 and E-5
Communications (ETN)	SR	E-4 and E-5	Equipment Operator (EO)	GR	E-6 thru E-9
Electronics Technician R—Radar (ETR)	SR	E-4 and E-5	Equipment Operator H—Hauling (EOH)	SR	E-4 and E-5
Data Systems Technician (DS)	GR	E-4 thru E-9	Equipment Operator N—Construction		
GROUP IV — PRECISION EQUIPMENT			Equipment (EON)	SR	E-4 and E-5
Instrumentman (IM)	GR	E-4 thru E-9	Construction Mechanic (CM)	GR	E-6 thru E-9
Opticalman (OM)	GR	E-4 thru E-9	Construction Mechanic A—Auto-		
GROUP V — ADMINISTRATIVE AND CLERICAL			motive (CMA)	SR	E-4 and E-5
Radioman (RM)	GR	E-4 thru E-9	Construction Mechanic H—Con-		
Communications Technician (CT)	GR	E-4 thru E-9	struction (CMH)	SR	E-4 and E-5
Yeoman (YN)	GR	E-4 thru E-9	Builder (BU)	GR	E-6 thru E-9
Postal Clerk (PC)	GR	E-4 thru E-9	Builder L—Light (BUL)	SR	E-4 and E-5
Personnelman (PN)	GR	E-4 thru E-9	Builder H—Heavy (BUH)	SR	E-4 and E-5
Machine Accountant (MA)	GR	E-4 thru E-9	Builder R—Concrete (BUR)	SR	E-4 and E-5
Storekeeper (SK)	GR	E-4 thru E-9	Steelworker (SW)	GR	E-6 thru E-9
Disbursing Clerk (DK)	GR	E-4 thru E-9	Steelworker E—Erector (SWE)	SR	E-4 and E-5
Commissaryman (CS)	GR	E-4 thru E-9	Steelworker F—Fabricator (SWF)	SR	E-4 and E-5
Ship's Serviceman (SH)	GR	E-4 thru E-9	Utilities Man (UT)	GR	E-6 thru E-9
Journalist (JO)	GR	E-4 thru E-9	Utilities Man P—Plumber (UTP)	SR	E-4 and E-5
Physical Training Instructor (ESE)	ER	E-4 thru E-9	Utilities Man B—Boilerman (UTB)	SR	E-4 and E-5
Instructor—Miscellaneous (ESI)	ER	E-4 thru E-9	Utilities Man A—Air Conditioning (UTA)	SR	E-4 and E-5
Firefighter (ESF)	ER	E-4 thru E-9	Utilities Man W—Water and Sanita-		
Transportation Man (ESR)	ER	E-4 thru E-9	tion (UTW)	SR	E-4 and E-5
Chaplain's Assistant (ESC)	ER	E-4 thru E-9	GROUP IX — AVIATION		
Welfare and Recreation Leader (ESW)	ER	E-4 thru E-9	Aviation Machinist's Mate (AD)	GR	E-8 and E-9
Booker—Motion Picture Service (ESU)	ER	E-4 thru E-9	Aviation Machinist's Mate R—Recipro-		
Telecomm Censorship Technician (ESK)	ER	E-4 thru E-9	cating Engine Mechanic (ADR)	SR	E-4 thru E-7
GROUP VI — MISCELLANEOUS			Aviation Machinist's Mate J—Jet		
Lithographer (LI)	GR	E-4 thru E-9	Engine Mechanic (ADJ)	SR	E-4 thru E-7
Illustrator Draftsman (DM)	GR	E-4 thru E-9	Aviation Electronics Technician (AT)	GR	E-5 thru E-9
Musician (MU)	GR	E-4 thru E-9	Aviation Electronics Technician N—		
			Radio and Radio Navigation		
			Equipment (ATN)	SR	E-4 only

RATING GROUP AND TITLE	TYPE OF RATING	PAY GRADE	RATING GROUP AND TITLE	TYPE OF RATING	PAY GRADE
Aviation Electronics Technician R— Radar and Radar Navigation Equipment (ATR)	SR	E-4 only	Aviation Fire Control Technician F— Fire Control (AQF)	SR	E-4 only
Aviation Electronics Technician W— Airborne CIC Operator (ATW)	SR	E-4 only	Aviation Structural Mechanic (AM)	GR	E-8 and E-9
Aviation Ordnanceman (AO)	GR	E-4 thru E-9	Aviation Structural Mechanic S— Structures (AMS)	SR	E-4 thru E-7
Air Controlman (AC)	GR	E-4 thru E-9	Aviation Structural Mechanic H— Hydraulics (AMH)	SR	E-4 thru E-7
Aviation Electrician's Mate (AE)	GR	E-4 thru E-9	Aviation Structural Mechanic E— Safety Equipment (AME)	SR	E-4 thru E-7
Parachute Rigger (PR)	GR	E-4 thru E-9	Aviation Storekeeper (AK)	GR	E-4 thru E-9
Aerographer's Mate (AG)	GR	E-4 thru E-9	Photographer's Mate (PH)	GR	E-4 thru E-9
Tradevman (TD)	GR	E-4 thru E-9	Photographic Intelligenceman (PT)	GR	E-4 thru E-9
Aviation Boatswain's Mate (AB)	GR	E-8 and E-9	Aviation Antisubmarine Warfare Tech- nician (AX)	GR	E-4 thru E-9
Aviation Boatswain's Mate E— Launching and Recovery Equipment (ABE)	SR	E-4 thru E-7	GROUP X — MEDICAL		
Aviation Boatswain's Mate F— Fuels (ABF)	SR	E-4 thru E-7	Hospital Corpsman (HM)	GR	E-4 thru E-9
Aviation Boatswain's Mate H— Aircraft Handling (ABH)	SR	E-4 thru E-7	GROUP XI — DENTAL		
Aviation Fire Control Technician (AQ)	GR	E-5 thru E-9	Dental Technician (DT)	GR	E-4 thru E-9
Aviation Fire Control Technician B— Bomb Director (AQB)	SR	E-4 only	GROUP XII — STEWARD		
			Steward (SD)	GR	E-4 thru E-9

Radiological Defense Lab Recommends Safety Measures In Nuclear Blasts at Sea

The U.S. Naval Radiological Defense Laboratory (NRDL) at San Francisco, Calif., has made a series of studies to provide for radiological countermeasures and ship design modifications to prepare adequately for the possibility of nuclear attacks against the Navy.

The laboratory has also published some recommendations of particular interest to Navymen for minimizing personal injury from airblast, underwater shock and thermal radiation effects of nuclear detonations.

Here are NRDL's recommendations for personnel action.

In an airblast, topside personnel are in danger of being picked up and thrown around when the force of the blast reaches them. Below decks, personnel not only have this hazard but are also in greater danger of being hit by loose gear being hurled around.

If you are topside when an air blast occurs, close your eyes when you see the flash or see the sky light up. You should also cover your face with your hands.

Drop to the deck as quickly as possible and curl up. If you are in a gun mount or other crowded location where you can't curl up, crouch and bend your head down.

Two to five seconds after the flash, or after the heat sensation is over,

take your hands away from your face and grab any solid structure you can get your hands on to prevent being blown overboard or into the ship's structure by the blast winds.

A person may be blind for about 30 minutes after the blast but the chances of the eyes being seriously burned are small.

Everyone topside should study the physical setup of his GQ station and locate, in advance, the place which offers the maximum cover from thermal radiation.

Personnel both topside and below

decks are in danger of becoming missiles when there is an underwater blast. Shock force travels through the ship's structure and produces a rapid upward acceleration of the deck.

A man may only be thrown off balance. More likely, he will be hurled into a bulkhead or into the overhead if he doesn't take preventive measures.

The best way of avoiding injury from an underwater blast is to hang onto something solid, flex your knees and rest on the balls of your feet. Do not lie on the deck.

This Will Help Explain the How and Why of Navy Ratings

Why so many ratings in the enlisted structure? One reason—and a good one—is that the Navy needs a rating system which provides men who can handle many different job specialties during both wartime and peacetime. The increasing complexity of weapons and equipment and the large number of Reservists and one-hitch men on active duty are additional reasons.

The three classifications that make up the structure assure the Navy that ratings are available when needed.

- GR — General Ratings are for men qualified in all aspects of a general occupational field.

- SR — Service Ratings are seg-

ments of General Ratings which reflect qualification in a more limited area of an occupational field. Service Ratings provide specialists when they are needed. (Navy requirements during both wartime and peacetime dictate which General Ratings, and which pay grades, are further specialized into Service Ratings.)

- ER — Emergency Ratings are for men qualified in civilian skills which are normally needed only during wartime.

The *Manual of Qualifications for Advancement in Rating* (NavPers 18068-Revised) explains the rating structure in detail and describes all ratings and apprenticeships.

Navy Wives Can Help Budget and Small Fry As An Overseas Teacher

One of the first questions that occurs to many Navy parents when they get orders to an overseas shore station is: What kind of schools are available for the children?

This is rarely a problem, especially at shore stations where large numbers of dependents are concentrated. The Navy, for instance, operates 26 schools serving about 9100 dependents.

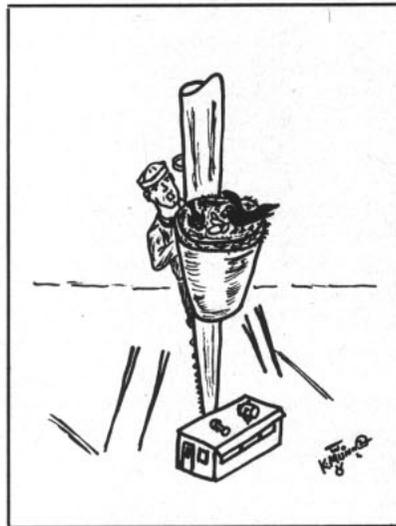
Bear in mind that these are the Navy operated schools only. When Navymen are located at an overseas station which is primarily under the control of the Army or Air Force, there are schools operated by those services.

To have a good school, there must be good teachers. The Navy has been fortunate, by and large, in obtaining well-trained and experienced teachers and administrators to staff its schools.

A large part of its success has been due to Navy wives who have been able and willing to teach in the schools while they were living on board the stations at which the schools were located.

There are definite advantages for Navy families in which the wife is a teacher. For instance, if your wife agrees to teach school upon arrival at an overseas station, there is a

All-Navy Cartoon Contest
William K. Munn, ENCS(SS), USN



"It really is!"

possibility that you and your wife will get concurrent travel—an advantage not extended to everybody.

There is also, of course, the extra income in the family to help you combat that chronic disease of most overseas families: going broke saving money.

If your wife has a bachelor's degree, her starting salary would be \$4435 per year. Teachers with a master's degree enter at \$4635. If the teacher has completed at least 30 semester hours of work beyond the master's degree, the beginning

salary is \$4735. Administrative personnel are paid on a yearly basis and are usually started at the GS-9 level (\$6435 per annum).

Teachers are civil service employees but their appointments are in the "excepted" category and, as such, their service cannot be applied toward attaining civil service career status.

The civilian teaching experience of the Navy Department school teacher averages eight years. However, if your wife meets the required qualifications, namely, has a bachelor's degree, two years of successful teaching and 18 semester hours' credit in professional education courses, her chances are good for favorable consideration for a teaching job at your overseas post provided, of course, there are jobs open there.

Listed below are the places at which Navy schools are located and the grades which they include.

The list of schools on this page is not intended to show the amount of instruction given at various posts at which the Navy has schools but, rather, to show what grades your wife could teach if she is interested in the job and the Navy is interested in having her as a teacher.

Your wife can get specific information about Navy-operated dependent schools and their teaching requirements by writing the Chief of Naval Personnel (Pers C17).

If you are coming up for an overseas tour and your wife has all the information she needs, she should obtain a Civil Service Form 57 from a post office or from the civilian personnel office at any government operation near you; fill it out including a resume of college credits and send it with your request for foreign shore duty.

Navy Jobs Are Available For Navy Wives, Daughters

Navy wives and daughters have always been interested in activities of the Navy, and the Navy has reciprocated this interest. Some Navy wives are associated with the service in volunteer work and many Navy wives with office experience or qualification are employed at naval installations on or near the duty stations of their husbands. This kind of working ar-

SCHOOL AND LOCATION	Elementary	High School
	Grades	Grades
Argentina, Newfoundland (Arthur L. Bristol School)	1-8	9-12
Guantanamo Bay, Cuba (William T. Sampson School)	1-8	9-12
Keflavik, Iceland (Alfred Thayer Mahan School)		
Iwakuni, Japan (Matthew C. Perry School)	1-8	9-12
Midway Island (George Cannon School)	1-8	9-12
Naples, Italy (Forrest Sherman School)	1-8	9-12
Port Lyautey, Morocco (Thomas Mack Wilhoite School)	1-8	9-12
Rota, Spain (David Glasgow Farragut School)	1-8	9-12
Sangley Point, Philippines (John Paul Jones School)	1-8	9-10
San Miguel, Philippines (Oliver Hazard Perry School)	1-8	None
Sasebo, Japan (Ernest J. King School)	1-8	9-12
Sidi Yahia, Morocco (Stanford C. Hooper School)	1-3	None
Sigonella, Sicily (Stephen Decatur School)	1-8	9-12
Subic Bay, Philippines (George Dewey School)	1-8	9-12
Tainan, Republic of China (Jonathan M. Wainwright School)	1-8	9-12
Ping Tung, Republic of China (Claire Lee Chenualt School)	1-8	
Tsoying, Republic of China (Stephen C. Luce School)	1-8	
Trinidad, the West Indies (Theodore G. Ellyson School)	1-8	
	Correspondence	Courses
Yokohama, Japan (Richard E. Byrd School)	1-8	None
Yokohama, Japan (Nile C. Kinnick, Jr., School)	1-8	9-12
Yokosuka, Japan (Daniel J. Callaghan School)	1-8	None
Yokosuka, Japan (The Sullivans School)	1-8	None

rangement is mutually beneficial to them and to the government.

At the present time there are jobs open, particularly in larger cities where there are numerous Navy activities. For example, chances are that vacancies may exist in your local Navy command for typists or stenographers. If the family situation permits, there's no good reason why your wife or, for that matter, any of her friends, shouldn't apply for a job under Civil Service.

The pay is good. Typists receive at least \$3500; stenographers' pay varies from \$3760 to \$4040 or more, depending on the job. An automatic \$105 within-grade salary increase is given for each year of satisfactory work and, for those who qualify, there are many opportunities for advancement. There's no reason why a reasonably bright girl—and your wife is certainly that, otherwise she wouldn't have married you—shouldn't advance to secretary or administrative assistant within a surprisingly short time. As you know, it is the Navy's policy to promote from within the organization.

In addition, she will be eligible for 13 workdays of vacation leave, eight workdays of paid holidays and 13 workdays of sick leave each year.

Applicants for typist positions must meet Civil Service Commission minimum age requirements; pass a written examination consisting of a general abilities test and a typing test at 40 words per minute. Applicants for stenographic positions must also pass a stenography test at 80 words per minute.

How to go about it? It's suggested that applicants inquire at the civilian personnel office at the nearest naval installation. You'll get the necessary information there. If you are coming to Washington and want advance information regarding positions in the Navy headquarters offices, write to DCPD-AO, Washington 25, D. C.

New Manual Explains Naval Officer Classification System

A new manual has been published by the Bureau of Naval Personnel entitled *The Naval Officer Classification System* (NavPers 18591).

It provides officer candidates, newly commissioned and Reserve officers with a general introduction to the Navy's officer classification

system with emphasis on its importance to the individual and to the Navy.

The booklet is divided into three parts. The first gives a general explanation of the classification system. Part Two explains the classifications which pertain to billet requirements and Part Three explains the classifications pertaining to officer qualifications.

The manual can be obtained upon request from the Naval Supply Center at Oakland, Calif., or in the East, Norfolk, Va.

Correspondence Courses Listed for Enlisted Men

Six new enlisted correspondence courses have been issued by the Bureau of Naval Personnel, and six enlisted courses have been discontinued.

Enlisted correspondence courses

for active duty Navymen will be administered, in most cases, by your local command. Your division officer will help you select the courses best suited to your rate and training program.

New Courses

Aviation Fire Control Technician 3
(NavPers 91633-1)
Electronics Technician 2, Vol I (NavPers 91374-2)

Electronics Technician 2, Vol II (NavPers 91375-1)

Journalist 1 & C (NavPers 91453)

Missile Technician 1 & C (NavPers 91361)

Shipfitter 3 & 2 (NavPers 91535-1)

Discontinued Courses

Aviation Fire Control Technician 3
(NavPers 91633)

Electronics Technician 2, Vol I (NavPers 91374-1B)

Electronics Technician 2, Vol II (NavPers 91375-C)

Shipfitter (M) 3 (NavPers 91533-1B)

Shipfitter (M) 2 (NavPers 91534-1B)

Shipfitter (P) 3 & 2 (NavPers 91539-1)

NOW HERE'S THIS

Space Missile Photographers

Almost everyone these days has watched a rocket blast off and soar into the wild blue yonder on a TV newscast. Frequently the rocket is followed by a camera's eye well beyond a distance ordinarily thought to be reasonable.

Some of the pictures are taken from the air.

Such a caper is no mean trick as the boys in Heavy Photographic Squadron 62 at Jacksonville will tell you.

They should know for they have been providing photographic coverage for the National Aeronautics and Space Administration (NASA) Project Mercury and Saturn Vehicle development. They were snapping pictures as Lieutenant Colonel John Glenn, USMC, was launched into orbit last February.

As the giant rockets are ignited, the Navy pilots maneuver their Skywarrior aircraft and adjust their flight path so as to pass very close to the vehicle as it streaks spaceward.

The pilot is like the matador at a bullfight—all that's missing is someone to yell olé.

Timing is extremely important because the photo jets must begin their approach toward the launch area from positions as far as 75 miles away.

As the rocket begins its climb toward

outer space, the Skywarrior crew members push the buttons and the cameras begin to snap and grind. On a typical test, as many as seven aerial cameras are working away.

As the rocket streaks past, the pilot jockeys his plane so as to get the longest possible series of pictures and then heads home where ground crews and photographer's mates are waiting to unload the cameras and process the films.

That's how you and NASA know what's going on upstairs. Get the picture?



Duty in Barbados Can Be Charming If You Go Well Prepared

BARBADOS is the easternmost of the West Indian Islands and is approximately 600 miles southeast of Puerto Rico and 175 miles northeast of Trinidad. There is a U. S. Naval Facility located there.

The island is 21 miles long and 14 miles wide at its broadest point. It is shaped very much like a pork chop (center cut), with the small end at the north. Not very many Navy families will find their way to this location. However, it can be considered as representative of island duty in a tropical or near tropical area. You should find it interesting.

Barbados is one of the most densely populated spots in the world. With an area of only 166 square miles it contains over 250,000 people. The majority of the population are of African origin.

Bridgetown, the capital and only city, is a seaport where the harbor police still wear uniforms like those of Nelson's sailors.

The climate is pleasant and varies little year round. The gentle trade winds blow year round at almost a constant speed, and the temperature seldom goes beyond the 75 to 85 limit. September and October are the hottest months, and November can generally be counted on to be the wettest month of the year. Barbados is in the breeding grounds of hurricanes, but rarely feels the effects of one.

Lightweight summer clothing, completely informal, is acceptable for men and women throughout the year. The British influence is prevalent, however, in that most clubs and hotels require coat and tie at evening meals and at after-dark functions.

The naval facility is located in the Parish of St. Lucy on the extreme northern end of the island. It is quite removed from all residential areas.

Entry Requirements — No passports are required of U. S. citizens who are staying on the island for less than six months. Proof of citizenship is all that is required. For U. S. military personnel and their dependents, identification cards and standard transfer orders or leave papers are all that are necessary.

Entry arrangements for military dependents must be made before their arrival. Entry approval must be

granted by Commandant, 10th Naval District.

Authorization for concurrent travel, if requested, will also be granted by the Commandant, when certification of availability of suitable housing accommodations is made by the naval facility. It is not usually necessary for the facility to make definite arrangements before your arrival. During the tourist season, however, from December to April, there is an acute shortage of suitable housing accommodations, and it may become necessary to make specific agreements with a landlord. When such is the case, the arrangements made locally will be binding on you.

Once housing is certified available, entry approval together with concurrent travel authorization will be granted.

Dependents must furnish evidence of having had immunization shots for smallpox, typhoid and tetanus. Although yellow fever immunization is not required, it is recommended that it be obtained before entry.

Customs — Personal effects are admitted duty-free, including household effects and automobiles. There is no export duty. Normal customs duties are 12 per cent of invoiced value on goods from British countries and 24 per cent on non-British.

Currency — British West Indies dollars, commonly called BWI (Bee Wee) dollars, are the currency of the island. Notes are in denominations of one, two, five, 10, 20, 50 and

100 dollars. The coins used are WI bronze two-cent pieces and silver five, 10, 25 and 50 cent pieces. Approximate rates of exchange are \$1.00 U. S. to \$1.60 BWI or \$1.00 BWI to 59 cents U. S. (These rates are for guidance only and may change.)

In Barbados, as in other overseas areas, Navymen and their dependents are being urged to restrict their spending to help reduce the flow of gold out of the United States. One way, for example, is to shop in the exchange, rather than the open market. Another, even better way, to help the nation's finances—and your own—is to increase the amount you save through a Freedom Bond allotment or an allotment to a Stateside savings account.

Language — English is the formal spoken language. The local people, however, speak with a distinct Bajan accent which is unique and charming. It is at times rather difficult, but not impossible, to understand.

Public Transportation — There is an island-wide bus service which is substandard in comparison to stateside transportation. There are few buses of modern design on the island which are acceptable. The buses cannot be relied upon for transportation, as there is very limited service that covers the area of the naval facility.

There are no railroads on the island.

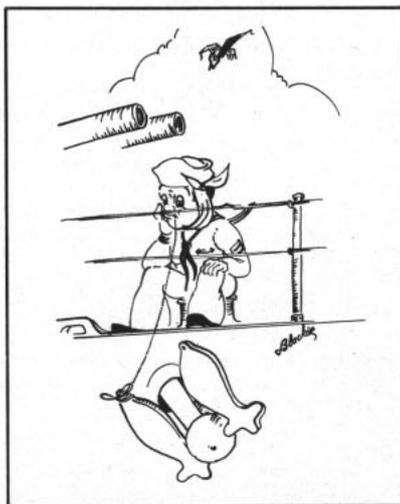
Cars, with or without chauffeurs, can be hired. Drive-yourself cars are obtainable for between \$42.50 and \$62.50 BWI per week. Gasoline costs 65 cents BWI per American gallon. Chauffeurs' wages range between \$12.00 and \$15.00 BWI weekly.

There is an island-wide taxi service, but its cost prohibits use as general transportation. A one-way trip from the facility to Bridgetown (18 miles) costs \$8.00 BWI.

There is no satisfactory public transportation to and from the usual residential areas and the facility.

Private Automobiles — A private car is almost a necessity on the island. This is due to the remoteness of the facility and the lack of suitable public transportation. American automobiles are allowed on the island. British and German automobiles are available locally and are very popular but expensive.

All-Navy Cartoon Contest
Emmet J. Geisler, YN1, USN



Used automobiles are rather expensive because the duty has already been paid by the previous owner and is considered part of the cost of the car. However, you may be able to arrange transportation in this manner.

Housing — There are no government quarters available for dependents at this time.

The quality of local housing is generally below U. S. Standards. Furnished housing is available, but you will find that electrical appliances are a welcome adjunct to living American fashion. Electricity is all 50-cycle AC current. This does not affect anything except electric timers and other appliances which run on synchronous electric motors. Phonographs can be altered and heating elements are not affected appreciably. Electric stoves, however, cause an expensive rise in the monthly electric bill. Propane gas is available and gas stoves are installed in most of the suitable houses.

There is no television.

Household Effects — Shipment of household effects can be arranged after area entry approval has been received. Experience has shown it generally takes two to three months to receive household effects or automobiles shipped from a stateside duty station.

Medical and Dental Facilities— There is no medical officer attached to the command. A sick bay is operated by a hospital corpsman, first class, to take care of the routine health and sanitation needs of the command. The local medical doctors and dentists have been employed to some extent and there are adequate facilities available for routine medical needs.

Schools—The local public schools are overcrowded and not up to the standards of stateside public schools. There are several private schools which allow a limited number of children to attend on a "first come—first served" space available basis. These schools are located on the other end of the island from the facility. A Navy school bus is operated for Navy dependent children.

Some families with children employ the Calvert Correspondence Courses (grades 1-8) and the University of California Extension Division Correspondence Courses

All-Navy Cartoon Contest
LTJG Thomas K. Dean, USNR



"... and you must be ol' marblehead."

(grades 9-12). Tutors can be hired for a nominal fee for the administration of these courses. Regardless of the method used, the cost is borne by the Navy.

Churches — There are Anglican churches in every parish, three Catholic churches and several Methodist churches, plus other denominations. Protestant services are conducted on the facility each Sunday by an American minister residing on the island. A Navy vehicle transports Catholic personnel to a nearby church each Sunday morning.

Food—There is a Navy Exchange commissary and retail store at the facility. The commissary receives shipments of fresh food every three weeks, including frozen pasteurized milk. Locally, foodstuffs are plentiful though expensive. Fresh vegetables will be brought to your door daily by local vendors.

Some of this produce will be unfamiliar, but is excellent when prepared the island way. The local markets also carry many U. S. brand foods.

Clothing — Lightweight summer clothing is recommended. Evening dress is optional for short-stay visitors, a must for winter residents who want to participate in social life.

Between January and April light summer clothing may be worn by ladies. The temperature never drops below 68 degrees F. in these winter months and seldom exceeds 88 degrees in the summer.

Wash-and-wear clothing is highly recommended. The dry cleaning

service on the island is satisfactory, but slow in comparison to stateside standards. Officer uniforms for work are tropical khaki or working white long, which is also acceptable during the evening in most instances. Service dress whites or dinner dress whites are worn to formal affairs. The dungaree uniform with blue cap is worn at work by enlisted men. For liberty, undress white uniform with neckerchief is worn. Civilian attire, appropriately worn, is optional.

Shopping — The Navy Exchange carries most articles required for daily living and takes special orders for items which are not in stock. The delay in receiving special orders is usually only two to four weeks. Local shopping is a real chore for a housewife on the island. Almost all of the shops and stores are located in Bridgetown. There are two well-stocked supermarkets, one in Speightstown, the other on the main street of Bridgetown. In addition to several department stores in Bridgetown, there are also several shops along the southwest coast. All in all, shopping is a matter of experience. There is virtually no item which cannot be found. It is just a matter of knowing where to go to find it.

Communication Facilities — There is an island-wide telephone service which is comparable to stateside service. The Barbados Telephone Company Ltd., has daily schedules for telephone calls to the States and elsewhere. There is also a cable and wireless office to handle telegrams. Incoming telegrams can be sent through Navy Radio Washington (NSS).

The postal address is: U. S. Naval Facility, Navy #505, c/o Fleet Post Office, New York, New York.

First class and air mail arrives from and departs to Fleet Post Office, New York. Parcel post arrives and departs at least once every three weeks.

Recreation—The pleasures of the island are similar to those of all such British outposts. Tennis is a great sport and is played by young and old alike. There is a nine-hole golf course in Hastings and one nearer the facility in the Parish of St. James. The sea is always pleasant for sunbathing and swimming. There is no surf fishing, but boats can be hired to go out by the day or week.

Snorkeling and skin-diving are excellent sports for the island. Cricket matches, water polo and tennis matches are about the only spectator sports.

In the evening, dancing is the national pastime. There are many night spots where excellent calypso music is played.

There is also a five-hole golf course on the facility, in addition to two archery ranges, a skeet range, a small-bore rifle and pistol range, a softball field and basketball, tennis, volleyball and shuffleboard courts.

The special services department also operates a hobby shop which includes complete ceramics facilities, leathercraft and a darkroom for photography enthusiasts. Personnel of ship's company have formed a thriving SCUBA Diving Club and are always eager to gain new members.

Equipment for all of the above activities is supplied by special services.

Pets—Barbados has no quarantine facilities at present. Dogs and cats can only be brought from the United Kingdom and certain British West Indian territories after permission has been obtained from the Director of Agriculture. Caged birds can be brought in from most countries. There are neither wild animals nor snakes. In the woods on the northern part of the island, monkeys may be seen now and then.

DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current AINavs 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. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes.

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

AINavs

No. 17—Revised the official tables of distances, and clarified the definition of "official distance," as used in *Joint Travel Regulations*.

No. 18—Discussed revision of per diem allowances for temporary duty of midshipmen.

All-Navy Cartoon Contest Larry D. Prier, AN, USN



"Jones!" . . . "Here!"

Instructions

No. 1133.13B—Provides information on career incentives to induce selected high quality personnel to make the Navy a career, and describes procedures for doing so through the STAR program.

No. 1440.27A—Discusses details of the revised Selective Conversion and Retention (SCORE) program.

No. 1630.3—Directs attention to the need to correct improper procedures in connection with expense claims for temporary shore patrol assignments, and to the need for taking appropriate action when such abuses have been committed.

No. 1130.4G—Provides instructions for enlistment in the Regular Navy or release to inactive duty of certain Naval Reserve personnel serving on active duty.

No. 1440.27A—Combines certain features of the STAR program and the rating adjustment program into a single rating conversion program which will be called the Selective Conversion and Retention (SCORE) program.

No. 1520.83A—Provides for reports from officers when, through voluntary off-duty study, a change occurs in either educational level or degrees earned, or in foreign language proficiency.

No. 1571.16B—Insures that all members of the Navy, Naval Reserve, applicants for enlistment and

inductees are provided information and guidance with respect to their reemployment rights upon return to civilian life.

Notices

No. 1440 (29 June)—Announced changes in the Navy enlisted rating structure which established the Aviation Antisubmarine Warfare Technician (AX) rating and outlined procedures for a change in general and service ratings of active and inactive duty personnel to conform to the revised rating structure.

No. 5802 (22 June)—Provided information concerning the naturalization of aliens and the right to immediate naturalization of alien wives and alien adopted children of citizen members assigned to duty abroad.

No. 1650 (25 June)—Announced the establishment of a Naval Reserve Meritorious Service Ribbon.

No. 1430 (26 June)—Provided information regarding advancements resulting from the February 1962 Navy-wide examinations.

No. 1742 (10 July)—Provided information concerning the Navy's absentee voting assistance program and directed attention to the citizenship and voting responsibilities of naval personnel in the 1962 elections.

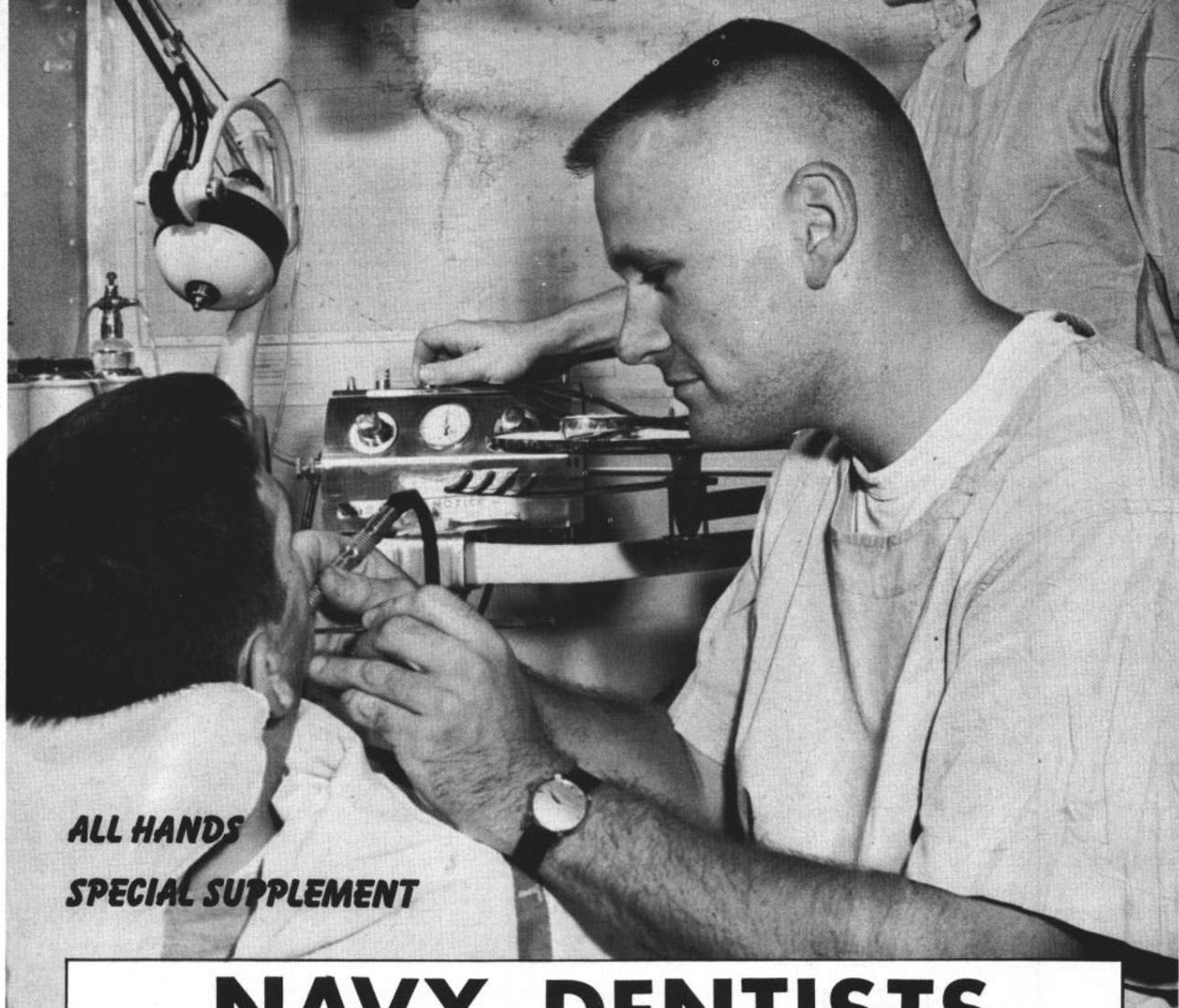
No. 1650 (24 July)—Announced award of the Navy Unit Commendation to Task Group 43.2, and furnished instructions concerning the method of distribution to eligible personnel.

No. 1520 (25 July)—Announced the selection of officers for the submarine class which convened 24 September at the Submarine School, New London, Conn.

No. 1221 (31 July)—Alerted all commands to the August distribution of the revised *Manual of Navy Enlisted Classifications* (NavPers 15105C) and called attention to changes contained.

No. 1020 (7 August)—Implemented recently approved changes to U. S. Navy uniform regulations.

No. 1300 (7 August)—Announced revised procedures for reporting the number and location of Navy military dependents residing outside the continental United States.



**ALL HANDS
SPECIAL SUPPLEMENT**

NAVY DENTISTS Half a Century of Service

The following report is adapted from a lecture on the "History of Naval Dentistry" given by Rear Admiral R. W. Taylor, DC, USN, which was also published in more complete form in the Journal of the American College of Dentists, pp. 195-208, Sept. 1959, Vol. 26, No. 3.

SOME 50 YEARS AGO, the Secretary of the Navy was authorized by Congress to "appoint not more than 30 acting assistant dental surgeons to be a part of the Medical Department of the U. S. Navy." Rarely has the Navy, or the nation, received a better bargain. Since that time, dental officers have been saying "Open wider please," filling cavities, and extracting aching molars and incisors to the mutual satisfaction of all concerned.

It wasn't always that simple. For many years in the early days of the Navy, the powers that be were firmly convinced that dental care for Navymen was simply another useless and expensive gadget. If any dental work was *really* needed, the ship's surgeon was sufficiently qualified to handle it. If he wasn't, he could learn.

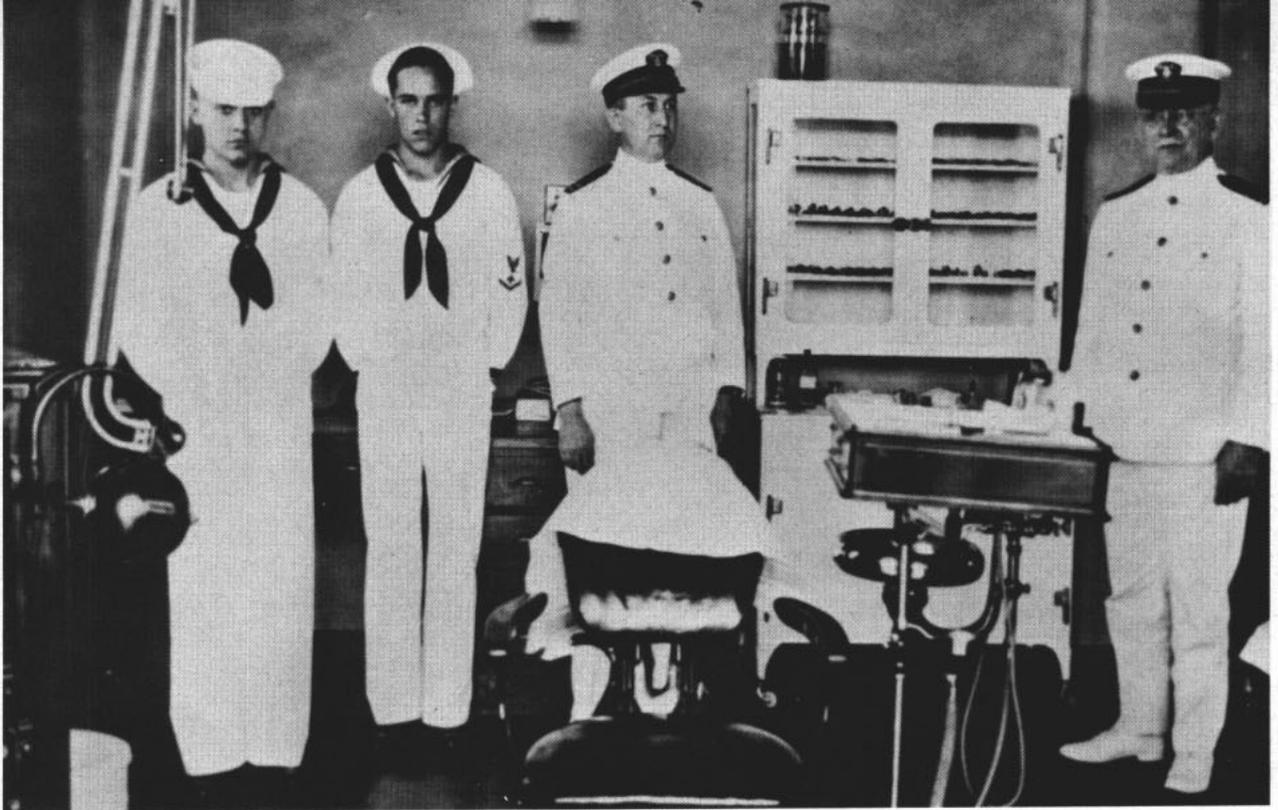
At that time, each ship acted more or less independ-

ently under a roving commission, and there was no formal medical department in either individual ships or the Navy as a whole. It was left to each commanding officer to find his own medical personnel which, under the most favorable circumstances, might possibly include a ship's surgeon, surgeon's mate, and loblolly boy.

WITHIN THE FIRST FEW DECADES after establishment of the Navy, Congress authorized the appointment and commissioning of medical officers in the same manner as other officers, and permitted their assignment to ships and naval stations. It was not until 26 Feb 1811 that naval hospitals were authorized, although one had been established in Sicily in 1806, and another in New Orleans in 1810.

As might be expected, little attention was given to the dental problems of naval personnel throughout this period. Any measures taken for the relief of dental pain stemmed from such knowledge that the medical practitioners may have inadvertently accumulated.

It was not until about 1845 that the first advocate of military dentistry appeared in the person of Dr. Edward Maynard, a practicing dentist of Washington,



OLD-TIMERS — Dental officers and enlisted helpers pose by their equipment back in 1925.

D. C. Although reaction to Dr. Maynard's proposals was on the apathetic side, he did obtain the support of President Fillmore.

Neither the Secretaries of War or Navy were enthusiastic and ensuing correspondence between the Secretary of the Navy and his Chief of the Bureau of Medicine and Surgery eight years later would indicate that both were still more interested in finding obstacles to the proposal than in impartially weighing the possibilities.

During the Civil War, there was still a lack of formal provisions for dentistry in the Navy, although a limited number of hospital stewards with varying degrees of training in dentistry were enlisted to provide dental care. However, these men did not usually remain in the

SCHOOL DAYS — Dental technicians learn how to repair equipment at the Naval Dental School.



service beyond their original enlistments because of the lack of opportunities for training and advancement.

THE EARLIEST APPROPRIATION in the Navy which was intended specifically for dental care was authorized by Congress in 1880. At that time, \$1600 was allotted for the employment of a civilian dentist at the Naval Academy.

This, obviously, was not adequate. The Secretary of the Navy, in 1902, cited many pathetic instances of suffering and even death in two cases owing to a lack of dental treatment and, as a result, the first bill for contract dental surgeons was introduced, but not considered by Congress. Although authority had not been granted to appoint such contract dentists, in 1904 Dr. E. E. Harris became the first graduate of a dental school to be enlisted as a hospital steward. Dentists in this category, who received grossly inadequate pay, in many instances enlisted for travel opportunities without any intention of shipping over after their first enlistment expired.

A picture of the status of dental care as it existed in the Navy four years before the establishment of the Dental Corps in 1912, was described by Dr. Richard Grady, who was then the Naval Academy dentist, in a lecture:

"Government ships are provided with dental cases which are used by the surgeons and hospital stewards, some of whom have taken courses in dentistry. There is no room on ships for dental work, or for chair, cabinet or engine. If located in or near the sick-bay, the dentist could work on bright days only. As to living quarters there might be trouble."

AS A CULMINATION of the many previous recommendations and actions, President Taft signed an Act of Congress on 22 Aug 1912, which authorized

the appointment of not more than 30 assistant dental surgeons to be part of the Medical Department of the Navy. Officers so appointed were limited to the relative rank of lieutenant (junior grade). The Act also authorized the Secretary of the Navy to appoint acting dental surgeons for temporary service, provided that the total strength of the Dental Corps did not exceed the proportion of one to each 1000 of the authorized enlisted strength of the Navy and Marine Corps.

Within five years of its inception, and before the Dental Corps reached maturity, World War I required rapid expansion of the Corps from its 30 dental officers at the outbreak of hostilities to a peak of over 500 in 1918.

The Corps was in the thick of things. The first commissioned officer of the United States Navy to meet his death in land fighting overseas was Lieutenant (junior grade) Weeden E. Osborne, DC, USN. He was killed in action on 6 Jun 1918 near Bois de Belleau, France, while attempting to rescue a wounded man. He was honored posthumously through the award of the Medal of Honor and the Distinguished Service Cross. Later, the destroyer USS *Osborne* (DD 295) was named in his honor.

THE DENTAL CORPS grew rapidly in the decade following World War I. The Surgeon General, in 1919, attested to the great value of the work accomplished by the Corps when he said: "Few remedial measures of recent years have given more satisfaction to enlisted men than the establishment of this Corps."

During the following year, previous restrictions were removed and dental officers were authorized to render prosthetic treatment. Soon thereafter, dental prosthetic laboratories were established in some of the ships and at the larger shore facilities.

It became increasingly apparent that, if a high level of dental service were to be maintained, some means must be provided for dental officers to keep abreast of advances in the theory and practice of dentistry. This need was first met through the establishment, in 1923, of the Naval Dental School as a department of the U. S. Naval Medical School in Washington, D. C. The Dental School provided postgraduate training for dental officers and trained enlisted personnel of the Hospital Corpsman rating to serve as dental assistants.



TODAY — U. S. Naval Dental School is housed in this building at National Naval Medical Center.

In 1923, a Dental Division was established, within the Bureau of Medicine and Surgery, with a dental officer in charge.

THE SURGEON GENERAL'S report of 1924 noted that "Today it is generally recognized that dental service is an important factor in the conservation of bodily health and that the physical and mental well-being of an individual are in a decidedly large degree dependent upon a healthy condition of the mouth."

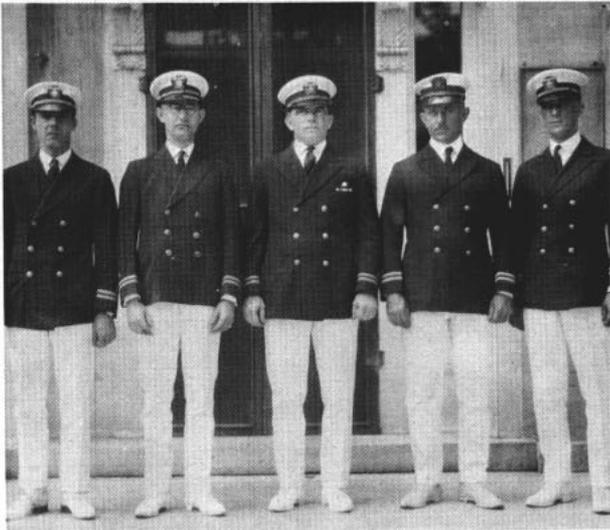
This is in decided contrast with the views of the Surgeon General of 1853 who felt that all that was essential to the dental health and comfort of the sailor was then understood and practiced by the medical officer.

The benefits of dental care were accompanied by greatly increased demands for this health service, but it was not until 22 Jul 1935, that an Act of Congress authorized the long needed relief. The Act provided for the appointment of dental officers in the ratio of one for each 500 of the actual number of officers and enlisted men of the Navy and Marine Corps. The immediate effect of the Act was to increase the number of dental officers from 186 to 234 officers.

World War II brought about the greatest expansion the Dental Corps was to experience. On 7 Dec 1941, there were 369 Reserve and 390 Regular dental officers

BACK THEN — Navy dentist gives instructions in oral hygiene to recruits at Hampton Roads, Va., in 1918.





FIRST CLASS at the Naval Dental School poses for



photo in 1923. *Rt:* The school looked like this then.

on active duty at 347 dental activities. At the end of the war, the Corps had expanded to more than 7000 dental officers, assisted by more than 10,000 technicians, operating at 1554 dental activities.

As in World War I, the Corps paid a price. During the war, 21 dental officers were killed, 16 wounded in action and 14 became prisoners of war. Also as in World War I, many honors were earned. These ranged from the Purple Heart to the naming of three escort vessels, *uss Crowley* (DE 303), *Tatum* (DE 789) and *O'Reilly* (DE 330) after Dental Corps officers killed during the war.

DURING WORLD WAR II, approximately 30 million "restorations" were inserted, 4.2 million teeth were extracted, 8.2 thousand fractures were reduced, a half-million dentures and bridges were constructed, and eleven hundred ocular prostheses made. At many stations it was necessary to operate on a shift system to make maximum use of the available dental facilities.

The year 1943 has particular significance to the Dental Corps from a professional standpoint. Early in World War II, it was found that bad teeth were the cause of a large number of rejections of potential Navy-men. This situation forced the almost complete elimination of dental standards for enlisted personnel and resulted in an overwhelming increase in the requirements for dental care. No provision was made for a compensatory increase in the number of dental officers to cope with the tremendous workload which ensued.

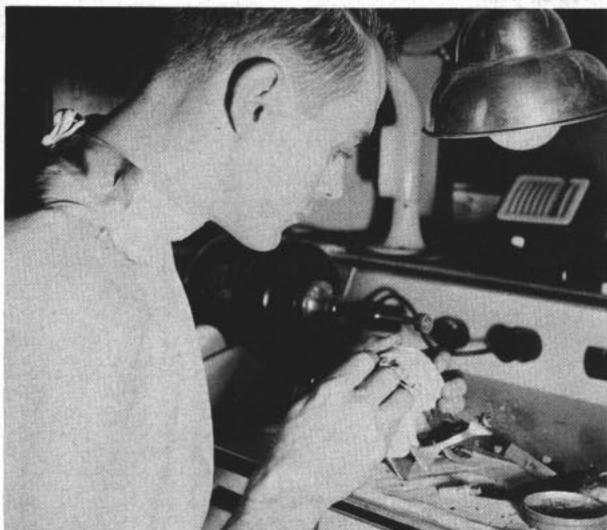
The dental functions in the Bureau of Medicine and Surgery were completely reorganized in 1945 and an office of Assistant Chief of the Bureau for Dentistry was established and an officer of the Dental Corps, in the grade of rear admiral, was detailed as the Chief of the Dental Division.

The greatest professional requirement of Navy dental officers is to render treatment in general dentistry. Training in this field is provided through rotating intern-

TENTING — Marine patient is attended to in 'jungle office' during WW II. *Rt:* Tent serves as dental clinic in '44.



ALL HANDS



DENTURES for the Fleet are prepared in prosthetics laboratories ashore and on some larger ships.

ships, postgraduate courses at the U. S. Naval Dental School, and various short postgraduate courses.

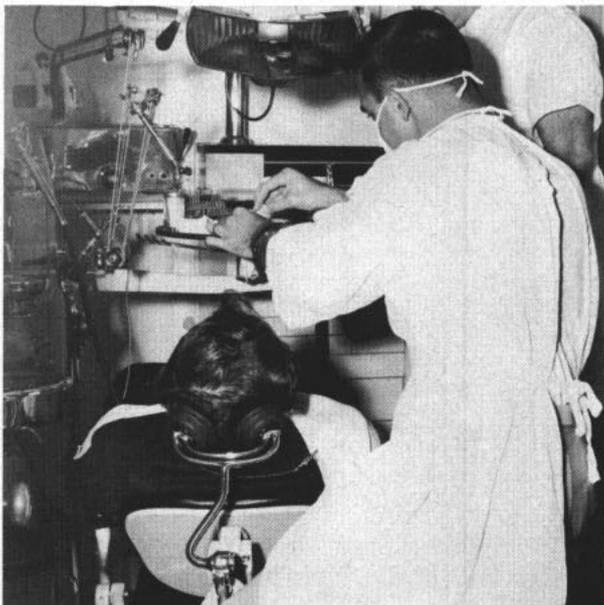
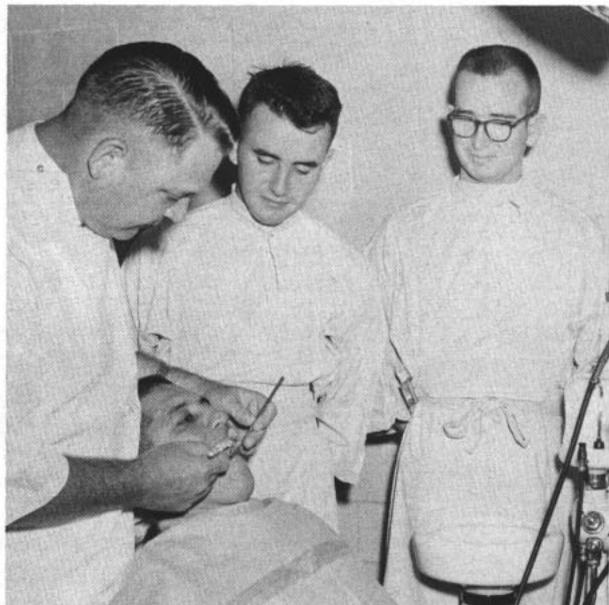
Basic training of enlisted personnel to assist dental officers in dental operating room and prosthetic laboratory procedures is offered through courses conducted at the U. S. Naval Training Center, San Diego, Calif. Advanced training for general and prosthetic dental technicians is provided at the U. S. Naval Dental School, Bethesda, Md. This school also trains dental technicians in procedures for the repair and maintenance of dental equipment.

IT IS DIFFICULT to say exactly when dental research began in the Navy because, in the early days of the Dental Corps, the occasional clinical investigations which were conducted were carried on without formal authorization. However, in 1942, the Research Division was established in the Bureau of Medicine and Surgery, Washington, D. C. Since then, there has been a constant pursuit of dental investigations within the Navy.

The latest major problem in naval dental treatment came when the Dependents' Medical Care Act, Public Law 569, became effective on 6 Dec 1956. On that date approximately 130,000 Navy dependents overseas and in remote areas of the United States were made eligible for routine dental care. Thus, for the second time in its history, the dental clinics became deluged with demands for dental care without authority for increases in dental personnel. In spite of these difficulties, approximately eight million diagnostic and treatment procedures were furnished at 450 dental facilities ashore and afloat in the first year of the program.

The early goals, which focused on the establishment and administration of a high type of Navy-wide dental service, have been achieved. They are now a part of the history of the Naval Dental Corps. However, the Dental Corps is still working to improve the caliber of dental care for service personnel and their dependents, and to contribute its share to the progressive improvement of dentistry and the dental profession.

AT WORK — Dentist demonstrates correct procedures. **Rt:** Ship's dental clinic takes care of crew member.



ENLISTED MEN SERVING with NARTU (Naval Air Reserve Training Unit) at Lakehurst, N. J., have come up with a corking good way of honoring a retiring shipmate. It's a vast improvement, we feel, over the what's-the-hurry-here's-your-hat brush-off all too frequently accorded retiring Navymen these days.

At Lakehurst recently Aviation Machinist's Mate first class Henry P. Hofstetter was called front and center before the ranks of his shipmates upon the occasion of his transfer to the Fleet Reserve and presented an American flag—"A flag you have served so honorably throughout your naval career," Hofstetter's skipper, CAPT F. M. Duffy, usn, told him.

Hofstetter's fellow crew members got together to purchase the flag, and are hopeful that their idea will merit serious consideration Navy-wide.

★ ★ ★

FOR THOSE OF US who shed a few salty tears when the Navy decommissioned the last of its blimps, this brings back the nostalgia. Not long ago a one-man, hot-air balloon was tested before officials of the Pacific Missile Range at Point Mugu, Calif., and the test pilot for the balloon pronounced the flight "an unqualified success." Earlier, he had demonstrated the balloon, developed by private industry, to a group of scientists and engineers at China Lake, Calif. One never knows. Free-ballooning stirs up interest, even in the atomic era.

★ ★ ★

Robert E. Chilson, SA, a student at Instrumentman "A" school at Great Lakes, is a pro on the go. He commutes on week-ends between Great Lakes and the Milwaukee USO and believes getting there is half the fun, especially by his mode of transportation—a bicycle.

He rides an Italian-made bike with twice as many gears as a five-gear sports car. The 20-pound bike has other features, including adjustable racing handlebars, flick-of-the-wrist drop-off wheels, and specially designed metallic racing sandals on the pedals.

In Florida, his home state, he placed second in two state championship races. He hopes eventually to qualify for the Olympics.

★ ★ ★

When the operations officer at NAS Cubi Point, P. I., received a message saying "Sinatra and Rogers to arrive Cubi Point," he called photographers and arranged transportation. The public information officer came back from leave.

Newspapers had said Frank Sinatra and Jimmie Rogers were on a Far East tour, and the PIO had preparations complete before the 1:45 p.m. arrival time. The plane had to return to Iwakuni, Japan, but the flight was rescheduled to arrive two days later. In the meantime a more complete message said, "Marine Corporals Sinatra and Rogers due to arrive Cubi."

As it turned out, the celebrities were Martin P. Sinatra and Robert H. Rogers, both Marine corporals attached to the staff of COMCARDIV 5 aboard USS *Coral Sea* (CVA 43), and not even distant relatives of the famous singers.

The All Hands Staff

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 in 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 techniques 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 keystones of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

ALL HANDS The Bureau of Naval Personnel Information Bulletin is published monthly by the Bureau of Naval Personnel for the information and interest of the naval service as a whole. The issuance of this publication was approved by the Secretary of the Navy on 27 June 1961. Opinions expressed are not necessarily those of the Navy Department. Reference to regulations, orders and directives is for information only and does not by publication herein constitute authority for action. All original material may be reprinted as desired if proper credit is given **ALL HANDS**. Original articles of general interest may be forwarded to the Editor.

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

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• AT RIGHT: BEHIND THE ATOM—
Machinist's Mate Third Class
Darrell G. Guidry, USN, applies his technical training as part of the team of Navymen that keep our nuclear-powered ships on the go in defense of the nation.





SERVICE

With A Smile

