

# ALL HANDS

THE BUREAU OF NAVAL PERSONNEL AND THE NAVAL PUBLICATIONS SERVICE



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# ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

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● FRONT COVER: AND AWAY WE GO — Happy sailors of carrier USS *Franklin D. Roosevelt* (CVA 42) descend ship's ladder to liberty launch and good times ashore in Rio.

● AT LEFT: WIDE-AWAKE—USS *Forrestal* (CVA 59) cuts a wide wake as she steams through the sea. The mighty carrier is now pulling duty with the Sixth Fleet in the Mediterranean.

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# Readying Crews for Atomic Subs

**A** HANDFUL OF U. S. NAVYMEN who will sail tomorrow's nuclear Fleet are learning the tricks of their trade today in one of the world's most unique training programs.

The center of this activity is one where you would least expect to find seafaring men. It's the Atomic Energy Commission's Naval Reactor Facility, located within the AEC's 440,000-acre National Reactor Testing Station at Arco in the desolate, butte-studded desert of southeastern Idaho.

This facility, 600 miles from the ocean and 60 miles from the nearest town, is the training center for the officers and enlisted men who will operate the prototypes, as well as the actual engineering plants, of the Navy's present and future nuclear powered submarines and surface ships.

It is here that the world's first practical nuclear power plant was built and tested. Designated S1W,

this was a full scale working model of the reactor that today propels USS *Nautilus* (SS(N) 571).

Today, this same reactor is being used for advanced testing and as a classroom for Navy and civilian trainees.

As a test facility, it is used to check advanced design equipment, as a prototype for current nuclear projects, and as a means of obtaining data for the Navy's dream ships of tomorrow.

As a classroom, it's a weirdy. You'll never see another like it. In effect, it consists of two hull sections of a submarine built to the exact size and dimensions of *Nautilus*.

Even in the middle of the desert, a sub would not be complete without an ocean, so S1W has its own. It is a 50-foot wide, 40-foot deep "sea tank" that holds some 385,000 gallons of water. The tank surrounds the reactor compartment of the "sub's" hull section to simulate sea

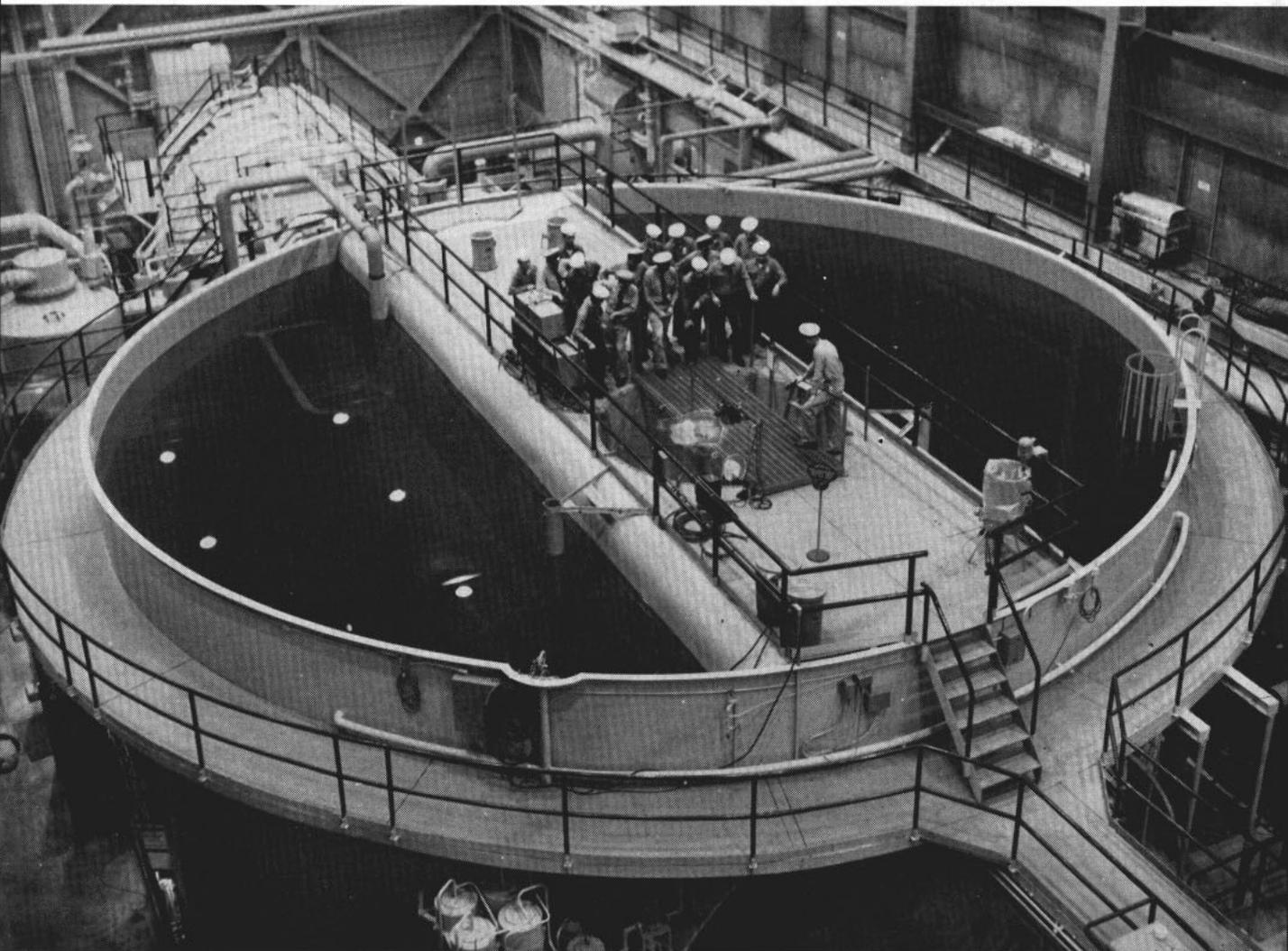
condition. The engine room extends beyond the tank and the propeller shaft ends in a "water brake" instead of a propeller, so that the engine has something to work against. All that is lacking to lend reality are barnacles and watermelon rinds.

The radioactive portion of the plant—the hot uranium furnace and heat exchanger in which the steam is generated—is located in the reactor compartment. The engine room proper holds the balance of the propulsion equipment, such as turbines, condensers, gears and motors.

This hull, with its maze of pipes, wires, motors, valves and complicated instrumentation, is the campus of Arco U.

Here, the Navy students get on-the-job training. They work side by side with scientists and engineers, nuclear experts from the AEC, and technicians from the Bureau of Ships. The students are training for eventual duty aboard one of the

**ON TOP** of prototype of USS *Nautilus* students study its reactor compartment. Surrounding sea tank adds realism.



# and Ships

many nuclear powered ships now in commission, under construction or on the drawing board. (In addition, they are accompanied by some civilian trainees who will use the technology and experience gained on the submarine prototype to operate the nation's first civilian power plant now being built. It is scheduled for completion later this year.)

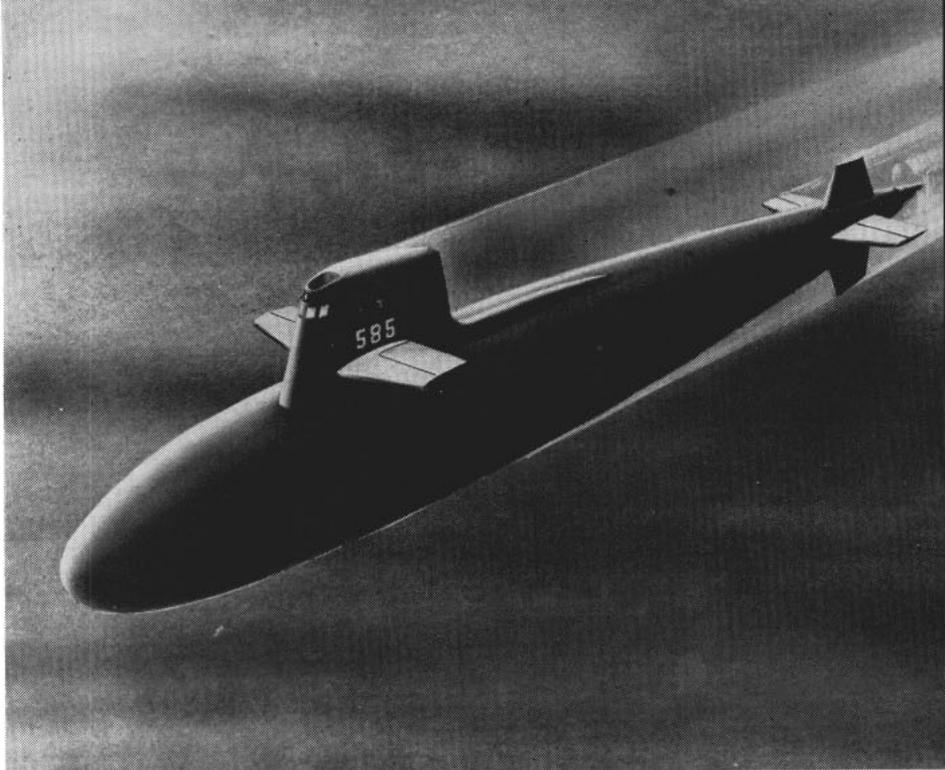
**L**ET'S ASSUME THAT you are one of the bright young Navymen who who has decided to make nuclear power your specialty. Your application has been approved. Career-wise, the sky is the limit, but what does the immediate future hold for you? What is Arco U like?

You won't find out by personal observation for some little time. Before you report for operational training, you must have completed 21 weeks of academic study at either the submarine or surface basic nuclear power schools. The basic submarine course is conducted at the U. S. Naval Submarine Base, New London, Conn. (See ALL HANDS, April 1956.) Surface ship trainees receive their basic schooling at the Naval Nuclear Power Training Unit, located within the grounds of the Naval Reactor Facility at Arco. (See page 7).

The surface trainees are using the S1W reactor only as a temporary measure. As soon as the land prototype of the nuclear powered surface ship—to be known as A1W—is completed, the surface lads will move to their own "campus." It will be a full scale working model, similar to the S1W prototype of *Nautilus*. It is being constructed near the basic surface school at the present S1W site and it is expected that some men will commence training in it within the next few months.

No matter what your rank or rate, you will be assigned to one of four operation shift crews as soon as you start your schooling. Each crew will work and study together for at least six months. Although in a training capacity, you and the other members of your crew will actually operate the plant and be responsible for its safety.

Your crew will be headed by an OOD, known here by the lubberly term "shift supervisor." He will be assisted by the Engineering Officer



**FLYING A SUB**—Bow diving planes of Navy's newest nuclear submarine *USS Skipjack, SS(N)585*, now being built will be on the conning tower.

of the Watch, but here he will be called a "chief operator." He may be an officer, enlisted man or a civilian representative of the company which built the reactor. He is responsible for the safe and proper operation of the plant.

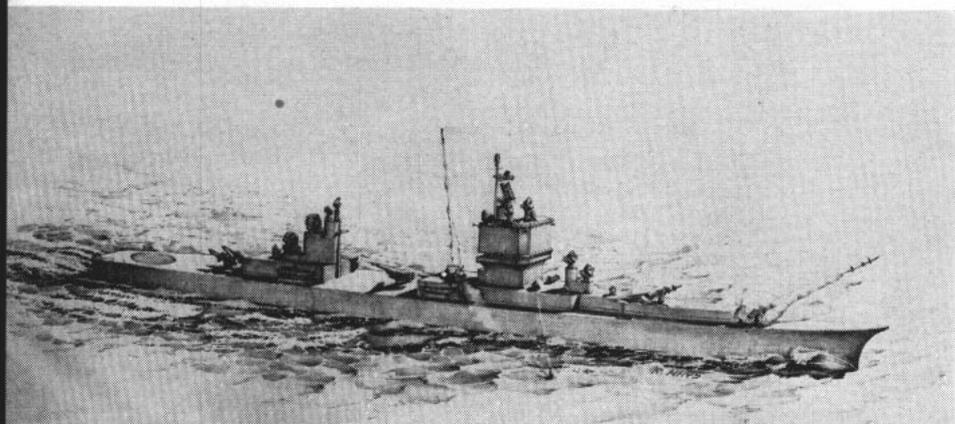
Also assigned to each crew are a reactor engineer and a training engineer. The RE is in charge of the reactor or atomic furnace during

start-ups, shut-downs and critical operations. (To go "critical" is a bit of technical jargon which means that the plant is actually operating under nuclear power.) The TE is responsible for the proper instruction, training and qualification of all trainees assigned to his crew.

In addition to the trainees each crew has a number of qualified enlisted operators assigned. The roster

**A-STUDENTS**—J. N. Robertson, HM1, USN, takes radiation survey as LCDR D.P. Brooks prospective nuclear sub-skipper leaves lower reactor compartment.





**WHEN NUCLEAR** powered guided missile cruiser, *USS Long Beach*, hits the water, surface trainees at Arco U will have the know-how to man her reactor.

usually includes one ET or IC who is designated as a Reactor Technician; several EMs, one of whom is a reactor compartment operator, and another, the operator of the electrical section of the power panel; and several EN or MMs. They are the upper engine room, lower engine room, and over-all engine room operators. One of them is in charge of both the reactor and engine room compartments.

The crews work in shifts, around the clock, seven days a week. The shifts are rotated every seven days so students and instructor each get an equal share of day and night

work. One crew will work the 0800-1600 shift for seven days and then have four days off. On the fifth day, it takes over the 2400-0800 shift for seven days, then has two days free. On the third day, it takes over the 1600-2400 shift for a week. They get a one-day break before they begin the 0800-1600 routine again.

By keeping the plant in operation 24 hours a day, seven days a week, training continues without any interruption. During a normal eight-hour shift, each trainee receives one hour of lectures or classroom training; four hours of watch standing (usually under instruction) at any one of

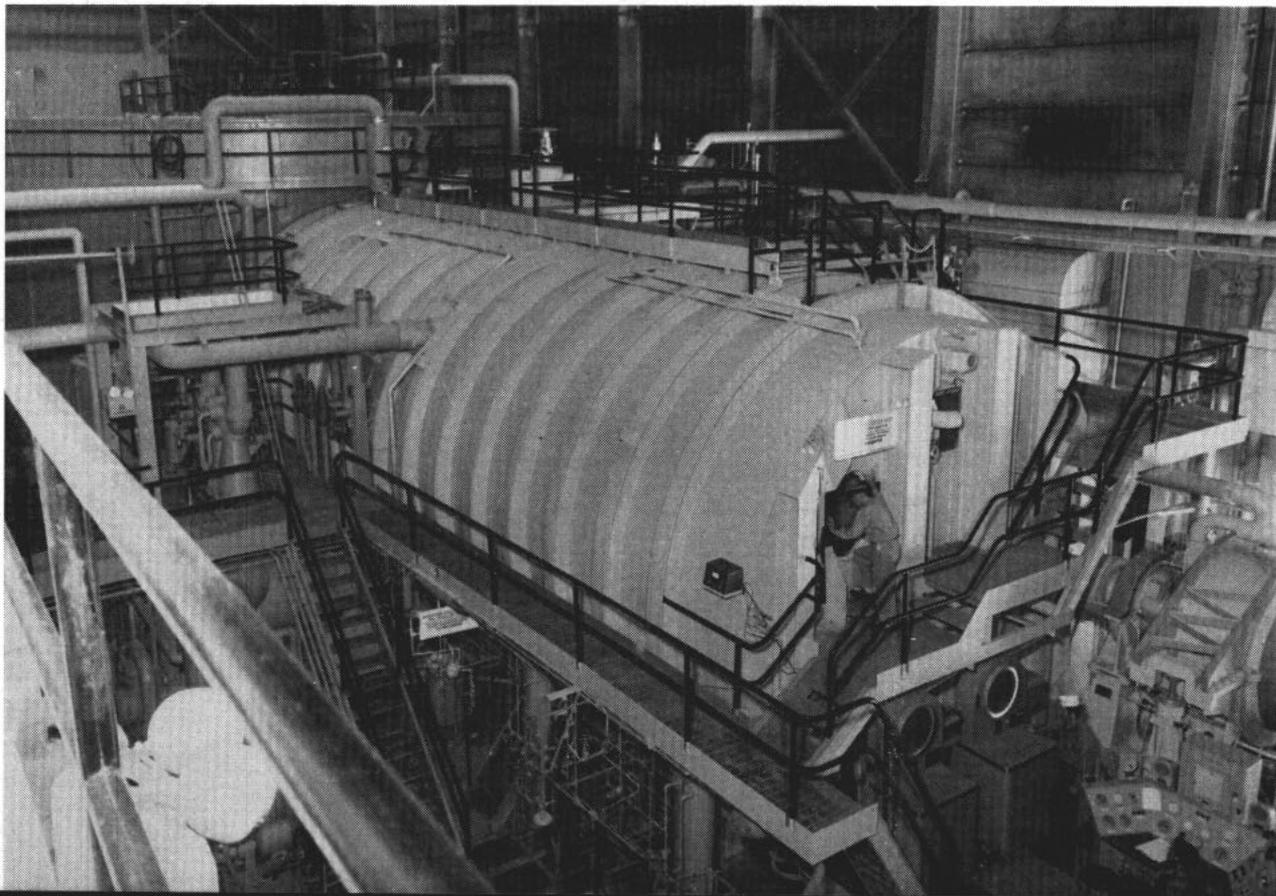
the 13 watch stations; and three hours of on-the-job maintenance training, tracing systems, learning the operation of valves, and similar duties.

While undergoing training, all students—officers, enlisted men and civilians—are treated alike. There's no pulling rank or rate among students or instructors. You'll find chiefs and first class petty officers in charge of operational training crews that include a number of officers. It's not unusual to see an officer and enlisted man, their sleeves rolled up, sweating and covered with grease, struggling with a difficult situation. Or you'll see a small group off in a quiet corner boning up on a text book or helping each other trace down a difficult electrical or piping system.

During the six month's on-the-job training, each student is expected to become a qualified nuclear power operator, acquire firsthand experience and a background adaptable to the engineering plants of nuclear powered ships. In addition, he must qualify for the specific duties of his rate as well as obtain a familiarity with his allied ratings.

Before you start to qualify, you will be given extensive lectures concerning the S1W site, the hull and floor systems. These lectures, com-

**HULL OF A SCHOOL**—Inside S1W are the classrooms of Arco U. Here, student enters 'ship' aft of sea tank.



bined with the basic academic background received earlier, give you an understanding and a sense of familiarity of the entire plant operation before you start working with it.

In addition, you will be given a 130-page manual, *The Naval Reactor Facility S1W Operator Training Guide*, when you start your training. This is your "bible." You had better believe every word of it and follow it step by step if you have any hopes of satisfactorily completing the qualifications within your six months' course.

In addition to the operating crew described above, the school has 15 enlisted instructors who are assigned to five three-man shifts. Each instructor crew consists of one EM, one ET or IC and one EN or MM. One member of each of the five instructor crews formerly served on board *Nautilus*. The others are former students who excelled during training and were retained for duty as instructors.

Commanding officer of the Navy's Nuclear Power Training Unit is LCDR E. W. Cooke, USN, a veteran submariner. Although in command of the unit, he's not the senior ranking naval officer assigned to the Naval Reactor Facility.

The Facility is but one of the many testing sites located within the AEC's sprawling 440,000-acre National Reactor Testing Station.

What sort of men will you be working with? You'll find that, although they are the cream of the crop, they are also typical Navy career men.

Take, for example LTJG David A. Phoenix, USN, who is responsible for coordinating training at the S1W site. An ex-enlisted man with more than 12 years' service, LTJG Phoenix first came to the Naval Reactor Facility as an EN1 in 1953 as a member of *Nautilus*' pre-commissioning detail.

Shortly after *Nautilus* went into commission, Engineman Phoenix was selected for Officer Candidate School. When he received his commission, he was assigned to *uss Odax* (SS 484) where he requalified in submarines as an officer, before returning to Idaho in April '56.

Mr. Phoenix's assistant and right hand man to the skipper is Chief Engineman "JC" Kerr, USN, a veteran submariner who was one of the first 12 enlisted men selected for the Navy's nuclear program.



DIAL A FOR ATOMIC—Inside A-Sub prototype students study maze of dials, wiring and special gear. Below: Student is taught analysis of secondary water.

Chief Kerr, as the senior enlisted man at NNPTU, carries the title of "Chief of the Boat." As such, he has all the responsibility that goes with the tab. He's the undisputed boss, voice of experience and official go-between for the trainees, instructors, staff officers and civilian representatives. Kerr is one of 10 enlisted men who has qualified as a Chief Operator.

When not absorbed with nuclear power, "JC" can usually be found reading up on history. He's an authority on the Civil War as well as atomic power.

Kerr has been with the nuclear program since 1951. Taking his basic training at Pittsburgh he reported to Idaho in time to help make atomic power history. He was here on 30 Mar 1953 when the prototype of *Nautilus* first went critical. He was also there two months later when the S1W first operated under full power and again when it made a simulated run across the Atlantic at full speed, under submerged conditions.

That was just the beginning for Chief Kerr, however, as in December '53 he went from the prototype to the real thing. He was a member of the pre-commissioning detail of SS (N) 571—the world's first nuclear powered vessel and first true submarine.

Kerr, who has had submarine duty since 1943—four years after he

entered the Navy—made five war patrols aboard his first sub, *uss Dace* (SS 247). "I used to think that *Dace* was the best sub in the world," Kerr says. "She was—until *Nautilus* came along.

"I've worked with *Nautilus* from the very beginning, and I'm still amazed with her. They'll never build another boat like her. Sure, they'll come up with new designs, but they'll never build another *Nautilus*. It was the first.

"The SS(N) 571 is undoubtedly the best sub ever built—she is really



a good boat and she has the best officers and best trained crew you'll ever find serving together. Her chow was tops too!—where else can you get nuclear cooked food."

Kerr is married, has three children and owns his own home in the city nearest the site—"near-by" Idaho Falls, some 60 miles away.

You'll meet Chief Engineman Charles W. Brink, (SS), USN. Although he has served in a number of different conventional subs, Chief Brink has never been assigned to a nuclear boat. Yet, he's one of the school's top instructors.

Since being selected for the nuclear program in July '55, Brink has qualified in all 13 watch stations within the S1W hull and also as a Chief Operator. He and Kerr are the only two enlisted men presently assigned to the S1W site who have qualified as Chief Operators.

Brink had so much on the ball while a student that he was immediately selected to remain at the site for instructor duty. He enjoys his job but is looking forward to the day when he can actually serve aboard a nuclear sub. He was recently selected for LDO.

Then there's Frederick O'Brien, ET1, who never had any nuclear training but had duty aboard *Nautilus*. He was aboard doing routine radar and radio work and became interested in the many uses of electronics in connection with nuclear propulsion. He applied for nuclear training, was selected and attended the first basic class at New London

before coming to Idaho. Having completed his operational training, he's now filling in as an instructor, and writing training manuals while undergoing advanced, specialized reactor engineer training. He too, can't wait to get aboard a nuclear powered boat—especially *Nautilus*—again.

Another example of the Navymen at the school is 19-year old Gary A. Johnston, ICFN, who is one of the youngest trainees ever to go to nuclear school. He is also one of the first two non-rated men selected for the nuclear program. The other youngest trainee and non-rated man is Imon L. Pilcher, ICFN. They went to boot training together, went on to sub school and are now going through the nuclear training program together.

When Johnston first started sub school he was attending classes in the same building where the first basic nuclear submarine course was being conducted. Being so near, yet so far, he heard all sorts of rumors about the school and decided "it would be a cold day before he'd ever reenlist just for nuclear training."

However, upon graduating from sub school—he stood fifth in a class of 250—he knew more about the nuclear program and felt somewhat different. When asked if he would be interested in nuclear training, he accepted without hesitation. He went into the program because at heart he felt that, "he was really getting a chance to work at something with a future." "There's no doubt about

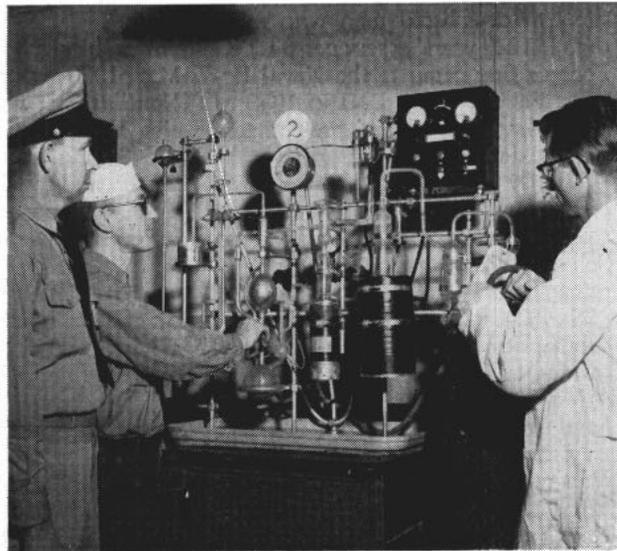
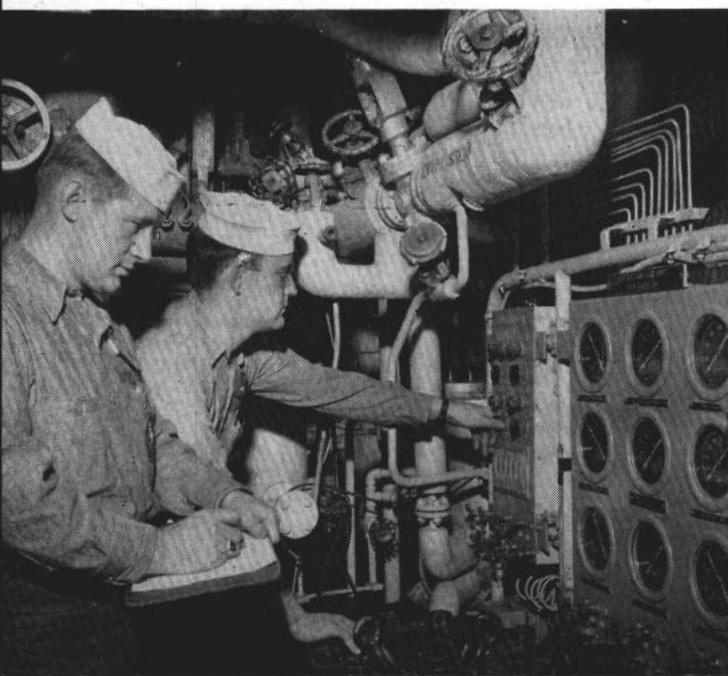
it, I found the basic school tough," Johnston said. "But, it wasn't as bad as everyone said it was. I did, however, have to buckle down and study for the first time in my life. When we started school, they gave us a pamphlet saying the school was a challenge even to the brightest student.—Believe me, it was," he added. "I made it though, because I think I had the advantage over a lot of the older students. I was just out of high school and my study habits were still fresh. But on the other hand, the older students had the advantage over me when it came to practical experience."

This month Johnston completes the operational phase of his nuclear training. When asked about it, he said, "It's really impressive to piece together all the math, theory and physics we had at basic school. It's unbelievable when you see all of this actually at work. I feel that I was quite fortunate to get into this program. Imagine little ole me, getting in on the ground floor of a project as big as this. Just think," he said as he sat gazing into space, "they have already authorized 14 nuclear subs. What will we have to work with tomorrow?"

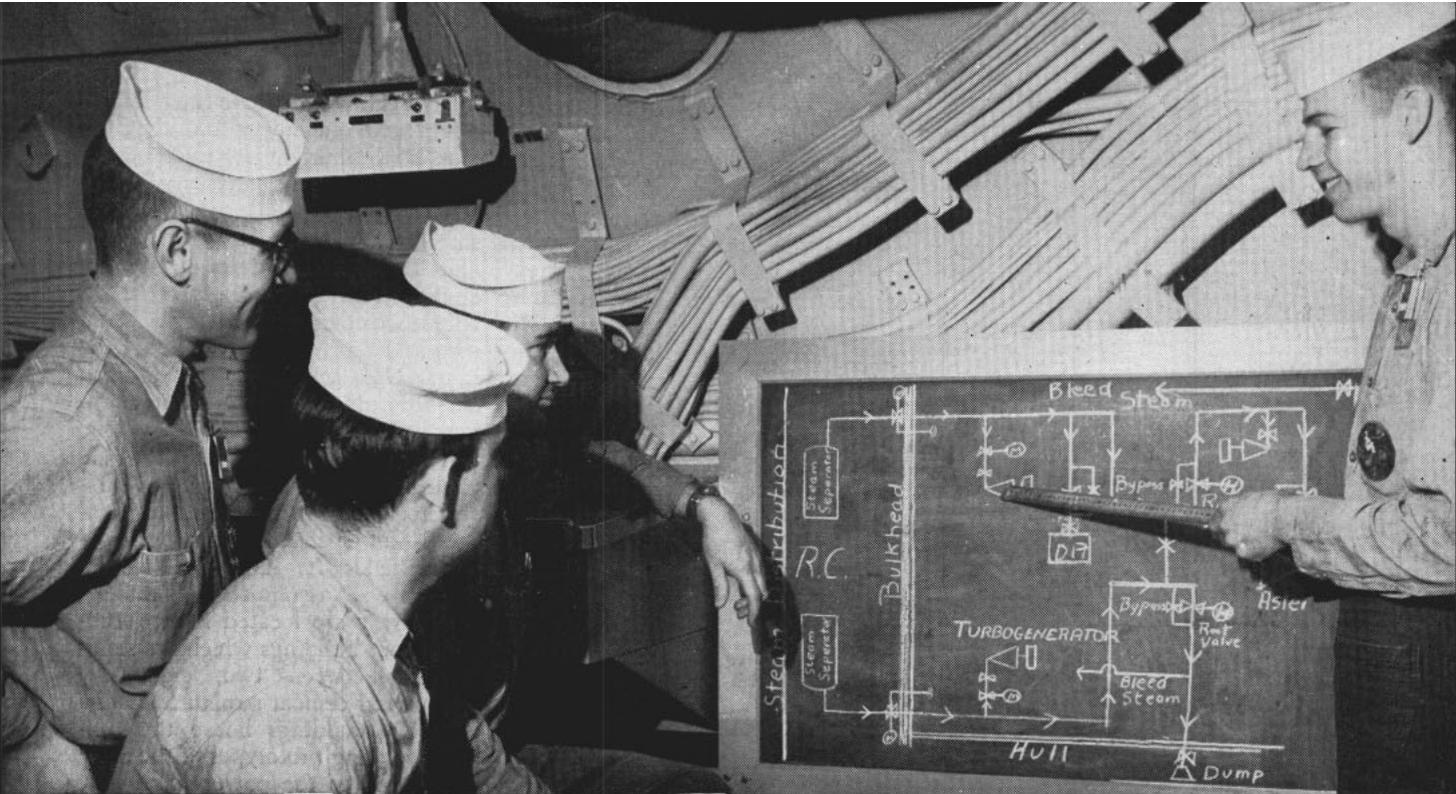
Johnston, as young as he is, summed things up pretty well. Men like him, O'Brien, Brink, Kerr and LTJG Phoenix, as well as the other nuclear trainees and instructors, won't have to wait until tomorrow. They're revolutionary sailors—who are a part of tomorrow's Navy, today.

—H. George Baker, JOC, USN

GETTING READY for tomorrow's Fleet today these Navymen have a lot of interesting duty ahead of them.



**ALL HANDS**



NAVY'S A-SCHOOLS combine classroom study with work on the reactor. Here, students study steam plant.

### Basic Surface Training

# Headed for the Nuclear Surface Fleet

**K**EEPING PACE with its accelerated nuclear shipbuilding program, the Navy, in close collaboration with the Atomic Energy Commission and civilian industry, has developed an extensive training program of vital interest to you.

At present the Navy has two nuclear training programs which offer you a full year of training, and eventual duty with the Nuclear Fleet. They are the nuclear powered submarine and the nuclear powered surface ship programs.

Both of these programs are divided into two phases—basic and operational. The basic portion of the submarine training (see *ALL HANDS*, April 1956) is conducted at New London, Conn., while the basic surface training, discussed here, is at the Naval Reactor Facility in Idaho. At present all operational training is being conducted at Idaho.

In order to qualify for the nuclear surface ship training—which consists of 21 weeks of basic academic instruction and 24 weeks of on-the-job practical operating experience, you must:

- Volunteer for the program
- Be less than 30 years of age

- Have a minimum score of 55 in GCT, ARI and MATH/MECH

- Be a high school graduate or have GED equivalent

- Be recommended by your CO

- Have a minimum of four years' obligated service or execute an agreement to extend your enlistment or reenlist before being transferred to school

- Be regular USN and of the following ratings: HM1 or HMC; chief, first, second or third class MM, BT, FP, MR, ET, IC, EM, EN and IM.

If you meet these requirements and are interested in the nuclear surface ship program, you should submit a request, via your CO, to ComServLant or ComServPac, as appropriate. For complete details see BuPers Inst. 1540.33 and directives issued by the Service Force Commanders.

Each individual request will be reviewed in this Bureau and applicants will be advised as to the action taken. If you are selected, your CO will get a letter from either the Commanding or Executive Officer of the Naval Nuclear Power Training Unit. Forwarded with this letter will be copies of *Basic Mathematics* by Keller and Zant, and Schram's *Outline*

*of Theory and Problems for Students of College Physics.*

You'll be expected to complete both of these courses before reporting to school. They are sent to you in an effort to give you some advance knowledge which will enable you to achieve a better understanding of the theory of nuclear power plant operation that would not otherwise be possible in the six months allotted to the academic portion of the school.

When reporting to the school you will be required to turn in the completed exercises. At the same time, you'll be given a two-hour examination on this material. The results of this exam will determine the section to which you will be assigned during your basic schooling. Student are assigned to sections according to their ability. Those who receive unsatisfactory grades in the initial exam will go into a section slated for preliminary instruction, while those receiving passing grades will go into average or advanced sections. At the basic school an individual is not held back if he has the ability and desire to learn. The more apt students are afforded the opportunity for advanced study in their specialties.



**NEELED**—R. J. Raczek, ETC, keeps eye-on needles as he logs radiation monitoring readings at Arco, Idaho.

The over-all aim of the school is to offer a course of instruction designed to give the students a thorough background in the fundamentals of pressurized water nuclear reactors. It calls for a working knowledge of electricity, atomic physics, reactor theory and mathematics, up to and including calculus. All this as well as chemistry, heat, health physics, the use of the slide rule, and systems and components are taught at the basic school.

Here's what the school's CO, LCDR E. W. Cooke, USN, has to say about the 21-week basic course: "The academic portion of this course

gives the students a background in subjects related to the nuclear field and nuclear power plant construction and operation. We concentrate largely on mathematics and physics.

"We provide an over-all course which presents a challenge to each member of the class. The minimum requirements are reasonably high and the maximum requirements are limited only by the man's ability, intelligence, background and desire to apply himself.

"The course, as presently designed, is very comprehensive. (It consists of 720 hours of class room study—156 of math alone, 100 hours in physics, 84 in electricity, 84 in reactor theory, 64 on systems and components, and the balance in chemistry, health physics, use of the slide rule, and 90 hours of specialized 'in-rate' training.) It is somewhat difficult for most students and requires many long, arduous study hours on the part of each trainee. However, the rewards—although not always immediate—are almost unlimited.

"The one pre-requisite for successful completion of this course is proper motivation, including your desire to work, to advance and to accept responsibility. You must be motivated for the nuclear power training program and must have the ability and interest to work 'out of rate' if called upon."

In concluding, the CO adds, "Our goal is that each man shall understand 'plant' operation and at the same time retain the specialty features of his rate. Each facet of the training is equally important. By that, I mean we expect electricians

to understand basic principles of steam and machinery and that the men in the mechanical rates understand rudimentary electricity."

The Navy's basic nuclear surface ship training school is but a year old. To date, one class has graduated, and the second is due to finish later this month. Thirty-six enlisted men and four officers completed the initial class while 40 enlisted men and four officers are currently learning the tricks of the trade.

The school is staffed by nine civilian professors and six Navy instructors—four officers and two enlisted—all specialists in their particular fields. Its 12 modern lecture rooms, well equipped laboratories and library are located in two 100-by-60-foot buildings which are sandwiched between two, eight-story windowless cement structures. These towering buildings house the full-size operating prototypes of the S1W—identical to the power plant now propelling *Nautilus*—and the A1W—a model of one of the four nuclear reactor plants which will drive the first atomic powered aircraft carrier. (Both atomic and nuclear power mean the same thing—chain reaction caused by neutrons bombarding the atomic or nuclear fuel (uranium) producing energy in the form of heat which is used to make steam. The steam turns turbines and drives the ship's propellers.)

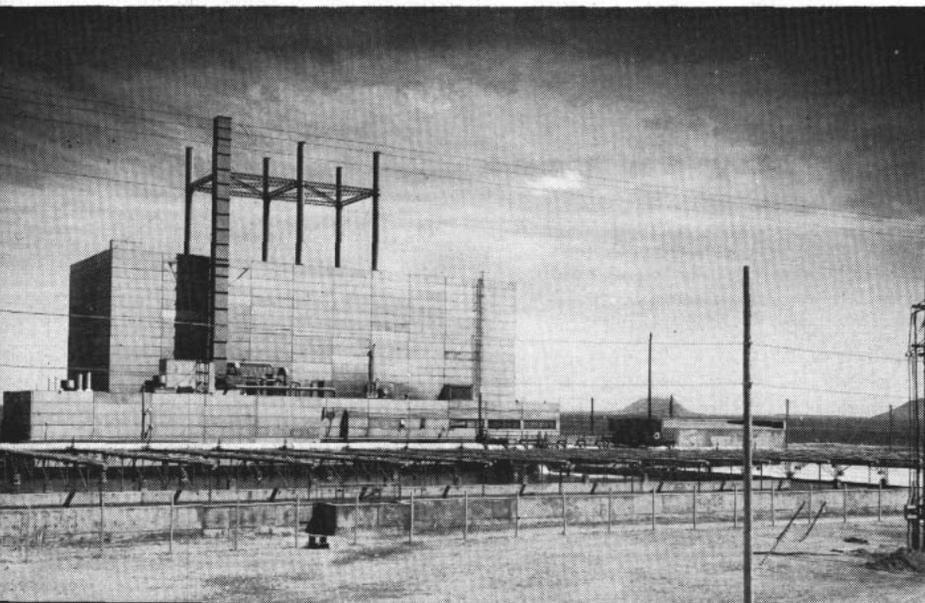
A typical career Navyman, picked at random from the first group of nuclear ship trainees is Keith C. Roberts, MM1, USN. Although only 22 years old, he has five years of naval service behind him.

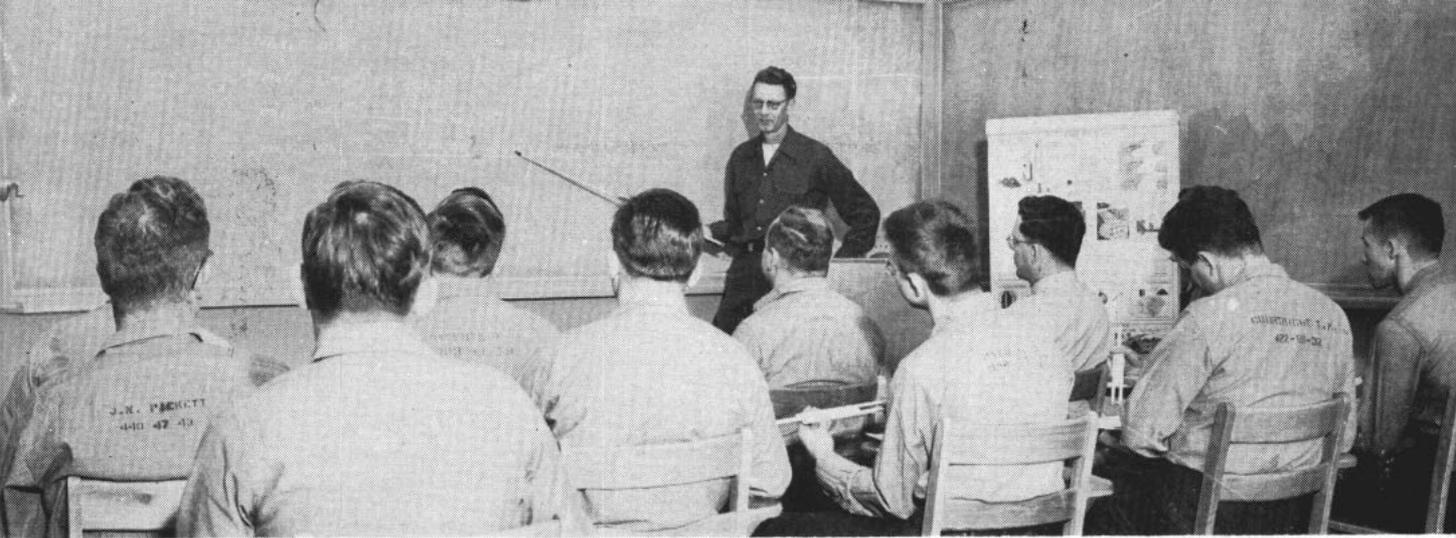
A graduate of MM and second class diving schools, Roberts served at the Pearl Harbor Submarine Base for three years before reporting for nuclear training. Although not a submariner himself, he was an instructor at the Pearl Harbor escape training tank, where he taught submarine escape procedures to the sailors of the Pacific Fleet Submarine Force.

Roberts applied for nuclear training in December 1955 when the Chief of Naval Personnel issued his first call for volunteers. Roberts received his orders in March '56, and three months later was among the handful of Navymen who inaugurated the Navy's first nuclear surface ship training program.

When applying for the nuclear program, Roberts felt that it was an opportunity to get into something

**NUCLEAR BLOCK HOUSE**—The eight-story building that houses the reactor is an unusual looking building. Pipe maze holds water for cooling system.





**NUCLEAR NOTES**—Navymen in basic phase of nuclear training pay close attention to math problem at hand.

completely new. "It was so new in fact, it hadn't even started when I applied," he said.

"The 21 weeks of basic schooling sure did me a lot of good. I don't know where I could get an education to equal what I got here, and in such a short time," Roberts added. "Before coming to the Naval Reactor Facility I had no 'math' background whatsoever. I didn't know the difference between X squared or X cubed, nor did I even know what a slide rule looked like. Believe me, I know now," he said, shaking his head.

Between long hours of class room study (seven hours a day) and then study at home (at least four hours a night and then some) one can easily become fatigued—mentally as well as physically—and a certain amount of recreation becomes a necessity. "And Idaho is certainly the place for that, especially if you're and outdoor enthusiast like me," said Roberts, who is an ardent hunter and fisherman.

In the very limited time when the trainees are not absorbed with study and nuclear power, you will most likely find them off in the woods or at some quiet mountain stream. Both hunting and fishing are tops in Idaho as the majority of the personnel at the Naval Reactor Facility will quickly testify. During the last hunting season, Roberts and other nuclear trainees who went hunting together, each had bagged a deer within an hour after the season opened.

In addition to deer, there is good elk, mountain goat, pheasant and quail hunting in Idaho too. Nearby Snake, Salmon and Big Lost Rivers offer excellent year 'round trout fishing—"that's hard to beat anywhere." Then, there is Yellowstone and Grand Teton National Parks, both

within short driving distance from the school—"What more could anyone ask for?"

Recreation-wise, duty at the Naval Reactor Facility is tops. It's apparent that liberty in the nearby towns is also 4.0 as almost every single man reporting to the school gets married before he completes his training. The town-folks, local business men and civic groups treat trainees very well. Relations between the Navy and local communities are extremely good.

All Naval personnel—including operational and basic trainees at the Naval Reactor Facility—wear civilian clothes. In fact, they are even told to report aboard in "civvies." The dress is very informal with sport shirts and slacks being the accepted uniform of the day.

All officers and enlisted men—married and single alike—live "on the beach." No government quarters or messing facilities are available at the

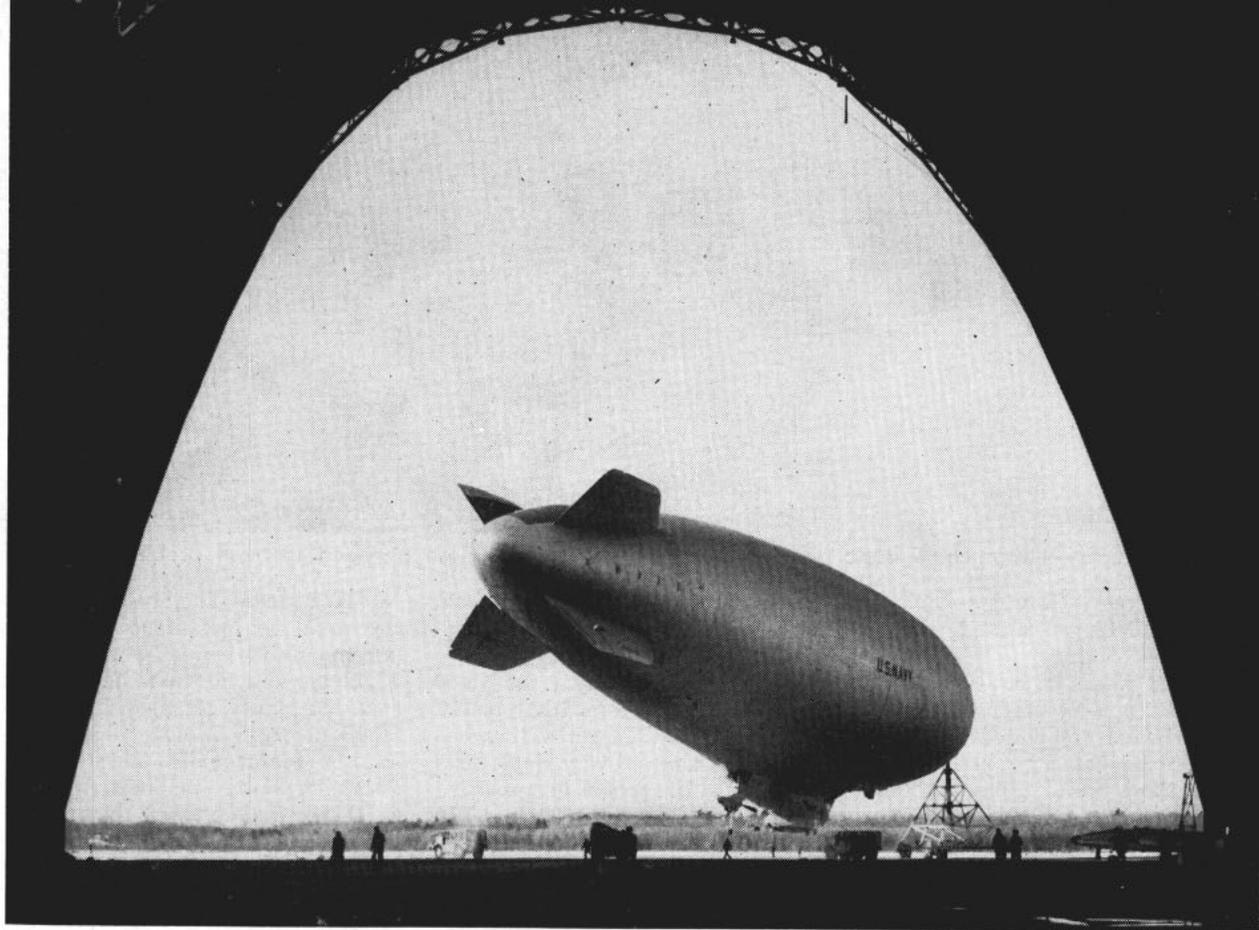
Naval Reactor Facility. Therefore, the single men get an additional \$45 per month in lieu of quarters and \$3.42 per day for subsistence. The "married-Johns" get their BAQ plus \$3.42 per day. Almost all of them live in Idaho Falls, Blackfoot or Pocatello, Idaho—all located within a 60-mile radius from the nuclear training and testing site.

The Navy provides free bus transportation to and from the school. It takes about 45 minutes for the bus ride from the school to Blackfoot, an hour to Idaho Falls and 1½ hours to Pocatello. For those who desire to drive their own cars, traffic is no obstacle. You'll be lucky to pass more than three or four cars going either way, but watch out for the jackrabbits. The area in which the site is located is over-populated with them—according to current estimates there's one jackrabbit for each square foot of land.

—H. George Baker, JOC, USN.

**ON THE BALL**—Navy students of nuclear propulsion at reactor facility at Arco, Idaho, perform momentum experiment in school's physic laboratory.





MUCH TRAVELED AIRSHIP, ZPG-2, is moved out of a hangar preceding take-off for 11-day sky cruise.

## Navy's Record-Breaking Blimp

**N**O WATER FOR A SHOWER. That was the major trouble encountered during the record-breaking flight of a ZPG-2 blimp which took off at NAS South Weymouth, Mass., crossed the North Atlantic, swung down toward the Azores and Portugal, took a look at the coast of Africa and then, in the vicinity of the Cape Verde Islands, headed across the Atlantic to land at Key West, Fla., some 11 days or 264 hours later.

"Just a regular operational flight, but a little longer," according to command pilot CDR Jack R. Hunt, USNR. "We had plenty of water for shaving, cooking and drinking but

with all the other comforts, these things still have no effective shower bath."

However, the 14-man crew of BU Aer No. 141561 (better known as "Whitey the Snowbird") were willing enough to disregard minor discomforts as they surveyed the records established by the flight:

- For continuous flight under power without refueling by any type of aircraft—264.2 hours (the previous record was 200.2 hours, also set by a ZPG-2 airship in May 1954).

- For distance flown non-stop without refueling by any type of LTA aircraft—9448 miles (the pre-

vious record was 6980 miles, set in 1929 by the *Graf Zeppelin*. Airplanes have flown further non-stop, but required in-flight fueling).

- For the world's first non-stop round-trip flight between the United States and Africa by any LTA aircraft.

The purpose of the flight conducted by the Naval Air Development Unit (NADU), was to test and evaluate the all-weather capability of airplanes for use in airborne-early warning and anti-submarine systems. It was a continuation of the Office of Naval Research program last winter during which time five ZPG-2—model airships maintained an early warning station 200 miles off the New England coast for 10 days through the worst period of weather experienced by that area in 75 years—which at times grounded other aircraft and delayed shipping.

During this earlier test period of sub-zero cold, snow, sleet, freezing rain, wind over 60 mph, "severe turbulence" and blinding fog, one airship flew for 32 consecutive hours of these conditions, and another was

GROUND HANDLERS and crew unmast airship on icy field, South Weymouth.



airborne for 56 continuous hours.

Nor was *Whitey* a special, custom-made job. Just a standard ZPG-2, 343 feet long, 76 feet in diameter and with approximately 1,000,000 cubic feet of helium. Its car was 83 feet long, eleven and one-half feet high, with an upper deck in the forward end containing sleeping and kitchen facilities. The power plant was two gasoline engines mounted in an engine room within the car. When desirable, the two propellers can be driven by one engine.

The 200-hour record was equalled when *Whitey* was in the vicinity of the Virgin Islands. By the time the craft had reached a point near the Dominican Republic and north of Puerto Rico the next morning, it had beaten the record of the *Graf Zepelin* when it went from Friedrichshafen, Germany, to Tokyo, Japan, on the first leg of its around-the-world flight in 1929.

It was at this time that the crew of *Whitey* received the biggest kick of their flight—a warm and friendly message of congratulations from Chief of Naval Operations ADM Arleigh Burke.

With the feeling that life could no longer hold much more for them (except a good hot shower), *Whitey* and her crew of potential Flying Dutchmen drifted north to the Bahamas, loitered off the Florida coast and finally dropped in at Miami.

In a ship-to-shore radio interview with a local correspondent, CDR Hunt reported that boredom was their worst enemy.

"How do you keep from going batty?" was one inquiry.

There was considerable discussion over the answer to this one.

"Some of us here think we've lost that battle," Hunt replied.

"Actually," he added, "We've been getting along quite well. Chow has been fine. We have a good galley, good bunks and plenty of reading material. Everything on board—even ALL HANDS?—has been read at least once. We've played cards, chess, checkers. There's been enough duty to keep it from getting too monotonous. We have a 14-man crew and have been standing watch and watch."

Although all of the flight was over water, there were still sights and events to break up the routine. When William S. Dehn, AG1, celebrated his 32nd birthday aboard ship, George Locklear, AM2, who



**TEST FLIGHTS**—In addition to record time aloft airships proved in NADU tests they could keep an early-warning-watch throughout worst of winter weather.

had been designated as ship's cook, broke out the instant cocoa, some sugar and one of the ship's precious eggs, to whip up a birthday cake. A casserole dish was the cake pan and an electric fry pan, the oven.

Whales, ice floes and icebergs were sighted on the first leg of the journey. So was *Whitey*. The Coast Guard one day found the blimp on its radarscope and came tearing out to the scene to destroy the "iceberg" threatening the sea lanes.

However, one of the most welcome sights to the airship crew was

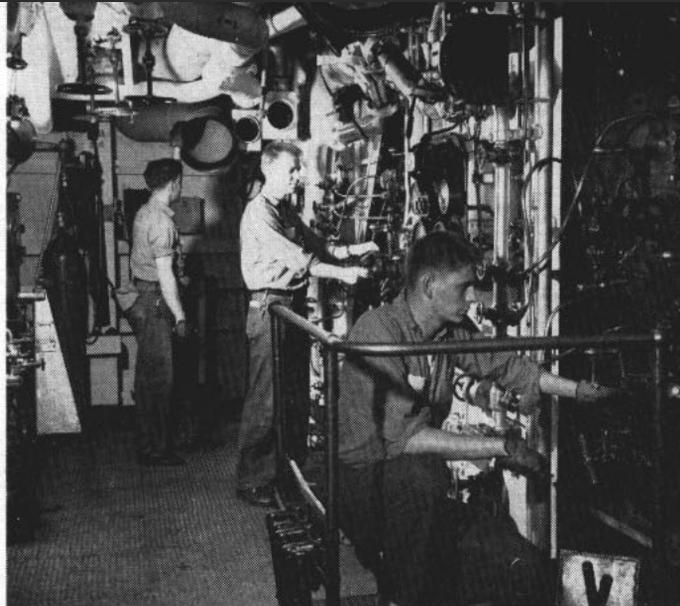
the NADU plane which visited the craft on the second and seventh days of its mission.

"Just like one of the family dropping in for Sunday dinner," observed the crew member. "Not expected, but welcome anyway. We would pass the time of day back and forth by radio. It gave us a feeling that someone knew we were still alive."

Finally, 11 days and 12 minutes after take-off, the airship landed at the Boca Chica Naval Air Station near Key West, Fla. The epoch-making flight was over.

**NOW HEAR THIS**—Part of the 14-man crew of ZPG-2 receives briefing on chart to be used during flight from CDR Jack R. Hunt, USNR, airship's CO.



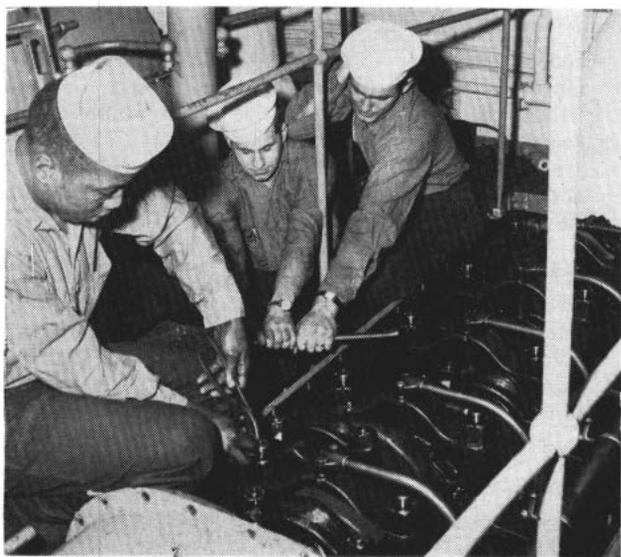


## Floating Engineers

**S**INCE THE EARLY DAYS of engines, when the old USS *Princeton* (of the 1840s) was one of the first Navy steam ships afloat, the men in the engine rooms have been working, watching, checking, repairing and maintaining gear—to be sure that all the BTUs are giving the ship her RPMs.

Even in this nuclear age, engines must still be able to convert water to steam, to develop the power that turns the turbine and gives drive to the ship's screw. And the jobs involved in operating the engines of a modern fleet keep mounting. Well before time comes to get underway, FAs and FNs, BTs, MMs, and ENs head for their assigned spaces to set their watch. When a boiler is lit off there must be someone to man the feed-water pumps, while someone else mans the fuel oil pumps, heaters and burners. Others in the engine room gang operate the forced draft blower system, to supply the air needed for combustion of the fuel.

Here's a picture story of ships' engineers in action. *Top right:* Valves and dials are checked in fireroom. *Top left:* Black gang in one of the firerooms of a flattop. *Left:* Enginemen work as team to remove piston and connecting rod. *Bottom left:* Skilled hands of bluejacket reseal valves in head of a diesel generator. *Lower right:* In DD engine room throttleman checks RPMs as messenger records speed changes.



# LETTERS TO THE EDITOR

## What to do With ECC Booklets

SIR: As an administrator of the local Enlisted Correspondence Courses, I am in doubt as to what would be done with the ECC booklet upon completion of the course. I recall that BuPers Inst. 1510.67 requires that all material, except the text, be destroyed after the course is finished. Yet I remember an article in NavPers 14900 which specifically states that the ECC booklet should be turned in to the division officer and destroyed. Please advise.—C. G. S., LT., USN.

• *The instruction to which you refer is intended to facilitate advancement in rate training by division officers. The reason for directing destruction of this material when no longer needed is to guard against indiscriminate compromise of the corrected assignment booklets and answer sheets.*

*It is not considered inconsistent with the above-mentioned instruction for commands to retain the assignment booklets on board until the enrollee has fully completed his training, provided adequate measures are taken to ensure against compromise. The time for the destruction of assignment booklets is left to the discretion of the local command. The textbooks (Navy Training Courses), however, must be returned to the Center upon completion of the correspondence course.—Ed.*

## Opportunity for a Commission

SIR: Could you please give me any information available on the program or programs whereby an enlisted married man without a college education has the opportunity of becoming an officer? What are the BuPers Instructions which established these programs?—R. E. D., ENS, SC, USNR.

• *There are three in-service procurement programs under which an enlisted man, married or single, has a chance for appointment to commissioned rank in the Navy. They are: the Integration Program, the Limited Duty Officer program, and the Warrant Officer program.*

*You will find all the information on these three programs in BuPers Inst. 1120.18C.—Ed.*

## One Shoe Off and One Shoe On

SIR: While recently rereading the Nov 1955 issue of ALL HANDS I came upon a picture of the painting you captioned "From the Halls of Montezuma . . ." Even though I have seen this painting many times before, I have never noticed that the officer leading the troops is minus a shoe on his left

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.

foot as is evident in this painting.

Is there a story behind the shoeless officer or is it just imaginative painting?—R. E. J., QMC, USN.

• *No, this isn't a legend but a fact—Major General John Anthony Quitman, the officer to whom you refer, did actually lose his shoe while leading his battalion of U.S. Volunteer Marines through a reconnaissance the day before they entered Mexico City, 14 Sep 1847. The general's shoe came off after he had fallen into a canal; but Quitman was not alone in his embarrassment.*

*First Lieutenant P.G.T. Beauregard (who later served as a leading general of the Confederate army) accompanied the general on the reconnaissance and also into the canal; but the junior officer managed to retain both shoes.—Ed.*



'SHOE ENOUGH' General Quitman had only one on when he led Marines into Mexico City during War in 1840.

## Dependent Medicare

SIR: In several months I will be eligible for transfer to the Fleet Reserve, and I'm wondering how such a transfer will affect the care afforded my dependents under the new Medicare Act. Recent publications have only served to confuse me on this issue.

Will my dependent wife and children under 21 be eligible for medical care at civilian facilities? At military facilities only? At either civilian or military facilities? And when I have completed thirty years what will be the status of my dependents?—A. L. S., SKC, USN.

• *Depending upon local restrictions, your wife and dependent children may elect to receive authorized medical care, either at medical facilities of the uniformed services or from acceptable civilian medical sources so long as you are on active duty. Upon your transfer to the Fleet Reserve, however, or when you are placed on the Retired List, your dependents will be entitled to care ONLY at medical facilities of the uniformed services.*

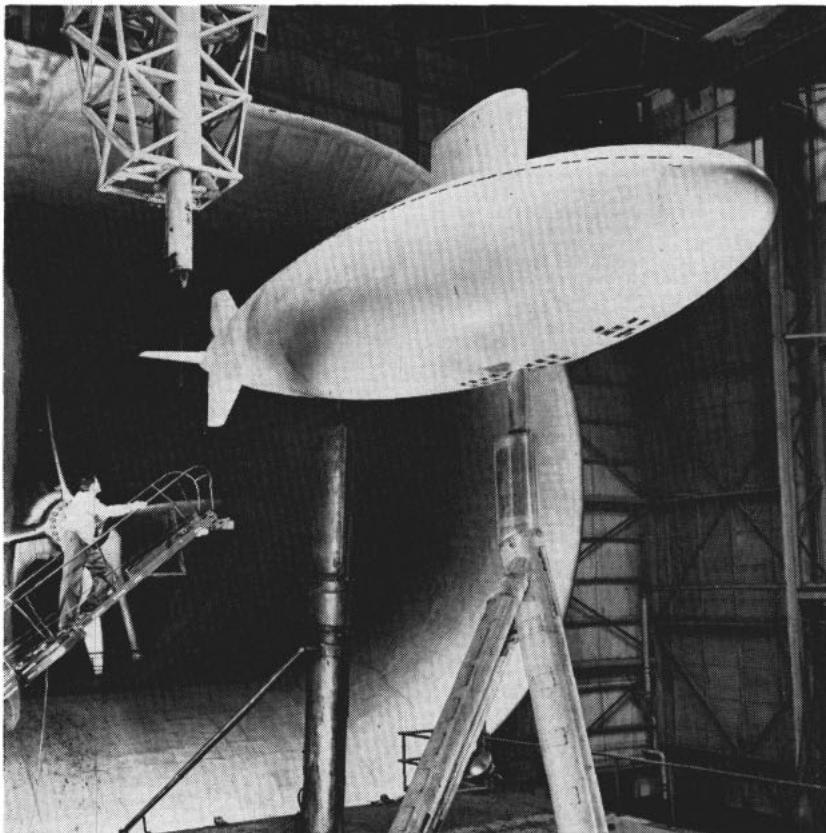
*SecNav Inst. 6320.8 lists the care your dependents are eligible to receive from various sources; BuPers Inst. 1750.5A contains instructions for obtaining the necessary DD Form 1173, Uniformed Services Dependent Identification and Privilege Card. For a report on the rights and benefits available to dependents of naval personnel, including a summary on dependent medical, see the May 1957 issue of ALL HANDS.—Ed.*

## Legal Yeomen

SIR: I have heard that the Navy Department is considering a special corps for Legal Officers. If this is true, is there any consideration being given to the establishment of an enlisted rating for this corps, such as legal yeoman? As a legal yeoman and court reporter, I feel that this is necessary because it is a specialized field and is considered to be a profession rather than just another clerical job in civilian life.—O. A. R. YN2, USN.

• *A rating of Legal Yeoman or Court Reporter is not at present being considered by the Permanent Board for the Review of the Enlisted Rating Structure. The establishment of such a rating was considered in 1955, but was not recommended.*

*It appears that the yeoman rating is expected to encompass all legal and court matters that will in most cases normally be encountered by any career yeoman in the normal course of his various naval duty assignments.—Ed.*



**HIGH FLYING SUB** — What looks like a guided missile is hull model of world's fastest sub USS Albacore (AGSS 569) undergoing tests in wind tunnel.

#### Questions on Advancement Exams

**SIR:** A number of the CDs here in Mobile Construction Battalion Ten are wondering just what sources are used by the Examining Center in writing questions for the chief driver's examinations.

One of our reasons for wanting to know: Last year's exam contained several questions on a certain type of crane which does not appear in the training manuals. To top that off, we wrote the manufacturers to request technical information on the crane. They had no training material available.

Then there's another crane that appears in the Navy's current textbooks, but to the best of our knowledge the Navy no longer uses that particular crane. We don't particularly mind the failure of the exams to keep up with the operating Navy, since the study material at least is available and can be studied for test purposes, then forgotten. But we do resent the use of material which doesn't appear in the texts and which we apparently cannot lay hands on.

Another questionable matter occurs in such areas as preventive maintenance schedules, procedures and methods which have changed from year to year. How are we expected to know what year will be covered in this month's exam—or in next year's exam for that

matter?—J. R. C., CD1, USN.

• *First of all, NavPers 10052D, "Training Courses and Publications for General Service Ratings," contains a list of the publications used by the Examining Center in making up examinations. Those listed for CD ratings, including CDC, are: "Driver 3 & 2" (NavPers 10640-B); "Driver 1 & C" (NavPers 10641-B); Chapters 2, 3, 4, 10 and 12 of "Mechanic 3 & 2" (NavPers 10644-B); "U. S. Navy Automotive Maintenance" (TP-Tr-2); and "Automotive Construction and Railroad Equipment Administration and Operation" (TP-Tr-1). These represent the minimum amount of material with which you should be familiar. However, you can't learn everything from books. You are expected to acquire certain knowledge from your work and operating instructions. This is particularly so in the case of new equipment, such as the crane you mention.*

*In today's modern Navy, with its rapid technological advances and consequent changes in procedures and methods, it is hardly possible to keep training manuals completely up to date. However, additions and deletions of equipment, changeovers to newly-developed procedures, methods and so forth, are invariably publicized through other channels such as BuDocks Technical Digest and information should be*

*available in your own organization.*

*As for the training courses and manuals, revised editions appear about every three years. Letters from the Fleet pointing out errors, obsolete equipment, and improved procedures are a helpful guide to the writers of training material in ensuring that each revised manual and training course is as up to date as possible. Letters concerning the material published for Group VIII ratings may be addressed, via channels, to the Chief of Naval Personnel (Attn: Pers C112), Department of the Navy, Washington 25, D. C.—Ed.*

#### Writing for Navy Newspapers

**SIR:** I have been assigned the job of assisting the ship's Public Information Officer in preparing material for the base newspaper. I understand that a publication entitled *Navy Editors' Manual* was published in years past and was wondering if any of these manuals were still available. If possible, I should like to have a copy since I think it might help me to learn the Navy journalistic methods.—A. B. B. SA, USN.

• *The Ship's Editorial Association (SEA), which published the "Navy Editors' Manual," has been consolidated with the Armed Forces Press, Radio and Television Service in New York. That office now has in print a manual "Armed Forces Editors' Guide" which is similar to the earlier "Navy Editors' Manual."*

*AFPS also distributes two weekly clipsheets, with mats and stencils. You should request their services in a letter to: Officer-in-Charge, Armed Forces Press, Radio, and Television Service, Room 1425, Fisk Building, 250 W. 57th St., New York 19, N. Y., via the appropriate command channel and the Administrative Officer, Navy Department.—Ed.*

#### Applying for School of Music

**SIR:** I am holding a TAR billet in the active Naval Reserve at NAS Seattle, Washington.

I would like to know if, under BuPers Inst. 1336.2B, I am eligible to enroll in the U. S. Naval School of Music for either the Basic Course (Class A) School, or the Refresher Course (Class C-1) School?—R. K. Harris, YN3, USNR.

• *No. As a TAR you don't qualify for enrollment in the Navy's School of Music. However, if you are interested and willing to reenlist in the Regular Navy you should submit a request via official channels to the Chief of Naval Personnel for reenlistment and transfer to the Naval School of Music, Naval Receiving Station, Washington, D. C., for duty under instruction in the basic course. You should also enclose NavPers Form 759, Inservice Application, with your request.*

*Further information can be found in BuPers Inst. 1130.4C.—Ed.*

## Flying Colors

SIR: I would appreciate your lending me some assistance on three questions:

1. If a ship is flying colors at half mast and gets underway, should colors be flown at half mast even though the ship is moving, or should they be flown two-blocked?

2. If prep is hoisted at 0755 and a ship gets underway at 0759.30, should prep be hauled down, even though colors have not been executed on the base, or should the ship, which is about 25 yards from the pier, follow the base and render the salute toward the music on the base?

3. If a flagship gets underway without the division commander on board, although his flag has not been hauled down, should the ship fly his call even if he is on leave, or should his flag be hauled down and replaced by the commissioning pennant?—S. A., QM1, USN.

• Here are the answers to your questions:

1. The colors would be flown two-blocked when the ship is underway.

2. The prep should be hauled down and colors displayed, even though a ship gets underway after prep is hoisted. The distance of the ship from the pier makes no difference, since movements of the base are not followed after getting underway.

3. When the division commander's flag is flying, a ship underway should fly the division commander's call even though he is not on board.—Ed.

## Eligible To Take Advancement Exam

SIR: Relative to service requirements, will a man who was advanced to PO1 on 16 May 1955, then was discharged on 11 Jul 1956 and reenlisted on 3 Aug 1956, be eligible to participate in the February 1958 examination for advancement to CPO?—T. S., PN1, USN.

• No, your man would not be eligible because by February 1958 he would have only two years, eleven months and ten days of service in pay grade. Although reenlistment within three months of discharge is considered to be continuous service, credit for time not served cannot be given when determining eligibility for advancement or for final multiple earned.—Ed.

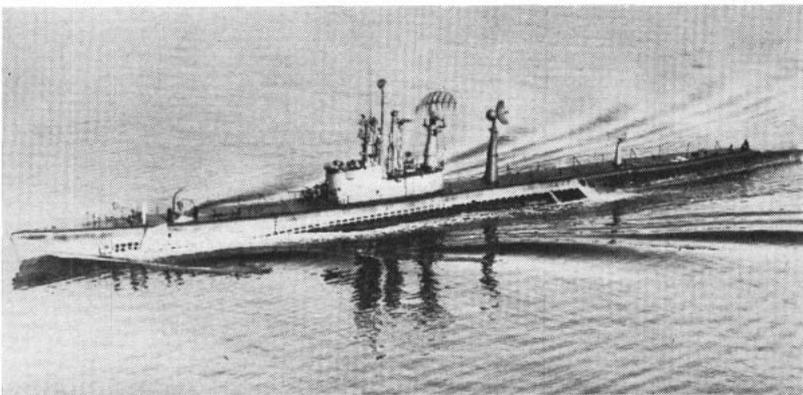
## Reenlistment Leave

SIR: I shipped over in June 1956 and was refused shipping over leave because I was the only forecast duty officer at the station.

Since I've now been transferred, I was wondering if it is too late to apply for shipping over leave.—L. J. R., AGC, USN.

• It is not too late, Chief. If service requirements prevented your taking reenlistment leave subsequent to reenlistment in June 1956, you may still apply for such leave in accordance with "BuPers Manual," Art. C-6203(3).—Ed.

## Who Fired The Last Shot?



HOLDING OUT until the end, USS Tigrone (SSR 419), radar picket sub for detecting ships, missiles, fired last shots of World War II on 13 Aug 1945.

SIR: A letter from R. A. L., YN1, in the January 1957 issue of ALL HANDS indicated that he thought USS Tigrone (SSR 419) fired the last shot of World War II on 13 Aug 1945. Perhaps, but unless Tigrone got off her rounds very late in the day, I'm afraid she wasn't quite the last.

Why not? I quote from the war history of USS Pennsylvania (BB 38):

"At 0755 on the morning of 7 Dec 1941, Pennsylvania was sitting in dry dock in the Pearl Harbor Navy Yard when the Japanese began their attack. Pennsylvania's 50-caliber machine gun crews had their guns in action even before General Quarters was sounded.

"While lying at anchor in Buckner Bay, Okinawa, on 12 Aug 1945, Pennsylvania was torpedoed by a Japanese torpedo plane. The following day she was towed into shallower water where salvage operations were commenced.

"On the night of 13 Aug 1945, Pennsylvania saw her last action of the war. An enemy suicide plane made a run on the ships in the harbor and crashed in flames on the deck of a cargo ship about 1000 yards off the starboard beam of Pennsylvania. The secondary batteries of Pennsylvania

trapped the plane by radar and fired 13 rounds. The 40mms fired 30."

Based on this quote, I'd like to suggest that, not only was Pennsylvania one of the last to fire during World War II, but also one of the first.—W. G. S., YN1, USN.

• Not the type to take undue chances, we asked Naval History Division what it thought of your statement. History decided to play it cagey too, and expressed no opinion. It merely stated:

"USS Pennsylvania (BB 38) commenced fire, on the attacking Japanese aircraft, at Pearl Harbor, between 0802 and 0805 (-11 zone time), 7 Dec 1941.

"USS Pennsylvania (BB 38) fired her last shot, against enemy aircraft, at 2006, (-9 zone time), on 13 Aug 1945."

According to Naval Chronology of World War II, Japan agreed to surrender on 14 August.

So make your own decision. We realize that no matter who actually fired the last shot it was the ones that preceded it that really counted, but we too can't help but be curious. Any other claimants for the honor?—Ed.



WAR HISTORY of USS Pennsylvania (BB 38) shows night of 13 Aug 1945, was her last action of World War II. Perhaps her late hour is a record.

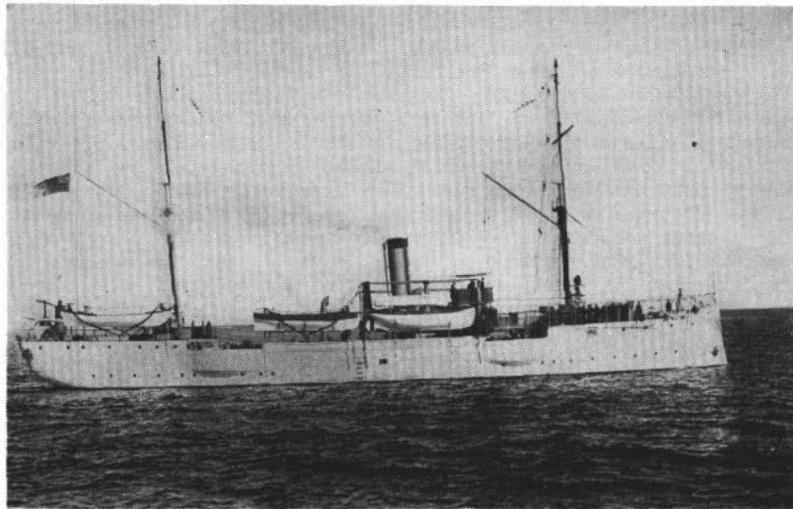
SIR: In our wardroom on board *uss Petrel* (ASR 14) we have hanging a picture of an earlier *Petrel*. We know nothing about it and were wondering if you could help orient us and, perhaps, give us a fill-in on its career.—C. R. D., CWO, USN.

• It's a good question and we're glad you asked us because it gives us an opportunity to display the virtuosity of our Research Desk. We don't know how Research did it, but after considerable digging, it came up with the following facts:

In the first place, which *Petrel* are you talking about? There were three earlier versions. *Petrel I*, which was purchased in 1846, was a 74-ton gunboat which saw action during the war with Mexico in 1846-47.

In addition to participating in raids on Panuco and Laguna, *Petrel* was part of the flotilla which, under the direction of Commodore David Conner, commander of the Gulf Squadron, took part in the attack on Vera Cruz. The Squadron also included the small vessels such as *Spitfire*, *Vixen*, *Bonita*, *Reefer*, *Falcon* and *Tampico*, each of which carried one or more heavy long-range guns for shore bombardment.

LATER VERSION—*uss Petrel III* was launched as 181-foot gunboat in 1888. She served during Spanish-American War, remained in Fleet until 1920.



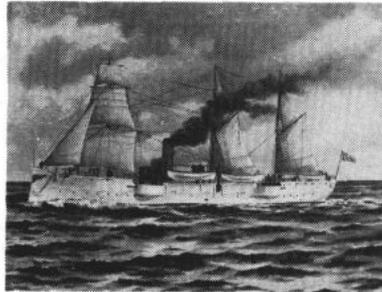
#### 1600 or 1800 Tons?

SIR: The question of the classification of destroyers has come up. My query concerns the displacement of several similar type DDs.

The description of the ships is as follows: two stacks, broken deck with separated firerooms and enginerooms. A few of the ships in question are *uss Grayson* (DD 435), *uss Parker* (DD 604), *uss Frazier* (DD 607) and *uss Kearny* (DD 432).

I want to know if the Navy classifies these ships as 1600-, 1650- or 1800-ton

#### Stormy Petrel I, II, III, IV



PAINTING OF *uss Petrel II* shows her three masts. She took part in the Civil War expeditions.

It isn't likely that the *Petrel* in your wardroom is this one—but if it is, you have an illustrious ancestor. This period, which marked the real beginning of steam in the U. S. Navy, is also considered by historians to have provided the groundwork for future amphibious operations. The Vera Cruz operation is a case in point.

The planning was extensive and careful. The larger Navy ships furnished crews for the surfboats with a lieutenant in command of each divi-

sion of 10 boats. The steamer *Princeton* anchored as close to the beach as possible, with the surfboats stationed on her quarters in double lines parallel to the beach. Between these lines and the beach were seven light-draft gunboats (including *Petrel*) armed principally with 32-pounder guns. Similar to the LCI boats of World War II in the Pacific campaigns, these ships shielded the lines of surfboats and stood ready to provide fire support to the landings if necessary.

The small boats, loaded with some 4500 soldiers, advanced in a single line formation to the beach where a simultaneous landing was made with colors flying and bands playing. They met with little opposition. Four hours later, approximately 10,000 men had been landed, complete with equipment and provisions.

This *Petrel* was transferred to the Coast Survey in 1850. *Petrel II*, a fourth-rate "tin-clad" of 226 tons earlier known as *Duchess*, was purchased for the Navy by RADM David D. Porter in 1862. She took part in two expeditions in the Yazoo River during the Civil War, and in 1864 was captured by the Confederates and destroyed. It is possible that this *Petrel* may be the subject of your picture.

*Petrel III* was also a gunboat. Launched in Baltimore in 1888, she was 181 feet long, had a 31-foot beam and displaced 890 tons. Commissioned in 1889, she was assigned to the North Atlantic Squadron in 1891 and later served in Asiatic and Pacific waters until 1911.

During the Spanish American War she was one of Dewey's Fleet in Manila Bay. She was sent into the harbor of Cavite to destroy any ships that may have taken refuge there. Placed in Reserve in 1915, she served as station vessel at Guantanamo Bay. During WW I she was a unit of American Patrol Detachment, Squadron One, Division One at Boston. She was stricken from the Navy list in 1920.

We trust that *Petrel IV* will also carve her niche in naval history.—Ed.

destroyers. I am under the impression changes, actual light displacement of that the hull design is a 1630 but the displacement is that of an 1800 type.—J. E. D., MM1, USN.

• The ships mentioned in your letter are of the DD 421 and DD 423 classes. In the DD 421 class are the DD 604 and the DD 607; the remaining ships in question belong to the latter class.

These classes were designed to have standard displacement of 1620 and 1630 tons, respectively. Owing to weight growth through the years, necessitated by additional equipment and design

displacement is now 1810 tons, as cited in official Navy publications.—Ed.

#### SNs Not Under Shorvey-Seavey

SIR: I am a seaman with two years of sea duty. Is it possible for me to be transferred to a shore duty under the new Shorvey-Seavey rotation arrangement?—W. L. B., SN, USN.

• It doesn't look that way. Shorvey-Seavey does not change the current directives under which a seaman is ineligible for shore duty. You must be rated or be a designated striker before you may request shore duty.—Ed.

### Qualifying for NavCad Program

SIR: I intend to make the Navy my career and would like very much to get into the NavCad program, but my mechanical score on the Basic Test Battery is not sufficiently high. Although I did not finish high school, I expect to do so through USAFI. Is it possible for me to retake the mechanical test after I finish the high school training?—R. S. P., SR, USN.

• You (or your command) may write a letter to the Chief of Naval Personnel requesting authorization for you to retake any one or all of the tests in the basic test battery.

The letter of request must contain the following information:

1. Purpose of retest.
2. Results of initial testing in terms of test scores on all classification tests recorded in the service record.
3. Date of original testing and date of retest if applicable.
4. Formal schooling completed before you took the original test and the date such school was completed.
5. Schooling and experience since the date you first took the test (including naval and civilian schooling you have taken, USAFFI courses and tests, other correspondence courses you have completed, etc.).
6. Other pertinent information concerning conditions under which previous testing was accomplished which would have a bearing on your request for a retest (language difficulty, for example).

Finally, if you initiate the request yourself, your commanding officer's forwarding endorsement should indicate his evaluation of the merits of the request.

If the command initiates the request, this evaluation should be a part of the basic letter.—ED.

### Disposal of Deck Logs

SIR: A question has arisen in connection with the new type deck log. Provisions are made specifically for the disposition of the new type log but nowhere do I find any provisions for the disposition of old rough deck logs and carbon copies of smooth logs.

I understand that rough deck logs may be destroyed after three years and smooth logs after two years, provided a copy has been forwarded to the Bureau. If we continue with the present system we will end up in a year or so with just one or two copies of the deck log which have no apparent use. Has any provision been made or instruction issued to authorize ships to destroy all copies of rough deck and smooth logs aboard ships? Where may I find instructions covering destruction of Notice to Mariners and Monthly Information Bulletins?—P. R. T., QM1, USN.

• It seems that innovation has again resulted in confusion—but disposal instructions remain the same. The rough deck log maintained by ships submitting a smooth copy to the Chief of Naval Personnel may be destroyed after a three-year period but is subject to certain limitations clearly stated in disposal instructions. The changes in deck log format which

were introduced in July 1955 and used since that time do not apply to disposal instructions.

The Type B deck log is the original holographic (written by hand) record submitted to the Chief of Naval Personnel. It is not intended that a copy of this log be maintained aboard ship. Requirements for carbon copies of Type B deck logs were discontinued in July of 1955.

According to the Ship's Deck Log Section of the Bureau of Naval Personnel, your ship, the USS Harder (SS 568), is required to submit the Type B deck log. However, since late 1956 Harder has only been forwarding type A, the rough log of which should be maintained aboard for the three-year period.

The Navy Hydrographic office issues three Notices to Mariners weekly. One of these, "Navy Notice to Mariners," is classified and its destruction is covered in the "Security Manual."

Another publication from Hydro is the Bi-weekly "Information Bulletin" which is printed in two parts: "For Official Use Only" and "Chart for Sail." The former is to be disposed of in accordance with the "Security Manual" and the latter has no special disposal.—ED.

### Sea/Shore Rotation for Sub Men

SIR: Under the present sea shore rotation program, what chance does a qualified submariner have of getting his first choice of duty assignment upon expiration of his normal tour of shore duty?—B. A. F., YN1 (SS), USN.

• You have just as good a chance to get your choice of assignment as does any other enlisted man. Submariners are assigned by the same methods as all other enlisted personnel; however, the

(SS) designators, which appear behind their rates, aid in their reassignment back to submarine forces.

The new rotation program greatly increases the probability that submariners will be returned to the submarine forces after shore duty because of better planning. It is important that all submariners insure that their (SS) qualification is properly reported in the PAMI system through the NavPers 500 card or the personnel diary.—ED.

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## Reunions on the Increase As Summer Months Arrive

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 or more months in advance.

● **First Marine Division Association**—Two reunions will be held this summer. The east coast reunion will be held at the Hotel Sherman, Chicago, Ill., on 9, 10 and 11 August. The west coast reunion is scheduled for the U.S. Grant Hotel, San Diego, Calif., on 23, 24 and 25 August. Details are available at the Division Association, P.O. Box 84, Alexandria, Va.

● **Fourth Marine Division Association**—The annual reunion is scheduled for the Hotel Cleveland, Cleveland, Ohio, on 27, 28 and 29 July. Inquiries may be addressed to LCOL W. G. Shoop, Fourth Division Association, c/o A03, Headquarters Marine Corps, Washington 25, D.C.

● **Fifth Marine Division Association**—The eighth annual reunion will be held at the Statler Hotel, Buffalo, N. Y., on 28, 29 and 30 June. For information, write to Fifth Marine Division Association, Headquarters Marine Corps, Washington 25, D.C.

● **uss Maryland (BB 46)**—A reunion will be held on 18 August, in Silverado Park, Long Beach, Calif. For further information, contact E. U. Caldwell, 4758 Autry Ave., Long Beach 8, Calif.

● **uss Quincy (CA 71)**—The sixth annual reunion will be held in the Hotel Essex, Boston, Mass., on 23, 24 and 25 August. Additional information may be obtained from Ed Moore, 173 Carlton Terrace, Teaneck, N. J.

● **Seabee Veterans of America**—The 11th convention will be held in Detroit, Mich., on 9, 10 and 11 August. Details may be obtained from Mrs. Leo F. Crowley, Convention Secretary, 14035 Longacre Rd., Detroit 27, Mich.

● **Second Marine Division Association**—The annual reunion will be held at the Hotel Statler, Detroit,

Mich., 19, 20 and 21 July. Write to Second Division Association, 4545 S. Christiana Ave., Chicago 22, Ill., for more information.

● **Third Marine Division Association**—The Marine Memorial Club in San Francisco, Calif., will be the location for the annual reunion on 19, 20 and 21 July. Inquiries may be addressed to the Third Marine Division Association, P.O. Box 548, Culver City, Calif.

● **uss Trego (AKA 78)**—A reunion will be held at the Hotel Waverly, Virginia Beach, Va., on 5 and 6 July. Contact M. A. Garner, Route 4 Box 87-G, Greenwood, S. C., for further details.

● **uss Washington (BB 56)**—The third reunion will be held at the Hotel Commodore, New York, N. Y., on 4, 5, 6 and 7 July. For additional information, write to John A. Brown, 1503½ N. 4th St., Columbus 1, Ohio.

● **WAVES**—Waves will celebrate their 15th birthday with a reunion to be held in Boston, Mass., on 26, 27 and 28 July. All present and former Waves are invited to attend. Further information may be obtained by writing to National Waves Reunion Committee—1957, 495 Sumner St., Boston 10, Mass.

● **73rd Seabees**—The eighth annual reunion will be held in Biloxi, Miss., at the Buena Vista Hotel, on 26, 27 and 28 July. Contact George J. Deens, 23 Butler Ave., Ambler, Pa., or Charles Barnes, 412 Merret St., Fort Worth, Tex.

● **93rd Seabees**—The eighth annual reunion is scheduled for 30 and 31 August, at the Hotel Fort Hayes, Columbus, Ohio. For information, contact Charles B. Lindsay, 150 Llewelyn Ave., Westerville, Ohio.

● **302nd Seabees**—The 10th annual reunion will be held at the Hotel Harrisburger, in Harrisburg, Pa., 19, 20 and 21 July. Details may be obtained from Harry W. Price, Jr., 135 Third St., Lewistown, Pa.

● **uss Borie (DD 704)**—The 1944-45 commissioning crew will hold its 8th annual reunion on 9, 10 and 11 August at Mishawaka, Ind. For details, contact Gail G. Hill, 610 Hubbard Avenue, Mishawaka, Ind.

● **Great White Fleet**—A 50th re-

union is scheduled for all surviving members on 16 December at the U.S. Grant Hotel, San Diego, Calif. For further information, contact Harry S. Morris, TMC, Shore Patrol Headquarters, 726 Second Avenue, San Diego, Calif.

● **uss Hornet (CV 8 & CV 12)**—A reunion will be held on 6 July at the Hotel Emerson, Baltimore, Md. All interested officers and men should contact Thomas C. Stinnett, President, **uss Hornet Club**, 3903 Balfern Avenue, Baltimore 13, Md.

● **3rd Special Seabees**—The 7th annual reunion is scheduled for 19, 20 and 21 July at the American Legion Hall, Ventura, Calif. For further information write or wire Ventura Chamber of Commerce, 174 South California Street, Ventura, Calif.

● **Navy No. 157 (Palermo, Sicily)**—The 6th annual reunion is scheduled for 28, 29 and 30 June at the Ambassador Hotel, Atlantic City, N. J. For information, write to Arthur L. Coddington, 679 Carlyle Pl., Union, N. J.

● **uss Inch (DE 146)**—All former shipmates who are interested in a reunion at a time and place to be decided should contact Mr. Herman Melanson at this new address, 140 West 55th Street, New York 19, N. Y.

● **uss Oriskany (CVA 34)**—All former crew members and members of all Air Groups who are interested in a reunion this fall in New York should write to P. A. Catalano, QM2, U.S. Naval Correspondence Course Center, Naval Supply Center, Scotia 2, N. Y.

● **USNAS Bunker Hill, Indiana**—Former crew members interested in holding a reunion, at a time and place to be decided, should contact Al Bengueyfield, 36 Brunswick Ave., Williston Park, L. I., New York.

● **uss LST 535**—All crew members who served on board from the time of commissioning until January 1946, who are interested in a reunion may contact David B. Witherspoon, Jr., P.O. Box 125, Windy Hill Beach, S. C.

● **uss President Adams (APA 19)**—For information concerning a planned reunion, write Albert Filipelli, 1546 Kimball St., Brooklyn, N. Y.

### CQ to You, Too

SIR: I operate ham radio station WIVCU and would enjoy reading about and seeing a few pictures of Naval Amateur Radio Stations in the United States and overseas.

We amateur radio operators talk to Navy stations all over the world, but never get to see much about them in print.

I am particularly interested in KC4USA—Antarctica, KA2KS—Japan,

and KL7AIZ—Adak, Alaska.—N. C. D., CT3, usn.

● *We'd be happy to oblige, but we can't write stories or print pictures that we don't have. When we do get usable stuff we run it in the magazine—as witness our July '56 issue, which contained a story and pictures of station KA2NA—Atsugi, Japan. The Naval Communications Bulletin also contains stories on ham operations.*

*If the stations you mention were to*

*send us pix, plus a few details on their operations, we might be able to work out a story along the lines you suggest. Or, next time you talk to a Navy ham you might suggest that he ask his PIO about sending us a story or putting out a general release about his operations. We can't make any promises, but we give such stories full consideration.*

*Incidentally, what about your own WIVCU? Maybe you have a story that you've been overlooking.—Ed.*

# Coral Sea Navymen Rock 'n Roll, Afloat and Ashore Too

USS *Coral Sea* (CVA 43) has a rock 'n roll band that's a real Turkish delight. A radio pollster in Istanbul learned as much when he asked a local teen-ager to name his favorite musicians.

The young Turk promptly replied, "Dizzy" Gillespie and Chief Ridge," indicating that he'd heard both of the American jazz concerts given in Istanbul in recent years. One was by the touring Gillespie band and the other, by a group of *Coral Sea* sailors led by Walter N. Ridge, MUC, USN.

The sailors performed under conditions which would have caused many musicians to blow their stacks instead of their horns. Because of the short notice of the ship's arrival, little advance publicity could be given the concert, and the only auditorium available was a gymnasium, where most of the band-members expected to be playing to the basketball hoops.

However, on the afternoon of the concert, more than 4000 screaming fans jammed the Sports Palace to hear them.

Next morning every paper in the city carried the story and pictures of the concert on their front pages, and an editorial in one of them thanked "the government of the United States for giving the people of Turkey an opportunity to become acquainted with this new and exciting music."

This response is typical of that which the band has received throughout the Mediterranean area. In Athens, Chief Ridge had to call for police protection when a yelling, stamping crowd of 8300 people didn't want the musicians to stop after three hours of continuous playing. In Genoa's austere Piazza della Vittoria even middle-aged matrons danced in the streets to the band's

program of rock 'n roll selections.

Chief Ridge got the idea for the concerts last August, when *Coral Sea* was on her way to the Mediterranean. "A lot of Navy bands here in the Med," he says, "just go ashore every once in awhile to give a one-hour concert of march music to the pigeons in the city square. I decided that people over here would like to hear what Americans themselves listen to.



**CRAZY, MAN!**—Brass section of band from the large Sixth Fleet carrier rocks big crowd at Palermo concert.

For talent he drew heavily on his 18-piece ship's band, which were attached to *Coral Sea* for the duration of her cruise. Thirteen of these players were formed into the jazz band and from that group four of the best performers were selected for a "jam session" combo. From ship's company the chief also selected two vocal soloists, a tenor sax man and "The Cougars" — a choral sextet specializing in rock 'n roll.

After endless rehearsals, the first show was presented in Palermo, Sicily, on 23 September. Result: a throng of 7000 people kept the band playing for five hours. "One of the largest crowds we have ever seen in Piazza Castelnova,"

commented one Palermo newspaper.

"We knew then," says trumpet player Chris Fiorito, MU3, "that these people liked our stuff and we were on our way." On their own time the performers worked to enlarge the band's repertoire, rehearsing arrangements by outstanding band leaders to lengthen the programs.

The problems of rehearsing while the ship is at sea are many. The ship's band has its regular schedule of official ceremonial music to prepare. The "Cougars" and two vocalists are often unable to meet with the band because of their regular duties as personnel of an operating aircraft carrier. The tenor sax soloist, Robert Repp, AQC, USN, can't leave his job when the ship is operating aircraft. So the band often rehearses during the noon hour or after working hours to prepare for its next performance.

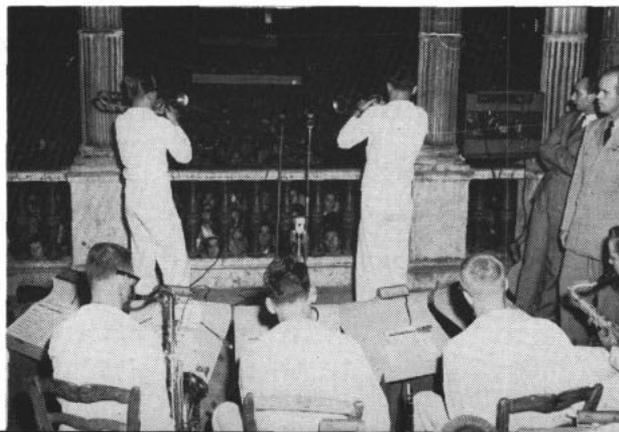
A typical concert includes such instrumentals as "String of Pearls," "Perdido" and "Night Train." Vocals include songs like "Love Is a Many-Splendored Thing," "Lady of Spain" and "I'll Remember April." Between these selections the Cougars sing rock 'n roll pieces to the accompaniment of their own guitars.

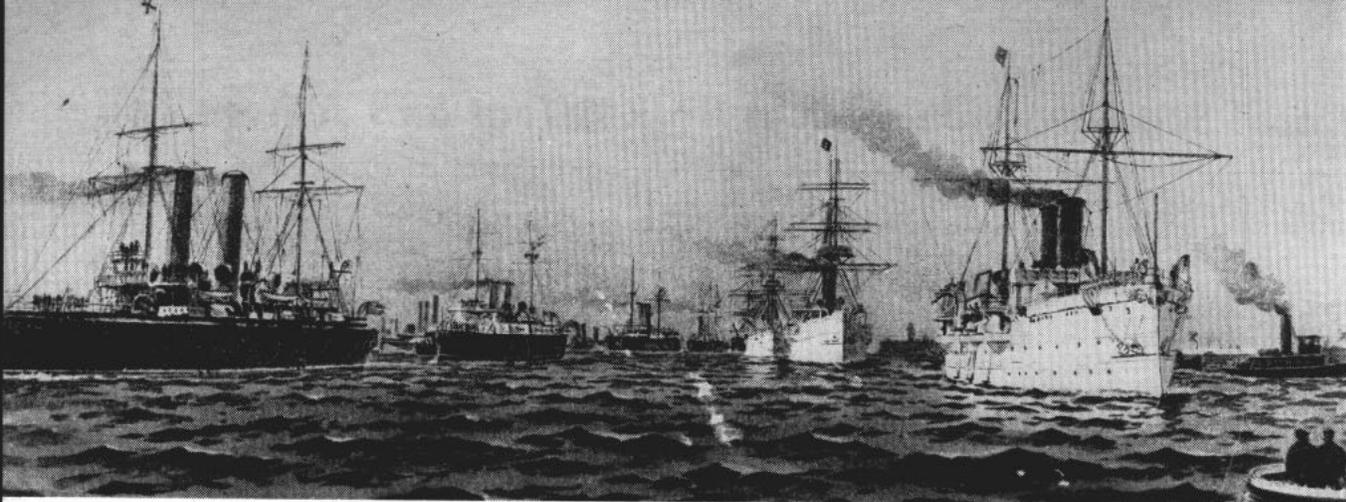
During *Coral Sea's* recent tour of duty with the Sixth Fleet (she is now with PacFlt), the band has played to an estimated combined audience of more than 25,000 people in Sicily, Italy, Greece and Turkey.

Chief Ridge hopes that other Navy bands will also present more jazz when they come to the Mediterranean. "After all," he says, "when people are dancing they can't be very mad at each other. And, as long as they aren't fighting, the Fleet's job over here is going to be a lot easier."

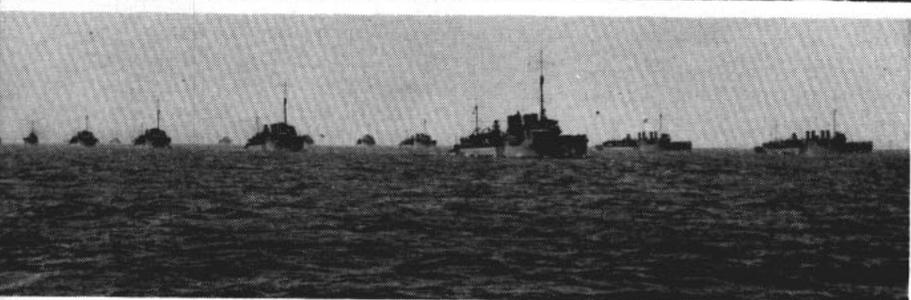
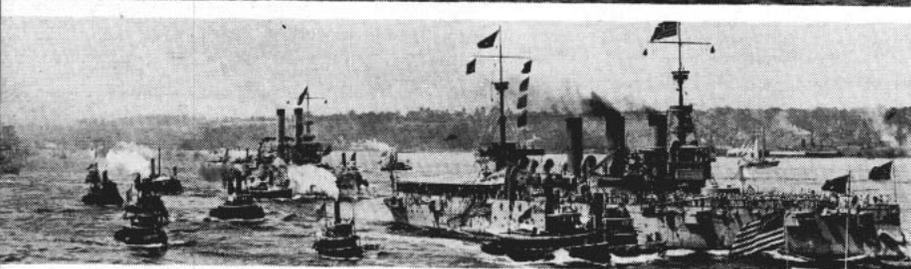
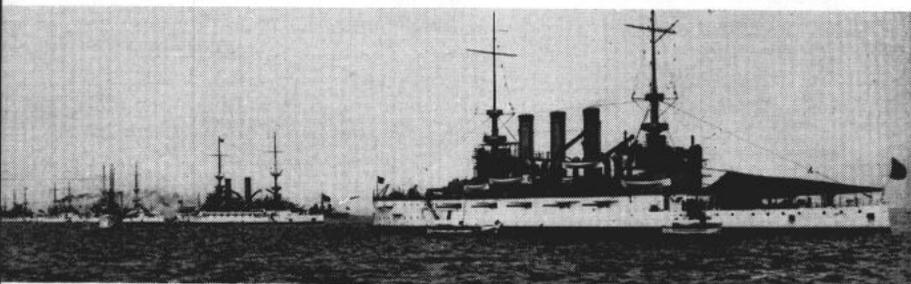
—H. C. Pendergast, LTJG, USN

'ROCK AROUND THE MED'—Rock an' Roll band of USS *Coral Sea* (CVA 43) plays and sings for enthusiastic Sicilians.





# International Naval Reviews—

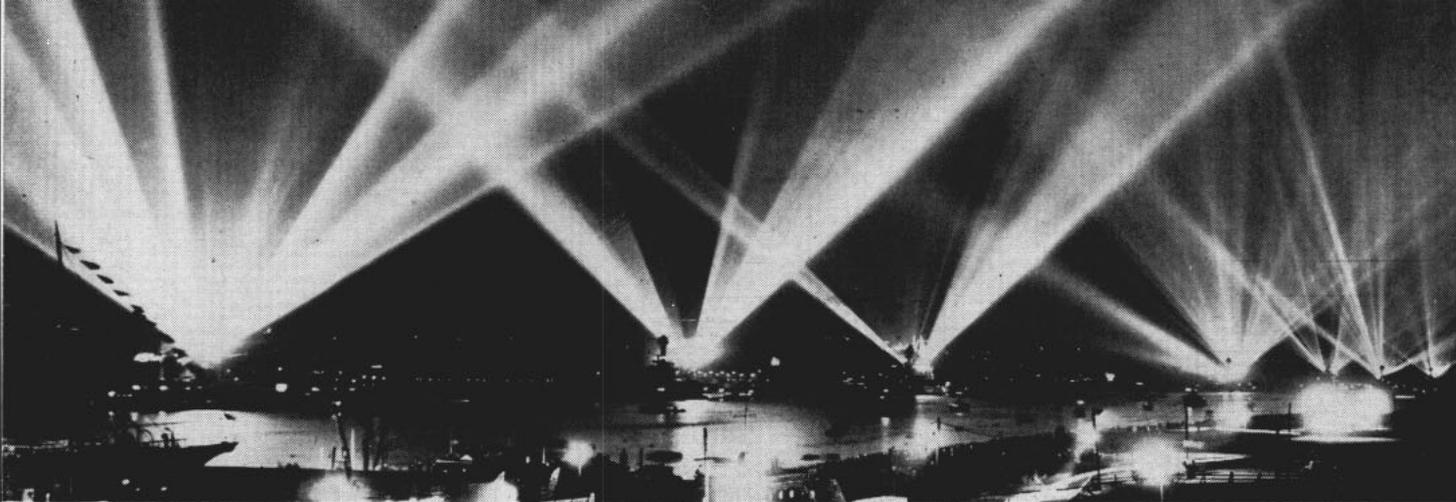


**S**HIPS OF MANY NAVIES are taking part in the International Fleet Review held at Jamestown, Va., this month. Although our own Fleet has been reviewed from time to time, this is the third international review to be sponsored by this country.

In 1893 ten nations took part in the first international review held in New York Harbor. Fourteen years later in 1907, ships from seven nations met in Hampton Roads, Va.

*Top:* White Ships of U. S. are reviewed alongside ships from England, France, Brazil, Russia, Italy, Germany, Holland, Spain and Argentina in 1893. *Upper left:* Second international review in 1907 included ships from Austria-Hungary, Argentina, Brazil, Chile, Germany and England. *Middle left:* *uss Iowa* and *New York* are among ships as U. S. Fleet is reviewed at close of Spanish-American war in 1898. *Lower left:* U. S. destroyers stand in review at Hampton Roads in 1927. *Below:* Last U. S. Fleet review was held on the Pacific Coast, at Long Beach in 1956.





# From 1893 to 1957

NIGHT LIGHTS—Navy ships light the sky during fleet review in past.

**A**N EVENT WHICH WILL FIND its way into history books of the future is taking place this month at Hampton Roads, Va., where more than 100 Atlantic Fleet ships and ships representing some 17 foreign nations are helping to celebrate the 350th anniversary of the settlement of Virginia.

Known as the International Naval Review the assemblage is scheduled to continue from 8 to 17 June, which has been designated as "Fleet Week." The theme of the review, the third of its kind to be held in U.S. waters, is "Freedom of the Seas."

The review is considered to be the largest peace-time display of warships in history. It is part of the program of the Jamestown Festival which began in April. The formal review will be held 12 June with an alternate date set for 13 June.

The nations involved in the exploration and settlement of the United States and the Americas and members of the North Atlantic Treaty Organization, whose western hemisphere headquarters (Supreme Allied Command, Atlantic) are at Hampton Roads, have been invited by the U.S. to send warships to Hampton Roads. Those taking part in the Fleet Review are Belgium, Canada, Colombia, Cuba, Denmark, Dominican Republic, France, Great Britain, Italy, Netherlands, Norway, Peru, Portugal, Spain, Turkey, Uruguay and Venezuela. The Chilean Navy may also participate. Other invited nations were not able to participate at this time.

After the review, 30 of the Atlantic Fleet ships will carry Naval Academy and NROTC midshipmen on their annual training cruises. Among these are heavy cruisers *USS*

*Macon* (CA 132), *Albany* (CA 123) and *Des Moines* (CA 134); the battleships *Iowa* (BB 61) and *Wisconsin* (BB 64); aircraft carriers *Saratoga* (CVA 60), *Franklin D. Roosevelt* (CVA 42) and *Randolph* (CVA 15). Also included are the guided missile cruisers *Boston* (CAG 1) and *Canberra* (CAG 2) and the tactical command ship *Northampton* (CLC 1), which will serve as the reviewing ships, plus amphibious ships, submarines, mincraft, auxiliaries and others.

Approximately 40,000 American and visiting sailors have landed in Hampton Roads and neighboring communities for the first such international show in the last 50 years. A civilian committee working with the main review committee arranged for an extensive entertainment program.

The visiting Navymen and tourists will have plenty to see and do in the form of recreation. There will be sightseeing tours including a visit to Jamestown Island and colonial



FRENCH DESTROYER *Vauquelin* moves alongside, while French Navymen watch. Above: Turkish and Colombian sailors at attention during ceremonies.





**NEW FRIENDS**—U. S. Navymen will visit and talk shop with other sailors from different nations like these bluejackets enjoying mess on Italian BB.

Williamsburg; concerts by several leading jazz orchestras; a professional baseball game; several cultural events including a concert by a symphonic orchestra; a modern dance and ballet demonstration, and instrumental and vocal solos; amateur and professional boxing matches a typical American county fair and international trade show; an ice show, circus and country music show.

International athletic competition is an added attraction as men from each ship challenge other crews to contests in soccer, basketball, rowing, swimming, tennis, boxing, track, field and other sports.

The purpose of the International Naval Review is to aid in the commemoration of the founding of the American colonies by settlers from Western Europe in 1607 which marked the beginning of an English-

speaking culture in this country. The first settlers, who were carried by ships *Susan Constant*, *Godspeed* and *Discovery*, founded Jamestown, the oldest corporate community in the United States. Replicas of these ships will be participating in the festival.

The review is sponsored by the U.S. Navy, the Virginia 350th Anniversary Commission and the Committee for the International Naval Review of the Virginia port communities of Hampton, Newport News, Norfolk County, Portsmouth, Princess Anne County, South Norfolk, Virginia Beach and Warwick.

The International Naval Review itself will be highlighted by a simultaneous gun salute to the reviewing official as soon as the reviewing ship approaches the participating vessels. The ships are to be anchored 8 June in two columns from Hampton Roads

**'ROMAN OVER'**—From sunny Italy, Fleet Destroyer *San Giorgio* will cross Atlantic to participate in International Fleet Review off Virginia shores.



**ENGLISH SHIPS** at the fleet review will

to Fort Story, a distance of about 14 miles. The ship carrying the reviewing dignitaries will pass through the review formation after having departed from the Norfolk Naval Base.

The first international review for which the United States was host was in 1893 when nine nations sent ships to Hampton Roads for a review by President Grover Cleveland in New York. The second, to which six guest countries sent representative vessels for review by President Theodore Roosevelt on 26 Apr 1907, was in connection with the Jamestown Tercentenary. He reviewed the ships from his presidential yacht *Mayflower*. President Roosevelt's arrival marked the beginning of the Jamestown Exposition which was located where the Norfolk Naval Base is today.

The theme "Freedom of the Seas" of this year's review was chosen to emphasize the role of the waters in the settlement of this country and to suggest the development of ship construction since *Godspeed*, *Discovery* and *Susan Constant* (copies of which can be seen at Jamestown) battled their way across the Atlantic 350 years ago.

Each visiting ship is to be assigned to a U.S. host ship which is to escort its guest into anchorage. The U.S. Navy crews will then assist in acquainting the foreign sailors with the Hampton Roads area. The host ships are to moor adjacent to or in the near vicinity of the ships to which they are assigned.

An added attraction to the review is the performance of the "Blue



include two destroyers and a carrier.

Angels," who are scheduled to go through their famed maneuvers over Hampton Roads.

Naval and Marine forces from the Amphibious Training Command of the Atlantic Fleet will perform a combat landing demonstration at Camp Pendleton which is south of Virginia Beach.

The largest visiting ship at the review is the British aircraft carrier *Ark Royal*. England is also represented by two destroyers.

During the entire "Fleet Week" all U.S. naval installations and ships in the Norfolk area are holding Open House for crew members and officers of guest ships and for the general public.

—William Miller, SA, USNR.

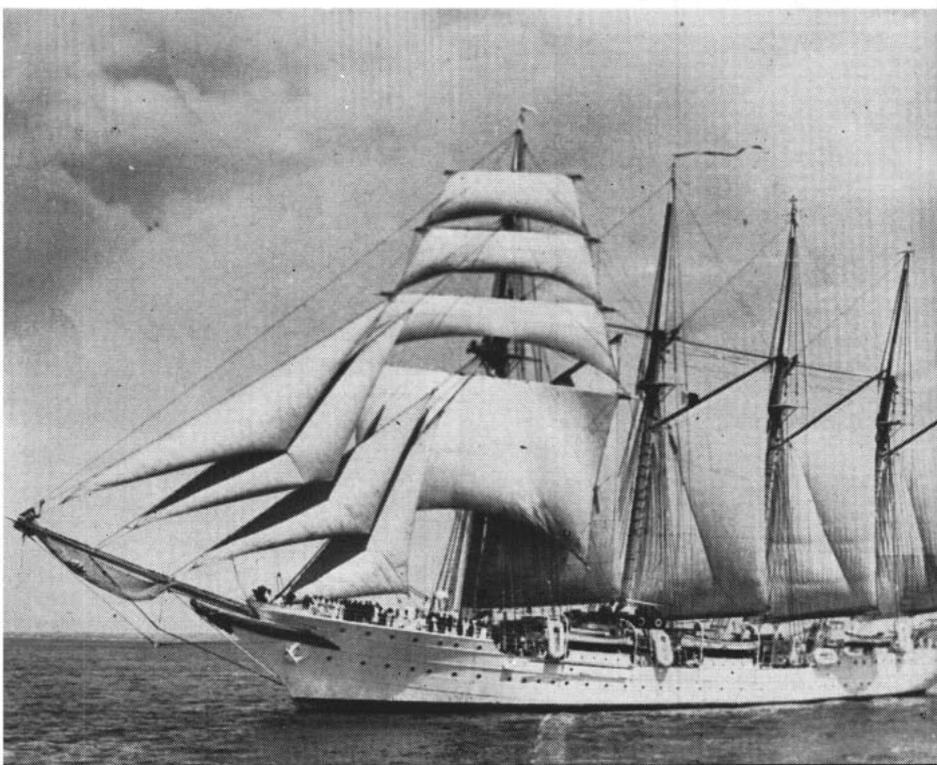


**CAPTAIN SMITH**—In pageant Navy Captain R. K. Irving wears uniform of the day as Captain John Smith.

**JUNE 1957**

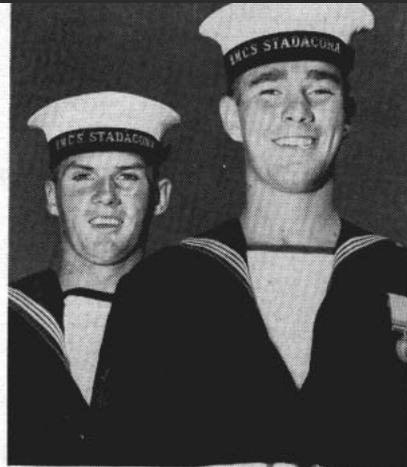


**SAILS AHOY!**—When replicas of *Susan Constant* (above), *Godspeed*, and *Discovery* spread canvas at festival, they will not have an exclusive on 'air power' as Spain's *Juan Sebastian de Elcano* (below) will claim a share.





**Belgium:** This enlisted man and officer from Belgium are both crew members of a minesweeper.



**Canada:** Navymen of our northern neighbor will man Canadian destroyers in the fleet review.

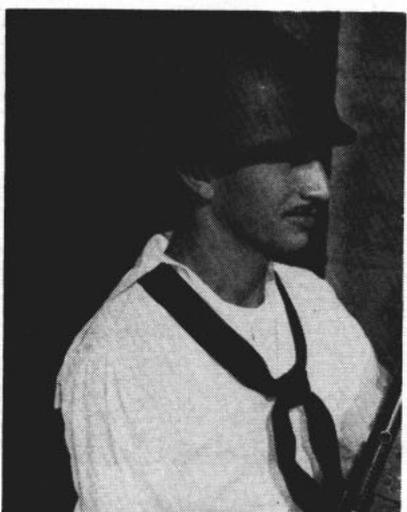


**Denmark:** From the North Sea, Danish sailors such as these will represent their Navy.

## Sailors of Many Nations



**Dominican Republic:** Her sailors will wear this style navy uniform.



**Cuba:** Navymen from the tropical Island of Cuba are sailing north in their ships for international show.



**Uruguay:** Among our neighbors will be navymen and ships from Uruguay.



**Colombia:** Navymen from down South America will be at Jamestown fleet review.



**France:** The well known tasseled flat hat of the French Navy will be 'squared away' for review.



**Great Britain:** Enlisted sailors of Britain's Royal Navy will be present.



**Chile:** Sailors like these from a land long in naval tradition hope to take part in the Jamestown review.



**Italy:** Italian signalman flashes message from battleship. Italian ships and men will be at the fleet review.



**Netherlands:** Striped skivvy shirts are a distinctive part of Dutch uniform.

## to Celebrate 'Fleet Week'



**Norway:** These sailors relaxing with guitar show the dress and working uniforms of their country.



**Peru:** An engineman third class in turtle-neck attire, and lieutenant, are typical of Navymen of Peru.



**Portugal:** From the land of seagoing men are Navymen from a Portuguese Man-of-War.



**Spain:** A Spanish sailor like those who will be on hand for review answers phone on a Spanish cruiser.



**Turkey:** Two Turkish sailors on shore patrol duty stop to compare smokes with a U. S. sailor.



**Venezuela:** With other navies from South America will be Venezuelan navymen.

# ★ ★ ★ ★ TODAY'S NAVY ★ ★ ★ ★



BOW ON view of USS *Forrest Sherman* (DD 931) and USS *Willis A. Lee* (DL 4) moored together points up sleek lines of these new class ships.

## Tracking the Earth Satellite

Radio equipment, so sensitive it can "hear" invisible stars, is now in production for the Navy Department.

The ultra-sensitive radio, called "Minitrack," was designed and built originally by the Naval Research Laboratory to track the earth satellite which will be launched some time during the International Geophysical Year (31 Jul 1957 to 31 Dec 1958.) The original "Minitrack" system, along with 11 other receivers, will be strategically placed up and down the American continents to tune in on radio signals

from the man-made moon as it orbits in space at 18,000 miles an hour—circling the earth about once every 90 minutes.

The satellite's 12-ounce transmitter will send its signal on a frequency of 108 mc (at the upper end of the standard FM broadcast band) with a power of from 10 to 50 milliwatts.

This is only one millionth as strong as the signal of a standard radio broadcasting station of 10 to 50 kilowatts rating, or to put it another way, 1/100,000th of the power consumed by a 100-watt light bulb. Radio equipment sensitive enough to

receive this signal can listen to radio "noise" originating on the sun (not ordinary sun-spot "static") and detect the presence of stars that emit no visible energy.

Through the chain of 12 interconnected Minitrack receivers—each capable of determining the position of the satellite in the few seconds it is within radio range—a continuous "fix" on man's first space vehicle will be possible.

Without such precise information, observing the satellite in flight would be like trying to watch a golf ball, dropped from a jet plane flying at the speed of sound at 60,000 feet.

## Air Trolley

Ever hear of the real life Toonerville Trolley? Probably not. Membership is limited to a small group of USN aviation personnel assigned to Commander, U. S. Naval Activities, Spain. The "trolley" is one R4D-8, which logs approximately 250 hours a quarter.

The crew performs the usual maintenance under the Spanish sky at Getafe Spanish Air Force Base, situated some 10 miles from Madrid.

Chief pilot and the only plane commander assigned at the present time, is LCDR Albert T. Hall, USN. His job is to keep the plane in flying condition to support the contractors and officer in charge of construction of the military bases under construction in Spain.

The plane, known throughout the Spanish airways as the "Toonerville Trolley," has carried a variety of cargo besides civilian and Navy engineers. It has carried rocks of various dimensions, concrete specimens, mail, milk and turkeys.

The plane crew does its own bookings for passenger space; loads and unloads the cargo; sees to the comfort of the passengers and keeps the plane flying regardless of the obstacles to be faced.

The crew members leave their homes at 0630 each morning and if they get back before 2000 that night they have had a short day.

Every control tower in Spain knows the "Trolley." While other

## YESTERDAY'S NAVY



On 1 Jun 1948 as a part of the unification of the armed forces, Air Transport Command (ATC) and Naval Air Transport Service (NATS) were consolidated into the Military Air Transport Service (MATS). On 17 Jun 1863 U. S. ironclad *Weehawken* forced the surrender of the Confederate ram *Atlanta* in Wassaw Sound, Georgia. *USS Ranger*, first ship designed and built from the keel up as a carrier, was commissioned 4 Jun 1934. The greatest amphibious operation in history took place on Normandy, 6 Jun 1944. Naval bombardment of Vicksburg began on 26 Jun 1862.

plane commanders of civilian airlines are trying to raise particular points, the pilot gives out the call signal, "dos-cuatro-dos-ocho," and he is immediately answered by control. When he did not make a run to one part of Spain which he had been doing regularly, the next time he went, the operator at one check point inquired why he did not fly to that part on his scheduled day.

During recent months, men of the group have handled engine changes with a hand crew-box and with a minimum support and have also devised their own supply line. Major maintenance is done at Port Lyautey, but to keep the plane in Spain to handle the problems placed before it, the crew does it at Getafe.

The man who keeps the home fires burning is R. D. Sullivan, chief aviation machinist's mate. When minor maintenance and checks come up, the flight mechanics and radio operator pitch in and help the small maintenance crew.

The only other man who has logged as many hours as LCDR Hall, is H. B. Farrell, AT1, who is the plane's radioman. Even when the plane goes up for a check flight after a maintenance check, Farrell is on board at his customary seat in the radio compartment.

As for the flight mechanics, C. L. Hatcher, ADC, and J. R. Carson, AD2, alternate the trips.

The "Trolley" will be the nucleus of the Naval Air Station at Rota when it's commissioned sometime this year.

### Mountain Movers at It Again

Seabees are making firm friends among the cadets of the Japanese Military Academy. Seabees of Amphibious Construction Battalion One, stationed at Yokosuka, Japan, are completing an additional six acres of training field at the academy to add to the 14 acres constructed for the school's opening back in 1955.

With the completion of the job, 9000 cubic yards of hilly soil will have been cut and leveled by ACB-1 to provide more training space.

In the spring of '55, the Seabees first used heavy excavation and grading equipment to remove and redistribute 29,900 cubic yards of earth, working mostly on the weekends and in their spare time.

This opened a field for the academy, which trains cadets for all branches of Japan's defense forces,



**MUSHROOM TOP**—Navy's new WF-2 houses latest type radar antenna on top of fuselage. Primary mission is to serve as early warning aircraft sending info.

for drill, athletics and maneuvers.

The 1300 cadets of the academy go all out to make the Seabees feel at home. They regularly bring green tea to the workers and three of the cadets stayed at the academy during their Christmas leave in order to learn to use Seabees' equipment.

### Automatic Landing System

An automatic carrier landing system has successfully completed all land trials and is now being installed on a carrier for tests under actual carrier flight operations.

In land-based tests leading up to its sea trials, the system completed more than 1200 landings with a high rate of precision.

Completely automatic, ACLS has successfully landed six different types of jet fighters, large transports, and light commercial aircraft at a number of different bases. It operates in all kinds of weather.

The system, which is highly mobile, is a combination of radio and radar. Radar locates the airplane and determines its altitude and position in relation to the carrier deck. An electronic computer does the rest, sending the necessary course corrections to a device that directs the airplane into desired flight pattern.

Reflecting the present study of ship motion at sea in an effort to stabilize ship pitch and roll, the system takes into account the carrier's movement the instant the plane is about to touch the deck. If the airplane is not in the best attitude for a safe landing, ACLS automatically sends the airplane around for another attempt.

Tests on board the carrier are

expected to require four months.

During one part of the land-based phase of the test program, a pilot was successfully guided through four actual blind landings during a heavy snowstorm. Other airplanes in the area were unable to take off or land because of the restricted visibility, which was less than a quarter mile.

The system will not only make all-weather flight possible but may be used to land pilots who are either wounded or overly tired after flying long missions.

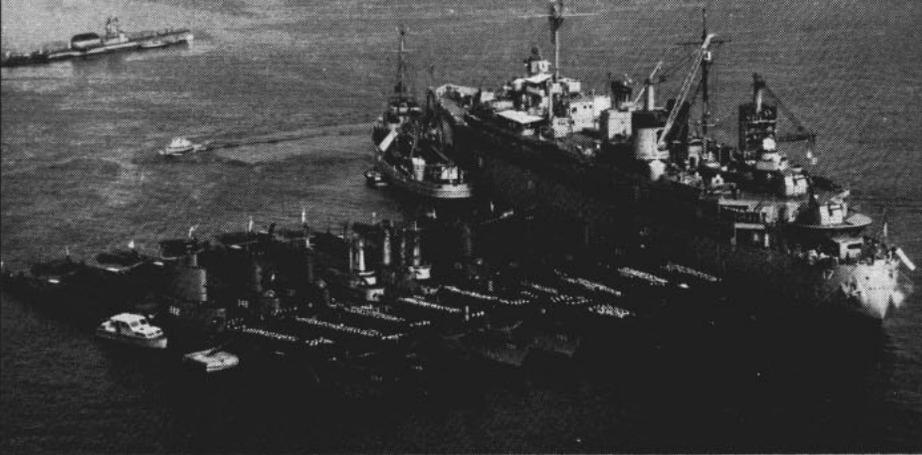
### Trainer for Weapon Loaders

A trainer for giving crews practice with weapons loading aboard AJ aircraft has recently been developed by the Naval Training Device Center, Port Washington, N. Y.

The trainer consists of a simplified AJ-2 cockpit supported by wheels and includes a bomb bay section complete with suspension racks. The cockpit section includes identical T-boxes, armament selection and power switches and controls used in the actual aircraft. The trainer simulates the aircraft wiring and preflight check and loading of actual or simulated weapons as well as the postload check. It is designed for mobile use, is capable of loading all weapons found in AJ aircraft and uses standard power.

The trainer is being used within the FAETULant Weapons Training Program but can also be used by other weapons training activities and aboard carriers. Crews can also be trained on the device in hangar spaces or on a parking strip.

The Center plans to develop a trainer patterned after the A3D.



**LEADING THE FIELD**—The men of Submarine Force Pacific Fleet are ahead in gifts sent in to the Navy-Marine Corps Memorial Stadium Fund Drive.

## Contributions Roll in for Stadium Fund

Several major Fleet units, SubPac, Atlantic Fleet Marine Force Troops, CinCNELM Staff and NATC Patuxent River are among the leading contributors to date in the Navy-Marine Corps Memorial Stadium Fund Drive. The Memorial Stadium will be paid for out of funds contributed by Navy and Marine units (see April 1957 ALL HANDS, page 22).

Ships and stations who are the leaders in their class as of 1 May are:

<b>Submarine Force PacFit</b>	
(Average \$1.40 per man)	<b>\$8080.55</b>
uss <i>Lexington</i> (CVA 16)	1851.07
uss <i>Wasp</i> (CVA 18)	1850.00
Force Troops, FMF Lant	1814.87
CinCNELM Staff	1620.75
<b>Naval Air Test Center,</b>	
Patuxent River	
uss <i>Yellowstone</i> (AD 27)	1200.00
uss <i>Thetis Bay</i> (CVHA 1)	1200.00
uss <i>Iowa</i> (BB 61)	1180.53
NAS Anacostia	1100.00
NAS Minneapolis	1075.00
uss <i>Northampton</i> (CLC 1)	1000.00
1st Marine Brigade, FMFPac	967.57
Fleet Air, Whidbey	911.63
<b>Marine Aircraft Group 31</b>	
(REIN), FMFLant	740.00
Bureau of Naval Personnel	700.76
uss <i>Vulcan</i> (AR 5)	600.00
uss <i>Gatling</i> (DD 671)	583.00
uss <i>Barry</i> (DD 933)	500.00
<b>Naval Air Material Center,</b>	
Philadelphia	
484.76	
<b>Naval Ammunition Depot,</b>	
Hingham, Mass.	
470.00	
<b>U. S. Naval Regional Accounts</b>	
Office, Washington D.C.	430.64
uss <i>Spangler</i> (DE 696)	400.00
uss <i>Olmsted</i> (APA 188)	388.47
uss <i>Gen W. A. Mann</i>	
(TA-P112)	375.00
uss <i>Altair</i> (AKS 32)	346.78
<b>Electronic Countermeasures</b>	
Squadron Two (VQ 2)	345.00
uss <i>Chukawan</i> (AO 100)	250.00
<b>U. S. Naval Regional Accounts</b>	
Office, Pearl (70 civilians,	

8 officers)	230.00
<b>OICC BuDocks Contracts—Madrid</b>	
(\$7.35 per man)	213.00
uss <i>Remora</i> (SS 487)	211.30
uss <i>Aldebaran</i> (AF 10)	200.76
uss <i>Grampus</i> (SS 523)	132.00
uss <i>Tanner</i> (AGS 15)	128.00
uss <i>Deliver</i> (ARS 23)	114.00
uss <i>Adroit</i> (MSO 509)	58.25
uss <i>Luiseno</i> (ATF 156)	45.00
<b>SubPac—Hawaii Marines</b>	
Benefit Basketball Game	2646.09

Many ships and stations are still to be heard from as the drive gains momentum. All units of appropriate size are making a special effort to reach the \$1000 mark which will result in a separate plaque, with their name inscribed thereon, to be displayed on the stadium when built. Other units making donations below this mark will have their names listed cumulatively.

Many in the Fleet are taking the opportunity to dedicate memorial chairs in the Navy-Marine Corps Stadium. For a contribution of \$100, a memorial chair may be dedicated to any individual, officer or enlisted,

who has served or is now serving in the Navy or Marine Corps. So far the requests for memorial chairs have passed the 230 mark.

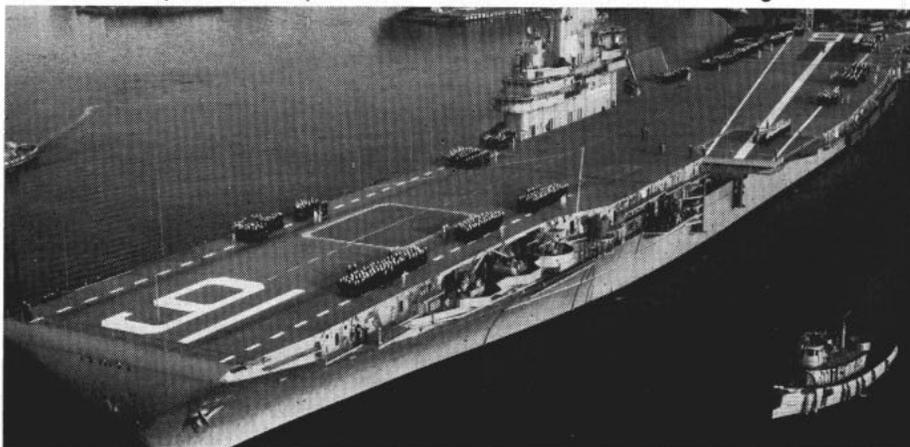
The plans for naming the chairs that seem to be the most popular in the Fleet are: (1) Name of the individual for whom the ship is named; (2) Name of a shipmate lost in action or an operational casualty; and (3) Name of the individual contributing.

As of 1 May 1957, funds in hand, donated for the construction of the stadium at Annapolis, Maryland, passed the \$225,000 mark on the march toward the goal of \$2,000,000 to be raised by donations. This sum, added to the \$1,000,000 already set aside toward the project by the Naval Academy Athletic Association, gives the fund a total of \$1,225,000 of the \$3,000,000 needed to build the Stadium.

The feeling fostered by the construction of the stadium is summed up in a letter received from Brigadier General G. R. E. Shell, usmc, Commanding General, 1st Marine Brigade, FMFPac:

"I have long felt that the Navy and Marine Corps needed a single Memorial honoring the memory of our fighting men who made the supreme sacrifice in our common cause. I can think of no finer tribute than an Athletic Stadium, where the ideals of teamwork are taught and learned, the teamwork that is symbolic of, and so necessary to the military man. This symbol is particularly appropriate in that it will also honor all present and future members of the Navy and Marine Corps and serve as a continuing reminder of the proud tradition that is our heritage."

**OFF AND RUNNING**—USS *Lexington* (CVA-16) ranks second in her contributions to Navy-Marine Corps Memorial Stadium Fund Drive now being held.



## Install Biggest Radio Telescope

Installation of the largest radio telescope in the United States is under way in southern Maryland by the Naval Research Laboratory. It will be known as the Maryland Point Observatory.

The telescope will consist of an 84-foot dish-shaped antenna mounted at the top of a large steel supporting tower. The antenna, which will be built primarily of aluminum, will be mounted with one axis parallel to the earth's axis, permitting tracking of any celestial object with a simple clock drive, as is done in large optical telescopes. It is this feature, coupled with the antenna's size, which will set the new instrument apart from other existing radio telescopes and will add greatly to its utility, permitting the detection of fainter sources of radio signals, as well as the more detailed study of more intense sources.

The southern Maryland site was chosen for the installation because of the excellent view of the horizon it provides and also because of the low radio interference.

Radio astronomers at NRL will use the new scientific instrument in the continuing program of research on radio radiation from the sun, moon, and planets, as well as to carry on studies of the composition and physical processes occurring in interplanetary, interstellar, and intergalactic space. Recent accomplishments in this program, begun in 1946, have included the first detection of radio radiation from Mars and Venus and measurements of radio wave lengths that have confirmed present theories on the expansion of the universe.

## Accident Saver

The first "Universal Digital Operational Flight Trainer" (UDOFT) is being developed under a contract awarded by the U. S. Naval Training Device Center, Port Washington, N. Y. The UDOFT program is jointly sponsored by the Department of the Navy and the U. S. Air Force.

The UDOFT system will provide the additional speed and versatility in ground training devices needed to simulate the characteristics of the growing number of supersonic planes which U. S. pilots will be flying.

The system is centered around a new large-scale digital computer of great flexibility, speed and accu-



LUXURY LINER? — No, these Navymen are enjoying off-duty hours at sea on board USS Vulcan (AR 5) in their newly decorated and furnished lounge.

racy. This will make it possible to shift the trainer from the simulation of the flight of one plane to the flight of another, as well as to change flight conditions or aerodynamic characteristics to test their effects on the simulated plane and the response of the pilot.

In the trainer, the pilot sits in an actual airplane cockpit, as he would in flight. His controls and instruments are connected with floor-to-ceiling banks of computing and other electronic equipment next to the plane section. With the cockpit canopy closed, the trainee can see only the instruments and controls used in actual flight.

Although the cockpit itself does not move, the electronic "brain" simulates flight by setting appropriate readings on the instruments. The trainee's teacher has a duplicate set of instruments and controls at the computer panel, from which he can determine what the trainee is doing. He can also introduce new conditions like engine failure, air turbulence and weather, which the electronic "brain" translates on the cockpit instruments, and which the trainee must work through the proper use of his stick, throttles and other controls. Changed instruments readings which the "brain" alters after calculating the effects of the trainee's actions, indicate how he is "flying."

The UDOFT computer eventually will be able to solve equations for several cockpits simultaneously, allowing a group of trainees to receive simultaneous instruction, either in independent flight, in flight formations, or in simulated combat.

## How to Get Seasick Ashore

A contract to design, build, and install a large ship-motion simulator for the performance evaluation of the Navy's Fleet Ballistic Missile has been awarded.

The simulator will be used to reproduce ship motions for the purpose of checking guidance and fire-control systems and handling, check-out, and actual firing procedures for ship-launched missiles.

The major purpose of the simulator will be to determine the limiting conditions under which a missile can be safely launched from a moving platform without interference from the platform. In the process, such factors as crew safety, operation of the launching mechanism, and operation of the guidance controls will be studied.

Designed to duplicate the essential features of the motion of a ship, the simulator will be capable of producing a periodic roll and pitch in any direction while simultaneously producing the heave motion.

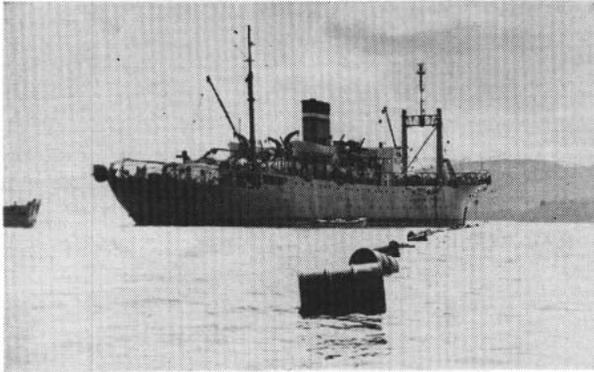
Actual ship motions may be reproduced from magnetic tape recordings taken at sea. In this way studies can be made of many devices under controlled and repeatable conditions.

The simulator includes a system capable of determining the dynamic thrust forces at take-off in much the same manner as is done in a wind tunnel.

The ship-motion simulator will be installed at the Air Force Missile Testing Center, Cocoa, Florida, where the latest of Navy's guided missiles will get their sea legs tested.

# SERVICSCOPE

Brief news items about other branches of the armed services.



ARMY SIGNAL Corps goes to sea in cable ship to lay new 1250-mile telephone line from Washington to Alaska.



THE FIRST LINK in the chain of the Arctic Radio System relay antennas has been completed by the Air Force. This new communications system connects North America's most remote radar warning system to combat centers of the Alaska Air Command.

Its primary purpose is to enable the Alaska Air Command to receive reports of aircraft detected by radar outposts such as the Distant Early Warning Line north of the Arctic Circle.

Radio signals, which may contain many telephone conversations and telegraph messages, are beamed from antenna to antenna. In order to arrive at its destination, the beam is deflected off the troposphere, a layer of air five miles above the earth.

At the center of each relay station, which might be as far as 170 miles from the next point, is a 100-ton antenna which resembles a screen of an outdoor theatre and is in precise alignment with antennas on other stations.

Land lines could not be used because they would require maintenance over impassable tundra and large mountain ranges. This signal system was selected because it is free from atmospheric disturbances which make ordinary communications in the North impossible at times.



A GREATLY IMPROVED "weather station" that is ejected from an airplane to determine weather characteristics in inaccessible parts of the world has been developed by the Air Force.

This instrument is a radiosonde, a weather-sensing radio transmitter developed at Wright Air Development Center. The new version is more accurate and adaptable than its predecessor, yet costs less.

Radiosondes have been used for several years by the Air Weather Service to determine the weather characteristics over the oceans and polar regions where permanent weather stations are not practical. The units are parachuted from airplanes and transmit a complete record of humidity, temperature, and air pressure until they hit the earth.

The improved radiosonde is designed for use from

altitudes up to 60,000 feet and at speeds up to Mach .98 as compared to the 30,000-foot and Mach .43 limits on the older model. In addition, the new unit is 95 per cent reliable as compared to a previous reliability of 80 per cent.

Six seconds after leaving the airplane, the radiosonde parachute pops out of its housing, stabilizing the unit and lowering it gently toward earth. Simultaneously, a one-foot antenna automatically snaps downward and a short arm extends perpendicular to the radiosonde.

On the arm are located relative humidity and temperature sensing elements and inside the container is an air pressure bellows. These three devices immediately begin to sense temperature, humidity and pressure and transmit this data by radio back to the airplane.

Inside the airplane a receptor picks up the signals, then decodes and records them. This record is evaluated by a technician who in turn radios the findings to a central weather station.

Some 25,000 radiosondes are dropped each year by seven weather squadrons flying daily in the Northern Hemisphere.



A NEW TYPE FACE SHIELD for use by troops or others required to work in extremely cold climates has been developed by the Army Engineer Corps.

The face shield is designed particularly for use under severe conditions such as encountered in arctic regions where men are required to work outside.

The idea of a face shield for use in cold climates came as the result of a painful experience which one of the Army engineers had in the arctic in 1947. While at Fort Churchill, he suffered a frozen cheek and "this made me think how stupid it was to have the rest of the body well-protected from the cold and yet leave one's face virtually unprotected."

The new face shield remains free from cloudiness resulting from condensed moisture of respiration, and incorporates an improved, readily adjustable mounting which permits upward rotation through an arc of 90 degrees for a short period of time. Its head harness is adjustable for size. The main shield and inner frost apron are of transparent plastic.



AIR FORCE GLOBEMASTER lands at Navy's Williams Air Facility, bringing in supplies for Deepfreeze.

Two new mobile ditching machines capable of digging four-foot deep trenches at rates exceeding 20 feet a minute are undergoing tests at Fort Belvoir, Va. It is anticipated that the rubber-tired units may prove extremely useful to the Army and Civil Defense in providing protection for personnel against flash burns or fragmentary bombs, and radioactive blast.

One model, mounted on a special vehicle which is powered by a 154-horsepower diesel engine, can dig a trench at the rate of 28 feet a minute. It has 21 buckets with interchangeable insert-type teeth.

Mounted on a standard truck, the other unit is capable of digging at the rate of 24 feet a minute. Its hydraulically operated boom can be placed into the digging position in less than a minute after arrival at a site.

This machine consists of 40 buckets which are equipped with interchangeable insert-type teeth, and features a side leveling mechanism that permits it to dig on side slopes up to 15 degrees. Both units have a maximum digging depth of six feet and can excavate a foxhole in 30 seconds. They can also be used for the rapid excavation of other types of field fortifications and utility trenches.



THE LARGEST SKIS ever made for aircraft are claimed for the C-130 *Hercules* designed to serve as an Air Force cargo-troop carrier in the Arctic and Antarctic regions.

They are equipped with "knee-action" to serve as a pillow when the big transport touches down on the ice. Engineers say the knee-action gives the same shock absorbing cushion to the plane that it would get from tires in a normal landing on a concrete runway.

With installation of these skis, 62-ton *Hercules* is expected to have the ability to make cushioned landings on any type of terrain from rough, hastily prepared fields to sand to ice caps.

The three skis of the *Hercules* will resemble landing craft. Two skis will operate in conjunction with the



LIGHT 7.62 machine gun which can be fired from shoulder, hip or mount will replace Army's caliber .30 guns.



DOG WATCH—Sentry dogs and their airmen handlers keep watch at the USAF Strategic Air Command Bases.

main landing gear and the other with the nose gear.

The pilot can change the landing gear from conventional wheels to skis, or from skis to wheels. The change-over will enable the pilot to take off from a dry concrete runway and land on any type of snow from deep, soft slush to hard, weathered snow of the polar ice caps, or he can make a ski-take-off and then land on his wheels.

On the ground, the ski-version of the plane can be steered by turning the nose ski, just as on concrete you would turn the nose wheel. The nose ski will turn in a 60-degree arc.

When skis are in the retracted position during flight, they fit snugly against the fuselage.



NEW IDEAS IN FOOD are being flight-tested in an experimental kitchen just completed by the Air Force.

Designed as a research facility to improve meals for air crews, the fully-equipped kitchen is being used to test the preparation of food in aircraft-type ovens and to determine their acceptability to flyers.

Ideas born in the experimental kitchen, in some instances, will be turned over to the Quartermaster Institute for the Armed Forces in Chicago, where they will be further developed. Tests will be made there to determine how long the food will remain usable and palatable, how well it is received and how easy it is to produce.

The new kitchen is built into an L-shaped room. It contains stainless steel counters on two walls, a double sink, garbage disposal unit, gas range and oven, and an electric oven.

Above and below the counters are rows of steel storage cupboards, two refrigerators and two freezers. A ventilation system removes cooking odors. The kitchen is also equipped with 220 volts of electricity for the regular oven, and 110 for general electrical appliances and flight food service equipment.

The only thing missing is an automatic dishwasher, and that was purposely omitted since flight meals must be prepared for serving on disposable plates and cups and eaten with disposable utensils.

# THE BULLETIN BOARD

## This Is the Life at Arco U, Idaho, for Nuclear Fleet Sailors

**M**OST NAVYMEN ordered to nuclear training are unfamiliar with the southeastern Idaho area and the living conditions there. This is the scoop:

There are three cities located within a 60-mile radius of the Naval Reactor Facility at Arco, Idaho, where you'll be stationed for at least six months or more if you are a nuclear submarine trainee, and for a year or more if you are a nuclear surface ship trainee.

### Idaho Falls

Idaho Falls, a city of over 25,000 population, has eight elementary schools, a central intermediate school, junior high school and high school. In addition, there is a private school and seven privately owned and operated nursery schools and kindergartens. A business college also operates in the city.

Idaho Falls has two modern and fully equipped hospitals with 285 beds. Both hospitals have excellent laboratory facilities and are staffed by highly trained technicians. Thirty nine physicians and surgeons, including specialists in almost all fields, are available in the city. There are also 23 dentists.

Thirty-five churches serve Idaho Falls, representing nearly all major denominations.

For recreation the city boasts of 245 acres of parks, including an 18-hole golf course, a zoo, swimming pool and natural history museum. The city has five movie theaters, an array of night clubs and supper clubs, rodeo grounds, and the Highland Park baseball field—home of the professional Idaho Falls "Russets" of the Class C Pioneer League. National names in the entertainment world appear at the imposing Civic Auditorium, and local groups including the Idaho Falls Symphony Orchestra offer varied programs during the year. Two radio stations and one television station are located in the city.

Idaho Falls has 372 retail stores to give the shopper a wide variety of goods. Several "neighborhood"



"I have something."

shopping districts are to be found in the city.

Most national and international civic clubs have active organizations. Weekly meetings are held by many clubs.

Rail, air, truck and bus routes converge from all directions to make the city a transportation hub for the area. In addition to two air lines serving the city, chartered plane service is available.

Idaho Falls is primarily a city of individually owned homes, but houses, duplex type apartments and other larger type apartments are available to rent. As a result of the demand for housing to meet the needs of a fast growing city, many of the homes and rental units are very new and modern.

### Blackfoot

Blackfoot, with a population of 6000, has six grammar schools, a junior high school, a parochial school, and a new high school.

The Singham Memorial Hospital has a 50-bed capacity. It offers modern, up-to-date service and maintains an open staff. Seventeen doctors serve the area.

Churches of nine different denominations are found in the city.

Blackfoot has two parks, a swimming pool, tennis courts, three movie theaters and a drive-in theater. A nine-hole golf course will soon be built. The city maintains a youth

recreation program during the summer months.

More than 150 retail outlets are located in the city. Blackfoot has one local radio station and receives television from the Idaho Falls station.

### Pocatello

Pocatello has a population of approximately 30,000. It's the home of the Idaho State College and has a modern high school, a business college, two parochial schools, three junior high schools, and 10 elementary schools. During the 1956-57 school year 9000 students were enrolled in the public schools.

It also has two hospitals with a total of 250 beds, and a number of competent doctors and dentists practice in the city.

Thirty churches representing 20 different demoninations serve the area.

Recreation facilities include Professional Class C Baseball at Halliwell Park; two nine-hole golf courses a municipal swimming pool, bowling, skiing and skating, four movie theaters, night clubs and supper clubs. Concerts, presenting nationally famous artists, are held during the winter months, at Frazier Hall on the Idaho State College campus.

A wide variety of retail outlets serve the city, offering selections of merchandise comparable to stores in much larger cities.

Most national and international civic clubs are active in the city.

Two radio stations and one TV station serve the city.

Housing in Pocatello is very similar to housing in Idaho Falls. Multiple type rental units are more common than single units, however.

• **Housing**—If the Naval Reactor Facility isn't able to arrange for housing to be available for you upon your arrival, it will be to your advantage to check all three cities—Idaho Falls, Blackfoot and Pocatello—when looking for housing.

In general, housing is not too difficult to find. It's somewhat expensive in Idaho Falls and Pocatello, and

a little cheaper in Blackfoot. The latter is the smallest of the three cities, therefore, it has the least housing available.

A good place to start looking for a place to live, is in the want ads of the local newspapers. At Pocatello, however, the Chamber of Commerce operates as a clearing house for the Navy in locating available housing and placing new arrivals. Since Pocatello is the largest of the three cities, it appears to be most promising and it offers the largest list of available housing.

There's no federal housing available in the area. The approximate price for a two-bedroom unfurnished home runs between \$75-\$100 per month, while those with three bedrooms run from \$80 to \$120. A two-bedroom furnished home can be rented for about \$100 per month. A number of apartments both furnished and unfurnished, can be found in each of the three cities and are much cheaper than renting individual houses.

Most unfurnished homes do not include stoves or refrigerators. Electric stoves are most common as the majority of the rentals are not equipped to supply gas.

If you cannot find adequate housing as soon as you arrive, a number of motels are available. Some of them provide kitchen facilities. Rates vary according to your length of stay, the number of occupants and in some cases the type of service (maid service, etc.) you desire.

• **Household Effects**—There are three major transfer and storage companies in the area.

Also note the following:

Proper consignment addresses for shipment of household goods for personnel assigned to the U.S. Naval Nuclear Power Training Unit, Idaho Falls, Idaho, are as follows:

**Van Shipment**—If it is possible to determine prior to shipment from the individual concerned whether he will reside in either Pocatello or Idaho Falls, Idaho, consign shipment as appropriate to the individual "For Storage in Transit, not to exceed 180 days," and annotate bill of lading as follows: "Notify Receiving Officer, Naval Ordnance Plant, Pocatello, Idaho, telephone 3380, extension 44 prior to unloading." In the event a determination cannot be made, consign to Pocatello, Idaho,

for storage in transit. (If you drive to Pocatello, you will pass the Naval Ordnance Plant.)

**Express Shipment**—Consign to residence address if known. If you do not have an address, consign to Receiving Officer, Naval Ordnance Plant, Pocatello, Idaho, marked for individual concerned.

**Freight Forwarder or Trucks**—Consign crated household goods to Receiving Officer, U.S. Naval Ordnance Plant, Pocatello, Idaho, marked for individual concerned.

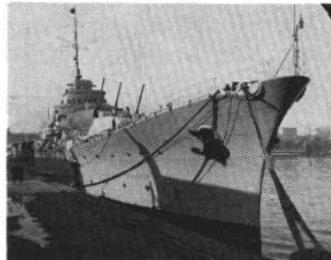
Immediately upon shipment of household goods, forward one copy of your orders, one copy of standard form 116 and one memo copy of bill of lading to the Commanding Officer, U.S. Naval Ordnance Plant, Pocatello, Idaho, marked "Attn: Household Effects Section." (This is an exception to the published "U.S. Naval Shipping Guide" but is very important in order to insure prompt and free delivery. This information should be brought to the attention of your local supply officer.) Commercial insurance on van shipments is suggested.

• **Commissaries and Exchanges**—No commissaries or Exchange are available at the Naval Reactor Facility or in the immediate area. There are adequate civilian grocery, dry goods and hardware stores in the area which can handle all of your needs. Prices are cheaper than in most of the major cities throughout the U.S.

• **Medical Care**—The dispensary at the Naval Reactor Facility handle minor cases for naval personnel only. There is no facility available for dental work, so personnel should attempt to have outstanding dental work completed before arrival. Arrangements will be made with civilian dentists for emergency work for naval personnel. Naval dispensaries are located in Pocatello and Idaho Falls to provide out-patient care to naval personnel and their dependents. Adequate civilian hospitals, doctors and dentists are also available.

• **General Info**—Idaho State automobile licenses range between \$7.50 and \$17.50, depending upon the model of the automobile. Full price plates are due January 1 of each year. Half-year prices become effective July 1 of each year. If you drive an automobile in Idaho, you

Since the International Fleet Review—the largest peace-time display of warships in history—is taking place this month, let's see how much you know about some of our allied navies. In case your seaman's eye is not in focus, the answers to this foreign navy quiz can be found on page 42.



1. This ship was completed back in 1924. It's a unit of the (a) Royal Canadian Navy (b) Spanish Navy (c) Royal Hellenic Navy.

2. Displacing some 4500 tons, it is capable of reaching a speed of 29 knots. This is a/an (a) anti-aircraft cruiser (b) frigate (c) corvette.



3. Here are two happy sailors from one of the NATO navies. The pompons on their hats should be a dead giveaway. They're from (a) Holland (b) Norway (c) France.

4. Assuming that you haven't missed a question yet, here's an easy one on foreign ranks and sleeve markings. Figure "A" represents a



Yarbay in the Turkish Navy. Naturally, he would rate a salute because he would be a (a) Rear Admiral (b) Captain (junior) (c) Lieutenant Commander.

5. In Figure "B" if three of the five stripes were gold and the second and fourth were silver, it would represent a French naval (a) commander (b) Captain (c) Rear Admiral.

6. To be sure that you get 4.0 on this quiz, here's a cincher. Figure "C" is a commissioned officer in the Royal Navy. He is a (a) Commodore (b) Midshipman (c) Sub-Lieutenant.

are required to have an Idaho driver's license. This license is obtained at the Sheriff's Office at a cost of \$2 for a two-year period. A true and false test concerning driving rules must be satisfactorily passed before receiving a license.

Fishing and hunting licenses are \$4 each per year to residents of the state. Service men get a special hunting and fishing license costing \$2.50 each or a combination for \$5.00.

The Naval Reactor Testing Station and communities of eastern Idaho are at an elevation near 5000 feet.

During winter cold spells, nighttime temperatures may drop to a

## NOW HERE'S THIS

### Ground-Busters

If you've seen one, you've probably seen a thousand news photos of dignitaries shaking hands. Another picture, just as stereotyped, is the one of some official bending over a spade as he turns the first shovelful of earth for a new building.

Now, however, the Navy's frogmen have changed all that—and they've done it with a bang.

This earth-shaking departure from tradition took place at Silver Strand, Coronado, Calif., during the ground-breaking (or perhaps "ground-busting" would be more appropriate) for a building to house the Underwater Demolition Training Unit of the Amphibious Training Command, U. S. Pacific Fleet. CAPT B. C. Allen, Jr., USN, Commander, Amphibious Training Command, officiated at the ceremony.

Instead of using a spade, the captain did the honors by flicking a switch, which set off a half-pound charge of dynamite. The dirt flew, the spectators jumped and the UDT men were highly pleased with finding a new use for a well-known tool of their trade.



minus 30 degrees; however, such temperatures are rare (so the Chamber of Commerce says) and daytime temperatures usually will be higher than 20 degrees F.

In line with this it is suggested that you bring appropriate clothing and have anti-freeze in your automobile sufficient to withstand temperatures of  $-30^{\circ}$  F.

The road conditions encountered in this portion of the U.S. in winter may be extremely hazardous. Conditions will vary from clear and dry roads through blizzard conditions to extremely slick glare-ice. You are advised to allow adequate time for covering the distances involved. Further, you may need chains for your automobile in the mountain regions.

Summer high temperatures above 95 degrees F. rarely occur more than twice a year, and even the warmest days are accompanied by cool nights.

Being assigned to NRF means that you'll be living in the heart of America's playland.

Just over a hundred miles from Idaho Falls lies world famous Yellowstone Park—the country's most visited national park.

To the west of the National Reactor Testing Station is the unusual National Monument, the Craters of the Moon. This spectacular display of lava flows, cinder cones, and other products of volcanic activity attracts thousands of visitors every year.

Within a few hours' drive is the Idaho Primitive Area. Here runs the River of No Return, and the Salmon River which cuts through the mountains to lands where few have gone before. Deer, elk, bear, big horn sheep and goats roam the rugged mountains. Countless lakes and streams are also to be found. Nimrods from over the nation gather here—in the state that claims more square miles of untrammelled fishing and hunting areas than any other in the union.

If you're a ski enthusiast, you will find no better skiing slopes, and no better snow than is offered by the ski facilities surrounding the NRTS. Sun Valley with its superb ski runs, picturesque Pine Basin, towering Snow King Mountain and beautiful Bear Gulch are all within a short drive, and each provides skiing at its finest.

## Second Chance to Pass Correspondence Courses

Students who flunk courses at the Correspondence Course Center will be given a second chance at a passing grade under a new procedure to be inaugurated by the Center on 1 July. They will be permitted to rework the course assignments they failed.

The procedure will work this way:

If a course assignment is satisfactory (3.4 for officer courses; 3.2 for enlisted courses), the Center will return the assignment to you with the grade indicated, and no further action is required.

If an assignment is unsatisfactory the Center will notify you of your grade, but will not return the assignment. You may still earn a satisfactory grade in the course by increasing your efforts and attaining higher grades on your remaining assignments so as to bring your average grade for all assignments up to passing.

If, on course completion, your average grade for all assignments is satisfactory you will have passed the course.

If, on course completion, your average grade for all assignments is not satisfactory the Center will give you an opportunity to rework the assignments you have failed. If, after reworking the assignments, your average for the course is satisfactory you will have passed the course.

Naval Reserve officers are required to have a satisfactory grade for each creditable unit of a course (usually 12 points). The opportunity to resubmit assignments will be given these officers at the end of the course unit rather than at the end of the entire course.

When resubmission is required, the student must rework each unsatisfactory assignment in its entirety and within the time limit set by the Center to be eligible for consideration. He will be given only one opportunity to resubmit failed assignments.

This procedure applies only to assignments received at the Center on and after 1 Jul 1957. Unsatisfactory assignments received before this date may not be reworked, as the assignment will already have been returned to the student indicating the correct answer for each item.

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

The latest list of 16-mm. feature movies available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn 1, N. Y., is published here for the convenience of ships and overseas bases. The title of each picture is followed by the program number.

Those in color are designated by (C) and those in wide-screen processes by (WS). Distribution began in December.

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

*The Power And The Prize* (719): Drama; Robert Taylor, Elizabeth Mueller.

*The White Squaw* (720): Western; David Brian, May Wynn.

*Tension At Table Rock* (721) (C): Western; Richard Egan, Dorothy Malone.

*A Strange Adventure* (722): Drama; Joan Evans, Ben Cooper.

*The Unguarded Moment* (723) (C): Drama; Esther Williams, George Nader.

*D-day The 6th of June* (724) (C) (WS): Drama; Robert Taylor, Richard Todd.

*Rock Pretty Baby* (725): Drama; John Saxon, Sal Mineo.

*Death Of A Scoundrel* (726): Drama; George Sanders, Yvonne DeCarlo.

*Huk* (727) (C): Drama; George Montgomery, Mona Freeman.

*The Solid Gold Cadillac* (728): Comedy; Judy Holliday, Paul Douglas.

*The Revolt Of Mamie Stover* (729) (C) (WS): Drama; Jane Russell, Richard Egan.

*You Can't Run Away From It* (730) (C) (WS): Drama; June Allyson, Jack Lemmon.

*Reprisal* (731) (C): Adventure Drama; Guy Madison, Felicia Farr.

*Hold That Hypnotist* (732): Comedy; Huntz Hall, Stanley Clements.

*Port Afrique* (733) (C): Drama; Pier Angeli, Phil Carey.

*Hot Shots* (734): Comedy; Huntz Hall, Stanley Clements.



"When reveille was piped, I heaved out and triced up; then I got my gear and myself all squared away . . . went top-side to the starboard weather deck . . . got in the chow line . . . messed with all the hands . . . mustered at quarters . . . and turned to . . . Understand?"

*The Boss* (735): Drama; John Payne, William Bishop.

*Man From Del Rio* (736): Drama; Anthony Quinn, Katy Jurado.

*Gun The Man Down* (737): Drama; James Arness, Angie Dickinson.

*The Great Man* (738): Drama; Jose Ferrer, Joanne Gilbert.

*The Man In the Gray Flannel Suit* (739) (C) (WS): Drama; Gregory Peck, Jennifer Jones.

*Stagecoach To Fury* (740) (WS): Western; Forest Tucker, Mari Blanchard.

*Everything But The Truth* (741) (C): Comedy; Maureen O'Hara, Tim Hovey.

*Dance With Me Henry* (742): Comedy; Bud Abbott, Lou Costello.

*The Girl He Left Behind* (743): Drama; Tab Hunter, Natalie Wood.

*The Proud Ones* (744) (C) (WS): Drama; Robert Ryan, Virginia Mayo.

*Lust for Life* (745) (C) (WS): Drama; Kirk Douglas, Anthony Quinn.

*Public Pigeon No. 1* (746) (C): Comedy; Red Skelton, Vivian Blaine.

*Man in the Vault* (747): Drama; William Campbell, Karen Sharpe.

*Julie* (748): Drama; Doris Day, Louis Jourdan.

*Tea and Sympathy* (749) (C) (WS): Drama; Deborah Kerr, John Kerr.

*Teenage Rebel* (750) (WS): Drama; Ginger Rogers, Michael Rennie.

*Giant* (751) (C): Drama; Rock Hudson, Elizabeth Taylor.

*Tomahawk Trail* (752): Western; Chuck Connors, Susan Cummings.

*The Great American Pastime* (753). Comedy; Tom Ewell, Ann Francis.

*Lisbon* (754) (C) (WS): Drama; Ray Milland, Maureen O'Hara.

*Bandido* (755) (C) (WS): Drama; Robert Mitchum, Ursula Thiess.

*Halliday Brand* (756): Drama; Joseph Cotton, Viveca Lindfors.

*The Seventh Cavalry* (757) (C): Western; Randolph Scott, Barbara Hale.

*Hollywood or Bust* (758) (C): Comedy; Dean Martin, Jerry Lewis.

*The Bottom of the Bottle* (759) (C) (WS): Drama; Van Johnson, Ruth Roman.

*Bigger Than Life* (760) (C) (WS): Drama; James Mason, Barbara Rush.

*Thunder Over Arizona* (761) (C) (WS): Western; Skip Homeier, Kristine Miller.

*Nightfall* (762): Drama; Aldo Ray, Anne Bancroft.

*Three Violent People* (763) (C): Drama; Charlton Heston, Anne Baxter.

*The Best Things In Life Are Free* (764) (C) (WS): Musical; Gordon MacRae, Sheree North.

*The Sharkfighters* (765) (C) (WS): Drama; Victor Mature, Karen Steele.

*Love Me Tender* (766) (WS): Drama; Elvis Presley, Debra Paget.

*Wicked As They Come* (767): Drama; Arlene Dahl, Phil Carey.

*The Wrong Man* (768): Drama; Henry Fonda, Vera Miles.

*The Burning Hills* (769) (C) (WS): Western; Tab Hunter, Natalie Wood.

*Between Heaven and Hell* (770) (C) (WS): War Drama; Robert Wagner, Terry Moore.

*Canyon River* (771) (C) (WS): Adventure Drama; George Montgomery, Marcia Henderson.

*Crime of Passion* (772): Drama; Barbara Stanwyck, Sterling Hayden.

*Written on the Wind* (773) (C): Drama; Rock Hudson, L. Bacall.

*The Last Wagon* (774) (C) (WS): Western; Richard Widmark, Felicia Farr.

*Bus Stop* (775) (C) (WS): Comedy; Marilyn Monroe, Don Murray.

*Safari* (776) (C) (WS): Adventure Drama; Victor Mature, Janet Leigh.

*The Black Whip* (777) (WS): Drama; Paul Newman, Colleen Gray.

*Hot Summer Night* (778): Crime Drama; Leslie Nielson, Colleen Miller.

*The Night Runner* (779): Drama; Ray Danton, Colleen Miller.

*The Naked Hills* (780) (C): Drama; David Wayne, Keenan Wynn.

*The Man is Armed* (781): Drama; Dane Clark, May Wynn.

*Wetbacks* (782): Drama; Lloyd Bridges, Nancy Gates.

*Top Secret Affair* (783): Comedy Drama; Susan Hayward, Kirk Douglas.

*Carousel* (784) (C) (WS): Musical Drama; Gordon MacRae, Shirley Jones.

*Gun for a Coward* (785) (C) (WS): Drama; Fred MacMurray, Jeffrey Hunter.

*Rumble on the Docks* (786): Drama; James Darren, Jerry Janger.

*Utah Blaine* (787): Western; Rory Calhoun, Max Baer.

*Moby Dick* (788) (C): Drama; Gregory Peck, Richard Basehart.

*The King and I* (789) (C) (WS): Musical; Deborah Kerr, Yul Brynner.

## War College Course Ready On International Relations

The Naval War College conducts a number of correspondence courses in addition to the studies undertaken by the resident students. These courses were first offered in 1914 and they have been administered by the College down to the present time. For some time it has offered correspondence courses in *Strategy and Tactics*, *Logistics* and *International Law*. Completion of these courses carries with it exemption from certain of the professional examinations for promotion of officers.

A new correspondence course in *International Relations* has recently been introduced.

This six-installment course is available to USN & USNR officers and

provides an examination exemption for commanders being promoted to captain.

It is designed to cover the basic factors and forces affecting national strategy and international politics, the formulation and implementation of national strategy in the pursuit of national security objectives, and a survey of current U. S. foreign policy objectives and national security problems in various areas of the world.

## Three New Courses for Officers Are Available from CCC

Three new officer correspondence courses are now available at the Naval Correspondence Course Center.

**Industrial Relations**, (NavPers 10733) is a 12-assignment course evaluated at 24 points credit for purposes of Naval Reserve promotion and retirement.

**Aviation Operations**, (NavPers 10755) is a 9-assignment course evaluated at 18 points credit. This course is classified and is ordinarily available only to active-duty personnel.

The third course is **Power Generation and Distribution** (NavPers 10753). This course is designed for officers of the Civil Engineer Corps. It consists of six assignments and is evaluated at 12 point credit for purposes of Naval Reserve promotion and retirement.

Application for enrollment should be made on form NavPers (Rev 10/54 or 2/56), forwarded via official channels to the Naval Correspondence Course Center, Naval Supply Depot, Scotia 2, New York.

## Look For New Bluejackets' Manual and Division Officer's Guide in Revised Editions

New and enlarged editions of two invaluable guides to a successful Navy career—the *Bluejackets' Manual* and the *Division Officer's Guide*—are now in the works.

The Navy enlisted man's bible for more than 50 years, the *Bluejackets' Manual* (in its 15th edition) is scheduled for publication this fall. The second edition of the *Division Officer's Guide* has recently been published.

The *Manual* has been restyled and rewritten in an easy, more interesting and less formal manner. Information in some of the chapters has been brought up to date, while five new chapters and one new section on the most recent developments affecting the Navy have been added.

One of several books designed to aid the Navyman in his training, the *Manual* serves as a basis for much of a recruit's education. Later, it serves as a source book of general naval knowledge.

Nearly double the size of the first edition, the *Division Officer's Guide* reflects the increasing complexity of the Navy and of the division officer's place in the chain of command responsibilities, technological requirements and human relations. It also, of course, replaces obsolete material with the latest word from the cognizant offices of the Navy Department.

Both volumes are published by U. S. Naval Institute, Annapolis, Md.

## Four Correspondence Courses Ready for Enlisted Personnel

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

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

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



rials to your command for administration.

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

The new or revised courses are:

Course	NavPers No.
Torpedoman's Mate 3, Volume 1	91300-1
I. C. Electrician 2	91529
Storekeeper 1	91432-1
Torpedoman's Mate 3, Volume 2	91296

The last roundup of Enlisted Correspondence Courses may be found in *ALL HANDS*, June 1956, p. 50. New courses will be listed as soon as they are available.

### Correspondence Course Center Is On the Move — to Scotia

The Alma Mater of many a Navyman intent on furthering his career is no longer to be found in the ivy-covered Building RF, Naval Base, Brooklyn, N. Y. The halls of learning have been transferred to Naval Supply Depot, Scotia.

The move takes place this month. The new address will be:

U. S. Naval Correspondence Course Center  
Naval Supply Depot  
Scotia 2, N. Y.

From 14 June to 1 July the Center will be busy with its big move and operations will not approach normalcy until approximately 15 July.

While every effort will be made to keep the disruption down to a minimum, you must expect some delay in your correspondence. The delay you may experience in receiving graded assignments will do you no harm, as completions are recorded on the day you mail the assignment.

### Seabees and CEC 'Can Do' and Did

Only the Seabees could think of—and carry out—the one-day construction of an island and all its military installations on a street corner in Honolulu. Approximately 225 "Can Do" men combined their efforts to erect the replica and tear it down in a joint observance of the Seabee and Civil Engineer Corps' 90th and 15th anniversaries, respectively.

The island, which included a road, an air strip, gun emplacements, a combat information center and a water purification system was,

on a small scale, a realistic demonstration of the Seabees' famed combat construction work. Even a "Queen Bee" was crowned to add flavor to the "Navy Seabee and Civil Engineer Corps Day" proclaimed by the governor of Hawaii and mayor of Honolulu. The queen received a year's supply of honey as her royal reward.

The island was the work of the Seabees from Mobile Construction

Battalion Nine, the Tenth Construction Brigade, Barber's Point Naval Air Station, Inactive Service Craft Facility and local Reserve Divisions 14-1 and 14-2. It was constructed at the corner of Piikoi and Ala Moana Blvd.

Bands from CinCPacFlt, the Fourteenth Naval District and the Marine Corps furnished music for the occasion. A Hawaiian hula troupe also entertained the spectators.

## WHAT'S IN A NAME

### The Lucky 'BV'

In the old days, when a ship ran into trouble on her maiden voyage, superstitious sailors thought it was a pretty bad omen. But, *USS Boulder Victory* (AK 227) had plenty of trouble on her first voyage, and yet the men who sailed her called themselves "the luckiest crew in Uncle Sam's Navy."

Originally built for the Maritime Commission, the "BV" was diverted to temporary naval auxiliary duty for the express purpose of carrying ammunition directly to the Fleet in forward areas. She first sailed from San Francisco, Calif., on 2 Nov 1944, loaded to the gunwales with 7000 tons of shells, shell charges, anti-aircraft projectiles, rockets, fragmentation bombs and fuses.

At sea, she soon hit rough weather, which caused some of the explosive cargo to break loose. For about 48 hours shells rolled about, crashing into each other and bouncing off the bulkheads before the crew could get them secured again. A real omen hunter might have been frightened by this "bad sign," but it was nothing compared to the scare that awaited the BV.

On 20 Dec 1944 she was just getting underway in Kossol Passage, Palau Islands, when a terrific explosion shattered the quiet of early dawn and threw up a cloud of spray and debris from No. 3 hold. The ship had either hit a mine or been torpedoed by a midget submarine.

The blast put out the lights and seemed to lift the BV out of the water and hurl her against a stone wall.

Then the black gang sprang to the emergencies, the lights flickered on again and the ship moved through the water with black smoke pouring from her insides, but the second blast never came.

Four men who had been working in No. 3 hold scrambled out. Others dragged out hoses and began pouring water onto the smoking cargo.

Finally, when the danger of fire was over, sailors rushed up handy-billy pumps



to add to the main pumps trying to empty the flooding hold. They soon realized they were trying to pump out the whole Pacific Ocean. Two hours later, Alfred V. Belfin, MM2, donned a makeshift diving mask and plunged into the hold to survey the damage. The water was coming in through a jagged, 18-by-35-foot opening in the hull. Unexploded 5-inch projectiles had been imbedded in the T-beams, explosive powder from split casings was blackening the water. Later, two 16-inch holes were also discovered, indicating that some shells had gone off in the initial blast. Yet, for some reason the cargo had not exploded and not a man had been hurt.

For the next two months the battered BV remained in Kossol Passage, cleaning up debris and transferring some of her undamaged ammunition to other ships. On 13 Feb 1945 she moved on, still damaged and still carrying three-fourths of her original cargo.

In the Admiralty Islands she unloaded the rest of the ammunition and was placed in a floating drydock for temporary repairs. She then sailed for San Francisco, where she finally wound up her maiden voyage on 30 Jun 1945.

The luckiest crew and the luckiest ship in the whole U. S. Navy had come home.

### **Navy Relief Society Gave More Aid to Navy Families in '56**

The Navy Relief Society provided 20 per cent more financial assistance during 1956 than in 1955, according to the Society's 1956 annual report.

Other statistics in the report indicated that the aid given last year was more than any other year with the exception of the war years of 1944 and 1945, when the Navy's personnel strength was 3,500,000 as compared to the 970,000 now (including Marines).

There were fewer service cases (those involving no financial assistance) than in 1955. This type of service includes consultation such as information and advice on personal and family problems. The total number of such cases was 48,238 during 1956. The report suggested that the decrease from the preceding year could be attributed to the increased importance of the family emphasized by the Navy. The result has been more personal affairs offices which have taken care of such problems.

A 40 per cent increase was noted in the number of cases calling for assistance by outright grants and

conversion to grants. There were 9,415 cases in this category for which the Society spent \$690,682.

There was a 13 per cent rise over last year in the amount loaned for emergency assistance; aid in this form amounted to \$4,150,462 which went to 61,943 cases. These figures are the largest ever recorded for emergency loans in peacetime history; they were just slightly under the amount for 1944, a war year.

Repayment of loans for 1956 amounted to \$3,475,079 which is 84 per cent of the loans made during the year.

Uncollectable loans amounted to \$204,244 which is slightly higher than the figure during the preceding year. The loans which are written off as uncollectable are for the most part unpaid balances of loans outstanding at the time of discharge.

Total expenditures for other than direct relief amounted to \$757,370, an increase of \$102,513 over last year. The greatest area of this spending was that of expansion of service programs.

The Society received \$1,218,914 in contributions during 1956, a \$127,016 increase over 1955. Funds are received from the "Annual Call for Contributions," and from the proceeds of sporting events, carnivals, balls and other fund-raising projects.

### **Recognition for the Outstanding Men in Your Crew**

The most talented men in the Navy—those who are truly "outstanding"—are the ones who will, in the opinion of the Chief of Naval Personnel, be most severely penalized if marks in the new Enlisted Performance Evaluation System are not awarded realistically. Divisional petty officers and all others in the chain of command are cautioned of this possible result.

Early evaluations indicate that many individuals who are, in reality, of average caliber have been marked as outstanding.

That isn't the idea at all. It stands to reason that, if your work or personal characteristics are *really* outstanding and the men in your division who are just average are also marked "outstanding," you are not going to receive the credit you deserve.

It is recognized that one of the difficulties of the earlier system was the custom of marking almost everyone as high as possible because it was felt by many that any lesser mark was, in effect, a derogatory comment.

That is why, says the Chief of Naval Personnel, it is necessary to award marks with complete objectivity. If, in your opinion, you think a man does average work, say so. It will do him no harm. If you think he could do brilliant work but doesn't try, say that. If, after due observation, you come to the conclusion that he tries hard but is not bright enough to do his job properly, it's your responsibility to pass

the word. At least he'll get credit for trying.

If one of your men—a good solid worker, reliable, and a good Joe—gets fighting drunk after one or two beers, do you want to bear the responsibility of seeing him assigned to a position where he can cause the Navy—and himself—great embarrassment? An appropriate remark on his record might not interfere with his advancement, but it might prevent him from being assigned to a spot—say, a MAAG—where he might get into serious trouble. In other words, a complete report which mentions his weak as well as strong points, will benefit everyone.

If you want to be a good fellow and mark all the men in your division as "outstanding," what about the bright earnest lad who really is outstanding? How much of a favor are you doing him? None. You are, in fact, injuring his chances of receiving the recognition he really deserves.

All these factors are what the Chief of Naval Personnel had in mind when he told ALL HANDS:

"The success of the Enlisted Performance System depends upon the conscientious and objective evaluation of individual performance by all who have a responsibility for making evaluations. The evaluation of each individual according to his own merit will result in the greatest possible benefit not only to the Navy but also personally to those who are most deserving."

### **Navy Sponsors Candidates For Rhodes Scholarships**

Regular Navy and Marine Corps officers and midshipmen of the Naval Academy (classes of 1957 and 1958) who can meet the academic and military requirements are eligible to seek Navy sponsorship in the Annual Rhodes Scholarship competition for study at Oxford University in 1958, according to BuPers Notice 1520 dated 27 Mar 1957.

Eligibility requirements are established by the Rhodes Trustees and the Chief of Naval Personnel.

Applications for Navy sponsorship are to be submitted to the Chief of Naval Personnel. Those who enter the competition and are successful in winning a scholarship will be ordered to Oxford University in an active-duty status until their scholarship expires.

Endorsed applications must reach the BuPers prior to 2 Sep 1957.

## Assignment of Codes for Enlisted Ratings Changed In New Classification Manual

The use of classification codes will be simplified by a streamlined *Manual of Navy Enlisted Classifications* (NavPers 15105-A), scheduled for distribution by the end of June.

The biggest change in the new manual is the omission of most of the overlap between the Navyman's rate and rating and his classification codes. At present you carry as your most important code one that describes a duty associated with your rating. Your secondary code may also fall within your own rating or in some other rating or special area.

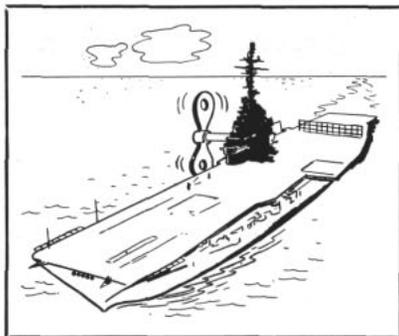
In the new manual it is not intended that codes repeat information supplied by rating and pay grade. Hence, many men will substitute an additional code for a code they now carry.

A Boatswain's Mate, for example may now carry as his primary code, BM-0102 Deck Petty Officer. His secondary code may identify almost any skill useful to the Navy such as QM-0215 Harbor Pilot or 9551 Filling Station Manager. Since all Boatswain's Mates are qualified deck petty officers, under the new concept the Deck Petty Officer code is unnecessary. Instead, the Boatswain's Mate can now pick up the QM-0215 code as his primary code and his secondary code can reflect an additional skill.

Because a ship is limited in the number of men it can accommodate, every man performs multiple duties. In addition to his occupational tasks, he is also responsible for watch and battle station duties. His occupational tasks might be cooking, carpentry, watch repairing, or welding. But in time of emergency these tasks assume a lower priority. When the general alarm sounds, every man takes his battle station and the entire crew become combat personnel.

The new manual emphasizes the importance of Navy enlisted classification through the necessity of identifying additional skills beyond the ratings of the men aboard. NavPers 15105-A records every useful skill where it can be readily identified and utilized.

The revised manual represents extensive research work to bring the classifications up to date with new



"... and I thought I joined the atomic Navy!"

technological developments in the Fleet such as the use of nuclear weapons. It differs from the old manual in the reduced number of classifications and criteria. More than 1000 classifications have been dropped, simplifying the use of classification codes.

## USNR and Temporary Officers Selected for Transfer to USN

The names of 178 Naval Reserve and temporary officers have been recommended for permanent appointment in the Regular Navy by the Augmentation Continuing Selection Board convened in the Bureau of Naval Personnel.

Of the selectees, 147 are line officers with two of these in the Restricted Line. Thirty-one are in the Staff Corps.

Numbers to receive appointments, provided they meet all administrative requirements, are: Line, 59; Line Women, 10; Aviation Line, 76; Special Duty Law, 2; Supply Corps, 13; Chaplain Corps, 5; Civil Engineer Corps, 4; Medical Service Corps, 2; Nurse Corps, 7. The augmentation of officers into regular Navy is a continuing program.

## HU SWU VU FAW VAW GMU? You Can Say That Again!

In the June 1956 issue of *ALL HANDS*, on page 57, we described the U. S. Navy aircraft designations and how they were derived.

The designations and abbreviations of naval aviation groups are listed below as an aid in identification, since these activities are often a source of confusion to those not closely associated with them. You may be reasonably familiar with such abbreviations as FASRon, TACRon and VA, but if you know these, you probably do not know the meaning of GMGRu, GMU and VAP. And vice versa.

In any event, here's the list as it was prepared by OpNav at press time:

CVG	Carrier Air Groups	VAH	Heavy Attack Squadron
FAETU	Fleet Air Electronics Training Unit	VAHM	Attack Mining Squadron
FASRon	Fleet Aircraft Service Squadron	VAP	Heavy Photographic Squadron
FAGU	Fleet Air Gunnery Unit	VAW	Carrier Airborne Early Warning Squadron
FAIRShipWing	Fleet Airship Wing	VF	Fighter Squadron
FAW	Fleet Air Wing	VFAW)	All-Weather Fighter Squadron
FAWTU	Fleet All Weather Training Unit	VFP	Light Photographic Squadron
GMGRu	Guided Missile Group	VP	Patrol Squadron
GMU	Guided Missile Unit	VQ	Electronic Countermeasures Squadron
HS	Helicopter Anti-Submarine Squadron	VR	Air Transport Squadron
HU	Helicopter Utility Squadron	VS	Air Anti-Submarine Squadron
SWU	Special Weapons Unit	UTWing	Utility Wing
TACGR	Tactical Air Control Group	VU	Utility Squadron
TACRon	Tactical Air Control Squadron	VW	Airborne Early Warning Squadron
VA	Attack Squadron	VX	Air Development Squadron
AEWMatRon	Airborne Early Warning Barrier Maintenance Squadron	ZP	Airship Squadron (LTA)
HATWing	Heavy Attack Wing	ZW	Airship Early Warning Squadron
HATU	Heavy Attack Training Unit	ZX	Airship Development Squadron
VA(AW)	All-Weather Attack Squadron		

## Antigua, BWI, Is Another Garden Spot on the Navy Duty Roster

**D**UTY IS WHERE you find it and, although Antigua, British West Indies, will never approach San Diego or Norfolk quantitatively, living conditions to those assigned to this garden spot of the Caribbean (they're all garden spots) are just as important as to those who pull duty in the bigger stations. We've never been there ourselves. However, reports indicate that duty is pleasant but facilities a little primitive. Here's the report:

**Availability of Housing**—There is no government housing available. Private housing is available but in scarce supply. Rents range from \$60-\$120 a month and the houses are usually furnished. There is no waiting period but you should find your housing before your family arrives.

**Household Goods** — Inasmuch as most houses are furnished, you will need only those items that are considered necessities, that is, linens, towels, electrical appliances, etc. There are very few of these available in local stores and if available, they are high in price. The individual house rented will determine what other furniture is to be shipped but all furniture should be of such a nature as to stand tropical climates.

**Servants** — Servants are available but vary in the amount of training and experience. They receive \$3-\$5 a week plus some food, and most of the houses have quarters for servants.

**Automobiles** — There is no adequate commercial transportation available so privately owned automobiles should be brought. A smaller car would be advisable since all roads are designed for the smaller type cars. There are no parts available for American cars; however,



"Loathes green cheese."

mechanics are generally good. Gasoline is 46¢ an imperial gallon. All drivers drive on the left.

In the sale of an American car, there is a 39 per cent duty on the value, and upon entering the island a 15 per cent bond must be posted against this duty.

**Clothing**—Lightweight clothes are a must and should be brought with you since most items are not readily available. Formal clothes are highly desirable. Yard goods are available and seamstresses and tailors are fair.

**Laundry and Dry Cleaning**—There is a laundry for naval personnel but it may not be available at the times you want it. Otherwise, all clothes are washed by individual laundresses by hand. Dry cleaning is poor and, if possible, clothes that require dry cleaning should not be brought.

**Food**—It is not known whether the naval Facility will have a Commissary Store. If not, local food is adequate but expensive. Some American brands of food are available but most are from within the British Empire.

**Schools**—No public schools are

available. There are private schools in St. Johns, patterned after the English private schools. The level of instruction for elementary age children is satisfactory but is out of phase with American school practices. Young children (6-12) will have difficulty adjusting themselves for a while.

High school children cannot attend satisfactory schools. It is suggested that these children make arrangements for correspondence or extension type courses.

**Medical and Dental Care**—Local doctors and medical facilities are adequate for all conditions up to major surgery. The hospital is clean and well staffed but is somewhat lacking in equipment and associated services.

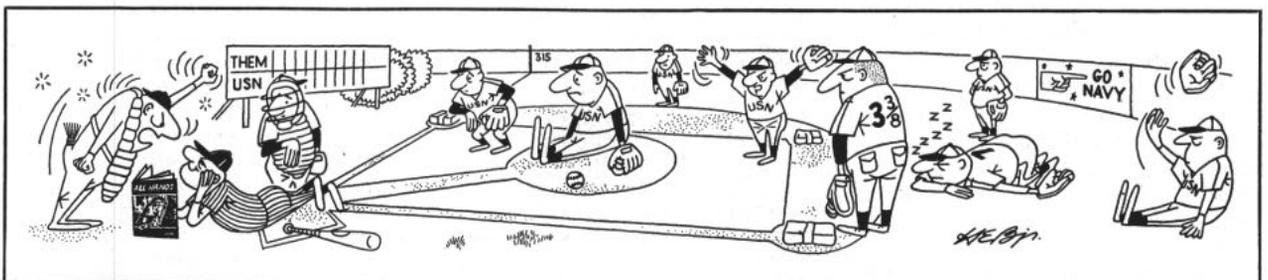
Adequate dental care can be obtained but it is recommended that all teeth be repaired or treated before leaving the States.

**Religious Activities**—The predominant denominations are Roman Catholic, Anglican and Methodist. All hold services regularly in St. Johns, and Navy personnel are welcome.

**Recreational Facilities**—The following recreational facilities are available: bathing, golf, tennis, boats, etc. There are no night clubs and only one movie—which is excellent for this area.

**Currency and Banking**—Local currency is the British West Indies dollar which is pegged at \$4.80 to the British pound. The value in American dollars fluctuates from 1.68-1.71 as the value of the pound varies. Two banks offer complete banking services including checking accounts, savings accounts and conversion of currency.

Local authorities prohibit entry of pets of any type.



PLAY BALL — There are nine other men out there waiting for this copy of ALL HANDS — PASS IT ON.

## DIRECTIVES IN BRIEF

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

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

### Alnavs

No. 9—Stated that an excessive amount of official mail was being inadequately wrapped and recommended corrective procedures.

No. 10—Announced resignation of Secretary of Navy Charles T. Thomas in his farewell message to all naval personnel.

No. 11—Announced the shift of the Aviation Officer distribution function to the Chief of Naval Personnel.

No. 12—Announced that Thomas S. Gates, Jr., had taken the oath of office as Secretary of the Navy.

No. 13—Announced the discontinuation of VA Form 9-5782 "Request for Information/Action on Section 622 Waiver," as of 1 May.

No. 14—Concerned with contributions to the Navy-Marine Corps Memorial Stadium Fund and announced the names of ships and activities leading in such contributions.

No. 15—Requested aviation officer volunteers for the 1957-58 Antarctic Expedition. Established a deadline of 1 May for such nominations.

No. 16—Announced the convening of a selection board to recommend for promotion warrant officers in certain grades.

### Instructions

No. 1120.3E—Outlines the requirements and method of application for appointment of USNR medical officers in USN Medical Corps or Dental Corps.

No. 1133.8A—Provided instructions regarding the reenlistment of inducted personnel and their volun-

tary retention on active duty beyond the period for which inducted.

No. 1301.28—Contains information concerning the assignment of officers to nuclear submarines and sets forth procedures whereby interested officers may apply for assignment to the Advanced Nuclear Power Course convening at New London, Conn., in January and July.

No. 1331.2B—Requests applications from junior officers including Waves who wish assignment to the Naval Security Group for a tour of duty.

No. 1520.20A—Establishes eligibility requirements and invites applications for heavier-than-air flight training from commissioned officers and officer candidates.

No. 1520.48A—Announces a new college-training program for eligible augmented and integrated USN commissioned officers of the line, but not restricted line, and Supply Corps officers with a permanent grade of ensign and above.

No. 1540.27A—Announced the current practice governing heavier-than-air and lighter-than-air integration program.

No. 1750.5A—Establishes the Uniformed Services Identification and Privilege Card (DD form 1173) and provides instructions governing its administration.

No. 1910.11A—Revises provisions for the early separation of certain personnel serving on active duty in order to improve the over-all quality of Navy enlisted personnel.

No. 1910.12A—Modifies the program of early separation of enlisted personnel for the purpose of commencing or resuming college education.

No. 4650.6B—Informs all naval

personnel ordered to duty in Japan of policies concerning concurrent travel and to acquaint those individuals with the housing situation in Japan.

No. 5510.3F—Announced revised procedures and security restrictions for personnel ordered to duty under instruction in schools and courses for which a security clearance is required.

### Notices

No. 1210 (25 February)—Invited applications from certain permanently commissioned line officers and USNR officers on active duty for transfer to the usn Civil Engineer Corps.

No. 1111 (28 February)—Announced the list of USN and Marine Corps active duty enlisted personnel provisionally selected for enrollment in the NROTC program.

No. 1520 (1 March) — Announced Change No. 1 to BuPers Inst. 1520.20A which is concerned with qualifications for heavier-than-air flight training.

No. 1520 (4 March)—Announced the convening dates of the U.S. Naval School (Naval Justice), Newport, R. I., for senior officers.

No. 1120 (7 March)—Announced Change No. 1 to BuPers Inst. 1120.15B, which is concerned with the procurement of personnel for appointment to ensign, Medical Service Corps, usn.

No. 1611 (7 March) — Established policy related to the fitness reports on active duty officers in command or in charge.

No. 1531 (14 March) — Requested nomination of candidates for assignment to the U.S. Naval Preparatory School, Bainbridge, Md.

No. 1616 (19 March) — Provided additional guidance to commanding officers concerning the criteria to be used in evaluating the performance of enlisted personnel.

No. 1221 (20 March) — Announced additions to Change No. 5 to Manual of Enlisted Classifications (NavPers 15105 Rev.)

No. 1440 (20 March) — Established procedures for completing changes in rating affecting reservists and Fleet Reservists on active duty in the Fire Control Technician, Draftsman, Air Controlman, Tradevman and Parachute Rigger ratings.



"You and your house warming party!"

No. 1440 (20 March) — Announced Change No. 1 to BuPers Inst. 1440.5B (concerned with changes in rate and rating) to provide guidance concerning the recommendation of foreign nationals for change in rating to Signalman, Boilermaker and Nuclear Weaponsman ratings.

No. 1306 (22 March) — Announced Change No. 1 to BuPers Inst. 1306.62, which is concerned with Sea/Shore rotation of enlisted personnel.

No. 1120 (26 March) — Announced selection of warrant officers and usn enlisted personnel for training leading to a commission in the Regular Navy.

No. 1510 (26 March) — Emphasized the necessity of returning Enlisted Correspondence Course text material.

No. 1520 (27 March) — Provided information and procedure regarding participation of com-

**QUIZ AWEIGH ANSWERS  
QUIZ AWEIGH IS ON PAGE 33**

1. (b) Spanish Navy
2. (a) Antiaircraft cruiser
3. (c) France
4. (b) Captain (junior)
5. (a) Commander

missioned Naval and Marine Corps officers and Naval Academy midshipmen the annual Rhodes Scholarship competition.

No. 1741 (28 March) — Announced the requirement for public liability insurance as a condition which must be met before a permit to operate a motor vehicle on a military installation may be issued.

No. 5101 (29 March) — Announced suggestions for command use in connection with Navy Traffic Safety Program for off-duty military personnel.

No. 7220 (3 April)—Emphasized necessity of compliance with the

provisions used in determining the existence of extraordinary hazardous diving conditions.

No. 1910 (9 April)—Provided instructions governing separation of selectees who entered the Navy during November and December 1955 through the Selective Service System.

No. 1410 (10 April)—Provided interim qualifications for advancement in rating to certain pay grades for the newly established general service rating of NW.

No. 1120 (11 April) — Announced the selection of applicants for temporary appointment to the grade of ensign,<sup>1</sup> usn, for limited duty officer and warrant officer.

No. 1900 (12 April) — Announced Change No. 1 to BuPers Inst. 1900.2, which is concerned with armed forces report of transfer or discharge.

No. 1000 (16 April) — Announced Change No. 1 to BuPers Inst. 1000.7A, which describes programs and opportunities available to naval personnel.

No. 1510 (19 April) — Announced the selection of enlisted personnel for the Naval Enlisted Advanced School program of 1957 and requested applications for the 1958 program.

No. 1223 (25 April) — Announced Change No. 3 to BuPers Inst. 1223.1, which is concerned with the Selective Emergency Service Rates program.

**Course in Combat and Field Medicine Practice Is Revised**

The Medical Department correspondence course in **Combat and Field Medicine Practice** (NavPers 10706-A) has been completely revised, and is now available for enrollment. This course replaces the earlier NavPers 10706. The course covers management of battle casualties, traumatic shock, medical aspects of tropical warfare and warfare in extremely cold climates.

Presented in four assignments, the course is evaluated at 16 points credit for Naval Reserve personnel.

Application for enrollment should be made on Form NavPers 992 (revised 10/54 or later) with appropriate change in the "To" line, forwarded via official channels to the Commanding Officer, U. S. Naval Medical School, National Naval Medical Center, Bethesda 14, Md.

**Great Lakes Chanteymen Carry On an Old Tradition**

"Sing me a chantey with a yo-heave-ho!" These days, that salty old phrase is likely to get results at the Naval Training Center, Great Lakes, Ill., for the Chanteymen, Great Lakes' newest singing group, are doing their best to keep alive the old work songs and ballads of the sea.

The group is under the direction of E. David Stivender, SN, usn, who arranges all its music. The organization was conceived by Captain A. C. Burrows, usn, Commander of the Training Center, who has long felt that chanteys should be sung rather than bound together in neglected collections of folk songs. When he came to Great Lakes he requested the organization of a male chorus to sing these rousing old tunes.

The chorus is made up of 25 Ship's Company and Service School

men, who rehearse Monday through Friday each week. Several of its members are soloists. Dwight Shupe, SA; E. Allen Elliott, SN; and John Barthelmy, SN, hold key solo spots. Charles Straub, YN3, sings one of the group's most popular numbers, "Black is the Color of My True Love's Hair." The entire program is unaccompanied, so the Chanteymen can sing anywhere any time.

Since they were organized in November 1956 they have appeared at the Junior Achievement Trade Fair in Chicago, Ill., at the boat shows in Chicago and Minneapolis, Minn., and, of course, at the Naval Training Center.

Chaplain R. J. Gentile, permanent officer in charge, travels with the group on all its concerts and does the announcing and narration at its shows.



# BOOKS

## NAVY LORE PREDOMINATES THIS MONTH'S SELECTION

FANS OF NAVAL LITERATURE have a wide choice in this month's books selected by the Library Services Branch for review. The ones described below, and many others, may be found on the shelves of your ship or station library.

**Quest For A Continent** and **Operation Deepfreeze** tell, of course, of our present-day exploration of the Antarctic.

**Operation Deepfreeze**, by RADM George J. Dufek, USN, gives the story behind the news of the most extensive polar expedition in history. Admiral Dufek is Commander U. S. Naval Support Force Antarctica, better known as Task Force 43. He tells of our part of the carefully planned operations by 12 nations to open the frozen frontier of the world's last continent during the International Geophysical Year. Here are the stories of those who spent the dark winter night nearly buried in snow, of planes that discovered vast new territory in starkly beautiful Antarctica, of ships that outraced giant icebergs to reach safety, of planes that were lost and of the men who found them. Veterans of the Deepfreeze expedition can point to passages in the book, nod and say: "Yup. We were there." Their shipmates can check up on some of the tall sea (and ice) stories they have been hearing.

**Quest For A Continent** by Walter Sullivan, has a similar subject matter but uses a different approach. It tells of the great land mass at the bottom of the globe from the first discoveries of its existence in the 18th Century to details of the present

IGY expeditions. In addition to the by-now-familiar history of exploration, Sullivan also describes the Antarctic physical features—the varieties of ice, of whales, seals and birds—as well as the theories concerning the shrinking of the ice and the continental drift, and the advance or retreat of the glaciers.

**Day of Infamy**, by Walter Lord, and **The Enemy Below**, by D. A. Rayner, take us back to World War II. The former story tells, from the viewpoint of both United States and Japanese participants, what happened on Sunday, 7 Dec 1941, and the relevant events which preceded that day. From the Japanese angle, the author describes the work of Japanese intelligence for months and years before the fatal day; the suspense faced by the planners of the attack and by the crews and pilots on board the carriers and service forces; details of the attack as seen through Japanese eyes. He tells, too, of the shocked incredulity of U. S. Navymen and their families on that quiet Sunday morning—of the heroism, courage and anger as men sprang to their guns to face disaster. The author will be remembered for his comparatively recent **A Night to Remember**, a story of the sinking of the *Titanic*.

**The Enemy Below**, the single item of fiction selected for review this month, concerns a single combat between a destroyer and submarine, and between skippers of equal skill. Navymen concerned with the destruction of enemy submarines and submariners themselves will find a professional, as well as personal, interest in the description of depth charge versus torpedo, of destroyer against sub, of crew against crew and captain against captain.

Three excellent choices will brighten the hearts of Civil War fans. All three, **Tin Can on a Shingle**, by William C. and Ruth White, **Ghost Ship of the Confederacy**, by Edward Boykin, and **Lincoln's Commando**, by Ralph J. Roske and Charles Van Doren, are also concerned with either Union or Confederate Navy lore of that time.

**Tin Can** reviews the career of the North's *Monitor*, which was built in 152 days, lived 11 months, and in-

troduced a new means of warfare. It's a good basic story and the Whites tell it well. They describe the panic which swept the North at the tales of the impregnable *Merrimac*, of the hurried construction of the *Monitor* and its dash to Hampton Roads to protect the remnants of the slaughtered Union Fleet. All the dramatic elements are there: The worn and exhausted *Monitor* men facing a ship four times larger than theirs, with 10 guns to their two, with unknown hazards in firing and maneuvering, and the fate of the Union's Fleet to be determined by their courage.

**Lincoln's Commando**, which is the biography of CDR William B. Cushing, USN, continues in a sense the battles of the ironclads, for one of Cushing's most noted exploits was the sinking of the Confederate ironclad *Albemarle*. From the time of his entrance into Annapolis at the age of 15 as a naval cadet through his appointment as commander at 31, his career seemed to consist of a series of such incidents, including the fabulous attacks on Forts Fisher and Anderson, which opened the way to the last major Confederate port of Wilmington, N. C. The name of one of the co-authors may be familiar to certain quiz program fans.

As might be suspected, **Ghost Ship** presents the Confederate side of the conflict. In this case, it is the story of Raphael Semmes and his raiding cruiser *Alabama*. As most naval history fans know, Semmes first sank, burned or captured some 18 Yankee merchantmen with his small make-shift cruiser *Sumter*, then went on to create greater devastation to the tune of 69 Northern merchantmen with *Alabama* until it finally sank beneath the guns of USS *Kearsarge* in the English Channel.





## ALL HANDS SPECIAL SUPPLEMENT

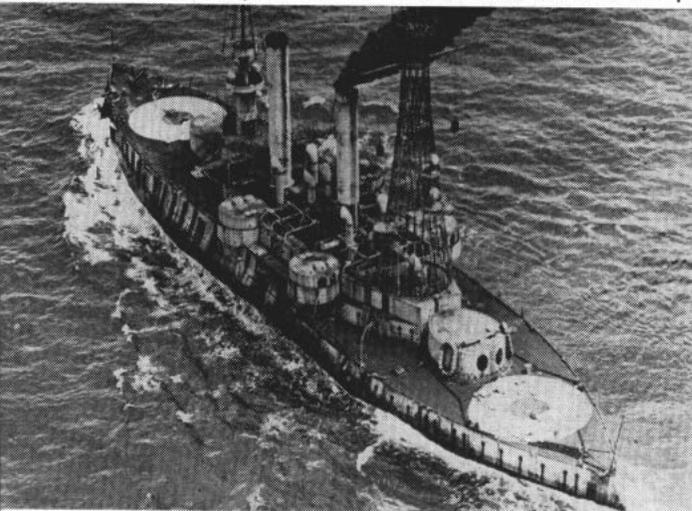
# NAVY'S ROLE IN RADIO

The Navy's vital part in the development of radio communications dates back to the late 19th century. Navymen, ships and units ashore played a role. This is the story.

*The following special report is excerpted from "The Navy's Role in the Development of Radio," appearing in the publication Signal, Vol. XI, No. 1, September-October 1956. The article was written by Captain Gordon L. Caswell, USN, Assistant Director of Naval Communications.*

**L**AST SUMMER a nostalgic ceremony, which marked the closing of "Radio Arlington," took place. Known to old-time radio amateurs and operators throughout the world as NAA, this station had been in continuous operation for 43 years, and was the Navy's—and the world's—first modern, high-power radio station.

RADIO controlled USS Iowa was test ship. Above: USS Northampton (CLC 1) modern communications ship.



"Radio" is now so universal in its application that its youth is nearly forgotten and, although it is generally recognized that the U. S. Navy had a dominant part in the development of radio in the United States, it is probably not realized to what extent this nation is indebted to the Navy's pioneering and continuing efforts in the development of radio. The history of radio development in the Navy is also the history of radio development throughout the world.

The Navy's role in the development of radio communications equipment and techniques, bracketing voice broadcasting; remote control of ships, as targets, which led to the guidance of missiles; the pioneering of radio-controlled aircraft known as "drones;" the conduct of radio communications within the United States and throughout the world; the allocation of radio frequencies among nations; the Navy's assistance to what is now known as the Federal Communications Commission; the elimination of foreign radio operations from United States soil—was once big news now largely forgotten.

**T**HE NAVY'S MOTIVATION is obvious. For centuries the navies of the world depended upon communications within visual range. The Navy reasoned: If radio would only work, its signals could penetrate darkness or fog, and bridge great distances, and its adaption and development would accomplish a new era in sea power, through coordination in the movement and action of widely dispersed units.

The Navy got its start so early that Navy interest in radio at least coincided with, if it did not precede, Marconi. Guglielmo Marconi was issued his first patent for a wireless communications device on 2 Jun 1896. A document in the possession of Tufts College attests to

the successful experiments in shipboard radio of Lieutenant Bradley A. Fiske, USN, (later Rear Admiral) before 31 Aug 1888. According to that evidence, RADM Fiske, as a lieutenant, "wound a number of turns of insulated cable around USS *Newark* lying at the New York Navy Yard, and likewise around the Navy Yard tug." He sent interrupted current to *Newark's* coil and listened on the tug with a telephone receiver in series with the coil system. Said this Navy officer: "I could get signals a short distance away . . ."

In 1888, the year of the Fiske document, Marconi was a teen-age boy 14 years old. Marconi's patent was issued eight years later.

**I**T WAS ON 30 Sep 1899 that the first official Navy message was sent via telegraph.

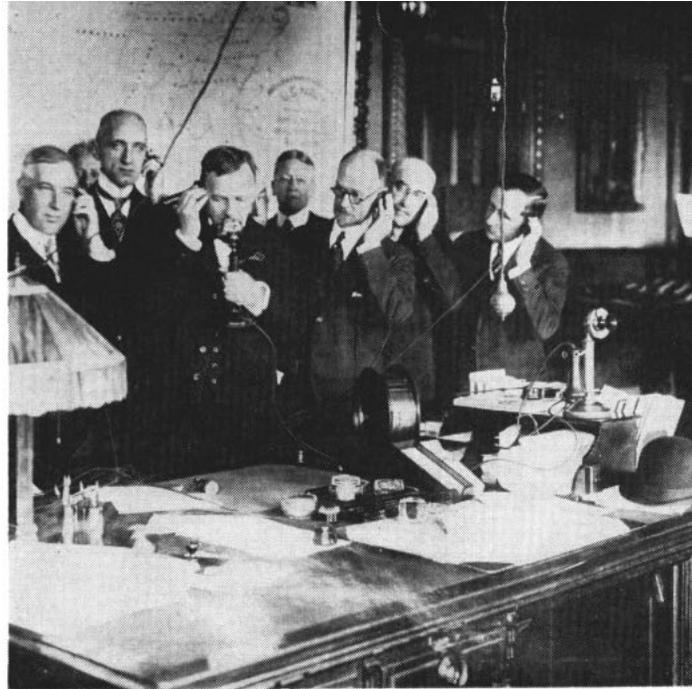
The transmission was accomplished during a naval parade in honor of Admiral Dewey who had just returned from his memorable victory in Manila Bay. The message was sent from *Conce* to the Highland Station on the Jersey Coast.

From that experience with radiotelegraphy, it was evident to a Navy observer present that the Marines who had recently fought at Guantanamo Bay, Cuba, the previous year, could have directed the fire of Navy guns on the enemy, lessening the danger to American forces and increasing the effectiveness of Navy fire, if the Navy and Marines had been able to use radiotelegraphy at Guantanamo. Fighting in Cuba was now over, but two great wars were in America's future, the first to come only 20 years later. The Navy recognized radio as a new weapons system and applied it to ships of war.

Before the turn of the century, the Navy invited Dr. Marconi to apply his new wireless telegraph system to USS *New York*, *Massachusetts*, and *Porter*. By 1916, the Secretary of the Navy, Josephus Daniels, was talking from his desk in Washington, D. C., with a moving off-shore ship of the Fleet by telephone. But already, in 1901, the United States Navy had outfitted all of its major ships with communications equipment.

**T**HE NAVY KNEW that the Age of Radio had arrived; that radio was a formidable new weapon which

FIRST radio was installed by Navy at White House in '20's. Right: Navy electronic telemetering used 25 years later.

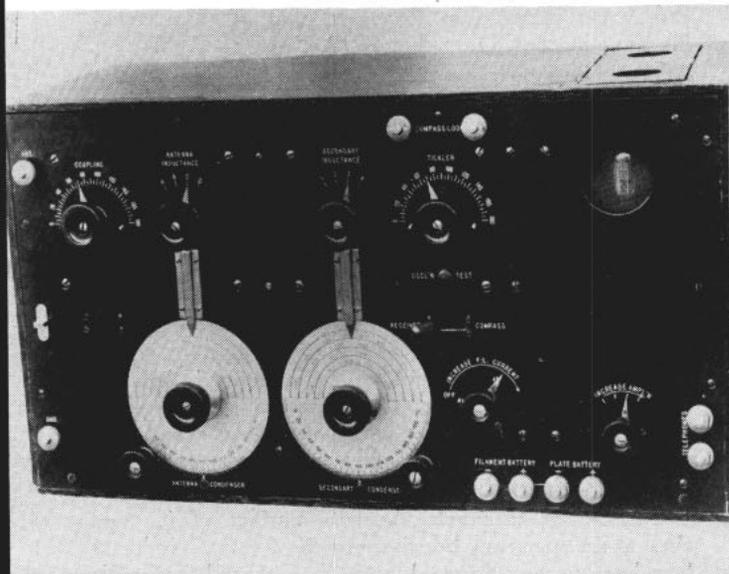


SECNAV J. Daniels made history when he talked by radio-telephone from office to USS *Nebraska* off Virginia Capes.

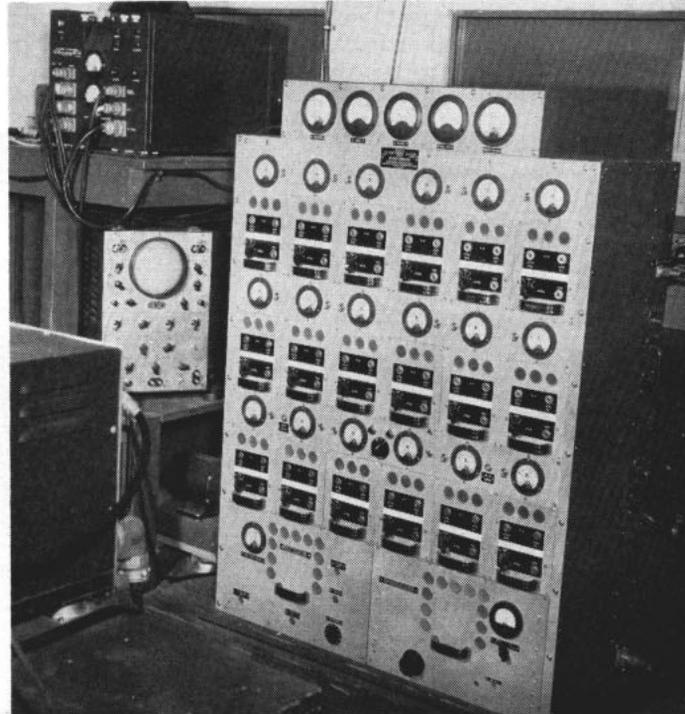
should be developed to its maximum utility; that future wars would be fought differently from past wars; that if nothing else would make them different, radio alone would.

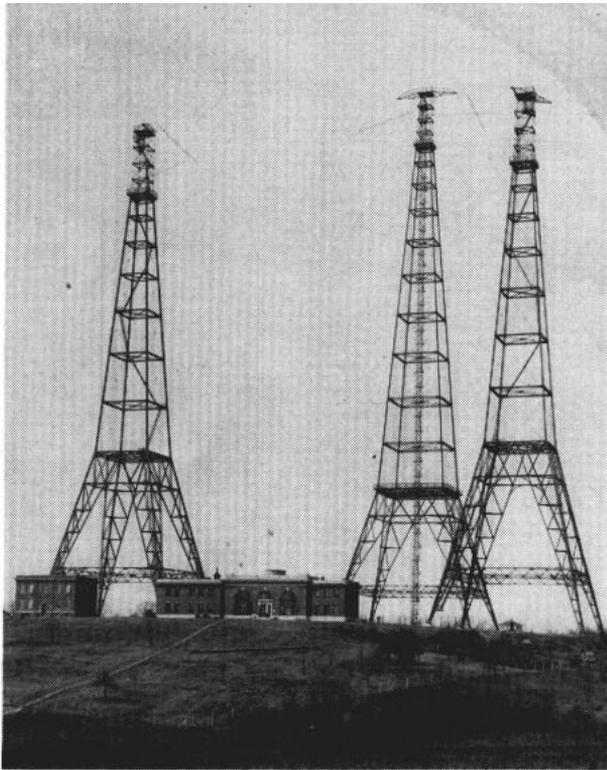
Now, almost single-handed, the Navy proceeded with the development of radio while skeptics laughed and many others totally underestimated the potential of an invisible radio wave. However, by 1908, one-half of all the "wireless" stations in the world were operated by Navy personnel. Such was the world leadership of the Navy in the new science of radio communications. By 1908, also, the Navy had established the Navy Radio Laboratory (predecessor of the Naval Research Laboratory) to conduct radio communications research.

While many others were just awakening to the possibilities of radio-telephony, the Navy was active in aiding its development. In 1906 Navy tests with the



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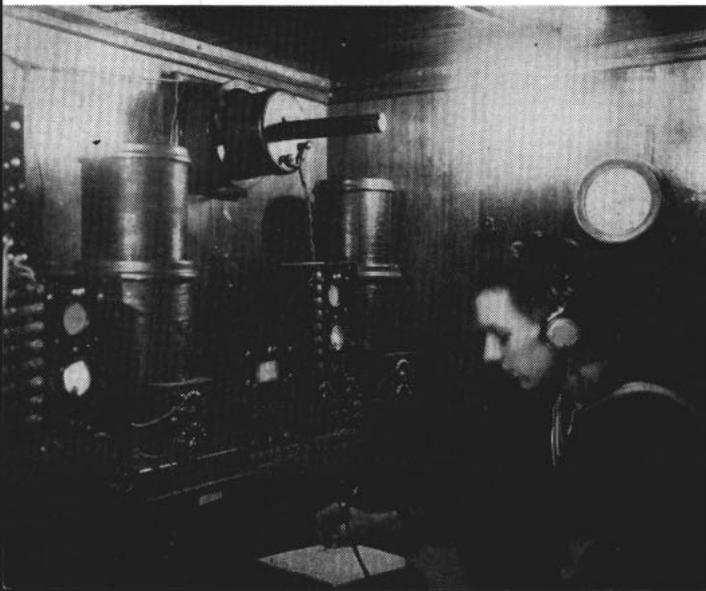
HIGH IN THE SKY reach towers of Navy's first radio station. Below: Old photo of Navyman at 'Radio Arlington.'

Poulsen-type modulated arc transmitter were made on a number of ships; and by 1909 USS *Connecticut* and *Virginia* were equipped with "wireless" telephone equipment for experimental use during the cruise of the old White Fleet.

Radiotelephony actually came of age in 1915, when NAA succeeded in completing the first trans-oceanic radio-telephone circuit in history. This was followed by similar unprecedented overseas voice transmissions by the Navy from Virginia to the Hawaiian Islands.

Less than two years later and before World War I ended, the Navy had in operation the most extensive radio system in the world. The Navy radio communications system had progressed to such a point that it not only handled messages of the United States naval forces on the seas, but also those between the War Department and the American Expeditionary Forces in France.

In this same period, 1917, the Navy developed the radio beacon, and made the first such installation at Point Judith, R. I.



It was also from the antennas of the Naval Radio Station at New Brunswick, N. J., that President Wilson's historic "Fourteen Points" were transmitted from the United States and received at Nauen, Germany; and it was by the Navy radio station at Otter Cliffs, Bar Harbor, Maine, at 2100 on the night of 6 Oct 1918, that the first German Peace Note was received from Nauen, which was followed by the Navy's receipt of the second German Peace Note at 1542 on 12 Oct 1918.

**U**NTIL THIS TIME, laws and regulations governing radio were in a chaotic state. This was true in the international area as well as local. Foreign countries and foreign business interests were at liberty to "invade" any area which they considered might be profitable and, as a result, many had radio stations operating within the United States. All cables were owned by a single company—foreign-owned.

Such a situation was not in the best interests of the United States. It was the Navy which, in 1919, took the lead in eliminating foreign radio operations from U. S. shores and which proposed setting up a wholly United States-owned international radio company—which is today one of the largest radio corporations in the world. It was this Navy-conceived, privately-owned corporation which, with naval encouragement, succeeded in buying out foreign interests and dissolving their radio operations on U. S. territory.

The year 1919 was also fruitful in the technical areas. By that time, the Navy was successfully transmitting radio voice communications from air to ground and ground to air and a year later, radio voice communications were successfully exchanged between a U. S. Navy flying boat and a partially submerged submarine, an accomplishment of great importance to the future operations of the Navy.

**A**S FOR RADIO BROADCASTING, the Navy's broadcasting station at Anacostia was the first broadcasting station in the Nation's Capital, and except for very early experiments, was one of the very first broadcasting stations in the United States. Anacostia was such a pioneer in the history of broadcasting that its LAST important broadcast was the FIRST broadcast in history of the President's message to Congress, that of Warren G. Harding in early December 1922.

The Navy's early projects in the development of radio control led to radio-controlled target ships. *Iowa* was equipped for radio control in 1923 and was soon followed by a destroyer which was similarly equipped. These ships were used as targets for gunnery practice in the Fleet. The Navy had already begun work about this time on pilotless target aircraft known as "drones" and in the next year, 1924, radio remote control of aircraft was successfully accomplished.

Between 1920 and 1925, development had increased to such a degree that earlier, tentative plans for allocation of the frequency spectrum were obsolete. As a result, the then Secretary of Commerce called several national radio conferences at which the Navy recommendations which gave both government and commercial interests their own bands were ultimately accepted.

The Navy's proposals meant a sacrifice of its own slice of the spectrum, but the growth of private industry broadcasting was fostered, with a profound economic

effect upon the nation. Former opposition to the Navy's move soon turned into approbation and its foresight was applauded.

The Navy also contributed to the U. S. efforts to obtain international agreement to the allocation of frequencies.

**A**T THE INTERNATIONAL RADIO Convention of 1927, the Navy offered what appeared to be the only plan which existed on paper for "frequency allocation."

Motivated as always by its intent to go anywhere on the seas and maintain communications with the home base and other Navy ships wherever located, the Navy also sought orderliness in international communications which only a practical frequency allocation plan could effect.

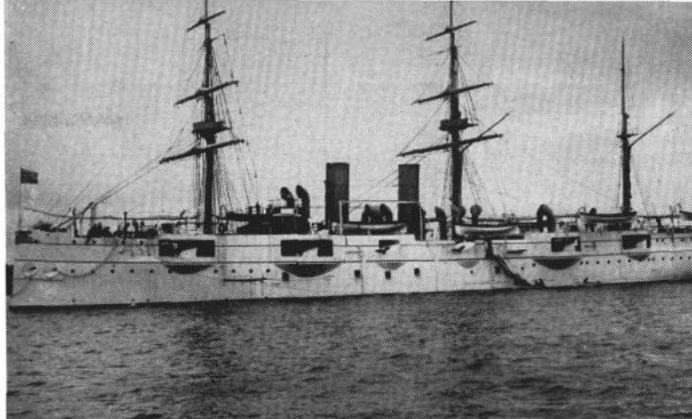
It had both the radio experience and the frequency plan, which accommodated every known radio service, including amateur radio. *Then, as now, Navy considered amateur radio operators an invaluable technical and development reservoir in the national interest.* The Navy's allocation concept still forms the basis of frequency assignments throughout the world. World radio was spurred by this historic landmark in communications.

The Navy's aid in the formation of our present age of radio is so great that space limitations prevent enumeration. For instance, it had an important part in the first "radio propagation" studies ever made.

It was a Navy enlisted man (whose name is unfortunately lost to history), who first pointed to the influence of "sunspots" on radio communications. At that time mankind did not know that radio communications, and particularly long-range communications, are vitally affected by the sunspot cycle; today this is common knowledge. At the time, however, it was another foundation stone.

Today it means little or nothing, perhaps, that our communications facilities which were once called "wireless stations" are now "radio stations." The Navy was the first to adopt the novel term by designating NAA a Navy "radio station." The Navy term has since been adopted by the entire communications industry.

**W**HEN PRESIDENT Theodore Roosevelt sent the Great White Fleet around the world on an international goodwill mission, Dr. Lee de Forest, the "father of radio broadcasting," was on board the battleship *Connecticut*, flagship of the Fleet. Using his new vacuum tubes, Dr. de Forest supervised one of the first successful tests of the wireless telephone between *Connecticut* and the Naval Radio Station at Point Loma, Calif., and what we



**STRANGE SOUNDS**—In 1888 an electric current sent via USS Newark's coils, received at a distance on Navy tug.

know as "radio broadcasting," or the transmission of voice by radio, was in part born.

Less than a decade later, the world's first remotely controlled radio station was installed and operated by the United States Navy in Washington, D. C.; and one of the very earliest automobile radios was developed by personnel of the Naval Research Laboratory.

The Navy was also the first to broadcast the voice of a President of the United States, that of Warren G. Harding, during the dedication of the Lincoln Memorial, and at this time, the Navy also installed the first radio receiving set in the White House.

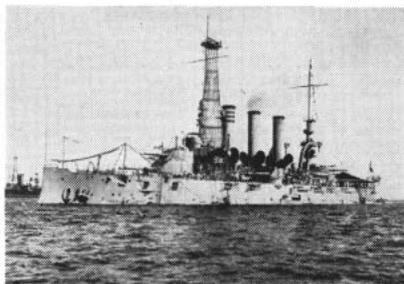
The Navy was one of the earliest users of the very low frequencies, which are of the same as high frequency sound waves. Our newest very low frequency transmitter is at Jim Creek, in the State of Washington, and is the most powerful radio station of its kind in the world.

In the early 1920s, personnel of the Navy were already investigating and testing facsimile equipment, and in 1923, recognizable pictures of President Harding were transmitted by the Navy from Washington, D. C., to Philadelphia, Pa. Twenty-two years later, photographs of the Japanese surrender ceremonies aboard USS *Missouri* (BB 63) were transmitted by the Navy more than 5000 miles to the United States and the nation's press. Today, weather maps and other valuable pictorial data are transmitted thousands of miles for the benefit of the Navy and public alike.

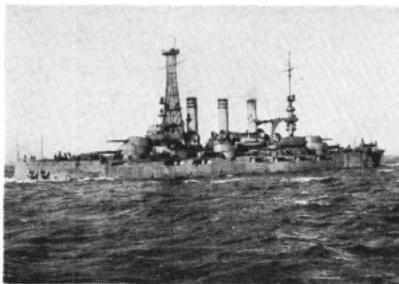
Great as the Navy's role has been in this important field, vital contributions have been made by our sister services, by industry, and by many individuals. A true history of the development of radio will include all.

The Navy does, however, hope to participate in the continued development of radio in the present era as it has in the past, and welcomes the wide participation of all interests now equally active in this field.

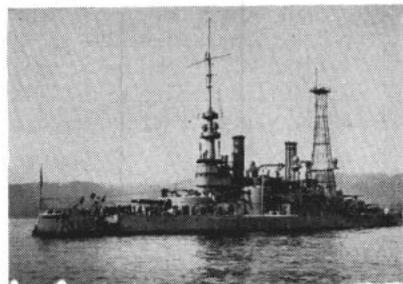
### ***Ships That Played An Important Role In Developing Navy Radio***



USS Massachusetts



USS Nebraska



USS Virginia

# TAFFRAIL TALK

THERE WAS GREAT excitement at ALL HANDS recently. The list for Officer Candidate School had just come out. And there on the list were two familiar names—Rodolfo C. Garcia, JOC, and Bernard R. Baugh, JO1. Both staff members. So we've lost two of our staffers—Rudy and Barney.

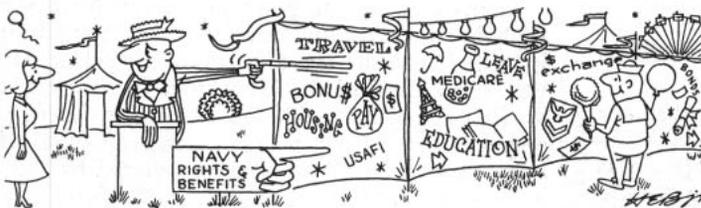
After the rigorous training at Newport OCS, and some further specialized schools, Rudy and Barney are slated to be assigned to sea. We hope their new commanding officers don't hear about it, but we're going to give some "spare time" assignments to those two.

New staffers will be William Prosser, JO1, from ComFive and Tom Wholey, JOC, from DesLant. We're waiting for them now.

We are also saying goodbye to Joseph Eagen, PN3, one of the unsung heroes of our research department, and our "printer" for Navy *Chaplain's Bulletin*, researchist for *The Naval Reservist*, assistant layout man for ALL HANDS, and general factotum. To replace Joe, we have Bill Miller, SA. That is a name familiar to ALL HANDS readers, but it is not the same Bill Miller. Our former staffer, Bill Miller, JOC, is the winner of a gold medal from the *Naval Institute Proceedings*. Our new Bill Miller, SA, therefore, has quite a task before him: Live up to the reputation of JOC Miller, and fill the shoes of Joe Eagen.



When the office copies of a new issue of ALL HANDS arrive, we all lean back in our chairs to check our handiwork. It is at this moment when the obvious typographical errors, mis-



placed cuts and lost captions appear. We've been thumbing through our 80-page May Rights and Benefits issue and, as of this moment, we have a message for you. Don't tell us about the WO bars on page 41. We know about it — now.



Not long ago we had occasion in this column to comment upon the sleeveless errands with which some new crew members found themselves engaged. Now we recall another—a specialty of the Supply Department.

A requisition is filled out, replete with multitudes of carbons, for, let us say; one (1) length of shore line, 50 feet long, Stock No. NA-47543. The eager beaver, happy to please, dashes briskly to half-a-dozen or more stock rooms. At each, he is made to wait as long as possible, the chit is stamped and initialed, the lad is gently chided for being so stupid as to apply at the wrong desk and is referred to the "proper" one. The game lasts as long as the victim's legs and naivete endure.

*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, with approval of the Bureau of the Budget on 23 June 1955, is published monthly by the Bureau of Naval Personnel for the information and interest of the naval service as a whole. Opinions expressed are not necessarily those of the Navy Department. Reference to regulations, orders and directions is for information and does not by publication herein constitute authority for action. All original material may be reprinted as desired if proper credit is given ALL HANBS. Original articles of general interest may be forwarded to the Editor.

**DISTRIBUTION.** By Section B-3203 of the Bureau of Naval Personnel Manual, the Bureau directs that appropriate steps be taken to insure that all hands have quick and convenient access to this magazine, and indicates that distribution should be effected on the basis of one copy for each 10 officers and enlisted personnel to accomplish the purpose of the magazine.

The Bureau invites requests for additional copies as necessary to comply with the basic directive. This magazine is intended for all hands and commanding officers should take necessary steps to make it available accordingly.

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

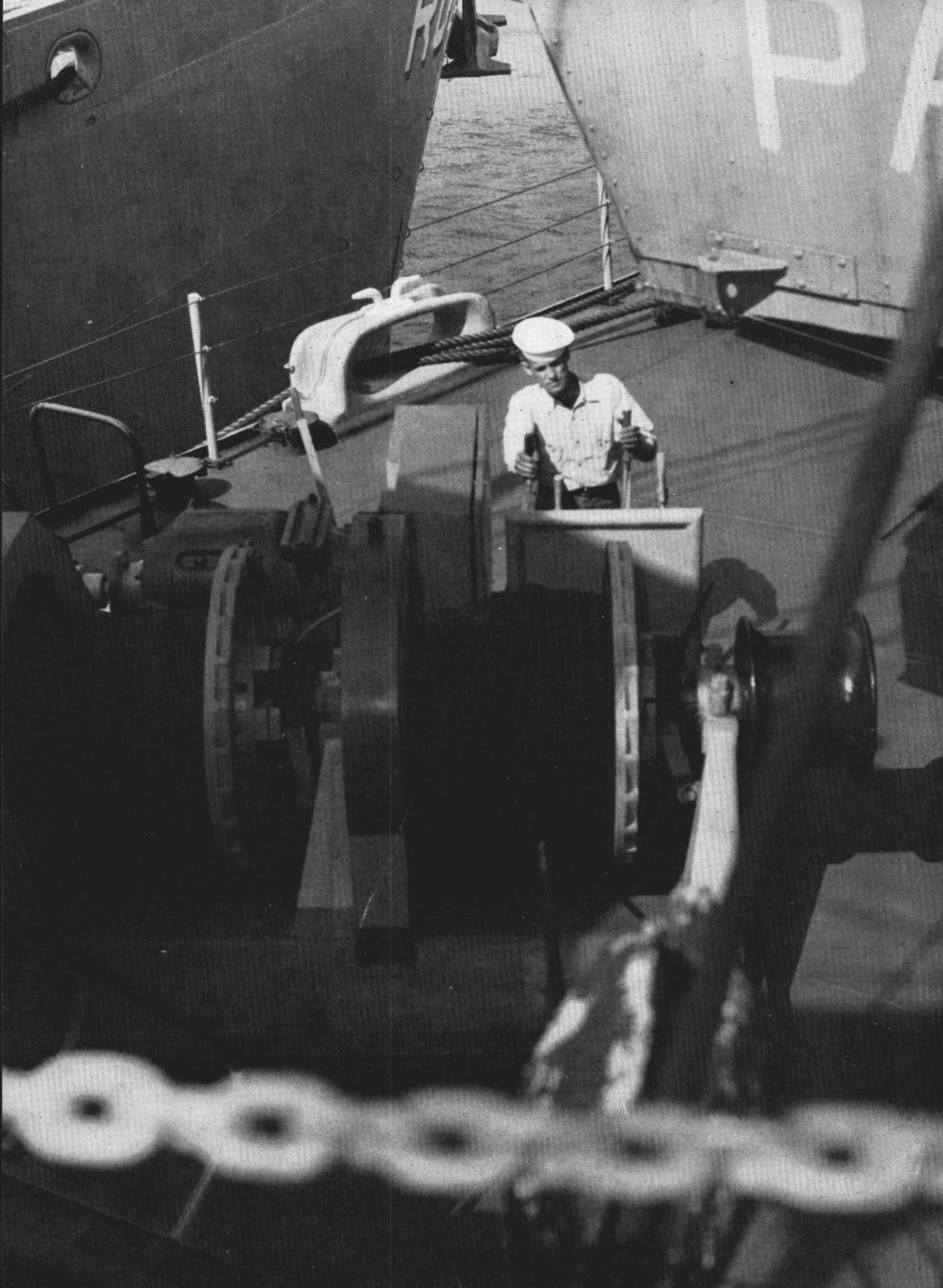
The Bureau should also be advised if the full number of copies is not received regularly.

Normally copies for Navy activities are distributed only to those on the Standard Navy Distribution List in the expectation that such activities will make further distribution as necessary; where special circumstances warrant sending direct to sub-activities the Bureau should be informed.

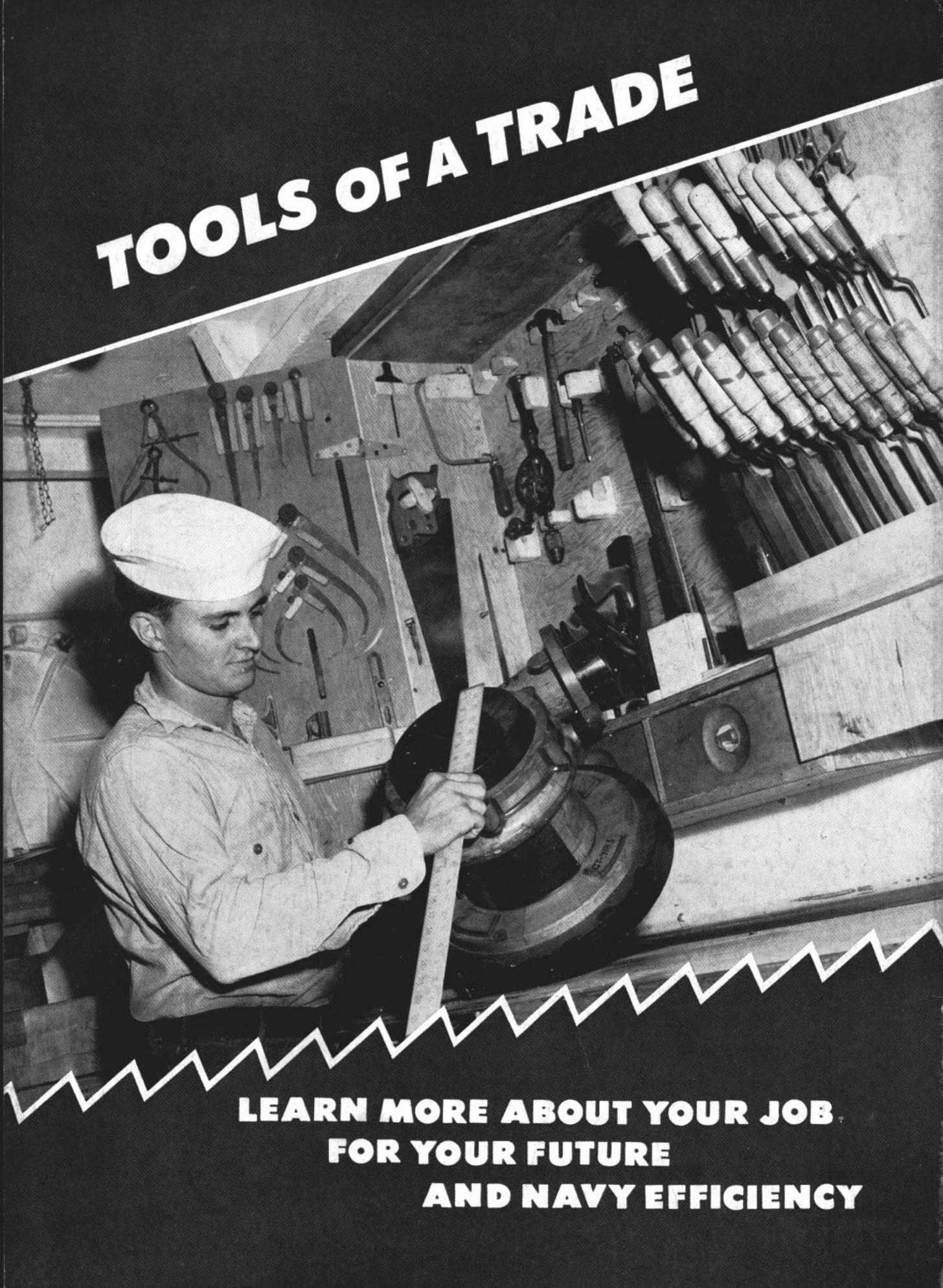
Distribution to Marine Corps personnel is effected by the Commandant U. S. Marine Corps. Request from Marine Activities should be addressed to the Commandant.

**PERSONAL COPIES:** This magazine is for sale by Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. 20 cents per copy; subscription price \$2.25 a year, domestic (including FPO and APO addresses for overseas mail); \$3.00, foreign. Remittances should be made direct to the Superintendent of Documents. Subscriptions are accepted for one year only.

● AT RIGHT: HOIST AWAY—Winch operator mans control of hoist used to raise small boats on board Attack Transport USS Cavalier (APA 37) while his ship takes on supplies in the harbor at Long Beach, Calif.



# TOOLS OF A TRADE



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