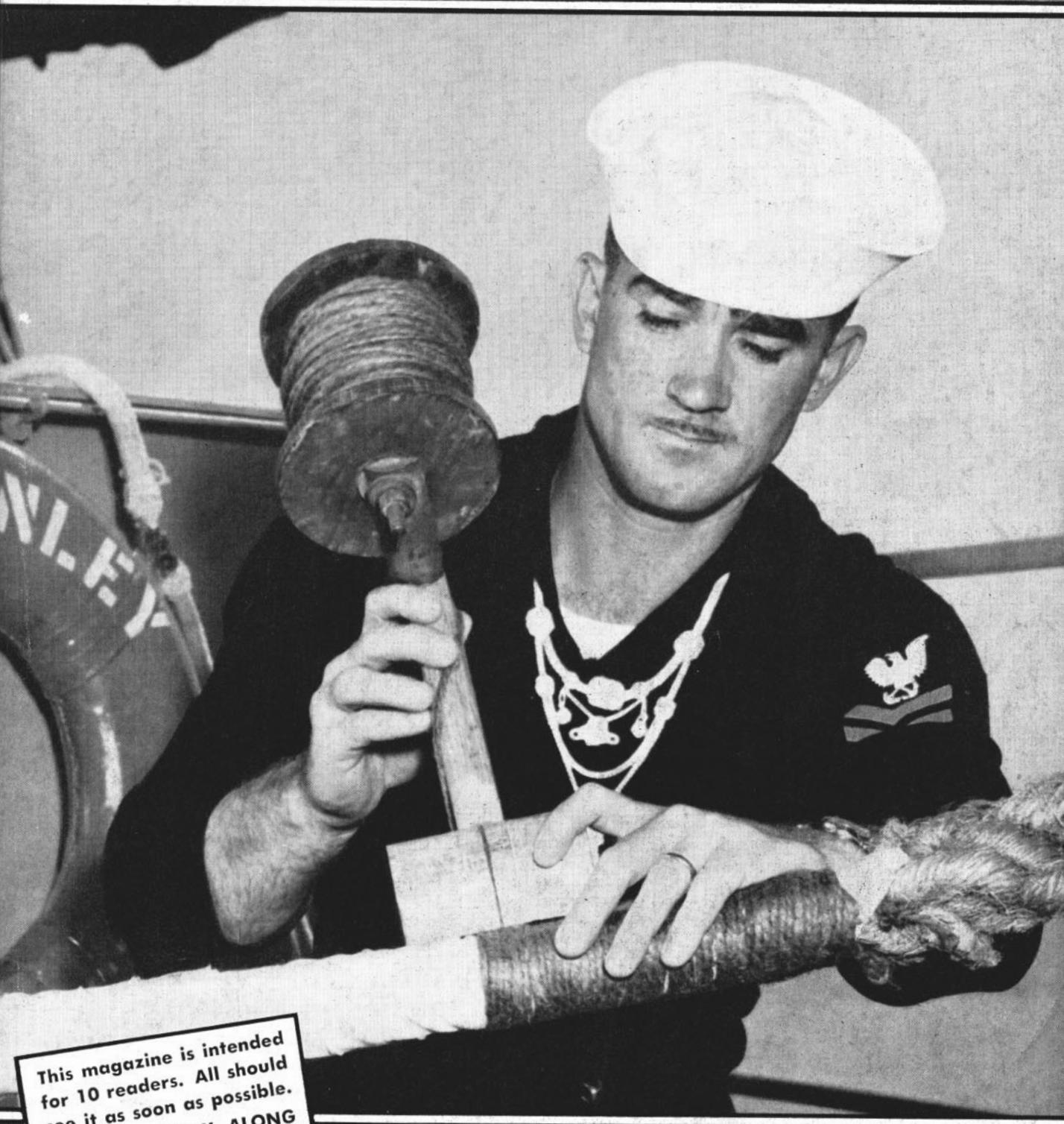


ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN



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for 10 readers. All should
see it as soon as possible.
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OCTOBER 1955



ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

OCTOBER 1955

Navpers-0

NUMBER 464

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● **FRONT COVER:** "WORM AND PARCEL with the lay, turn and serve the other way," as the old saying goes. W. J. Senn, BM2, USN, of USS *Mount McKinley* (AGC 7), is serving with marline after having wormed and parcelled. Note fast method of supplying marline to the serving mallet.—Photo by C. C. Adcock, PN3, USN.

● **AT LEFT: RIDING IT OUT** together, USS *Doyle* (DD 494) and USS *Formoe* (DE 509) are pounded by heavy seas as they face an angry King Neptune side by side.

● **CREDITS:** All photographs published in ALL HANDS are official Department of Defense Photos unless otherwise designated. Photos on pages 16 through 19 by W. J. Larkins, PM2, USN.



UNDER COVER of special clothing Navymen will explore polar lands. Earlier version above is being replaced by model (below) of cold weather clothing.



form surface makes it impossible to determine the horizon and destroys all depth perception.)

Since man first roamed the earth the Arctic and Antarctic have changed little. Much of these regions is still concealing untold mysteries which, when discovered, may make radical changes in our way of life.

Before this can be accomplished the people heading for the polar areas must learn how best to live with their enemy, cold weather. In the polar lands there are dangers lurking at every turn and the unwary may find that a hand has already become numb or that an ear is fast turning white with the telltale signs of frostbite. However, with the knowledge that has been gathered by past expeditions, and with the equipment that the Navy is supplying its men, these dangers can be licked.

One of the most important preparations that all must make before departing is to insure that the proper clothing is available.

The shipboard sailor dressed for the Arctic or Antarctic wouldn't draw any cheers at a fashion show, as the clothes he wears are designed to pro-

Keep Cool and Stay

WITH EXPEDITIONS and scientific teams from various countries on their way or planning trips to the frozen regions, the last two large unconquered areas on the face of the earth, the Arctic and Antarctic, are due to receive a great many visitors in the near future. The men making up these expeditions will spend many long hours trying to learn some of the secrets of these strange and mainly uninhabited locations in an effort to make it easier for men and machines to work and live in the sub-zero climates while engaged in peaceful pursuits or necessary wartime operations.

This new era of polar exploration, in which the U.S. Navy is one of the leaders, means that many Navymen and their ships will find themselves traveling in the direction of one or the other pole during the next few years. It also means that the units assigned to this duty will have to learn to live with a stern master—cold weather—and its various by-products such as ice, snow and the ever-feared whiteouts, (a whiteout exists when the combination of light glare in the atmosphere, uniform clouds and uni-

tect, not flatter him. Let's take a look at what you, as a typical Navyman, will wear.

The first layer of clothes would consist of the much-joked about item, long-handled underwear, but with a difference. All cotton instead of wool, the cloth is a special waffle-knit design to provide minimum contact with the skin, thus using trapped air for insulation. The idea was borrowed from the "Brynja" string-net undershirt worn by the Norwegians and well known to polar explorers.

Next come wind-resistant trousers and jackets with lightweight nylon fleece lining. For more severe weather a second pair of trousers and jacket are needed. These are made of waterproof fabrics inside and out which seal in the batting and fleecy insulation to protect them from losing warmth by absorption of perspiration or melting snow and ice.

Your hands and feet will come in for special attention for they are the parts of the body most likely to be affected by the cold. Insulated rubber boots are made on the same "picnic jug" principle as the sealed insulation

of the special jackets and trousers. These are worn with only one pair of medium weight socks. The practice of wearing two or more pairs of heavy woolen socks, recommended for other types of footgear may reduce protection from the cold if you are wearing the new type boots.

Your hands will be encased in mittens also made with sealed insulation. Conventional gloves or mittens are worn under these, depending on the job you have to do. But remember, gloves separate the fingers and do not help them to warm each other. To top off your clothing there is a variety of headgear, including fur-ruffed hoods for those men going ashore.

Sun glasses will also be essential. Because of the vast expanse of white and the resulting bright reflections, the eyes are put to a severe strain unless given some protection. (For a late type of sun goggles, see page 40).

Just because you're wearing plenty of clothing doesn't mean you can withstand any weather that may come your way. When working on deck and standing watch you will always have to be on the alert for the possibility of frostbite or freezing.



OPERATION DEEPFREEZE will pit Navymen and ships against the cold and its by-products, ice, snow, and ever-feared whiteouts occurring without warning.

Warm in Cold Weather

While in the polar regions, watches are rotated much more frequently than ordinarily, but it is up to you to be sure that you don't reach the danger point of cold. Whenever you feel extremely uncomfortable or chilled, you will be expected to let someone know about it or, if possible, swap off with another man who is more protected from the elements than you.

If you are one of the men selected to go ashore you will run into weather conditions which are more severe. Furthermore, you won't have a warm ship to duck into in case of trouble. Following is a list of do's and don'ts prepared by veteran polar explorers both afloat and ashore.

- *Do* eat plenty of fatty foods and sugar. These manufacture the body heat that is important in cold weather operations.

- *Do* shave before going to bed, rather than in the morning, to avoid unnecessary chapping.

- *Do* change your socks daily and keep your clothes clean, as you do in normal shipboard life. Dirt and oil from the body fill up the tiny air cells in underwear and other clothing, thus

reducing their insulating quality.

- *Do* make faces and grimace from time to time while out in the open. This is a test to find whether you are becoming a victim of frostbite.

- *Do* get medical attention as quickly as possible if frostbite or snow blindness is suspected. Quick medical attention may save you from blindness, the loss of a limb or your life.

- *Do* wear the bright colored outer garments provided for you when away from the ship or base. This will make it easier to locate you from the air in case you get lost.

- *Don't* grow a beard. It's a liability. Moisture from your breath, collecting on the beard, will convert it into an ice mask, making thawing of frostbite on the face difficult. Also it is more difficult to detect frostbite under a beard.

- *Don't* overdress. Too many clothes cause excessive perspiration which condenses to form hoarfrost within the layers of your clothing. This will melt and then freeze again, increasing danger of frostbite.

- *Don't* go on deck or out of shelter ashore unless properly clothed.





ICE AND SNOW of Antarctic weather are hard on Navy ships as well as sailors. Freezing water and snow form damaging crusts over ship superstructure.

- *Don't* venture out into a storm or into a likelihood of a storm.

- *Don't* remove pieces of clothing unless absolutely necessary. This can cause a sudden chilling which is dangerous.

- *Don't* use snow or water to try to counteract frostbite. This will only hasten the freezing action. If you can't get into a warm spot, try to put the affected part of your body against something warm.

- *Don't* remove shoes and socks quickly and clumsily while frostbite of feet is apparent. If you take them off hastily, part of the foot or toe may come with the sock.

- *Don't* eat snow. Touching snow to your mouth may cause the lips to get badly chapped.

- *Don't* touch metal with bare hands or skin. The portion of your

hand which touches the metal may stick and freezing begins immediately.

- *Don't* fall overboard. One of the worst things that could happen to you in polar waters is to take a fall into the drink. If that should happen, the experts have agreed, you have approximately eight minutes before passing the point of no return. However, with helicopters and improved rescue methods, those eight minutes are enough if you keep your head.

In the event you should get dunked remember that you are better off swimming than just floating in the water. Your exertions will help keep you warm and will thus prolong your life much better than if you just held on to a piece of floating timber or relaxed in your Mae West. A man who is swimming hard will, for a long

time, produce approximately the same amount of heat that he'll lose in water near the freezing point. Ordinarily, he won't perish of the cold as long as he can swim. Arms and legs being exercised will often remain warm enough to keep them from getting stiff, and will steal less heat from the rest of the body after rescue than they would if unexercised.

This doesn't mean that you should swim away from your ship or boat. Keep moving, but move towards the ship or in a circle if a helicopter is on its way to you.

Once a man is taken out of the water the medical experts recommend dunking him all over again, this time in warm water of 100 to 102 degrees Fahrenheit. Since few, if any, Navy ships carry bath tubs, the largest container on board will be used for this important part of the rescue. More than likely you will end up in the galley. Another possible container could be knocked together by the repair division out of wood and canvas.

Boiling it all down, the main items that shipboard personnel must remember for their own safety, in either the Arctic or Antarctic, are to dress warmly, not to remain on the exposed weather decks too long and to insure that they don't get in a position where they may be thrown over the side by a sudden lunge of the ship.

Readying Your Ship For Cold Weather

The rough treatment caused by ice in all its forms can be dangerous, and your ship will given special attention to make sure it can withstand the rigorous life and abnormal temperatures it will encounter. You will undoubtedly have a part in its preparation. These are some of the steps:

- Toppides and decks repainted; rigging will be regreased with a light coating; winter grade lubricants in all deck machinery.

- The cooling systems of motor boats and other exposed internal-combustion engines will be drained and refilled with ethylene glycol or alcohol.

- Storage batteries will be kept at as full charge as possible. The electrolyte must be at 1.280 specific gravity.

- A towing bridle will be rigged forward for immediate use if the situation requires that you be towed by an icebreaker. You'll have towing gear available on the fantail for possible use in towing another ship.

- You'll have to provide for inside

ONE WAY TO KEEP WARM—There will be plenty of snow-sweeping and shoveling to keep decks and gangways free from dangers of slippery ice.



stowage for acetylene, oxygen and other gas bottles since, if they are used directly from outside stowage in cold weather, up to 75 cubic feet volume is lost.

These are only samples of the many precautions that will be taken. In any event, you can be sure that when your ship reaches the ice regions, it will be in as good condition as planning, experience and hard work can make it.

When you have arrived, you can anticipate plenty of snow sweeping and shoveling. To avoid danger from ice and snow all decks should be kept clear of snow before it has an opportunity to form a crust or become trampled and hardened.

In keeping the decks clean, special care has to be taken in removing ice close to any electrical cables and equipment cables and equipment because of the possibility of breaking them loose from switch boxes and other connections. Salt-water hosing is one quick means of melting snow and ice but should be used only in non-freezing weather.

You'll become familiar with the hardwood or nylon-faced mallet approximately six inches in diameter, used for chipping ice off the ship. Scrapers can be used but they may remove paint and cause rusting.

In addition to the cold and ice there is another common enemy that men, ships and planes have encountered, often with tragic results. This is the whiteout, as mentioned before.

The dangers in a whiteout are many. Men on foot lose all sense of direction as everything disappears in a mist of white. Ships may run into icebergs or even onto the shore, but the greatest danger is to aircraft.

Early this year a whiteout in Antarctica caused an accident that cost a helicopter pilot his life. *USS Atka* (AGB 3) was busy scouting the Antarctica coast looking for possible sites for the coming expedition. A group of scientists had been left ashore to run several tests and when time came to pick them up, a helicopter was dispatched to make the journey.

As the pilot neared the men on the shore a sudden whiteout occurred and he lost all sense of direction, flying the copter right into the ground.

Another instance of flying in a whiteout occurred in the closing days of W W II when a patrol plane was returning to its Greenland base after a routine North Atlantic ASW patrol.

After checking in with the home



VETERAN OF COLD WATERS, *USS Burton Island* (AGC 1) secures on a 'dead-man.' Previous expeditions have taught Navy men how to better face the cold.

base the pilot was "headed for the barn," when the plane took a sudden bounce. The pilot thought nothing of it until he checked his air speed indicator and saw he was losing speed. He applied power, but the indicator continued to drop.

The next move was instinct as the pilot tried to drop the nose and gain speed. The nose wouldn't go down. It couldn't as the plane was on the ground. Caught in a whiteout, the pilot had put it on the ground without even knowing it.

As a result, the crew of that plane, all veterans in the North, had to spend 16 days living off their wits and emergency rations before vehicles could push their way across the icecap to pick them up.

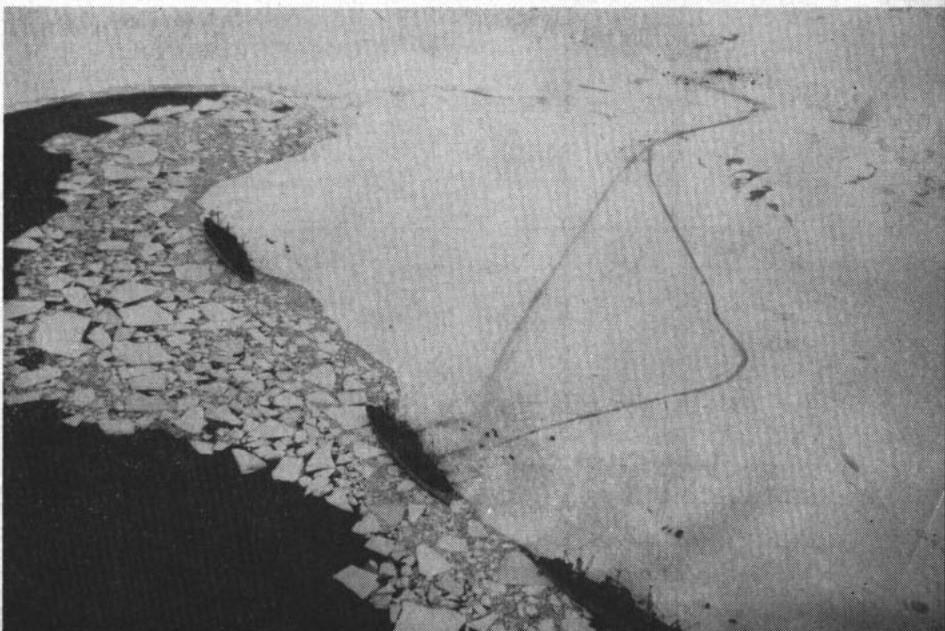
What do you do if you get in a whiteout? If you happen to be ashore

or on the ice pack the best thing you can do is stay put unless you are certain you can find your way back to the base or ship.

However, it is very easy to lose your way in a whiteout and the best advice is—stay put. Flyers should, if possible, climb above it to insure that they don't do what the aforementioned pilot did and fly into the ground. Aboard ship, the best bet would be to stand fast unless in heavy ice, in which case a slow and steady rate of advance would be best.

The Arctic and Antarctic, big as they are, can be and will be conquered. It may take years and it won't be an easy job, but you can rest assured that it will come to pass. You might have a hand in the task and if you should, just remember to keep cool. —Bob Ohl, JOC, USN.

FLOATING ICE is an ever-present danger to Navy ships sailing world's frozen water ways. Here, ships unload equipment for camp seen at the far right.



THE WORD

Frank, Authentic Advance Information On Policy—Straight from Headquarters

• **LESS TIME**—Career-minded Navy-men in the lower pay grades are reminded that time requirements for advancement from pay grade E-2 to E-3 have been cut from six to three months. This makes it possible for men to advance to petty officer within the first year of their enlistments.

The change in time requirement was announced in BuPers Inst. 1414.3 which also urged commanding officers to establish accelerated training programs to insure that the men under their command get every opportunity for advancement.

The directive stressed that particular emphasis be placed on the training of men for advancement to pay grade E-4 to insure that they are qualified for the service-wide competitive examinations.

• **SHORE DUTY FOR STRIKERS**—The demand for designated strikers to fill vacant shore duty billets is greater than the current supply.

This surprising information came to light following a study of the BuPers Shore Duty Eligibility List, which indicates not enough designated strikers now serving at sea are requesting shore duty, although qualified. The result is that in some instances it has been necessary to draft Class A schools for personnel to fill vacant shore jobs.

In some cases it appears that Fleet strikers do not realize that requesting shore duty is a voluntary action—that they must initiate action by submitting an SDEL card when eligible

under the provisions of BuPers Inst. 1306.20B (see ALL HANDS May 1955, pp. 30-43). The Bureau does not ordinarily order strikers serving in the Fleet to shore duty unless they have requested it.

The majority of strikers must have served on continuous sea duty from 18 to 24 months to be eligible for shore duty. A year of obligated service (computed from transfer date) is required. The next Shore Duty Eligibility List, showing the status of shore billets according to rates, will be published in the November issue of ALL HANDS.

• **POLIO VACCINE**—Poliomyelitis vaccine for all dependent children of Navymen overseas has been allocated to the Department of Defense for distribution through its medical channels. The vaccine is also available to children of other federal personnel overseas, both civilian and military.

All vaccine obtained for use in the Department of Defense inoculation program will have been pre-tested according to the new, rigid standards established by the U. S. Public Health Service for safety and effectiveness.

The National Foundation for Infantile Paralysis has furnished the Department of Defense with 72,900 cc. for first and second graders in government families overseas as a part of its program of free vaccination.

The defense program will parallel that in civilian communities of

the United States, limiting vaccination at the present to children from five through nine years of age. The Department of DeDfense estimates there are 450,000 children in this age group.

The vaccine will be given to all eligible children on a voluntary basis.

• **TRANSFERS OF ENLISTED NAVY-MEN** serving in the Atlantic Fleet to ships scheduled for permanent deployment to the Pacific Fleet are made by ComServLant and type commanders in accordance with ComServLant Inst. 1300.4.

The instruction also makes it possible for other Atlantic Fleet personnel to remain on the East Coast even though their ships are being deployed to the Pacific.

However, your request for transfer and its submission, in itself, does not necessarily mean that it will be approved. Needs of the service still come first.

Lant-Fleet personnel who wish to be transferred permanently to the Pacific should submit a request to Commander Service Force, U.S. Atlantic Fleet, via the type commander, giving the following information:

1. Full name, rate, service number and NJC.
2. EOS (end of service) date. If less than 12 months' obligated service, you must signify intention regarding extension of enlistment or active duty.
3. Last place of acceptance for enlistment, reenlistment or place from which you were last ordered to active duty.
4. Conduct marks for the past six months.
5. Date you reported to present duty station.
6. Reason for requesting transfer.

These requests will be held on file by ComServLant and approved transfers will be made on a rate-for-rate exchange basis with person-



PASS THIS COPY ON—Don't be a Pumpkinhead, ALL HANDS Magazine should be unmasked to at least 10 readers.

nel on ships being deployed to the Pacific who wish to remain in the Atlantic.

At least 60 days before the date of departure, ships being permanently deployed to the Pacific will submit to ComServLant via own type commanders, a list of the men who wish to remain in the Atlantic Fleet and who can be spared. The commanding officer will screen and reduce this list as he considers necessary to insure the ability of the ship to meet its commitments.

Type commanders will retain these lists until 30 days before the scheduled departure of the ship and make such transfers within the type as they desire to make. Final adjustments will be made by ComServLant.

• **OLYMPIC FUNDS**—You can play a big part in helping the U. S. win the 1956 Olympic games, even though you might not be an athlete of Olympic caliber.

You can help finance the United States team in the Olympic Games to be held in Melbourne, Australia, 22 Nov through 8 Dec 1956 and the Winter Games to be held at Cortina d'Ampezzo, Italy, 26 Jan through 5 Feb 1956.

Ships and stations throughout the Navy may collect funds for the Olympics by any practical method, such as passing the hat at movies or athletic events. Donations are entirely voluntary, and amounts contributed are up to the individual donor. Contributions are not necessarily limited to the National Olympic Day, 22 Oct 1955. You can make your donation to the U. S. Olympic Fund during the week of 16-22 Oct 1955 when your ship or station stages the collection drive.

All funds collected are to be forwarded directly to the Chief of Naval Personnel (Attn: Pers-G13) by the collecting activity for consolidation and transmittal to the U. S. Olympic Committee.

The day of 22 Oct 1955 has been proclaimed by the President of the United States as National Olympic Day in order to focus attention on amateur athletics in schools, colleges, business and industry, and at the many Armed Forces installations in the U. S. and overseas.

In the United States, the U. S. Olympic Association has always fi-

nanced the team's participation by voluntary popular contributions. Virtually all the work for the U. S. Olympic Association is done on a volunteer basis and all of the committees, coaches, officials, participants, team managers and trainers, and all persons having anything to do with the Games, likewise serve without any pay.

Further information on the National Olympic Fund Drive may be found in BuPers Notice 1710 of 10 Aug 1955.

• **PERFORMANCE TEST** — A new method of administering the performance test portion of the service-wide competitive examinations for advancement of enlisted personnel will go into effect February. In the past, performance tests were administered on the same day as the scheduled professional examination. Under the newly instituted system, commanding officers may schedule performance tests at least once each quarter or more often at their discretion.

You must successfully complete the performance test, if one is required for your next higher rate, before being allowed to participate in the regularly scheduled service-wide competitive examinations. After you have successfully passed the performance test for your rate there will be no further need for you to retake the performance test to become eligible for that rate.

As has been the procedure in the past, February examinations will include examinations for pay grades E-4, E-5, E-6 and E-7. (August examinations include examinations for pay grades E-4, E-5 and E-6 only.) Here's the schedule:

E-7 (CPO)—first Tuesday of February.

E-6 (POI) — fourth Tuesday of February and August.

E-5 (PO2)—third Tuesday of February and August.

E-4 (PO3)—second Tuesday of February and August.

• **MSC APPOINTMENTS**—The 1955 Naval Examining Board has recommended that 28 officers and enlisted personnel of the Regular Navy receive permanent appointments as ensigns in the Medical Service Corps.

Formal notification of selections has been made by individual letter.

QUIZ AWEIGH

How's your naval I.Q.? If you know your insignia of officers and enlisted men, you'll have two thirds of this month's quiz licked. But you should aim for a 4.0, and to get this mark, you'll also have to know about recent changes in ships designations. What's your score?



1. A man wearing the crest (left) on his hat is an (a) officer in the U. S. Coast and Geodetic Service (b) enlisted man in the Merchant Marine (c) officer in the U. S. Coast Guard.

2. If you see a man wearing the insignia (right) on his sleeve, you'll know that he is (a) a petty officer in the Merchant Marine (b) a line officer in Merchant Marine (c) a first class midshipman at the U. S. Naval Academy.



3. An enlisted man wearing the specialty mark of a crossed bench rammer and stove tool would be a (a) metalsmith (b) builder (c) molder.

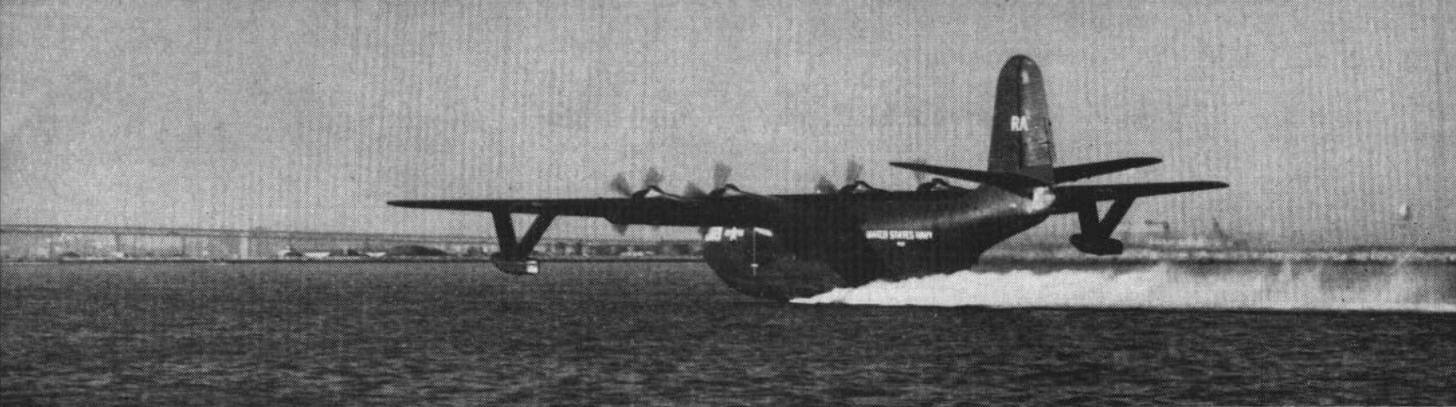
4. A man with the above rating would be in which rating group? (a) Group IV—Precision Equipment (b) Group VII—Engineering and Hull (c) Group VIII—Construction.



5. This ship is one of the newer types now operating with the Fleet. It is the (a) USS Willis A. Lee (b) USS Glacier (b) USS Northampton.

6. If you answered the above question correctly, you'll know that the ship was originally designated a destroyer leader. Its designation has now been changed to (a) patrol escort (b) frigate (c) ASW destroyer.

You'll find the answers to this quiz on page 51.



HAWAII BOUND MARS of VR-2 just about to become airborne as she roars toward Oakland-San Francisco Bay Bridge.

New Duty for the Laidlaws—

'Good-bye Frisco—Hello Hawaii'

THE AFTERNOON SUN paused in the sky over the bay before descending into the Pacific beyond the fabulous city of San Francisco. In this setting a Navyman and his family arrived at NAS Alameda, Calif.

James W. Laidlaw, AD1, USN, was en route to duty with VR-8, in Hawaii. Having been in the islands before, he was looking forward to his new duty station. It would be especially nice because his family was going to be with him. He knew that they would enjoy "Alohaland" and he was anxious to get started. His wife Lucille was a little nervous about the flight but the kids were eager to get started. Eight-year-old Jimmy was already in the clouds of excitement while Patty, 10, and Larry, four, were equally enthralled

—even baby Bobby, only 16 months old, seemed anxious to get the show on the road.

But the Laidlaws had arrived early and they had plenty of time to think about the trip—and time also to learn something about the men who were to fly them to Hawaii and the plane that would carry them there. It was comforting to Lucille to know that they were in the hands of VR-2, the second oldest air transport squadron in the naval service and the only unit in the military establishment that uses four-engine seaplanes as passenger carriers.

But most comforting of all was the fact that VR-2 has maintained a record of safety and dependability which is yet to be matched in the annals of seaplane aviation.

Her husband was more impressed by statistics. Take a look at the record. VR-2, a squadron of Fleet Logistic Air Wing, Pacific, has carried over 200,000 persons across the Pacific, carried over 16,000 tons of cargo and flown the equivalent of more than 20 round trips to the moon—that's a lot of flying in any book!

Before the Laidlaws had arrived at Alameda the cargo on their plane had already been loaded and the cargo handlers had loaded and lashed down a total of 14,833 pounds of cargo.

The navigators, Lieutenant R. M. Burkett, USN, and Lieutenant J. C. Novak, USN, and the pilots LTJG A. Naumchik, USN, and Lieutenant J. F. Brumfield, USN, (the Plane Commander) had been briefed on the

THE LAIDLAWs ARE GREETED by CAPT W. A. Sullivan, USN, CO of VR-2, and Plane Commander, J. F. Brumfield.



weather and other important flight information.

After his own briefing the Plane Commander had passed the word on to the crew to prepare them for the night's flight.

Then shortly before it was time to board the plane, LTJG J. L. Fletcher, usn, the Air Traffic Duty Officer, briefed the passengers on interesting statistics and explained the life preservers and other survival equipment that would be aboard the plane. Lucille paid particular attention to this briefing since this was to be her first flight.

At 2035 Pacific Standard Time the Laidlaw family went aboard the giant *Mars* that was to carry them to Hawaii. Lucille and the kids wondered how they could ever get such a huge thing off the ground. In the last light of an early summer day, the 74½-ton giant strained to break water as she headed toward the Oakland-San Francisco Bay Bridge. Almost before they knew it the Laidlaws were airborne. The *Mars* circled the area and gave the Laidlaws their last look at the city below them.

To Navyman Laidlaw it was "Good-bye Frisco—Hello Hawaii"—they were off at last! But it wasn't as easy for Lucille, she knew this was the last land she would see for over 2000 miles and as she watched the city and then the coast slowly disappear in the distance it was like saying good-bye to an old friend—it was "Goodbye Frisco" and "Good-bye U. S. A." Then it was gone and only the ocean could be seen beneath them.

The plane soared into the sunset and they were off to start a new life among new surroundings and with new Navy friends in a land she had always dreamed of seeing. Lucille smiled at her husband—"Stand-by Hawaii—here come the Laidlaws!"

When the plane had leveled off the passengers were permitted to take a "Cook's tour" with the various crew members acting as guides. G. M. Hall, AD1, usn, the Chief Engineer, explained the flight engineer's panel to Lucille while Patty and Jimmy attached themselves to J. N. Moscarelli, AD1, usn, another engineer.

Captain W. A. Sullivan, usn, CO of Air Transport Squadron Two, was aboard and made the heavily loaded take-off. He then turned over the controls to the regular pilot. Captain Sullivan explained to Lucille and Patty how the navigation chart was



BIG THRILL for Larry and Jimmy came when the pilot let them sit at the controls of the 74½-ton giant after the automatic pilot had been set.

marked and they watched their own flight progress on it.

Larry and Jimmy even got to sit at the controls of the big *Mars* after Plane Commander Brumfield had made sure the automatic pilot was working properly.

But even the novelty of a plane's tour wears off when little tots get sleepy, and they began to settle down for the night. One of the plane's orderlies, G. G. Minor, AN, usn, looked after their comfort and brought them all hot chocolate. The other orderly was G. A. Eiler, AN, usn, busy serving hot coffee to the grown-ups. Most flights such as this one, which is scheduled as a passenger "lift", carry two orderlies aboard, one for each

of the plane's passenger deck levels.

Until the fall of 1954, nurses were carried on trans-Pacific trips to help care for dependent and small children. Due to medical requirements of the service however, their allowance no longer exists in Air Transport squadrons except for evacuation.

After their hot chocolate the children would have no trouble going to sleep—neither would the grown-ups for that matter. The seats of *Mars* are fully reclining and are made of foam rubber, insuring maximum passenger comfort. There is also plenty of leg room available since the plane has the equivalent cubic content of a 15-room house.

After the children had settled down

MORNING BREAKFAST high in the sky is enjoyed by all after peaceful night's sleep. Mrs. Laidlaw eats while Daddy feeds 16-month-old Bobby.





AND SO TO SLEEP. Little Bobby drifts off to dreamland while his father, L. A. Laidlaw, AD1, USN, takes a cat nap.

for the night, Papa Laidlaw helped himself to the coffee that is always available and took his turn at touring the aircraft. He first visited Radioman L. E. McCants, AT1, USN, where he listened to reports on the weather ahead of them and picked up the additional information from McCants that *Mars* holds the current seaplane nonstop distance mark—flying from Honolulu to Chicago in 1948—a distance of 4748 statute miles.

While visiting the Chief Engineer, Laidlaw got to sit in on some first class repair work in the air. Some of the cowling had vibrated loose on one of the engines and would have to be fastened down from the inside. Chief Engineer Hall invited him to tag along if he wanted to and the two of them crawled out into the wing where Laidlaw was amazed to see how work can actually be done

on the accessory section of the engine while *Mars* is in flight. Although going out into the wing was not really dangerous the expression of relief on Lucille's face was evident when her husband returned to the cabin.

By this time everyone had settled down for the night and most of the passengers were asleep. Laidlaw didn't know how many people were on board but not one of them seemed to have any trouble dozing off. It sure was peaceful there with his wife and children winging their way to a new duty station. He had seen a lot of the world since he left Walthalla, North Dakota, to join the Navy back in 1941. Before long he too was fast asleep.

Morning found a plane-load of hungry passengers eager to accept the breakfast served by the two orderlies—and one of the hungriest was baby Bobby who was enjoying the flight as much as the rest of the passengers.

Not long after the breakfast trays were collected they were told to "Fasten Seat Belts"—they were landing at Hawaii. Only 12 hours and 2427 miles after take-off at Alameda and already at their destination! Except for Laidlaw, his family was setting foot on Oahu soil for the first time and there was a lot of excitement when it came time for all of them to disembark.

After a few hurried "Good-byes" to the crew the Laidlows left the plane to begin their new tour of duty. (For info on living conditions in Hawaii turn to page 42.)

Even as they stood there taking in the beautiful scenery the crew from VR-2 was turning on the engines to ready the same aircraft for a flight back to Alameda at 1630 that same day.

Looking at the huge craft that had carried them over the Pacific, Laidlaw found it hard to believe that she would someday be replaced by the higher-flying R3Y *Tradewind*—a newer seaplane transport. *Tradewind* with its 80-ton turbo-prop would enable Naval Air Transport Squadron Two to give even more efficient service to the Fleet. But *Mars* will not be forgotten by the Laidlows and the other passengers who have traveled in her in one of the finest free rides in the Navy.—Yes, sir; the Navy sure takes care of its own.

—Ted Sammon.



DURING 'COOKS TOUR' of *Mars* the Laidlows watch progress of their flight on plane's charts. Below: First view of Hawaiian scenery is enjoyed by the Laidlows.





SIGN POINTS OUT interesting liberty possibilities in and around Pisa, Italy.

Touring Sailors Lean toward Pisa

AT A CROSSROAD near Pisa, while on your liberty in sunny Italy, you'll find it difficult to decide the direction to set your course.

Whether to cruise to the white sands of nearby Viareggio, the largest beach on the Tyrrhenian coast and one of Europe's finest resorts, or to log in the world famous landmarks of Pisa, or just to relax under the umbrellas of a side walk cafe in the picturesque Italian port of Leghorn—that would be the question facing you, as it did four sailors from *USS Arcadia* (AD 23).

The home of the famed leaning tower won out in this case. After a look at Leghorn the Navymen ar-

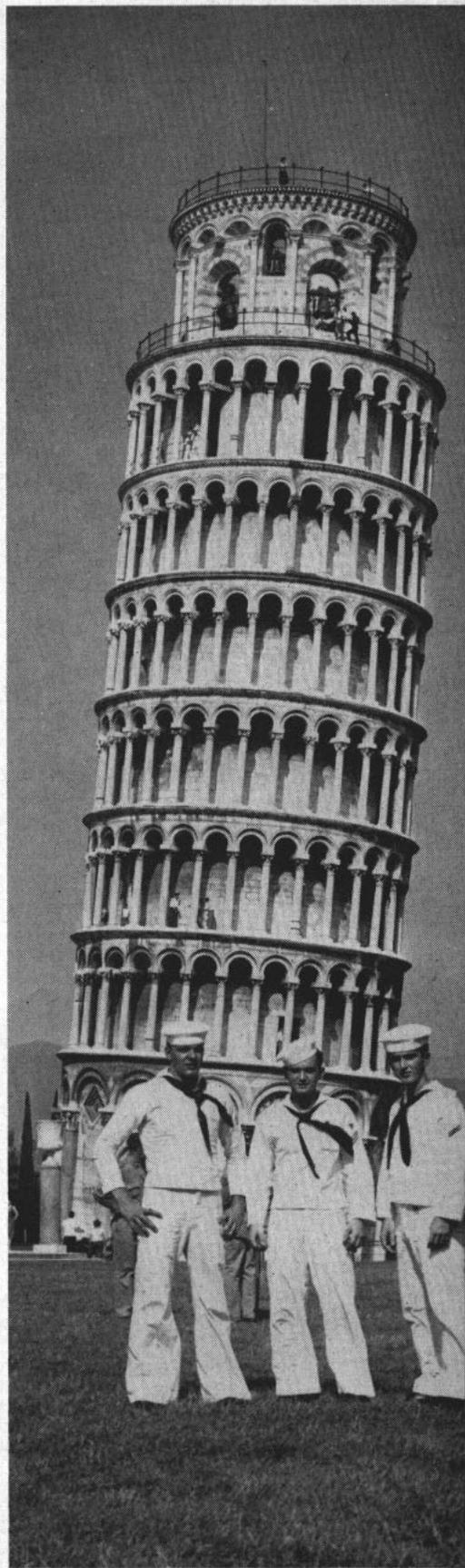
rived at their destination to enjoy the sights that have become so familiar to sailors cruising the Med.

The climb up the tower's ladder of some 294 steps and the view of Pisa from the terrace at the tower's top was "something to write home about." The sailors also enjoyed their tour of the Camposanto and its surrounding galleries of rare art

Back on board the destroyer tender, now serving as flagship for Commander Service Force Sixth Fleet, they swapped tales of the day's adventure in a foreign land and all agreed that their geography lesson Navy-style had it all over the "little red school house" back home.



LIST OF PISA'S TOWER makes interesting background for souvenir photo. Left: Sailors relax in cafe at Leghorn.





TODAY'S NAVY requires both dead reckoning and latest navigational aids. New 'Bowditch' will give you the word.

Sailors' Best Seller

"The New American Practical Navigator, by Nathaniel Bowditch, A.A.S., is published by Mr. Blunt of Newburyport, and is for sale at Salem."

THUS READ an announcement in the Salem, Mass., *Gazette* of 1 Jun 1802, marking the first appearance of a book which—with many revisions to keep it up to date—is still being distributed at the rate of some 300 copies a month.

Sometime next year similar announcements will signal the appearance of yet another "Bowditch." And this "Revised Edition 1955," like every edition since 1866, will bear the phrase "Published under the authority of the Secretary of the Navy." For almost a century it has been the Navy's job to keep this mariner's handbook up to date.

The story behind this how-to-do-it book for navigators—how it started and why, and what has kept it going for 153 years—can best be told by looking briefly at the history of marine navigation and at Bowditch himself.

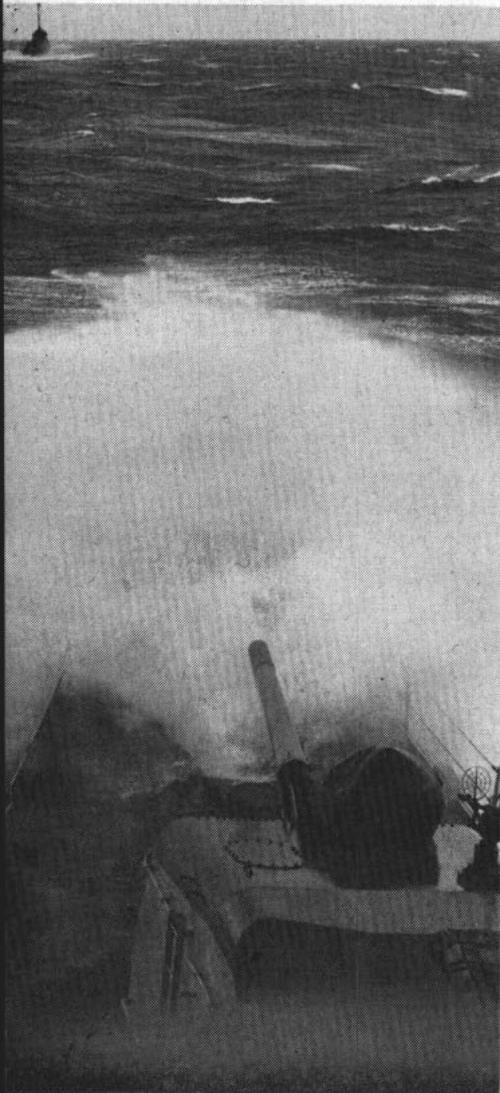
The art of sailing goes back to the dawn of recorded history, with the early sailormen practicing their trade in rivers—with both banks usually in sight—in island archipelagoes or along coasts, where land was just over the horizon or to port or starboard. But they also

made some use of the skies—after all, it was a simple matter for the seaman of those days to tell direction from the quarters on which the sun and moon rose and set, while at night stars moving across the heavens served the same purpose. And as far back as the second century B. C. crude charts and maps were also in existence.

Polaris, the Big and Little Bears and the Pleiades were celestial symbols for the earliest sailors, and they and their celestial sisters were an integral part of navigation for the Greeks, the Egyptians, the Japanese and peoples of the Pacific islands.

As sea trade continued and traders became bolder, a few brilliant souls began writing down "sailing directions." Records show that these early seafarers also made use of primitive sounding logs, their knowledge of prevailing winds and currents and cumulus clouds marking islands and shorelines. Crude devices for finding latitude also existed, but longitude was a different matter. These early seamen usually achieved their desired landfall by finding the correct latitude and then sailing east or west—a time-consuming method at best, but a disastrous one if their latitude was wrong and they were seeking an island.

After the fall of Greece and Rome the new maritime powers



of the Middle Ages produced even better sailing directions, describing harbors and the passages between them, as well as everything of importance a navigator needed to know for making a successful passage. At the same time, cartographers had greatly improved their charts, including on them compass bearings and distances. Still, they had little means of determining their exact longitude.

By the time Nathaniel Bowditch was born—in 1773—the science of navigation for Yankee skippers was pretty much this: Latitude presented no problem, being easily estimated by means of a meridian altitude of the sun. Longitude was one big headache, although men concerned with navigation had known for years that longitude *could* be determined by any one of several methods, all complicated.

The simplest of these methods—and the most popular, naturally—was the determining of “lunars,” a method based on finding (by use of a sextant) the angular distances between the moon and a pair of fixed stars, then comparing the results with a lunar distance table prepared in Greenwich time. But there were a couple of problems here: (1) reasonably accurate lunar tables did not exist until the 1760s; and (2) finding longitude by this method required both mathematical skill and a passion for accuracy—and too many shipmasters had neither. As a result most skippers continued to rely on “dead reckoning” and their own “sense of direction.”

Even better, the chronometer had recently been developed in England, enabling a skipper to take Greenwich time right along on a voyage—but what frugal Yankee skipper would lay out money for that fairly new, frightfully expensive device when he had faith in his own ability to make a fast, profitable run?

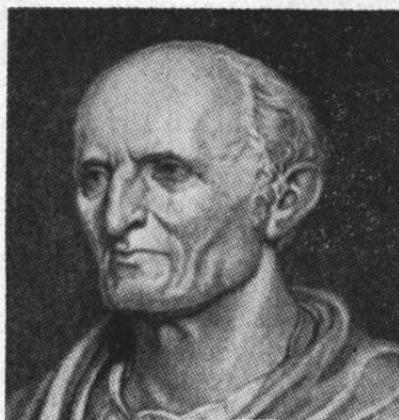
When Nathaniel Bowditch was born in Salem, Mass., on 26 Mar 1773, no one dreamed of the effect he would eventually have on navigation. As a youngster Nat was sent to the best school in Salem, but he soon tired of the endless spelling lessons which were the fate of the younger students. Nathaniel Bowditch was more fascinated by the arithmetic taught older lads in the one-room school and decided he, too, wanted to study ciphering.

Thus he set forth on the sea of

mathematics which one day would lead to the Salem Marine Society to eulogize: “As long as ships shall sail, the needle point to the north, and the stars go through their wonted courses in the heavens, the name of Dr. Bowditch will be revered.”

But that was far in the future, and Nat was little more than 10 years old when his father put him to work in a cooperage, helping make barrels for packing Salem's seagoing commerce. A scant two years with staves and hoops and endless oak shavings and the elder Bowditch apprenticed his son to a ship chandler. However, clerking in a chandlery, like coopering for his father, left Nat plenty of time to indulge his passion for study.

And study he did—navigation, astronomy, surveying—anything even remotely connected with mathematics. His birth into a seafaring family living in a town of seafarers, coupled with his consuming interest in mathematics, made it only natural for young Bowditch to show an extraordinary interest in navigation. The scrawny ship chandler's apprentice began a serious study of navigation at the tender age of 13, buying notebooks for copying out material from books he couldn't afford to buy.



Nat Bowditch

Going beyond mere study and the copying of other learning, Bowditch found time to build a barometer, a wooden quadrant, a sundial—and put together an almanac covering the years 1789 to 1823.

While Bowditch was growing up the maritime ventures of Salem were also growing, with Salem ships not only turning up in ports all over the world, but—navigation being what it was—occasionally turning up in ports their skippers had never seen before and hoped never to see again.

Bowditch turned 21 in 1794 and soon began preparing for his first voyage on a Salem merchantman.

LIKE THE GREEKS AND EGYPTIANS, modern navigators still use the stars to guide their ship. Here, a Navy navigator uses his sextant to ‘shoot the stars.’



He filled notebooks with navigational data, and learned such things as how to keep ship's logs and sea journals. The mathematician-turned-sailor shipped for this first voyage as a combination clerk and second mate. In addition to the tedious paperwork required of a clerk, he also had to stand watches as a mate.

Still, Bowditch found time for his studies. At every chance he checked the ship's position against his own celestial sights, filling notebooks with his findings and with data on winds, currents and soundings—and correcting errors and the charts and sailing data carried by the ship.

It was on this voyage that Bowditch thought of a new method of making lunar observations, a method so simple that even the most unlearned seaman could be taught to find his ship's longitude.

While Bowditch was on his first two voyages—and still finding and correcting mistakes in nearly every chart and navigational publication the ship had aboard—an American printer brought out a nautical volume on navigation. It sold so well that he followed it with *The Practical Navigator*, an English work by John Hamilton Moore. Bowditch found numerous errors in this book and a revised edition was published based on Bowditch's corrections.

He continued to improve his knowledge and develop more simplified techniques. When Bowditch left Salem on his fourth voyage he took along a "cargo" of notes on

navigation. As the cruise progressed, so did the mathematician's endless search for new material. But Bowditch also found time, as on his previous cruises, to try his ideas on his less-educated shipmates.

By the time the merchantman neared Salem on her homeward voyage, Nat Bowditch had written a new type of simplified handbook of practical navigation which corrected some 8000 errors that had appeared in previous texts. Published in 1802 and revised many times since (but still bearing the name "Bowditch"), the *New American Practical Navigator* was a book which soon earned for itself the nickname "seaman's bible."

A copy of that first volume rests among the rare books in the library of the U. S. Navy's Hydrographic Office, near Suitland, Md. Between its brown leather covers are 276 dog-eared pages of nautical information. 247 pages of easy-to-understand instruction and 29 pages of tables, sea terms and assorted information of use to the sailor of the last century. In his instructions Bowditch covered such subjects as geometry, trigonometry, logarithms, handling of the log and glass, quadrant and sextant, determination of altitudes, declinations, time and lunar observations (by the simple method he originated)—all in easy-to-read language.

This first "Bowditch" also contains surveying directions, data on winds, directions for finding the times of high tides, notes on cur-

rents and marine insurance statistics. Assuming almost no knowledge on the part of the reader, Bowditch was intended to give that reader a complete picture of the tasks of a ship's officer.

Before publication of this first *New American Practical Navigator*, ships made their voyages without exact calculation of their courses. Bowditch, in presenting his easily understandable—and workable—system of navigation, made it possible for a skipper to sail a straight course to his destination instead of rambling over half an ocean. He helped make Yankee ships the world's fastest at a time when the United States was largely dependent upon its maritime trade.

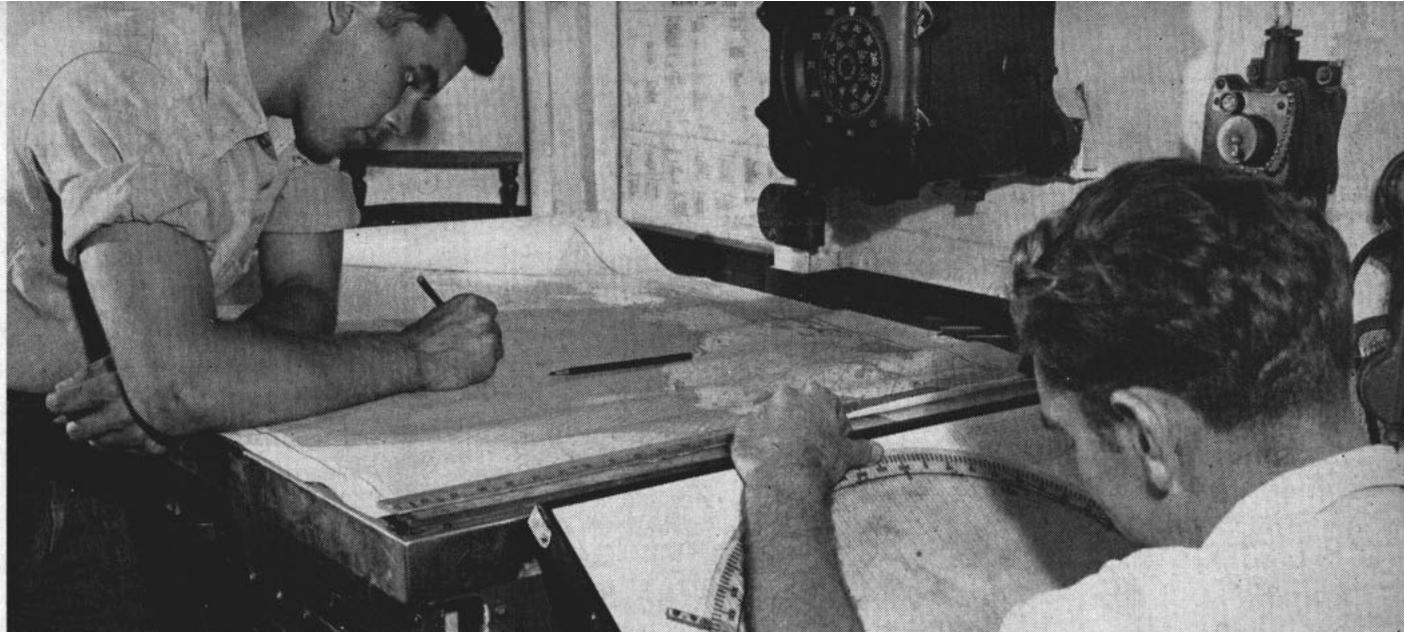
Although Bowditch gave up the sea after a fifth voyage, he continued to revise the *Practical Navigator* until his death in 1838. One of his sons continued revisions of the work until 1868, when the U. S. Navy acquired the copyright—and the Hydrographic Office acquired the job of revising and updating Bowditch.

Navy-prepared editions, covering the latest advances in navigational equipment and techniques, were printed in 1882, 1904, 1915 and 1925. Despite these revisions, however, Bowditch the book remained primarily the work of Bowditch the man until the edition of 1938, which embodied the most extensive changes made in the work since the 1882 edition.

The upcoming edition, the most

NAVIGATION PROCEDURES published in 'Bowditch' were as valued by seamen in 1802 as they are today.





BLUEJACKETS plot surface and upper atmosphere conditions, two important factors in sea and air navigation.

extensive revision ever made, will be marked by changing the color of the book's cover, with the tan and black being replaced by blue and gold. The content of the new edition has been altered perhaps even more radically. No sentence, example or table from previous editions has been used (although some of the changes are minor). Since the first Yankee skipper put to sea with a Bowditch to guide him, the science of navigation has been vastly complicated by new methods, practices and devices. Seafaring men can readily find textbooks on the essentials of navigation—but a good reference work covering the entire field is something else.

That need will be filled by the new Bowditch, presenting as it does information not readily available from other sources. Here's how one Hydrographic Office expert explains the new "seaman's bible":

"The first section of the latest Bowditch is divided into eight parts. The first part is called 'Fundamentals.' It includes first a history of navigation; not a recitation of dates and facts, but something to give the user the background of navigation today. The rest of the first part will cover various elementary subjects such as chart projections, definitions and basic concepts. The second part on 'Piloting and Dead Reckoning' will be composed of four chapters. The next part—'Electronic Navigation'—will be almost entirely new. It will have four chapters, two of them on basic

concepts concerning electronics and their use in navigation, and two on application of these principles to specific systems. The fourth part will be 'Celestial Navigation.'

"These first four parts complete what might be called the 'how' of basic navigation. Then comes part five, 'The Practice of Navigation.' The first chapter of this part will be the practice of marine navigation. Following this will be several chapters containing information for the mariner on how navigation is conducted on a submarine, in polar regions, in lifeboats, on land, and in the air. Following this will be an entirely new chapter on the treatment of navigational errors. This will not be concerned with the blunders of the navigator, but the errors, realizing that no information he has is completely accurate. The

When the New Bowditch Will Be Available

Material to be included in the new edition of "Bowditch" has been turned over to the Government Printing Office, and the edition is now in the process of being printed and bound. However, it is not expected to be ready for distribution until about June 1956.

The Navy Hydrographic Office has requested that personnel do NOT write to them requesting information or copies of the new volume. Announcement of its availability will be made in the *Notice to Mariners* and *ALL HANDS* when the new edition is available.

chapter will consider the size, nature, and application of these errors. The last three parts will deal with 'Oceanography,' 'Weather,' and the 'Production of Charts,' including hydrographic surveying. There will be a total of 44 chapters, plus lengthy appendices including 37 'Useful Tables.'

Aside from its reference aspects, the revised Bowditch embodies a shift in emphasis from step-by-step solution of navigational problems to the interpretation of results. It lists the considerations that might apply in a particular situation, and suggests that a decision can only be made by someone on the spot, after evaluation of available information. The new volume also devotes space to a full development of the Sumner "line of position," a less limited method of finding position than that of latitude and longitude as usually found.

As you can see, the new *American Practical Navigator* doesn't sound much like the volume old Nat Bowditch fathered some 150 years ago. But you can bet your sea boots on one thing: the new "seaman's bible" with its 1300-odd pages retains the simplicity which marked its forebears. And it, too, is destined to occupy an honored position in the charthouses and on the bridges of Uncle Sam's Fleet, as well as those of the Merchant Marine.

For, although the new Bowditch will be "a book of a different color," you may be sure it continues to merit its nickname.

Arlington—It Portrays Navy History

ARLINGTON NATIONAL CEMETERY is—to most of us—the site of the Tomb of the Unknown Soldier and a place of geometrical rows of small marble headstones; a port of call for the national capital's endless stream of tourists and tour busses. What you've read, newsreels, perhaps, or a casual tour in the vicinity might also have given you the impression that Arlington is all-Army.

A journey through this great national shrine will convince you, however, that nothing could be farther from the truth. It's true that Arlington is "surrounded" by historic Fort Myer and that Arlington (like all open national cemeteries) is administered by Army's Quartermaster Corps. But it is also true that the cemetery is open to members and

honorably separated former members of all the U.S. armed forces, as well as members of the U.S. Public Health Service and Coast and Geodetic Survey.

Here—in some 420 acres of wooded hills and grassy slopes—are simple headstones marking the graves of men who have made American history. And here are many more stones naming the "little guys," the seamen and PFCs and corporals who also played a part in that history. These stones represent men from practically every U.S. military campaign—the American Revolution, War of 1812 and the Mexican border disputes; the Nicaraguan Campaign and the Spanish-American War; World Wars I and II and Korea. All told, there are approximately 100,-

000 graves in the cemetery, representing every state in the Union.

Arlington has a full share of the records and symbols of naval history, from the tombs of unknown sailors to the mast of *uss Maine*; sea fighters from the Civil War's David Dixon Porter to Sampson and Schley, nemesis of the Spaniard's fleet; from Farragut to VADM Marc Mitscher of WW II fame. Here too you will find monuments of sailors who have reached for the limits of the earth, from Lieutenant Wilkes who explored the Antarctic to Admiral Peary, conqueror of the North Pole.

Historically, the rolling hills which now make up the cemetery were part of an 1100-acre plantation bought by John Parke Custis in 1778. The Custis family retained the estate until it was seized by Union General Winfield Scott in 1861—as a precaution against the Federal leaders across the Potomac being forced to look down the muzzles of Rebel cannon.

In July 1861, shortly after seizure of the property, the entire area became an armed camp, with two forts and a field hospital in operation. The U.S. acquired title to the estate in 1864.

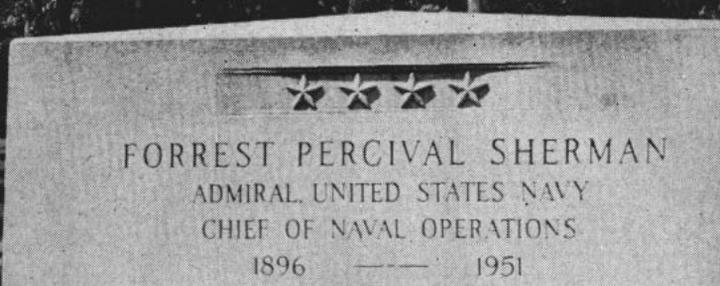
The first military burial was made in the cemetery on 13 May 1864, almost a month before the property was set aside as a national cemetery. The first unknown soldier was buried two days later. These early burials were at the northeast corner of present-day Arlington, near the Ridge Road entrance to Fort Myer's North Post.

For the casual visitor, perhaps the two most interesting sections of Arlington center around the Memorial Amphitheater and the Custis-Lee Mansion. The mansion, built by the Custis family more than a century ago, was formerly known as Arlington House. However, it became Robert E. Lee's home after his marriage to Mary Anne Randolph Custis in 1831. The house, restored to its original condition, is open to the public. Uniformed servicemen may tour the mansion without charge.

Around the mansion, on the slopes overlooking the Potomac are the graves of many distinguished military leaders of the Civil War period. Half hidden beneath a towering ever-

MAST OF USS MAINE and anchor similar to one carried by the ill-fated ship, stand as a memorial to the Navymen who lost their lives in Havana Harbor.





SAILORS TOUR ARLINGTON'S wooded hills and grassy slopes where memorials stand to men who have made history.

green is a small weatherworn stone marking the final resting place of David Dixon Porter, USN, (1813-1891), one of the nation's most brilliant Civil War admirals. A lieutenant at the beginning of the war, Porter in little more than two years worked his way up to the rank of rear admiral and the command of a squadron. After peace came he served from 1865 to 1869 as superintendent of the Naval Academy, doing much to increase the efficiency of that organization. In 1866 he was promoted to vice admiral and on the death of Farragut in 1870, was advanced to the rank of admiral.

Other points of interest in the vicinity of the mansion include:

- Temple of Fame, a white octagonal memorial to 12 notable Americans, including Admiral Farragut.

- Grave of Navy's Charles G. Wilkes (1798-1877), a polar explorer. Lt. Wilkes showed great courage in leading a poorly-equipped expedition in the discovery and exploration in 1840 of the Antarctic territory which bears his name. Then, during the Civil War, Wilkes commanded the steam sloop *San Jacinto* which halted a British ship to remove a pair of Confederate gentlemen newly-appointed "diplomatic commissioners" to England. Eventually, however, the commissioners were freed and allowed to proceed on their journey. Shortly after this episode, Wilkes was retired as a rear admiral.

- Grave of Admiral Winfield Scott Schley (1839-1911), who among other things, established the first school for Navy cooks and who had a hand in the change to government-procured clothing for sailors. But those accomplishments were of little interest outside the Navy. The nation first became aware of Schley when he headed an 1884 expedition which rescued survivors of an Arctic

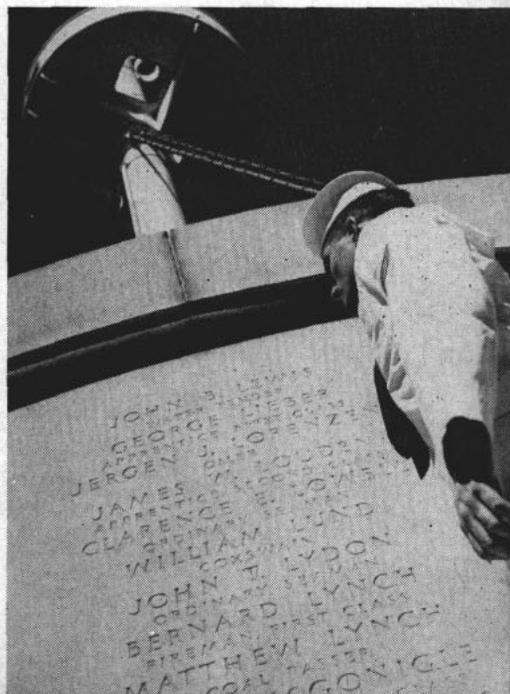


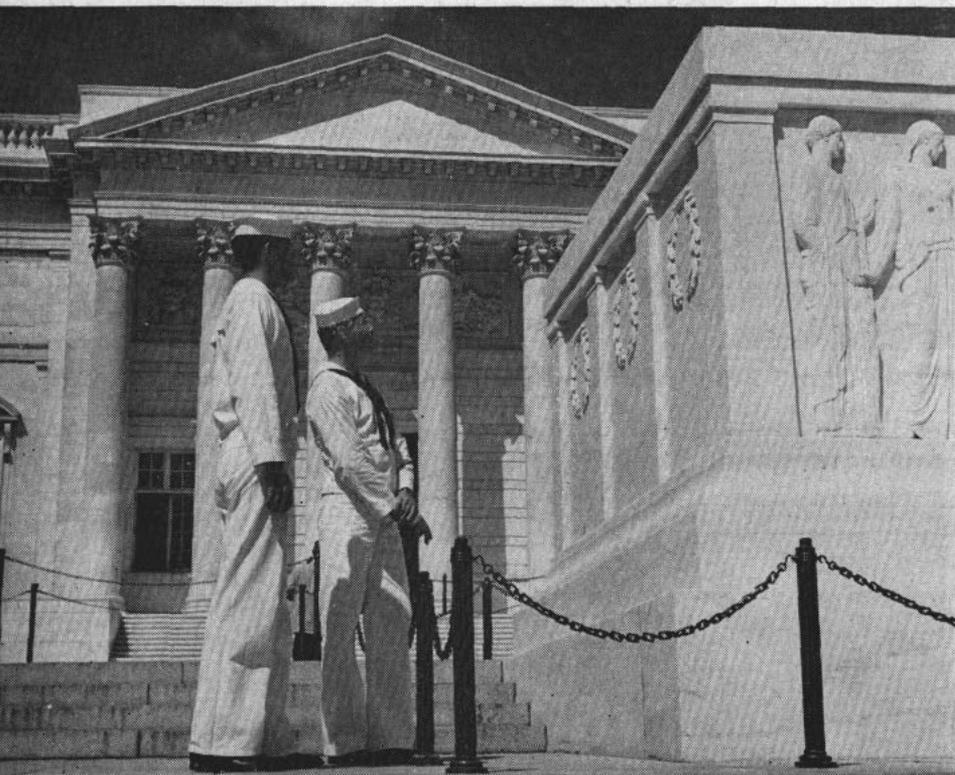
POINTS OF INTEREST INCLUDE marker to RADM Peary. Below, names of the known dead from *Maine* are inscribed in stone below mast of their ship.

expedition headed by the Army's Lieutenant A. W. Greely. His chief claim to fame, however, derives from his part in the destruction of Spanish Admiral Cervera's fleet at Santiago in 1898.

- Tomb of the Unknown Dead of the Civil War, a granite sarcophagus over a common vault containing the remains of 2111 Union soldiers. These unknown dead were brought to Arlington in 1866 from Manassas and other nearby Virginia points.

The Arlington Memorial Amphitheater is an oval colonnaded structure in the classical design, built of white Vermont marble and seating 5000 persons. Below the stage on the east front of the building are 48 crypts, designed for the burial of one man from each state who has performed distinguished service for his





BEST KNOWN AT ARLINGTON is the Tomb of the Unknown Soldier. Inscription reads, 'Here rests in honored glory an American Soldier known but to God.'

country. None of these crypts has yet been used.

An older amphitheater, a wisteria-covered pergola, may be seen near Lee Mansion. Built in 1873, it was the site of annual Memorial Day services before the erection of the Memorial Amphitheater.

The Tomb of the Unknown Soldier, which is probably America's most famous war memorial, stands at the east front of the newer amphitheater.

Theater. The tomb is a single block of Colorado Yule marble 14 feet long, 11 feet high and 8 feet wide, bearing the inscription "Here rests in honored glory an American Soldier known but to God."

The Mast of the Maine Memorial, across Memorial Drive from the amphitheater, is one of the most interesting spots in the cemetery for Navymen. Here, facing the mast of their ill-fated ship, lie the remains of

FROM SEAMAN TO ADMIRAL, from private to general, all have a place in this national shrine for men of all services who have served their country well.



men who lost their lives in Havana Harbor back in 1898.

uss *Maine*, a second-class battleship under command of Captain Charles D. Sigsbee, had arrived in the harbor on 24 January for a friendly visit. At 2140 in the evening of 15 February an explosion took place which instantly destroyed the vessel, sending it to the bottom with the loss of two officers and 264 men. The ship's pet cat and her captain survived, however.

According to findings of the Court of Inquiry: "The destruction of the *Maine* occurred at 9:40 p.m. on the fifteenth day of February, 1898, in the harbor of Havana, Cuba, she being at the time moored to the same buoy to which she had been taken upon her arrival. There were two explosions of a distinctly different character, with a very short but distinct interval between them, and the forward part of the ship was lifted to a marked degree at the time of the first explosion. The first explosion was more in the nature of a report like that of a gun, while the second explosion was more open, prolonged, and of greater volume. This second explosion was, in the opinion of the court, caused by the partial explosion of two or more of the forward magazines of the *Maine*."

"On the night of the destruction of the *Maine* everything had been reported secure for the night at 8 p.m. by reliable persons, through the proper authorities, to the commanding officer. At the time the *Maine* was destroyed the ship was quiet, and, therefore, least liable to accident caused by movements from those on board."

The bodies of those recovered at the time of the disaster were buried temporarily in Havana. Then 165 were reburied in impressive ceremonies at Arlington in December 1899. In 1910 plans were made for raising the ship, and for burial in Arlington of the bodies thus recovered. So, on March 1912 an additional 65 men were buried in the area.

Their memorial consists of a marble base surmounted by one of *Maine's* mizzenmasts. The base represents a battleship turret and also serves as a receiving vault. Around its sides are inscribed the names of the men who died in the explosion, men with such ratings as coal passer, machinist, seaman, landsman, gunner's mate, fireman, marine, oiler,

ALL HANDS

apothecary, carpenter's mate and coppersmith. The names of the two officers who went down with the ship, as well as another who later died of his injuries received at that time, are also inscribed on the memorial.

The remainder of their story is told by headstones marked simply "Unknown," "Three Unknown" or "Five Unknown," uss *Maine*. A few of the stones bear names.

On a leisurely cruise around Arlington's 13 miles of avenues and the paved walks you will spot numerous other points of interest, some Navy, some not. Located in the center of Jackson Circle (and visible from the *Maine* memorial) is a monument erected by the United Daughters of the Confederacy "To Our Dead Heroes." A single female figure, bearing an olive branch and representing the South at peace, surmounts the monument. Thirty-two lifesize figures around the base show Southern Civil War scenes. Graves of some 400 Confederate dead and their descendants are located in the circle around the memorial.

Nearby lie patriots of the American Revolution and the War of 1812, transferred to Arlington in 1892 from an old Georgetown burial ground.

A simple spire on Miles Avenue is inscribed with the story of Midshipman James Thomas Cruse, a story that ranks him with the Navy's more heroic figures. Cruse died 19 July 1907 from injuries received in an explosion aboard uss *Georgia*. The 19-year-old midshipman's words when aid was offered make his epitaph: "Never mind me, I am all right. Look after those other fellows."

A bronze plaque tells the story of a battered monument which once stood on Flamenco Island in Panama Bay and is now on Capron Drive. The stone was erected on Flamenco by officers and men of uss *Lancaster*, in memory of nine shipmates who died and were buried there during *Lancaster's* first cruise in those seas, 1860-61. In 1911 the monument was transferred to Isthmian Canal Zone, then in 1915 to Arlington.

Atop a breezy knoll in the southeast corner of Arlington stands a granite terrestrial globe, with a bronze star marking the North Pole. Here, overlooking the Pentagon, the sparkling waters of the Potomac and southern Maryland, is enshrined the memory of one of the Navy's most

famous explorers — Rear Admiral Robert E. Peary (1856-1920).

Preliminary journeys in North Greenland led to Peary's determination to conquer the pole. Realizing that his only chance of success lay in willing service from Eskimos, Peary lived among them, making friends and learning their methods for survival in the frozen wastes. Like most great explorers, Peary trained for his task by years of hard work, learning from each success, each failure.

Setting sail in 1908, Admiral Peary recruited Eskimos and set up advance bases. Finally, on 22 Feb 1909 he and a party of five started their march on the North Pole. His records show that the Pole was reached on 6 Apr 1909, thereby accomplishing a task which dozens of hardy dreamers had tried.

Nearby is the U.S. Coast Guard Memorial, a low pyramid designed to suggest the dangers of coastal navigation and the Coast Guard's ideals of steadfastness and endurance. The memorial was erected in memory of the officers and crewmen of the Coast Guard ship *Seneca* and the cutter *Tampa*, both lost with all hands. *Seneca* was lost while attempting to salvage a torpedoed British steamer in September, 1918; *Tampa* was sunk by an enemy submarine a few days later.

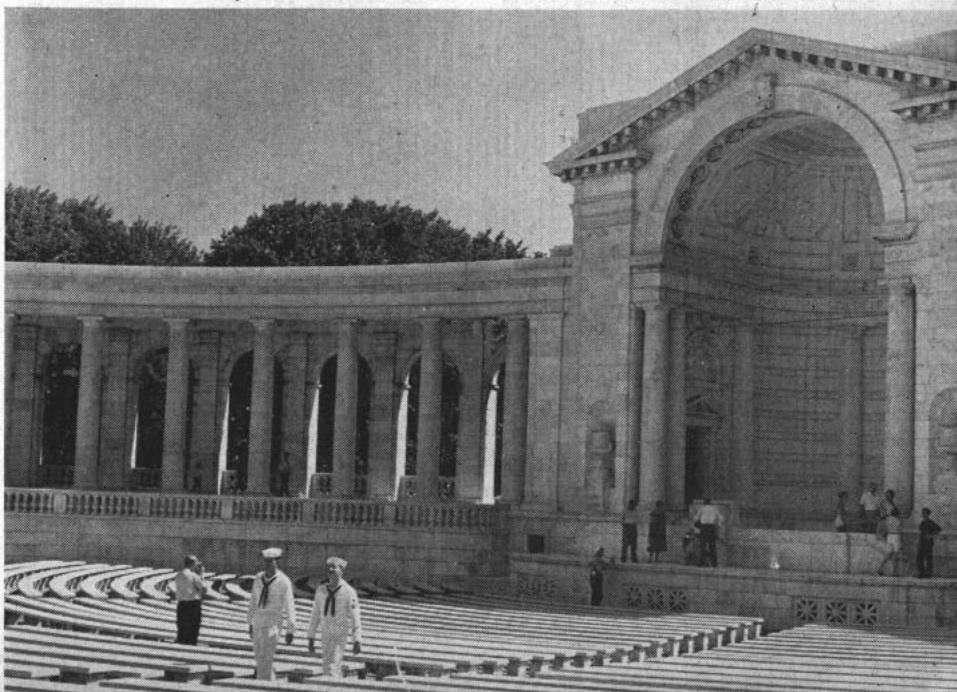
Simple headstones near the intersection of Roosevelt and Grant Drives mark the graves of William Franklin Knox (1874-1946), World War II Secretary of the Navy; and

VADM Marc A. Mitscher (1887-1947). Mitscher, commanding Carrier Task Force 58, led the attack across the Pacific in World War II—developing in the process a new concept of sea warfare. Tough and tireless beneath his perennial baseball cap, Admiral Mitscher was made of rare material: Entering the Naval Academy in 1904, he "bilged out" in 1906 (earning in the process the nickname "Pete," after the first member of his class to fail). He was reappointed immediately and completed the Academy without distinction—yet he had the rare honor in later years of being offered (and turning down) the Navy's number one billet, that of Chief of Naval Operations. Less than two years later, in 1947, Admiral Mitscher died in Norfolk Naval Hospital, while serving as Commander in Chief of the Atlantic Fleet.

On a hillside to the right of Arlington's elaborate memorial entrance are the graves of such well-known Americans as President William Howard Taft (1857-1930); and Robert Todd Lincoln (1843-1926), son of the Civil War president, who became Secretary of War.

There, too, you will find the Honorable James V. Forrestal (1892-1949), a lieutenant (and pilot) in the World War I Naval Reserve Force, who eventually became Undersecretary and then Secretary of the Navy, and the nation's first Secretary of Defense. His epitaph: "In the great cause of good government." —Barney Baugh, JO1, USN

MEMORIAL AMPHITHEATER of white Vermont marble was completed in 1920. It seats 5000 and replaces an older one built in 1873 for ceremonial use.



Line-up of Winners in Service Sports

Rifle and Pistol

The "big shots" in the Navy met in the All-Navy Rifle and Pistol Championships held in August at the Fleet Air Defense Training Center, Dam Neck, Va. The team from the Ninth Naval District, coached by Captain J.F. Harper, USN, commanding officer of the Great Lakes Administrative Command, captured the Navy rifle championship with a final score of 1360.

The Potomac River Naval Command pistol team, led by Commander E.E. Hedblom, MC, USN, of NAS Patuxent River, Md., took the All-Navy pistol team title with a score of 1074. The PRNC team score was seven points better than the score of the runner-up COMELEVEN team. The 11th Naval District team also finished second in the rifle matches, trailing by 49 points.

In the individual competition, C.L. Frazier, AOC, USN, of VW-2, at Patuxent River, Md., and Captain J.F. Harper, USN, tied for the

individual rifle championship, each having a final score of 452. Frazier, however, was awarded the championship since he outscored Captain Harper, 17-10, in the number of shots in the "V." The individual pistol championship was taken by J.B. Carroll, AOC, USN, of NTC San Diego with a score of 559.

Chief Carroll also won the title in the national .45 caliber matches with a score of 571. In the other two individual matches, Chief Machinist Offutt Pinion, USN, of NAS Atlantic City, N.J., won first place.

CWO Pinion fired a 574 to win the National .22 caliber match and scored a 577 to win the title in the Center Fire, National Match Course.

Competitors in the All-Navy were selected from rifle and pistol shooters participating in the Atlantic Fleet and Pacific Fleet championships. The two Fleet matches were held at Camp Lejeune, N.C., and San Diego, Calif., respectively.

In the Pacific Fleet matches, the

11th ND won the team titles in both the rifle and pistol matches. V.H. Farr, GMC, USN, of ComPhibPac, won the individual pistol championship with a score of 588. Captain L.M. Mustin, USN, of COMELEVEN, was close behind with a 557 score while J.B. Carroll, AOC, USN, of NTC San Diego, finished third with 549.

The winning pistol team consisted of L.W. Yokum, GMC, USN, of ComPhibPac, and Farr, Carroll and Captain Mustin.

The champion Pacific Fleet rifle team from COMELEVEN was made up of LTJG W.A. Brobst, USN, A.W. Seivers, ADC, USN, D.R. Sherman, GMC, USN, and Lieutenant G.W. Glore, USN.

LTJG Brobst was high man in the individual rifle championship with a 460 score, followed by A.W. Seivers, AOC, USN, with 455, and Lieutenant Glore with 449.

In the Atlantic Fleet matches, the 9th ND team copped the Atlantic Fleet rifle matches with a score of 862.

The winning team of Captain J.F. Harper, USN, Lieutenant Commander F.B. Shaw, USN, N.C. Wettstead, ICC, USN, and W.C. Vandiver, PN1, USN, led the runner-up AirLant team by 42 points

The 6th ND team scored 1056 points to win the Atlantic Fleet pistol championship. Team members were A.C. Johns, ADC, USN, A.L. Jackson, ADC, USN, W.L. Lowe, PHC, USN, and C.L. Alexander, AD1, USN. The runner-up PRNC team trailed the winners by 12 points.

L.M. Rizzola, PHC, USN, of the Naval Station, Annapolis, Md., almost made a clean sweep of all individual pistol matches. He took first place in the National .22 Caliber match, National (Center Fire) .38 caliber revolver match and the Atlantic Fleet match. He also placed second in the national .45 caliber pistol match.

J.H. Lucas, ADC, USN, of NAS Norfolk, was first in the individual national .45 caliber pistol match. In the individual rifle competition, W.C. Vandiver, PN1, USN, of NTC Great Lakes, took top honors with a score of 444. J.V. Frazier, PH2, USN, of the Fleet Camera Party at Newport, R.I., was second with a 438 score.

NO 'MAGGIE'S DRAWERS' fanned the air when Navy's 'big shots' met and sighted in at the '55 All-Navy Rifle and Pistol Championship match.



Swimming

Atlantic Fleet mermen dominated the 1955 Eastern All-Navy swimming and diving meet held at NAS Dallas, Texas, as they won first places in seven of the 12 events. NTC Bainbridge swimmers annexed the remaining first spots.

The women's All-Navy Eastern swimming meet was held at the same time at NAS Dallas. There were five events scheduled in the women's swim competition. LTJG Olive Ratkiewich, USNR(w), of the Bethesda Naval Hospital, won the 100-meter backstroke while the other four events were won by Carol A. Bishop, HN, USN(w) and Marlene M. Jacques, HN, USN(w), both from NTC Bainbridge, Md. Bishop won both the 100-meter freestyle and 100-meter backstroke while Jacques was winner in both the 1- and 3-meter diving events.

Double winners in the men's events were Darrell Chadwell, FN, USN, Ensign Robert E. Clemons, USNR, and Charles B. DeForest, SN, USN, all of the Atlantic Fleet team. The Bainbridge relay team also won two events, the 400-meter freestyle and the 400-meter freestyle medley relays.

Highlight of the meet came during the 400-meter freestyle relay. Keith Petersen, SA, USN, anchor man of the Bainbridge team was many yards behind the anchor man of the leading Atlantic Fleet team. Going into the final 25 yards, Petersen really put on steam to overcome a 12-yard lead and win by an arm's length. Petersen swam his leg of the relay in an even 60 seconds.

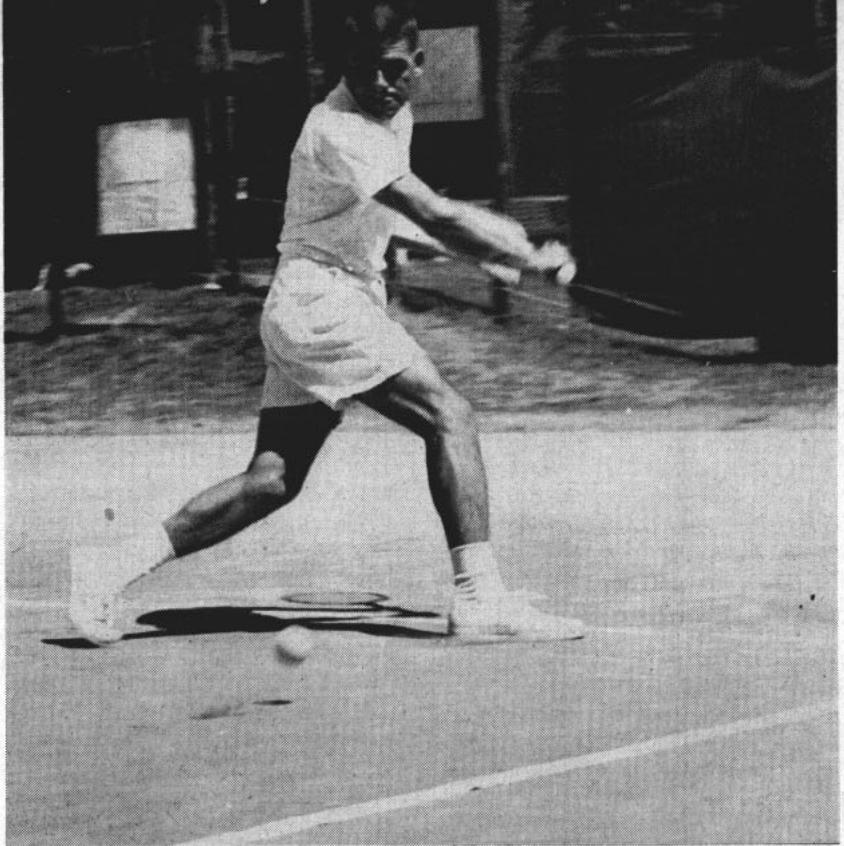
Summary:

100-meter Butterfly—Ensign Robert E. Clemons, LantFlt; Richard Jeffrey, PNSA, NTC Bainbridge; Ensign Kendall Schmelling, LantFlt. Time: 1:20.5.

100-meter Backstroke — Thomas Werner, SA, USN, NTC Bainbridge; Terrance C. Tyler, SA, USN, LantFlt; Kenneth B. Meiner, SN, USN, UDT-21. Time: 1:13.6.

100-meter Breaststroke — Ensign Robert E. Clemons, LantFlt; Richard Jeffrey, SA, USN, NTC Bainbridge; Nathaniel S. Clifford, RD3, USN, LantFlt. Time: 1:22.6.

100-meter Freestyle — Keith Petersen, SA, USN, NTC Bainbridge; Lieutenant (junior grade) Kirley P. Ambler, LantFlt; Harold E. Blamire, AN, USN, LantFlt. Time: 1:01.4.



BEN SOBIERAJ, AK3, USN, of FASRon 109, gets on the ball. 'Little Ben' won the 1955 All-Navy Open Division Singles during matches at Newport, R. I.

1-meter Diving—Darrell Chadwell, FN, USN, LantFlt, 411.50 points; Robert J. LeGault, SR, NTC Bainbridge, 409.90 points; Robert L. Blann, YN3, USN, LantFlt, 374.75.

3-meter Diving—Darrell Chadwell, FN, USN, LantFlt, 387 points; Richard W. Pope, JO3, USN, NAS Corpus Christi, 382.20 points; Robert L. Blann, YN3, USN, LantFlt, 374.75 points.

200-meter Freestyle—Keith Petersen, SA, USN, NTC Bainbridge; Charles B. DeForest, SN, USN, LantFlt; Loren D. Picking, SK3, USN, LantFlt. Time: 2:26.3.

400-meter Freestyle — Charles B. DeForest, SN, USN, LantFlt; Loren D. Picking, SK, USN, LantFlt; Thomas J. Clark, FN, USN, LantFlt. Time: 5:28.2.

400-meter Individual Medley—Ensign Kendall H. Schmelling, LantFlt; Peter S. Eckert, EM3, USN, LantFlt; T.D. Frank, TD3, USN, 9th ND. Time: 8:05.9.

400-meter Medley Relay — NTC Bainbridge (T. Werner, R. Jeffrey, K. Petersen and T. G. Allen); Atlantic Fleet. Time: 5:09.0.

400-meter Freestyle Relay—NTC Bainbridge (J.L. Allen, T. Werner, T.G. Allen and K. Petersen); At-

lantic Fleet; Ninth Naval District. Time: 4:21.3.

1500-meter Freestyle—Charles B. DeForest, SN, USN, LantFlt; Loren D. Picking, SK3, USN, LantFlt; Thomas Clark, FN, USN, LantFlt. Time: 22:43.8.

Summary of women's events:

100 meter Backstroke—Lieutenant (junior Grade) Olive Ratkiewich, Bethesda Naval Hospital. Time: 1:35.0.

100-meter Freestyle — Carol A. Bishop, HN, USN, NTC Bainbridge.

100-meter Breaststroke—Carol A. Bishop, HN, USN, NTC Bainbridge.

1-meter Diving—Marlene Jacques, HN, USN, NTC Bainbridge.

3-meter Diving—Marlene Jacques, HN, USN, NTC Bainbridge.

Golf

Navy golfers couldn't solve the Langley, Va., AFB course and ended up in fourth place in the 1955 Inter-Service golf tournament. The Air Force team won the Open Division championship and the James A. Forrestal Trophy for the third time.

Top honors in the Senior Division of the tourney went to Commander K.K. Bridge, DC, USN, of the Bethesda Naval Hospital. He had a 54-hole score of 236. His rounds of 74-80-82



ALL-NAVY GOLF champs line up: *L to r* RADM C. H. Duerfeldt, who presented trophies; LCDR J. W. Kinder; LTJG J. B. Rountree; Don Collett, JOC; CAPT T. B. Neblett, Co, NAS Patuxent River; CDR K. K. Bridge; CDR A. L. Johnson; CDR L. W. Meachum, Golf Activities Officer; and LCDR V. L. Brown, Special Services Officer for the golf meet.

were two strokes better than Air Force Master Sergeant Amil Malada of Hamilton AFB. Marine Master Sergeant Junior Brodus of Camp Lejeune, N.C., was third with 240.

Don Collett, Chief Journalist from the staff, Commander Air Force, U.S. Pacific Fleet, was top Navy golfer in the Inter-Service, with a 72-hole total of 303. The former All-Navy basketball player had rounds of 78-74-74-77 to finish eight strokes behind the leader.

Lieutenant Ray Terry, USAF, of Patrick AFB, Fla., posted the low score in the tournament but was extended two extra holes by teammate Lieutenant Miller W. Barber, of Perin AFB. At the end of 72 holes, the two Air Force golfers were tied with identical scores of 295. At the second extra hole, Terry sank a 15-foot putt to win medalist honors.

In the final team standings, the Air Force team had 1211 strokes while the Army and Marine Corps teams tied for second with 1237 total strokes. Navy was three strokes behind with a total team score of 1240.

Lieutenant Commander James

Kinder, MSC, USN, of Bethesda Naval Hospital, was runner-up on the Navy team with a final score of 309. The other golfers on the Navy team, and their scores, were Bill Scarborough, Jr., AOC, USN, of VP-16, 313; Dick Diversi, AK3, USN, of NAS Brunswick, Me., 315; and LT(jg) Jackson B. Rountree, of the Naval Security Station, Wash., D.C., 323.

All-Navy Golf

The scores posted in the Inter-Service tourney by the Navymen weren't anywhere indicative of the golfing ability of the sea service shot-makers. This was quite evident from the scores of the players in the All-Navy tournament held at the Cedar Point Golf Course at NATC Patuxent River, Md.

Lieutenant Commander James Kinder, MSC, USN, of Bethesda Naval Hospital, shot 282, six under par for the 72-hole tournament to win medalist honors. The 44-year-old Kinder's six-under-par 66 in the second round, together with his other scores of 70, 72 and 74 were enough to beat the field by six strokes.

Kinder's 66 broke the old course

record of 68 set in the All-Eastern Navy tournament the previous week by Dick Diversi, AK3, USN. On the 6564-yard-long course along the Chesapeake Bay, Kinder toured the front nine in 32 strokes and found the back nine only two strokes tougher as he came in with a 34.

Lieutenant (junior grade) Jackson B. Rountree, USN, of the Washington, D.C. Naval Security Station, came on with a final round surge of 69 to finish second with an even par 288. Don Collett, JOC, USN, of ComAirPac, and Dick Diversi, AK3, USN, of NAS Brunswick, Me., were tied for third, with a 289 72-hole score.

The "sudden death" play-off proved very sudden indeed. Diversi missed his putt on the first extra hole and could only par the hole while Collett sank his putt for a birdie and third place. Diversi took fourth.

Fifth place went to Bill Scarborough, AOC, USN, who finished with a 290 score. He barely missed throwing third place into a three-way tie as his putt rimmed the cup on the 18th green.

A total of eight players competed in the All-Navy open tourney. The three who failed to place, but who had weathered three previous elimination tournaments to be eligible to play in the All-Navy were E. L. Blodgett, TE3, USN, of the Pearl Harbor Submarine Base, 298; W. L. Blanton, SN, USN, of FasRon 4 at NAS San Diego, 304; and J. L. Lee, HMC, USN, of the San Francisco Naval Shipyard, 305.

In the Senior Division of the tournament, for golfers over 45 years of age, Commander K. K. Bridge, DC, USN, of the Naval Dental School, NNMC, Bethesda, Md., posted an opening round 72 and was never headed in the 54-hole tourney. His score of 225 was nine strokes better than second place Commander G. A. L. Johnson, MSC, USN, of the

BAINBRIDGE TEAM provided top thrill when during 400-meter free-style relay anchor man Keith Peterson put on the steam to rob Atlantic Fleet of one win.



Western Sea Frontier, San Francisco, who had a 234.

In third place was Commander H. M. Sias, USCG, Comptroller for the Fifth Coast Guard District at Norfolk, with a final score of 243. Fourth spot went to Commander F. D. Bennett, ChC, USN, from NAS Barber's Point, T.H.

All-Navy Tennis

This year's All-Navy Tennis Tournament, held at the Naval Station, Newport, R.I., turned out to be an overwhelming victory for the Eastern Navy champs.

Starting the Easterners off on their victory was little Ben Sobieraj, AK3, USN, of FASRon 109 at NAS Jacksonville. Bantam Ben won the open division singles championship as he defeated Seth J. Peterson, a NavCad from NAS Whiting Field, Fla., 6-2, 6-2, 2-6, 6-3.

Peterson was determined not to be entirely excluded from a championship, however. He teamed up with Lieutenant (junior grade) Alex Hetzeck to top Sobieraj and his partner, Cecil L. Wilson, by scores of 6-8, 6-3, 6-3, 6-2, for the All-Navy doubles title.

The Easterners continued their domination of Navy tennis in the senior division, taking both the singles and doubles crown. In the singles matches, Captain Albert P. Kohlhas, USN, displayed a very steady game to outlast CDR John Ramee, USN, 6-4, 10-8.

In the Senior semi-finals, Captain Kohlhas defeated Captain Melvin H. McCoy, USN, commanding officer of the San Francisco Communications Station, 6-0, 6-0 and Commander Frank Menefee, USN, of the Mare Island Naval Shipyard, lost to Commander Ramee, 6-1, 6-2.

CDR Ramee then teamed with Captain Organ to win the doubles crown from Captain McCoy and CDR Menefee. The two Easterners scored victories of 6-0, 6-2 for the championship.

In the opening round matches in the All-Navy open division, Sobieraj defeated Lieutenant Jeff Curtright, of NAS Moffett Field, Calif., 6-3, 6-0. LTJG William Long of CinCLant Staff defeated Ensign Lawrence Zaitzeff, of NAS Whidbey Island, Wash., 6-3, 6-4. NavCad Seth Peterson downed Robert Hill, FN, USN, of USS *O'Bannon* (DDE 450) 6-2, 6-0 and in the only match won by a Westerner, LTJG Don Eisen-



LEADING LADY, Carol Bishop, HN, USN, receives trophy from CAPT D. A. Sooy, USN, for winning the 100-meter free-style and 100-meter breaststroke.

berg of Point Mugu, Calif., bested Bill Kuross, AN, USN, 3-6, 6-4, 6-2.

On the second day of the singles matches, Sobieraj lost the first set 7-9 but came back to beat Long in the next two sets 6-3, 6-4 to win the match. In the longest match of the tourney, Peterson overcame Eisenberg after a terrific five-set struggle. At the end of three sets, Peterson was two sets behind. But the embryo naval aviator rallied to win the last two sets and the match, 6-4, 4-6, 4-6, 7-5, 8-6.

The team of Sobieraj and Wilson defeated Eisenberg and Curtright 6-3, 6-4, 6-4 on the first day of the open doubles. In the other first day doubles match, Peterson teamed with Hetzeck to defeat the team of Zaitzeff and Hill 6-1, 7-5, 6-4.

Inter-Service Tennis

Navy's tennis team just couldn't match the depth of the Air Force and Army squads in the Inter-Service tournament as the Air Force team made a clean sweep of all championships in sight. The Airmen took the Riseley Bowl for winning the open singles championship and also annexed the Leech Cup by winning the team title.

In the open division, Airman 3/c Whitney Reed, USAF, defeated Specialist 3/c Grant Golden, USA, 6-4, 6-3, 5-7, 7-5, to win the singles championship. Reed then joined teammate Specialist 3/c Hugh Ditzler, USAF, to defeat the Army duo of Golden and PFC Don Flye, 3-6, 6-4, 6-3, 6-3 and win the doubles title.

In the open doubles division the Navy racket-wielders reached as far as the semi-finals. The Navy team of

Ben Sobieraj and Cecil Wilson, ADEC, USNR, both of FASRon 109, gained the semis only to be beaten by the Army team of Golden and Flye 6-1, 6-2, 6-1.

Navy's other doubles entry of Lieutenant (junior grade) Albert Hetzeck, of CinCLant staff, and Naval Cadet Seth Peterson of NAS Whiting Field, were eliminated in opening round matches by the Army team of Lieutenants Conway Catton and Keith Self, 8-6, 2-6, 8-6.

In the open singles, Ben Sobieraj and Lieutenant (junior grade) Don Eisenberg, of Point Mugu, Calif., failed to get past the quarter final rounds. Sobieraj fell victim to Lieutenant Dick Macey, USAF, 9-7, 3-6, 6-4, and Eisenberg was defeated by the Army's Sp3/c Grant Golden 6-1, 7-5.

Sobieraj reached the quarter finals by defeating Army PFC Don Kaiser 6-3, 5-7, 6-4 in the opening round while Eisenberg survived the first day as he defeated Lieutenant Frank Spears, USMC, 8-6, 6-3. Navy's other two singles entries lost out in the first round. William Kuross, AN, USN, of NATTU, Philadelphia, lost to the eventual singles champion, A3/c Whitney Reed, 6-4, 7-5 and NavCad Peterson was defeated by Army Specialist 3/c James Dye, 6-2, 6-0.

In the senior division, Colonel Nicholas Powel, USAF, defeated M/Sgt Emil Johnson, USAF, 6-2, 6-3, for the senior singles crown. Colonel Powel also had half of the senior doubles championship as he teamed with Colonel Harris Hull, USAF, to defeat the Army twosome of Lieutenant Colonels John Butler and Francis Sampson, 6-3, 3-6, 6-0.

SERVICESCOPE

Brief news items about other branches of the armed services.

★ ★ ★

THE SECOND ANNUAL All-Jet Fighter Weapons and Gunnery Meet is taking place this year at Yuma Air Force Base, Ariz., and Nellis Air Force Base, Nev. The meet is designed to provide the best possible peace-time evaluation of pilot and crew proficiency as well as current training methods.

Air-to-air rocket events are being held at Yuma Air Force Base, with teams from Western, Central and Eastern Air Defense Forces, representing Air Defense Command, as well as Northeast Air Command, Alaskan Air Command and U.S. Air Forces in Europe, all attempting to wrest from Crew Training Air Force of the Training Command the title its team won last year.

Fighter-bomber competition in the air-to-ground gunnery, rocketry, and dive-bombing events began in late September at Nellis. Teams from Far East Air Forces, Tactical Air Command, Air National Guard, United States Air Forces in Europe, and Strategic Air Command go up against last year's winner, Air Training Command.

The meet will mark the fourth in a series of competitions, inaugurated in 1949 when F-51 *Mustang* pilots of the Air Force shot it out at Nellis Air Base, Nevada. In 1950, Nellis again was the scene of the competition, this time with jet aircraft making their first appearance.

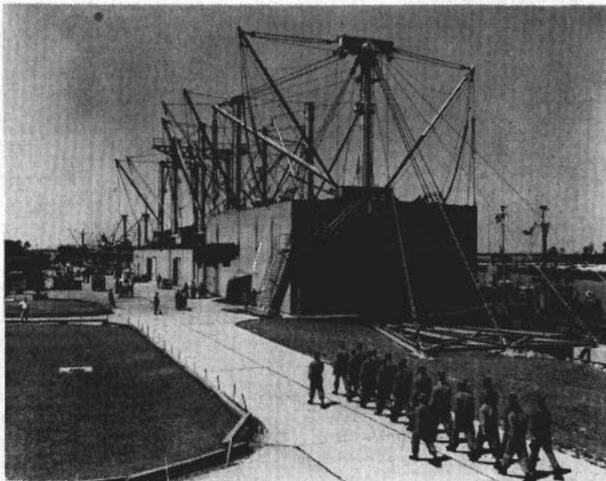
Korean hostilities interrupted the series, and the meets were not resumed until last year when the first all-jet competition was held. The 1954 activity was divided into two classes with fighter-bomber competition at Nellis and high-altitude interceptors competing at Yuma Air Force Base, Arizona.

★ ★ ★

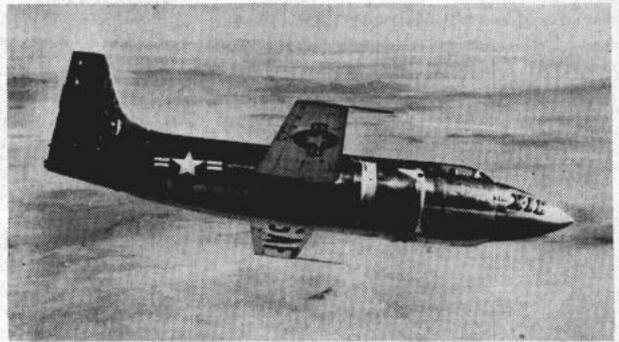
THE ARMY CHEMICAL CORPS has discovered that the effectiveness of deadly heat rays from an atomic bomb can be reduced as much as 90 per cent through the use of smoke screens.

The smoke screens, produced by generators, give the same effect as clouds in the sky filtering the sun's heat and light.

The artificial clouds are not actually smoke but fog



'SS NEVERSAIL,' Army's new 312-foot landlocked training ship for stevedore troops is berthed at Ft. Eustis, Va.



LATEST MODEL of the world's unofficial altitude and speed record holder, AF's X-1B, makes a test flight.

oil, a vaporized petroleum product which has proved between 75 and 90 per cent effective in reducing nuclear heat rays.

The exact amount of fog oil used is classified, but it is similar to that used for screening tactical operations from enemy observers.

Smoke screens cannot stop the A-bomb radiations but they are capable of reducing the range of the thermal damage down to that of the blast damage. Without such a screen the heat damage covers a larger area than that affected by the blast.

★ ★ ★

JET AIRCRAFT of the Strategic Air Command have recorded their first million hours of flight, over a period of eight years, and are now working on the second million which, may be accomplished in only 15 months.

SAC's jet bombers and fighters are now flying an average of 50,000 hours a month with the figure rising constantly. These figures exclude any aircraft powered by piston-type engines.

Aircraft figuring in the million-hour total include the B-47, RB-47, B-45 and RB-45 medium bombers; F-84, F-80 and F-86 strategic fighters and T-33 trainers. Of these aircraft only the B-47, RB-47 and F-84 and T-33 are still used by SAC today.

Another milestone was passed in SAC's history recently when the last B-50 *Superfort* bomber was retired from the 97th Bomb Wing at Briggs AFB, Texas. With the passing of the *Superfortress*, all of SAC's medium bombers became jet-propelled. Only the B-36 and RB-36 heavy bombers are left to represent the piston-powered aircraft. However, both of these have four jet engines in addition to their six conventional type engines.

★ ★ ★

A NEW INSTRUMENT that can predict the life of a dry-cell battery has been developed by the Signal Corps. While devices for measuring the condition of a battery have been in existence for a long time, these systems can give only an indication at the moment of testing. They cannot predict whether or not a battery will last five minutes or five hours.

The device is calibrated so that the current output of a brand new battery reads 100 per cent. For older batteries a percentage reading is obtained which represents the remaining life of the battery.

AVIATION ENGINEERS, the Army's equivalent to the Navy's Seabees, celebrated their 15th birthday anniversary this year. They are the construction soldiers who built airstrips in far-flung areas from the jungles of the South Pacific to the deserts of North Africa to pave the way for tremendous air strikes during World War II.

Established in 1940, the comparatively young construction units can look back on an enviable record compiled during World War II and the Korean conflict. From their first emergency operations in the Philippines in December 1941, to the cessation of hostilities in Korea, they have established a reputation for their construction of vital bases.

Although construction of airstrips normally takes place in rear areas, these men had their share of combat. In the Philippines, they engaged in bitter front line fighting in the defense of the Northeast sector of Bataan. At Normandy, the 819th Engineer Aviation Battalion hit Utah Beach on D-Day and carved a crude landing strip by nightfall. A day later, the 834th Battalion landed and built a 3400-foot emergency landing strip which was ready for evacuation of the wounded that night.

Typical of the World War II activities of aviation engineers was that of units assigned to the IX Engineer Command in Europe. They constructed or rehabilitated 241 airfields on the continent. Construction time varied from a few hours to as many as 105 days. On the average, one field was made operational every 31 hours during the 338 days between D- and VE-Days.

More than 50 bases were constructed or rehabilitated during the Korean conflict. Since the pierced plank landing mat proved inadequate for jet fighters over prolonged periods, eight of these were developed into major bases consisting of cement, concrete or asphalt runways, taxiways and hardstands.

Engineer aviation units must be maintained in a state of readiness for early employment in case of another emergency. It has been estimated that it requires as much as 10 times more effort to construct a field for modern aircraft than it did for the planes of w w II.

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THREE THOUSAND SPECIALLY TRAINED U.S. Army troops have moved into remote reaches of the American Arctic to discharge supplies and equipment for construction of the "DEW Line," northernmost radar net spanning the North American continent.

Divided into two task forces, Army troops discharged more than 200,000 tons of construction material and supplies at more than 50 locations along the almost unexplored Arctic coast line above the Arctic circle.

"DEW Line" is a joint venture of Canada and the United States. When completed, it will provide critically important early warning for the U.S. and Canada against the possibility of trans-polar air attack.

Troops engaged in the project encountered uniquely difficult beach conditions, varying from soft and mucky tidal flats to rockbound cliffs. For the unloading task they employ a variety of landing craft, including LCMs and LCUs, DUKWs and World War II LVTs.

New vehicles such as the giant 60-ton amphibious BARC will be employed in some locations to ferry

heavy cargo from ship to shore, over distances up to several miles.

In all, some 37,000 tons of cranes, bulldozers, fork-lift trucks, landing craft and special cargo handling equipment will be used in the operation.

Army Engineers, Quartermaster, and Chemical Corps troops, in addition to Transportation Corps units, were attached to the latter Corps to execute the mission. Because of its experience in far northern operations gained in Greenland and Northern Canada during previous years, the Transportation Corps provided specialized Arctic troop training for "DEW Line" troops at Fort Eustis, Virginia, last spring.

During cargo-handling operations, icebergs, pack ice and floe ice were constant hazards. Operational difficulties were increased by the fogs and Arctic cyclones which, although unpredictable, are most numerous during the Arctic summer.

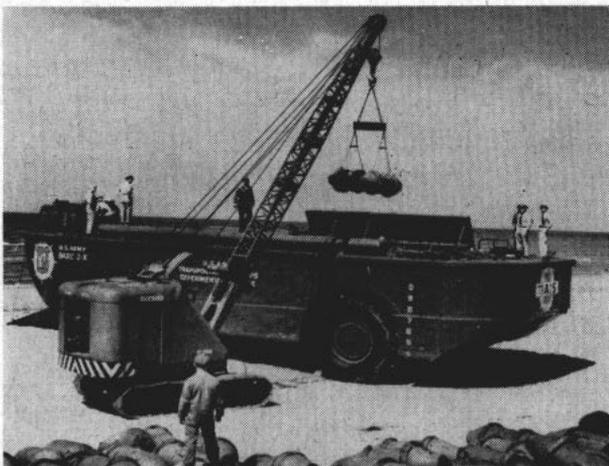
Up to half the time in these desolate regions is frequently lost to fogs and storms, and, when discharge operations could be carried on, the stevedoring troops worked around the clock until all cargo was ashore above the highwater line.

★ ★ ★

A CONTRACT for the construction of 14 BARCs (Barge, Amphibious, Resupply, Cargo) has been awarded by the Army following extensive testing of four experimental BARCs over many months.

The BARC is capable of transportation of a 60-ton military payload from ship to shore, over the beach, and inland to a depot or transfer point in one continuous operation. It is designed to carry heavy and bulky items of equipment, such as tanks, crawler cranes, trucks and artillery pieces.

On land, each of the BARC's four wheels is independently powered by one of the vehicle's four 165-horsepower diesel engines. On entering the water, twin screws are engaged, with each powered by one pair of the same engines that are used for the land drive. The BARC can be steered by its engines if the rudder becomes inoperable. Giant tires, standing nine and one-half feet high, reduce ground bearing pressure sufficiently to permit it to travel over difficult terrain.



TEN-FOOT TIRES roll Army's new amphibious barge onto beach. BARC carries heavy cargo from ship to shore.

LETTERS TO THE EDITOR

Anchored in 680 Fathoms

SIR: The records show that *uss San Pablo* (AGS 30) was once anchored in 680 fathoms of water. Are there any other known incidents of this kind?—B.R., YN3, USN.

• *Yes. Surveying ships frequently anchor in water of the depth you mention, or even deeper, by means of a stern anchor.*—ED.

Award of Good Conduct Medal

SIR: If a man was discharged from the armed forces with less than three years' service why is he ineligible for a good conduct Award if his medical discharge was the result of battle wounds?—J. G., AGC, USN.

• *The Good Conduct Award was designed to recognize the service of those enlisted men who have proven themselves outstanding and adaptable to Navy life over a specified period of time. Eligibility for this award is based on conduct and proficiency in rating marks assigned and time served on active duty. Current regulations require three years' continuous active service.*

Since the Good Conduct Medal was not designed for the recognition of battle wounds or outstanding heroism in combat, a man discharged from active naval service with less than the required three years is not eligible for this award,

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, D. C.

even though his medical discharge was a result of battle wounds.—ED.

From Instructor Duty to Sea Duty

SIR: What is the present policy concerning the transfer of a man with less than one year of obligated active service from instructor duty to sea duty?—R. L. R., ICCA.

• *You may be retained on instructor duty until the expiration of your enlistment if you are obligated for less than one year of active duty when you become available for sea duty. If you are a Reservist, you will remain on instructor duty until the expiration of active duty obligated service.*

If you wish, you may voluntarily extend your enlistment (or if you are a Reservist, execute an agreement to stay on active duty) to receive one year of obligated service for the purpose of obtaining sea duty.—ED.

One Of A Kind

SIR: If a naval officer is not in the line nor in any staff corps of the Navy, what is he? I am referring to an entry on page 385 of the current edition of the Register of Commissioned Officers of the U.S. Navy and Marine Corps.

There are no special qualifications listed after this officer's entry and I would like to know what his duties are and what emblem he wears over his stripes. —A.N.G., LT, USN.

• *The officer you refer to is Commander Charles Brendler, USN, Leader of the U.S. Navy Band. He was appointed Commander in the Navy, neither line nor staff, by a special act of Congress (Section Three, Public Law 135, 83rd Congress, 17 Jul 1953). He is carried as an extra number in grade but for accounting purposes his officer designator code is indicated as 1100.*

Commander Brendler holds the highest position attainable in Navy music and is the only officer in his category. His personality and ability

are reflected in the superior performance by your Navy's Band which enjoys the reputation of being one of the finest musical organizations in the U.S.

Commander Brendler holds an outstanding reputation in the music world where he is often called upon to act as guest conductor. Until recently he served as the President of the National Bandmasters Association. Last year at the Sugar Bowl Game at New Orleans, La., the Navy Band and Commander Brendler received wide acclaim for their inspiring performance.

On 13 Aug 1953 Commander Brendler accepted his permanent commission in the U.S. Navy and is authorized to wear the lyre on his uniform as a corps device.—ED.



CDR Brendler

It Takes Four Years

SIR: When I first entered the Navy a person could put on his first hash mark upon completion of his minority cruise, regardless of whether that enlistment totaled a full four years or not. If I have served eight full years since my first reenlistment, can I then put on three red service stripes, inasmuch as I earned the first while on a minority cruise or must I wait until I have a full 12 years' service?—C. T. A., RM1, USN.

• *The 1951 edition of "Uniform Regulations" states that a full four years of active service is required before a man may put on a service stripe, thus you need 12 full years before becoming eligible to wear three.*—ED.

Care of National Ensign

SIR: I have a question in regard to the washing of the national ensign.

I've heard it said that the flag may not be washed with soap and water or dry-cleaned, but must be burned when soiled. I realize the *BuSandA Manual* states that a flag should be burned "when worn or damaged beyond economical repair." However, I feel it is impractical to burn a flag simply because it is soiled (providing it is not so soiled that it can not be washed clean). As far as I have been able to determine, such burning is not supported in writing.—R.L.M., YN1, USN.

• *"U.S. Naval Flags and Customs" (DNC 27), para. 118.2, states: "Minor repairs may be made to the ensign as required to maintain its fitness as an emblem. Normally, a soiled ensign should be dry-cleaned; washing is not recommended as a general practice, but is considered a satisfactory method of cleaning when dry-cleaning facilities are not available."*—ED.

Meritorious Advancement

SIR: I was told that the commanding officer of a ship could appoint a PO2 to PO1, or a PO1 to CPO by forwarding a letter to the Bureau and that such appointments would be approved. I contend this isn't true. What about it?—C. W. R., BM2, USN.

• *Advancements in rating may only be made as a result of service-wide competitive examinations. The only exception to this is a meritorious advancement which can be made as a result of specially meritorious conduct in actual combat with enemy forces. Only in such cases are individual recommendations for advancement considered by the Chief of Naval Personnel.*—ED.

Volunteers Selected for Antarctic

SIR: I have a question regarding the selection of men for the U. S. Antarctic Expedition of 1955-56.

I believe volunteers were requested by an Alnav which came out about February. When will those who responded know if they have been selected, or has the crew already been selected? Is it permissible to be on the Bureau Shore Duty Eligibility List after having volunteered for the Antarctic Cruise?—W. B. D., SK1, USN.

• *Transfer directives have been issued to fill all authorized billets established under Alnav 8. If you haven't received orders by this time, you were not selected. Volunteers far exceeded the requirements.*

If you applied for shore duty, your name will be retained on the Shore Duty Eligibility List although you also applied for duty with the Antarctic Expedition 1955-56. If you are selected for the Expedition, and your name is on top of the SDEL, you'll be set aside appropriately enough in a "frozen" category until the operation is completed.—Ed.

Memorial Day Services

SIR: What is the correct procedure for a ship at sea when performing services on Memorial Day? Should a ship at sea render a 21-gun salute?—J.D.H., QM2, USN.

• *The requirement for observance of Memorial Day applies to all ships and stations. No differentiation is made between a ship in port or a ship at sea.*

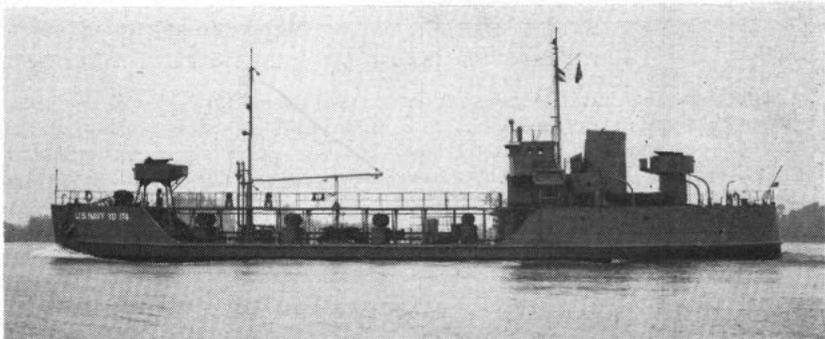
A ship (at sea) which has a saluting battery is correct in firing at 1200 a salute of 21 minute-guns.

The national ensign should be displayed at half-mast from 0800 until the completion of the salute or until 1220 if no salute is fired even though the ship is at sea.—Ed.

Hoisting "Prep"

SIR: It is my understanding that when "prep" is hoisted in the morning at 0755, this is an all-ships signal originated by the Senior Officer Present Afloat (SOPA), and must be answered by all ships in the harbor. However, several times we have found that the "Prep" is being hoisted just as we are leaving the buoy or approaching it. If we are underway and within sight of SOPA, should we hoist "Prep"?—L. W. L., QM1, USN.

• *First of all, there are several meanings to "Prep," but the particular sense used here is the five-minute warning or preparation signal before morning and evening colors. Therefore, since this is an all-ships signal, it must still be answered by all ships even though the ensign is already displayed. All ships must hoist "Prep" following the motions of SOPA.*—Ed.



SELF-PROPELLED fuel oil barge, YO 174, although not the best known of Navy vessels, performs important duty as service craft delivering fuel for larger sisters.

Navasota Earned Korean PUC

SIR: While reading your May 1955 issue, I happen to notice that article, "Citation for Bold Ships, Brave Men," listed only one AO for an outstanding job.

I was stationed in *uss Navasota* (AO-106) and took part in the refueling of task forces from the early part of May 1950 to the last of the Korean conflict. I believe that we were one of the first AOs in the front at the start of the Korean outbreak, and we were awarded all nine battle stars for this job, but to my knowledge were not granted a Presidential Unit Citation or a Navy Unit Commendation.

As far as I know, we were the only tanker to refuel two ships and a seaplane at the same time.—V.C.B., SK2, USN.

• *We're not in a position to comment on your claim about refueling two ships and a seaplane simultaneously but you are correct in your statements on Navasota's Korean record. Although not awarded a Presidential Unit Citation or a Navy Unit Commendation, this vessel is credited with the Korean Presidential Unit Citation for the periods 1 Jul 1950 to 15 Dec 1950, 31 Mar 1951 to 4 Oct 1951, 21 Apr 1952 to 24 Oct 1952, and 26 Feb 1953 to 27 Jul 1953.*—Ed.

Gold Frame for Korean PUC

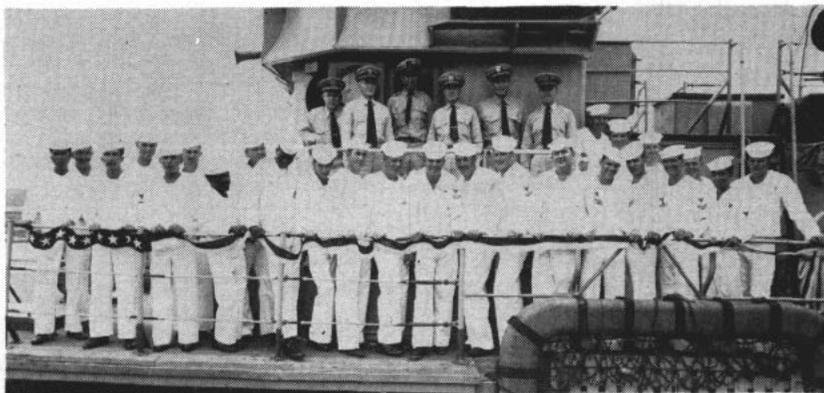
SIR: BuPers Inst. 1650.2 cites the regulations concerning wearing of the Korean Presidential Unit Citation. However, the Instruction does not state whether the ribbon should be worn with or without the gold "picture window" and we have not been able to find any other directive giving the information. Since some ribbon manufacturers do not use the frame when making up sets of ribbons, we are tempted to assume that it is not required on the naval uniform. Is this correct?—W. A. B., LTJG, USNR.

• *The Korean Presidential Unit Citation, like the U. S. Distinguished Unit Emblem, should have a gold frame surrounding the ribbon.*—Ed.

Accepting Shore Duty Billet

SIR: Several of my shipmates who are on the shore duty waiting list claim that if a man is not assigned to a place of his choice, he may refuse the orders. I believe, however, that he cannot refuse shore duty orders unless he does not have the required obligated service. Who is right?—D. D. F., YN2, USN.

• *You are. According to BuPers Inst. 1306.20B, enlisted men may not refuse orders for normal shore duty other than for reasons of insufficient obligated service.*—Ed.



LONG, LONG PENNANT means the men of *USS Waxbill* (MHC 50) are homeward bound. The wooden-hulled mine hunter has been in Pacific 55 months.

Here's How the Navy Got Its Foul Anchor and Other Insignia

SIR: Recently during a conversation among a group of Navy oldtimers, reference was made to the traditional naval insignie, the foul anchor. We were all somewhat surprised to discover that no one in the group had the slightest idea as to the origin of the emblem nor has any research given us an answer.

We assume, of course, that the foul anchor does not imply poor seamanship, but other than for purposes of decoration, we're somewhat at a loss to account for that particular choice. Can you give us a little background on the foul anchor and other insignia used for the various ranks and corps?—E. N. B., CDR, SC, USN.

• Part of your answer will be found on page 64 of the December 1949 issue of ALL HANDS, which states:

"The foul anchor as a naval badge got its start as the seal of Lord Howard of Effingham, the Lord Admiral of England at the time of the defeat of the Spanish Armada in 1588.

"It often happened in those days that the personal seal of a great officer of state was adopted as the seal of his office. This was the case with the foul anchor which still remains the official seal of the Lord High Admiral of Great Britain.

"The Lord High Admiral's office was taken over by the present Board of Admiralty some time ago, but the seal goes marching on—on buttons, official seals and cap badges."

So much for the purported origin of the foul anchor. That does not necessarily account for its adoption by the U. S. Navy; however, as you know, many of the British naval traditions were adopted by our own Navy during its formative days and it would appear that the foul anchor was one of them.

When the administration of naval affairs came under the Secretary of War, regulations governing the uniforms of the naval officers, issued in June 1797, provided for "a blue uniform with buff lapels with gold epaulets for the Captain and the buttons of yellow metal having a foul anchor and the American eagle on them."

While this was the first U. S. appearance of the foul anchor, it was not exactly a distinguishing mark nor insignie as we know it today.

It appeared first as a distinguishing mark in 1830 when midshipmen had on their collar "a foul anchor embroidered in gold under the oak leaf and acorns," and when they became passed midshipmen the anchor was backed with a five-pointed star of white cloth on the collar. There seems to have been no special reason for selecting the foul anchor in this case as the plain anchor was also used as a distinguishing mark at the same time.

In 1852, embroidered devices for the front of the officers' caps replaced the gold bands, a different emblem being used for ranks and corps:

Captain: The same device as on the epaulet (an eagle and anchor, with a silver embroidered star above), without the star, in silver embroidery surrounded by a gold embroidered wreath of oak leaf, on the front of the cap, above a band of laced gold, one inch and a half wide.

Commander: The same as for a captain, except that the device consisted of two crossed foul anchors in silver, similarly disposed and embroidered, above a band of laced gold, one inch and a quarter wide.

Lieutenant, Master, Passed and other Midshipmen: One silver foul anchor, similarly disposed and embroidered, above a one inch gold band.

Boatswain, Gunner, Carpenter and Sailmaker: A gold embroidered anchor, in front without the wreath.

Surgeon, Passed and Assistant Surgeon and Purser: A gold embroidered wreath of oak leaf, enclosing the letters M.D. and P.D., respectively, in Old English characters.

Professor, Secretary and Clerk: The same wreath without any device.

Engineers: An embroidered device and wreath, the wheel embroidered in gold and the anchor in silver, similarly placed above a one inch gold band.

On the shoulder straps were various ornaments which were distinctions of the line and staff, and indications of rank. A foul anchor was used on all of these with the exception of that of captain, whose rank was designated by a silver spread eagle, resting on a silver plain anchor, in the center.

Under these regulations of 1852, distinguishing marks for the enlisted men were changed so that they wore on the sleeve an eagle and an anchor with a one inch star one inch above it.

In 1862 new regulations were issued, which provided for the rank of Admiral and Commodore in addition to the other officers. Under these regulations the rank was designated by the gold lace stripes on the sleeves, the cap device, and the shoulder straps. Thus the admiral had three three-quarter-inch gold stripes and three one-quarter inch stripes on his sleeve, a gold wreath of oak and olive branches enclosing a silver five-pointed star on his cap, a silver foul anchor and two silver stars on his shoulder straps. The commodore had one less stripe of one-quarter inch lace on his sleeves, a silver eagle and anchor in his cap wreath, and but one star on his shoulder straps. A captain had three three-quarter inch gold stripes. A commander had two and one-half stripes, and so down to the midshipman who had no stripes.

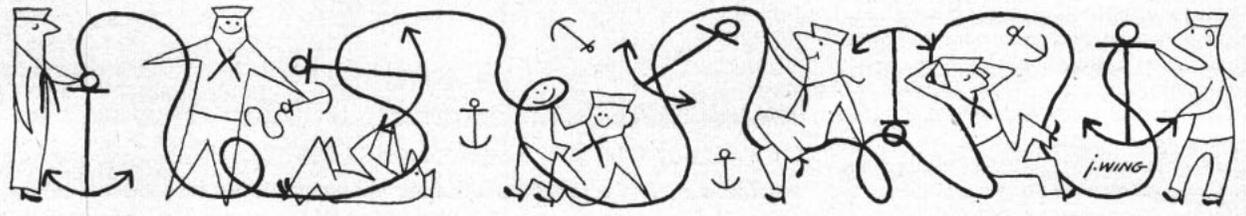
Captains, commanders, and lieutenant commanders wore the same cap device as the commodore; lieutenants the eagle and ensigns the silver foul anchor on the cap, and midshipmen a plain anchor on the shoulder straps.

A differentiation between a line and staff officer was introduced in regulations of 1869, wherein as all officers of the line wore the five-pointed gold star on their sleeves just above the cuff lace, staff officers wore colored cloth underneath the gold lace on their sleeves so that it showed on either side of the lace and between the gold lace stripes.

The wreaths on the front of the caps, of which each corps had a different device, were abolished by these regulations of 1869, and the shield with the crossed anchors for the front of the caps of all commissioned officers was substituted.

This is the same device which appears on the caps of all officers of today. Under these regulations the warrant officer's cap device was two gold embroidered anchors crossed, each anchor one and a half inch long; mates, a plain anchor, one inch and a quarter-inch long, embroidered in gold and placed in a vertical position; clerks were to wear a foul anchor on the front of the cap, with a gold cord, the same as that worn by midshipmen.

Today the crossed foul anchor is the insignie of chief boatswain and boatswain, and the plain crossed anchor is the distinguishing mark for a boatswain's mate.—ED.



Is NROTC Open to Married Men?

SIR: Is it possible for a married man to be a member of the NROTC providing he does not accept compensation for tuition, books or allowances, other than for uniforms? If not, is there a way to receive a Reserve Commission upon completion of college?

Can an applicant who has repeated a General Classification Test to achieve a higher score be permitted to submit an application for Officer Candidate School?—G. R. M., TE2, USN.

• *Sorry, a married man cannot enter the NROTC program. To enroll in the NROTC a candidate must be unmarried, never have been married and agree to remain unmarried until commissioned. It is felt that the Navy will best protect its interests and the interest of the country as a whole by continuing this regulation.*

Under the Reserve Officer Candidate Program, the Navy selects college students who are enlisted members of the Naval Reserve. You must be enrolled in and attending college as a full time student at time of application and must not be of such age that you will reach 27½ years on 1 July of the calendar year in which the educational requirements and two summer training periods will have been completed.

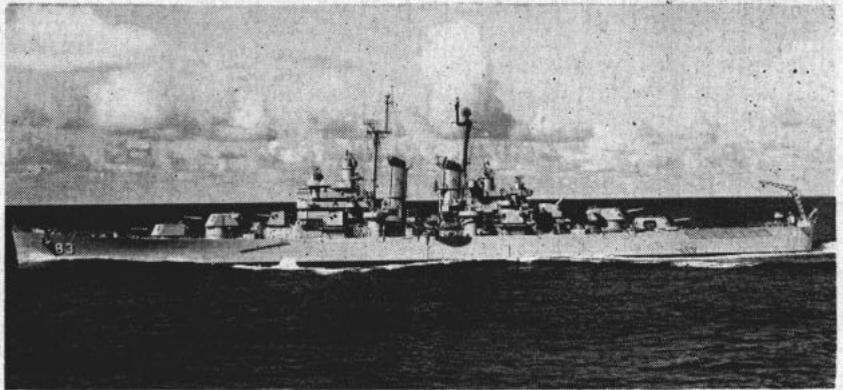
Selected candidates are required to attend officer candidate school during the summer training periods of eight weeks each.

Retesting with the Basic Test Battery for the purpose of qualifying for OCS under the Integration program is permissible with approval from the Chief of Naval Personnel. Your request should give the reason for the new test and the commanding officer's endorsement should cite any schooling or training completed since previous testing and other pertinent data in support of the request.—Ed.

Extension of Shore Duty

SIR: I am a BMC with 20 years in the Navy. I am now on shore duty and would like to set a date for release to the Fleet Reserve approximately one year from now. Can I remain at my present duty station for an additional year, even though it extends beyond my normal tour of shore duty? Also, please give the number and date of the instruction which contains this information.—C. C. H., BMC, USN.

• *In some instances, personnel with short remaining periods of obligated service have been retained on shore duty beyond their normal tour. In your case, the Bureau date of authorization to transfer to the Fleet Reserve must be included on the Shore Duty Survey Report in order that a retention for you may be determined. No instruction has been promulgated on this subject, due to its changing nature. Decisions are based on individual cases.—Ed.*



KOREAN VETERAN, USS MANCHESTER (CL 83) makes passage through Pacific where her big guns earned her the Korean PUC and nine combat stars.

How to Become a Frogman

SIR: I would like to know what the qualifications are for an individual to become a frogman. I have signed up for two years' active duty after completing 21 months in the Reserve. Can a Reservist become a member of the Underwater Demolition Team?—F. V., CFN, USNR.

• *To enter the Underwater Demolition Team program you must be on active duty. Once on active duty, you may submit your request to ComServLant, (via the type or area commander and ComPhibLant), or to ComSerPac (via the type or area commander and ComPhibPac), whichever is appropriate. When accepted for UDT training, you must agree to remain on active duty for two years after completion of the course.*

The physical standards are very high for frogmen and Navy divers. It is required that two weeks of physical conditioning be taken before the UDT course. Incidentally, the UDT course is 14 weeks.

For further information, consult BuPers Manual, Art. C-7406.—Ed.

Reenlistment in Right Rate

SIR: This is in reference to your article "Broken Service Reenlistments" in the February 1955 issue of ALL HANDS (p. 9) which states that men in certain pay grades who have been discharged more than three months but less than one year may be reenlisted in the same pay grade they held, provided the reenlistment is effected by 30 Jun 1955.

I was discharged 19 May 1954 at which time I held a PN3 rate, and reenlisted 3 Dec 1954 as SN. Am I affected by this instruction, and if so, will the date of rate be retroactive?—R. A. A., SN, USN.

• *Since your reenlistment in the Navy on 3 Dec 1954 was before the date of announcement of the current program, in which former enlisted personnel in certain categories could reenlist in their same rating, you were reenlisted in the correct rate.—Ed.*

Eligibility for Extra Retainer Pay

SIR: Is the recipient of the Navy and Marine Corps Medal paid an extra 10 per cent when he is transferred to Fleet Reserve with 20 years' service?—W. J. W., ADC, USN.

• *Public Law 720 provides that at the time of transfer to the Fleet Reserve, 10 per cent increase in pay may be given to those members who may be credited with extraordinary heroism in the line of duty. The Navy Department Board of Decorations and Medals reviews each case and makes this determination for the Secretary of the Navy. Therefore, your award would have to be reviewed by this Board to determine if it fulfills the requirements within the intent of the law.—Ed.*

Credit for Manchester

SIR: The article "Citations for Bold Ships and Brave Men" in the May issue was interesting. However, USS Manchester (CL 83) was not mentioned for her efforts during the Korean conflict.

Manchester was near the coast of Wonsan for 54 days, bombarding the coast and scoring up a total of 29,600 rounds of "ammo." Then, during the invasion of Inchon the carriers mentioned in your article had to have someone ride "shotgun" for them, and again Manchester was right there, along with USS Rochester (CA 124).

If you'll check the operations of Manchester, you'll see she deserves credit for her deeds.—G. R. T., DK1, USN.

• *We agree that your ship deserves credit. We have checked the records and found that Manchester received the Korean Presidential Unit Citation for the periods 12 Sep 1950 to 4 Jun 1951; 4 Dec 1951 to 18 May 1952; and 5 Mar 1953 to 23 Jul 1953; for service in Korea while operating with the 7th Fleet. She is also credited with the Korean Service Medal with nine combat stars. It's a fine record and one that her crew can be proud of.—Ed.*



FORMER NAVY CHIEF, H. O. Domstead now Mayor of Bremerton, Wash., was guest in USS Shangri La (CVA38) CPO mess. He said food was as good as ever.

Selection for LDO Commission

SIR: In December 1954, I took an LDO exam. Is it possible for me to learn my standing? I've been under the impression that you are allowed two

chances for LDO. That is, if due to quota limitations you cannot be promoted, you are given another chance. Is that true?—E. B., BMI, USN.

• *There are no passing or failing grades in the Limited Duty Officer selection test. Your status is determined by your relative standing among the other candidates who took the test.*

BuPers Inst. 1120.18B permits those Limited Duty Officer candidates who have twice failed selection but who have never been considered by a selection board empowered to recommend them for further consideration, to appear before such a board. This provision commenced with the 1954 LDO program.

In order to establish your eligibility, it is suggested that you submit your request to the Chief of Naval Personnel (Pers B6251), via your commanding officer.—Ed.

Information on Religious Retreat

SIR: Under Air Force and Army Regulations, personnel who are stationed in Tripoli are authorized TAD to attend religious retreats. I have been unable to find any Navy regulation or instruction concerning TAD orders for religious retreats covering naval personnel stationed here. Can you give me any information on this? —E.D.D., YN3, USN.

• *You may contact your chaplain or the Senior Chaplain (Protestant, Jewish, or Roman Catholic), Headquarters, Support Activities, Navy #510, c/o FPO, New York, N. Y., who should be able to arrange transportation for you to the nearest religious retreat, and also answer any other questions you may have.—Ed.*

Command and Order

SIR: The new *General Training Course for Petty Officers* (NavPers 10055) page 34, explains that a good

order makes clear what is to be done and when to do it. Then, as circumstances require, it adds, how to do it and why it must be done. This is different from the old concept that an order told you to do something while a command might carry some instructions as to how it should be done.

General Training Course for Petty Officers says an order tells a man what to do without requiring him to do it in a certain way. A command is more exact and usually requires immediate action. *The Bluejackets' Manual* says that the terms "order" and "command" are used interchangeably.

On a formal basis, an order is taken to mean a directive to perform a task; the person giving an order assumes that the recipient knows how to do it and will use his judgment in carrying out the details. A command requires a man to do a job in a definite way.

Any further information concerning the distinction between an order and command will be appreciated.—G.M.A., AKC, USN.

• *As noted, "The Bluejackets' Manual" does point out that order and command are used interchangeably. It is not possible, even in the services, to try to hold these terms to strict interpretations and uses. The "Manual for Courts-Martial" ignores the term command and discusses only orders (p. 323). The "Dictionary of United States Military Terms for Joint Usage" (Second Revision, April 1953) defines them as follows:*

Command: An order given by a commander; that is, the will of the commander to be expressed in a definite form for the purpose of bringing about a particular action in a specific way.

Order: In a broad sense the terms order and command are synonymous. However, an order implies discretion as to details of execution whereas a command does not.

In any specific instance one must know the circumstances before saying that a directive is a "command" or an "order." For example, the military phrase "About FACE," is a command because it means to go through a certain foot and body motion in a certain way. However, a recruit who had never had drill would simply take it as an instruction or order to turn about by using any sort of motion convenient to him.

Similarly, if a striker were told, "Paint the after storeroom tomorrow," would that be commanding or ordering him? At first sight this appears to be an "order." But suppose he had a set procedure to follow in drawing paint, preparing the surface, and in following safety precautions, a time schedule, etc. Then the order would in fact be as much a command as the command "About FACE."—Ed.

Ship Reunions

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

• *North Sea Mine Force*—Shipmates of the North Sea Mine Force, 1917, 1918, will hold their 14th annual reunion in the Hotel New Yorker, New York City, 20, 21 and 22 October. For further information, write J. J. Kammer, 54 Walnut Ave., Floral Park, N. Y.

• *uss Harding (DD 625 and DMS 28)*—It is proposed to have a reunion of the men who served on board this ship during World War II, with time and place to be designated by mutual consent. Those interested should contact William R. Carter, P. O. Box 915, Fayetteville, Tenn.

• *39th Naval Construction Battalion*—All men who served in this construction battalion and interested in holding a reunion, with time and place to be designated by mutual consent, should advise W. D. Holbert, Dandridge, Tenn.

• *uss Leedstown (AP 73)*—A reunion dinner will be held on 12 Nov 55, at Dunhalls Restaurant, New York City, for all survivors of this ship. Reservations may be made with Frank A. Wiseman, 126 West 82nd St., New York, N. Y.

Wearing Large Medals

SIR: When are chief petty officers and other enlisted personnel authorized to wear large medals? Our squadron is scheduled to have a formal inspection in full dress but after reading *Navy Uniform Regulations* I found provisions for the wearing of large medals for officers only.—J. W. F., YN2, USN.

• At present enlisted men are not authorized to wear large medals when full dress is prescribed for officers. The enlisted uniforms corresponding to officers' full dress are service dress blue or white for CPOs, and dress blue or undress white with neckerchief for other enlisted men.

Since the requirement of large medals for officers is comparatively recent, it is possible that after this custom has become well established, Fleet commands may recommend that large medals be prescribed for enlisted personnel as well.—Ed.

Education Under G. I. Bill

SIR: In regard to receiving veterans' benefits for educational training, what date applies to a man who was discharged 1 Feb 1954 but reenlisted for six years to complete his twenty in 1960? — M.R.S., AOC, USN.

• If you reenlisted for six years in February 1954 and you were on active duty on 31 Jan 1955 you will continue to accrue G. I. educational and training entitlements, up to a maximum of 36 months of such education or training. Your education or training under the Korean G. I. Bill must start within three years of the time of your discharge or transfer to the Fleet Reserve in 1960, whichever comes first. It should also be noted that education and training under the Korean G. I. Bill must be completed eight years after discharge or release from active service or 31 Jan 1965, whichever is earlier.—Ed.

Korean Presidential Unit Citation

SIR: I have read numerous books and publications—to no avail—trying to find if the personnel on board *uss Alfred A. Cunningham* (DD 752) rate a South Korean PUC for operations with Task Force 95 during the Korean conflict. I'm not sure, but I believe she was operating with the task force during the time for which the citation was awarded. If our ship does rate a PUC, I would like to know how I can get it.—J. C. H., TE2, USN.

• Records show *uss Alfred A. Cunningham* (DD 752) operated with Task Force 95 during the period 13 Feb 1951 to 1 Dec 1951; therefore such service is creditable for the Korean Presidential Unit Citation Badge. This badge may be purchased from military shops. No medal is involved.—Ed.

Aviation Medical Technicians

SIR: I've been wondering if the Bureau has ever considered having a set of wings made for aviation medical technicians of the Hospital Corps? Also, have men with this rate ever been ordered to duty involving flying, and if not, will they be assigned to flying some time in the future?—E. H. C., HM2, USN.

• There are no plans for establishing wings as special insignia for aviation medical technicians.

The duties of an aviation medical technician do not require frequent and regular participation in aerial flights. For this reason hospital corpsmen qualified as aviation medical technicians normally are not assigned to duty involving flying. In a few instances frequent and regular flights have been required of qualified personnel, and, in such cases, authority has been granted on individual basis.

There are no indications that the present requirements will be changed and there is no plan to alter the status of the

Duties of ABs

SIR: I have always been under the impression that aviation boatswain's mates were supposed to hold billets aboard air stations in gasoline, line and crash crews. However, nearly every squadron reporting aboard carriers has aviation machinist's mates as line chiefs and line petty officers. A lot of squadrons on air stations not only use ADs but also aviation structural mechanics and even aviation ordnancemen as line chiefs and in line and gasoline crews. Aren't ABs supposed to have these billets aboard air stations?

Also, I noticed the Shore Duty Eligibility List shows the Eighth Naval District does not rate any ABs at all—yet Corpus Christi, which is located in the Eighth Naval District is one of the largest air stations in the U. S. What gives?—R. R. B., ABC, USN.

• The Bureau of Naval Personnel establishes allowances for AB personnel for Naval Air Stations to satisfy the following general personnel requirements: (1) handling of aviation gasoline; (2) aircraft crash fire crews; (3) handling of sea planes; and (4) test and development of catapult and arresting gear, such as at NAMC Philadelphia and Patuxent River, Md.

As for your second question, NAS Corpus Christi is under the enlisted personnel distribution control of CNATRA and does have an allowance for AB ratings. The Commandant, Eighth Naval District has no activity for AB ratings.—Ed.

hospital corpsmen qualified as aviation medical technicians concerning entitlement to temporary flight orders.—Ed.

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Fleet's New Line

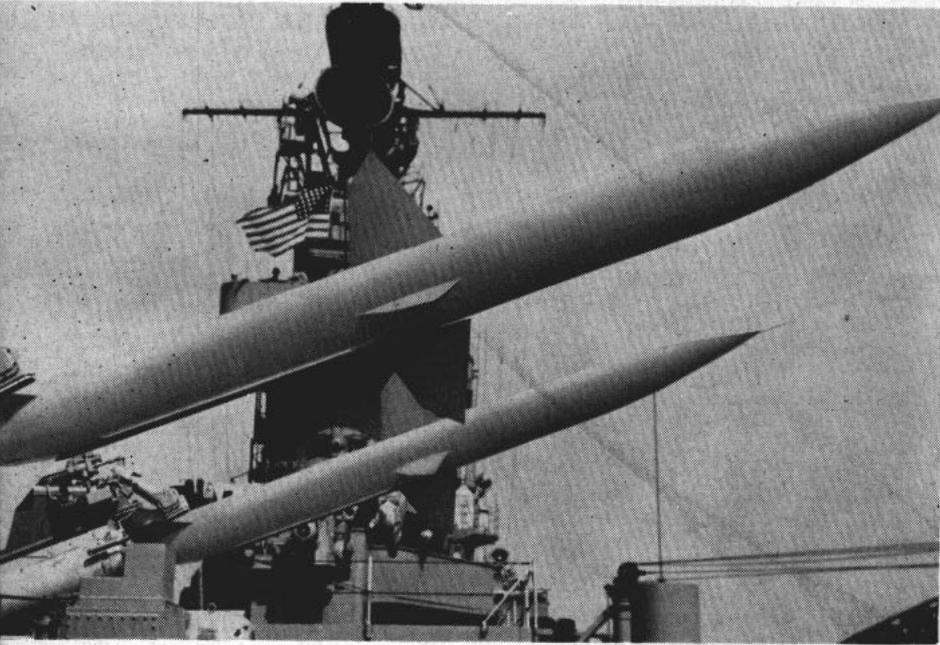
YOUR NAVY is a constantly changing Navy. It has to be to keep up with the times and to remain tops in its field.

At present, ships of the Fleet are undergoing changes to equip them for the beginning atomic age and any threats to our freedom that this new age might bring.

New ships, some with changes almost as drastic as the shift from sail

to steam, are being planned, built, and in some cases have already felt the challenge of the sea.

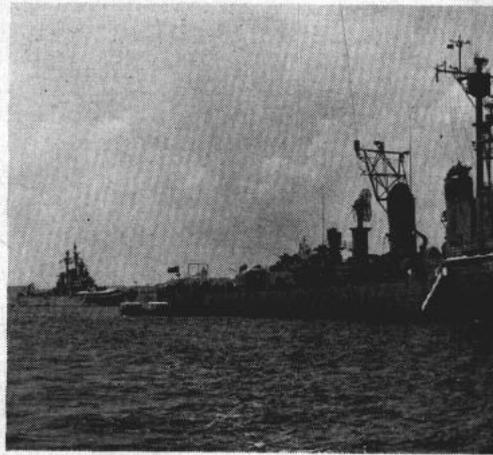
Don't get the wrong idea. This doesn't mean your present ship that has been serving the Navy so well will be deep-sixed. Far from it. Just look at some of the conversions that have taken place recently. Take for instance *uss Shangri La* (CVA 38), *uss Antietam* (CVA 36), and many



CONVERSIONS GIVE new jobs to Navy ships. Here, missiles are poised on deck of *USS Mississippi* (AG 128). Below, is new type IFS, *USS Carronade* (IFS 1).



NAVY'S LARGEST FLATTOP, *USS Forrester* (CVA 121) is one of the new type carrier destroyers, like *USS Willis A. Lee* (DD 963).



Of Ships for '56

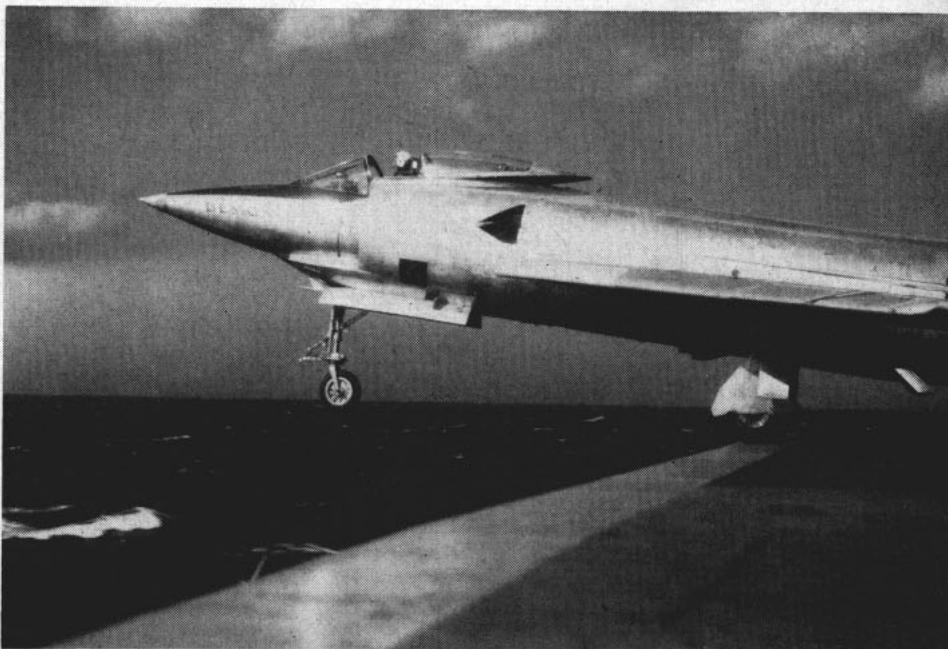
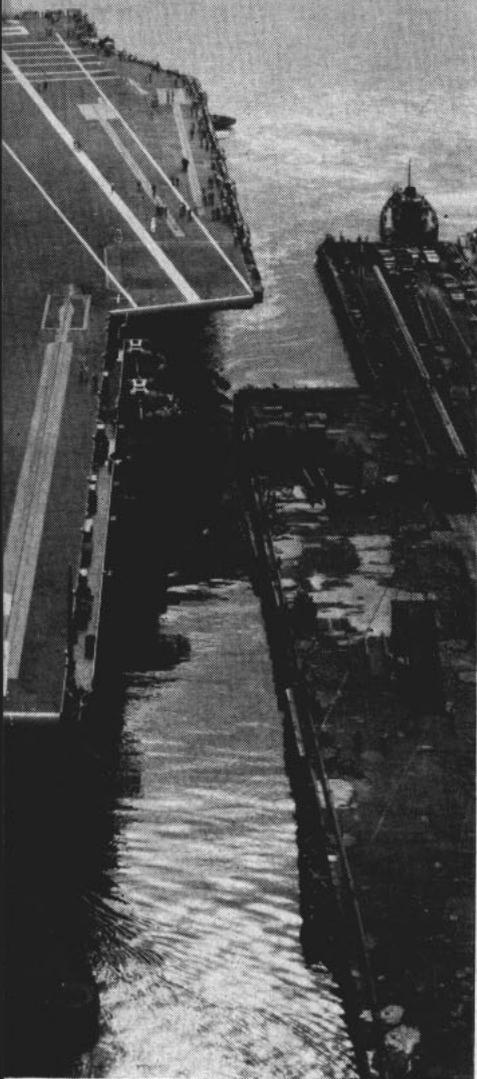
other vessels of all sizes and types.

They went into dry dock and came out with a totally different look. In some case these changes in appearance were accompanied by special gear for a special job in a modern fleet.

Here is a pictorial roundup designed to give you a quick idea of some of the changes taking place in the various ships of our fleet. Some,

like *Forrestal*, have just hit the water and are at present undergoing their sea tests. Others have passed the test and have joined the fleet.

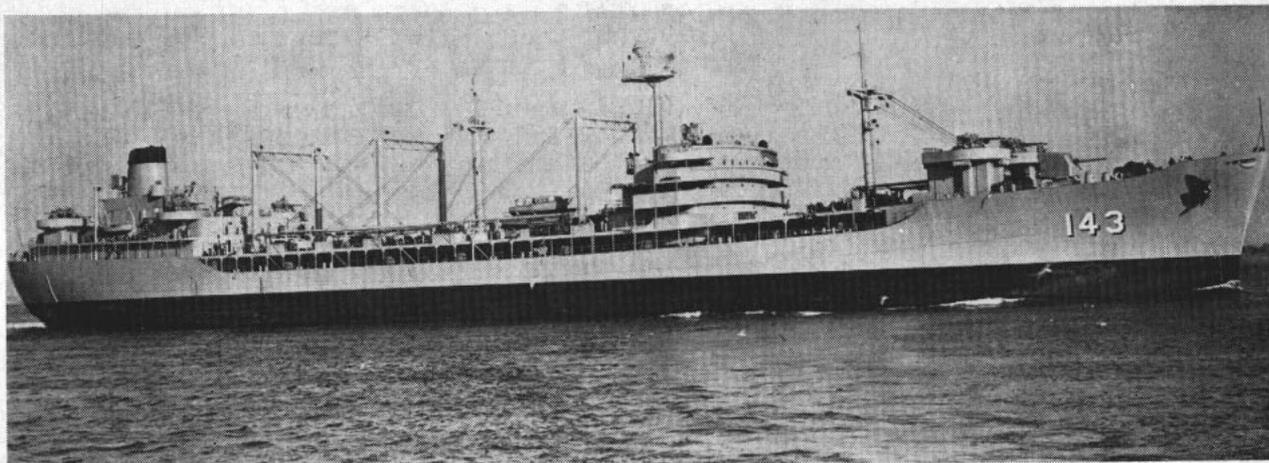
Many of these changes and new additions have been covered in detail in recent issues of *ALL HANDS*. As "the world of tomorrow" continues to influence Navy ships of various sizes you'll be kept posted on the new look in the modern Navy.



NAVY DEMON, F3H-1N, is representative of streamlining in the skies above the Fleet. Below: *USS Shangri-La* (CVA 38) is one of many recent conversions.

59) moves out for her sea trials. Below: New (4), have speed of DD and firepower of CA.





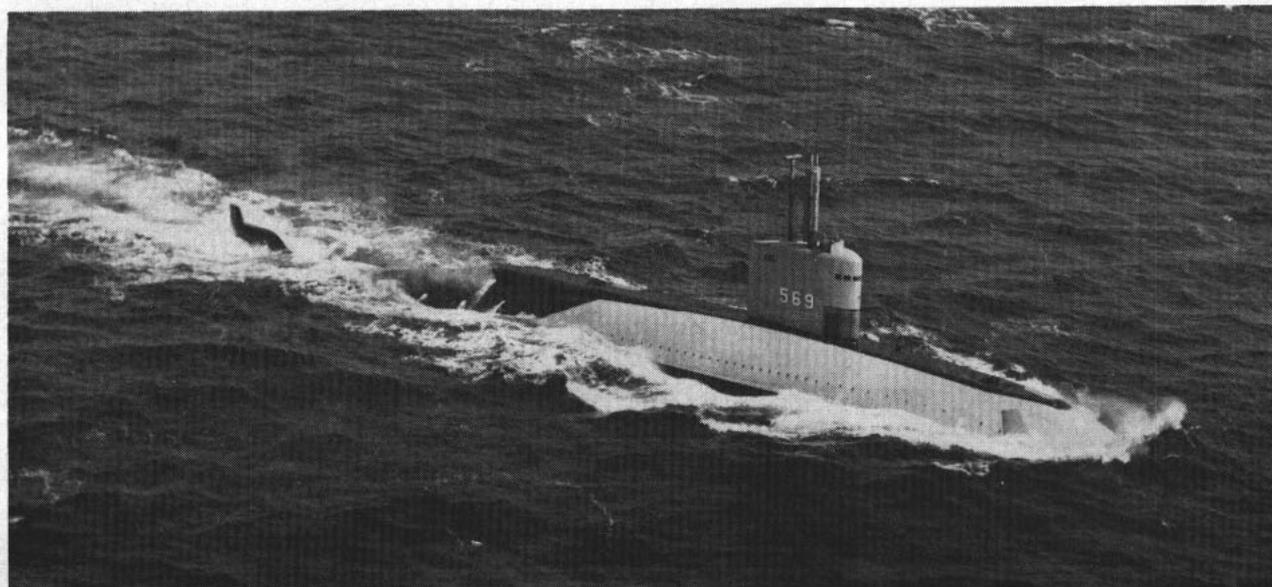
AUXILIARY VESSELS have new streamlines too. Here, new oiler *USS Neosho* (AO 143) rides high in the water.



LATEST NON-MAGNETIC mine sweeper, *USS Inflict* (AM 456), is now in Pacific. Below: New ideas will be tried out by *USS Albacore* (AGSS 569), test ship for hull design.

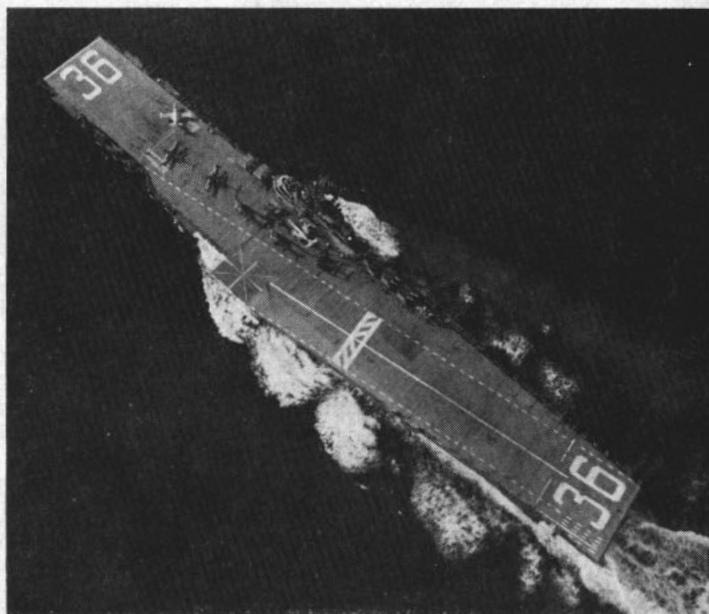


ATOMIC TWOSOME—Navy's *USS Seawolf* (SSN 575) and *USS*





DESIGNED FOR FAST convoy work, new DEs like USS Dealey (DE 1006) with single screw can be built in a hurry.



NEW DECK OF USS ANTIETAM (CVS 36) is port for latest in jets. Below: Small subs will join big sisters in Fleet. Here, 50 foot T-class 'baby' cruises on surface.

Nautilus (SSN 571) are photographed together for first time.



★ ★ ★ ★ TODAY'S NAVY ★ ★ ★ ★



THE SPOT that Navy's XFY-1 needs to land on is much smaller than the X mark shown on the ground. VTO plane sits straight down on casters.

Conversation Over 10,000 Miles

Two amateur radio stations sponsored by the Navy will be in operation in the Antarctic next spring as morale boosters for 10 volunteer Seabees who will winter over during the Antarctic night of March-October, 1956.

Two additional Navy "ham" stations are expected to go on the air by March, 1957.

With the stations, Navy radiomen hope to bridge the 10,000 miles to the United States to permit members of the Special Seabee Mobile Construction Battalion to talk to their families, relatives and friends via any of the 130,000 amateur radio operators in this country.

The Federal Communications Commission has assigned the call signs KC4USA and KC4USV respectively, to the two stations which will

begin operating about 1 Mar 1956 from the planned Little America station at Kainan Bay and from an Air Operating Facility to be built at McMurdo Sound. The FCC has also authorized the Navy to use any call signs within the block KC4USA through KC4USV in the Antarctic if additional stations become necessary.

The radio crew has acquired gear to operate CW, AM and single side band. The stations will receive and transmit on the 80, 40, 20 15, 11 and 10 meter bands—weather conditions permitting.

In March 1957, when Byrd Station is constructed in Marie Byrd Land and the South Pole Station is built at the South Pole, the two other stations will start operating. They have been given the call signs KC4USB (Byrd Station) and KC4USN (South Pole Station).

Sailing Plane

The port of Iwakuni, Japan, recently had one of the strangest ships of its history moor at its piers. Completing a nine-hour-and-24-minute ocean voyage, a downed P5M1 "Marlin" seaplane pulled into the harbor of the small city.

The big Navy plane became a ship when an engine failed while over the Inland Sea of Japan. After a perfect landing the crew of the plane took her back to the Japanese port on one engine, averaging from eight to nine knots during the trip.

The mishap occurred while on a routine flight near Shimonoseki Strait, and upon hitting the water, LT James E. Garlitz, USN, the patrol plane commander, took over as commanding officer of the brand new addition to the surface Navy.

Navigator of the temporary ship was LTJG James Roush, USNR, who set to work on plotting a return course for the plane as soon as it hit the sea. His estimated time of arrival at Iwakuni was right on the button.

During the last six hours of their sea voyage the men had the company of a Navy crashboat which had been sent out to escort them.

To round out the picture, LT Garlitz, as skipper of the ship, had just completed a correspondence course in "Basic Seamanship." Arriving in Japan all he could say was: "That course sure came in handy today."

O&R Uses Ultrasonic Cleaner

Ultrasonic power is being used experimentally at NAS, Pensacola, Fla., to clean precision instruments, parts, and intricate mechanisms without completely disassembling them.

Ultrasonic energy introduced into a cleaning fluid causes the phenomenon known as "cavitation," which firmly but gently removes contamination from any part area touched by the activated cleaning fluid.

The first two of these units have been in use for more than six months in the Pensacola Overhaul and Repair Department. First unit is used for cleaning assembly bearings and second for cleaning instruments.

YESTERDAY'S NAVY



Between 23 and 26 Oct 1944 the Battle of Leyte Gulf took place. One of the high points of this battle occurred at midnight on the 24th when a ragged column of the Japanese southern force, under fire from U.S. PT boats, entered Surigao Strait—sailing right into a trap prepared by RADM Jesse B. Oldendorf, USN. As soon as the enemy entered the Strait, U.S. destroyers, cruisers and battleships opened fire and sealed off their advance and the Japanese force was almost completely destroyed before it could return fire.

Sub School's Honorman

Honorman of the 121st graduating class of the Enlisted Basic Submarine School Course at U.S. Naval Submarine Base, New London, Conn., was Cesar S. Wycoco, TA, USN.



Honor Student
Cesar S. Wycoco,
TA, USN

Wycoco, whose home town is Manila, P.I., was the first native of the Philippines to achieve this high scholastic standing at the Submarine School and also the first steward in the school's history to be named as top graduate.

Wycoco won out over 177 other graduates in the final exam in which he missed only two questions in an examination containing 238 questions. His final score of 3.918 out of a possible 4.0 is also the highest mark ever attained in straight academic work, which is compressed into eight weeks of intensive study and practical application of submarine subjects.

The honorman has attended Far East University at Manila for four years, and one year on a scholarship at Oklahoma City University, Oklahoma City, Okla.

He enlisted in the Navy on 9 Nov 1954 at Sangley Point, Cavite, Philippine Islands.

At the U.S. Naval Training Center, San Diego, Calif., Wycoco began his record of high scholastic standing by being named honorman of his company during recruit training, and again was the top man of his Stewards School Class, at the U.S. Naval Training Center, Great Lakes, Ill.

Record in Obstacle Course

A new record time of one minute 39 seconds was set at the year-old obstacle course at the Pre-Flight School, NAS Pensacola, Fla. Breaking the 400-yard course record was Naval Aviation Cadet Robert H. Appleby.

Appleby's time topped all previous attempts since the course was constructed. The course is designed to teach and test Pre-Flight students' agility and determination.

The obstacle course includes a 14-foot bulkhead, sand pits, a water obstacle, ankle breakers, long jumps and a variety of mazes. Pre-Flight

Modern Sports Center Makes Hit with Fleet at Norfolk

One of the Navy's largest and most complete recreation centers on the East Coast was dedicated this summer in a ceremony attended by more than 300 officers, enlisted men and guests. Located at Norfolk's Convoy Escort Piers, the huge, red-brick building was named the "McCormick Sports Center" in honor of Vice Admiral Lynde D. McCormick, USN, who is now President of the Naval War College at Newport, R.I.

The ultramodern structure, financed by a grant from the BuPers Central Recreation Fund, contains a gymnasium with a 2000-person seating capacity, a special practice gymnasium, an eight-lane bowling alley equipped with automatic pin setters, a pool room, a Navy Exchange, a barber shop, snack bar, patio, and a lounge.

This gigantic Norfolk sports plant will also include an outdoor sports area with a lighted baseball diamond, two lighted softball diamonds, two basketball courts, four badminton courts, one volleyball court and two shuffleboard courts.

Also included will be a nine-hole pitch-and-putt golf course, a golf driving range, three unlighted base-

ball diamonds, handball courts, model airplane ring and an improved picnic area.

"A recreation center of this type has been needed for some time," stated Admiral Jerauld Wright, USN, Commander in Chief, U.S. Atlantic Fleet. "Ships can't provide all the necessary recreation facilities and this center should fill the bill."

Admiral McCormick, former CinCLant, was instrumental in originating plans for the sports center in 1949. Actual construction of the center began early in 1954.

"This is a wonderful day for us," stated the President of the Naval War College, at the dedication ceremonies. "Our dream has come true."

The festivities were climaxed by the unveiling of a plaque honoring Admiral McCormick, "whose interest and efforts to provide recreational facilities for the men and women in the Navy resulted in the construction of this sports center."

A tour of the sports center, followed by a buffet luncheon on the patio, closed the official ceremonies. The center is under the control of the Naval Station commanding officer who has a chief petty as manager.

cadets run the obstacle course on an average of eight times during their 14 weeks in the school.

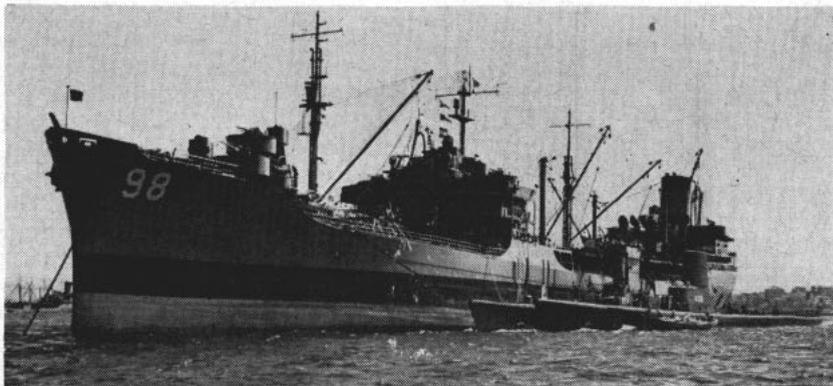
Alaska Marathon Racer

The Annual Marathon Race at Kodiak, Alaska, was won this year by Delmar L. Christianson; CM3, USN.

Starting line of the eight-mile course was in front of the Adminis-

tration Building on the Kodiak Naval Station and the finish line in the center of the town of Kodiak. Christianson covered the distance in 48 minutes. His nearest competitor was several minutes behind, as the Seabee led the eleven-man field.

Christianson, who is attached to Mobile Construction Battalion 11, the Kodiak Naval Station, had never before run in competition.



RIDING HIGH after refueling ships of the Sixth Fleet is USS Caloosahatchee (AO 98). Nested alongside are USS Spikefish (SS 404) and USS Piper (SS 409).



TWO OF TEN Miss Universe contestants to visit *USS Haven (AH 12)* are welcomed by J. Swope, HM1, USN. They are Miss Wyoming (left) and Miss Ohio.

Visit to *Haven*, and *Tucker* too

Ten of the most beautiful girls in the world recently paid a visit to *uss Haven (AH 12)* during the hospital ship's visit to Long Beach, Calif.

The 10 young ladies were in Long Beach to take part in the Miss Universe contest and presented a dazzling sight to the Navymen as they came aboard the ship.

There was talk of holding a beauty contest aboard *Haven* with the 10 Miss Universe contestants

competing for the title of "Miss *uss Haven 1955*," but since the girls were all beautiful it was decided to split the title 10 ways and soon all of the girls were sporting the traditional sash that goes with any beauty contest.

After all had been crowned queen, they made a tour of the hospital spaces and clinics, stopping for refreshments and a copy of the *Haven's* cruise book which was presented to them as a memento of their visit.

Haven was not the only ship to welcome the select group. She was outdone by a DD.

For a few short hours *uss Henry W. Tucker (DDR 875)* was, according to her crew, the most beautiful tin can afloat.

At the time in question *Tucker* was in her home port of Long Beach, Calif. The aforementioned contestants for the Miss Universe beauty pageant also happened in town.

The crew of *Tucker* decided to invite some of the world's most beautiful girls aboard for a tour of the ship and this time 13 accepted.

After a tour of the ship and introductions to the ship's crew, each girl met her dinner companion. Escorts for the girls were picked from the crew of the ship on a merit basis with a Spanish-speaking sailor matched with a South American lass to make things more pleasant for the girls.

Following the meal, which all agreed was far too short, press of events compelled the beauty queens

to leave the ship and return to the tough schedule which faces all potential beauty queens.

As the barge carrying the contestants back to the shore pulled away from the ship, the girls and their escorts joined in singing "Anchors Aweigh" while the less fortunate crew members of *Tucker* watched from the weather deck.

Since that time the crew of the destroyer, who made the girls "honorary shipmates," have continued to boast of the few short hours when *Tucker* laid claim to the title, "World's Most Beautiful Tin Can."

Navy Develops Dry Lubricant

A "miracle" lubricant with a wide variety of potential military and industrial use has been developed by the Naval Research Laboratory.

In the form of an easily applied plastic film only a few ten-thousandths of an inch thick, the combination dry lubricant and corrosion-preventive is serviceable from 75 degrees below zero to 500 degrees above. Polytetrafluoroethylene, previously well-established as a protective coating and electrical insulating material, is the material used.

Following tests of automatic pistols, rifles, ammunition and similar ordnance equipment which were coated with thin films of the materials, the Marine Corps has completed extensive field tests of coated infantry weapons. These tests, which lasted approximately eight months, have established that "the original coating provides satisfactory lubrication for an almost indefinite period following issue." The dry lubricating film has proved to be a suitable preservative for long-term storage of weapons, and is "much superior" to the conventional preservative in corrosion prevention and in maintaining combat readiness.

Additional work by chemists at the Naval Research Laboratory indicates that this plastic coating will also be a useful long-lived dry lubricant for many other applications. The coating can be used as dry lubricant for bearings, universal joints, gears, screw threads, valves, hydraulic and pneumatic equipment and in numerous precision optical and electronic instruments.

Several experimental coating facilities have been established by the Bureau of Ordnance and Bureau of Ships at various naval installations.



REASONS why *USS Henry W. Tucker (DDR 875)* claimed most beautiful tin can title pose by the ship's bell.

Submarines Support Orphanage

Five large boxes of clothing and toys, donated by families of submariners in the Pearl Harbor area, are being distributed among orphans at Hayama, Japan. The gifts were delivered from Pearl Harbor by the submarine rescue vessel *USS Greenlet* (ASR 10).

The orphanage, which the Pacific Fleet Submarine Force has been sponsoring since 1953, now cares for about 40 orphans.

In addition to providing financial support, submariners help the orphanage in other ways. Crew members of *USS Blackfin* (SS 322) have painted the orphanage; *Charr* (SS 328) provided a phonograph and entertained the children at a picnic; *Rock* (SSR 274) donated a stove; and *Remora* (SS 487) delivered enough clothes from San Diego submarine families to last the winter.

A monthly quota was established to support the orphanage and since its beginning the quota has not only been met, but always doubled.

100th Class Comes Up For Air

The 100th class to complete the Officers' Basic Submarine Course has graduated at the U. S. Submarine Base, New London, Conn. There were 114 U. S. and 14 foreign naval officers in the class.

Since December, 1916, when Class No. 1 graduated 22 officers, the Submarine School has trained 5210 officers for the submarine service. The largest group to be graduated (June 1944) contained 260 officers, about five times the number in the preceding pre-war class. Since the Korean conflict, enrollment has been standardized at about 120 per class, and the length of the course increased to six months.

Honor man of the latest class was Lieutenant (junior grade) Carlisle A. H. Trost, USN. LTJG Trost is the recipient of the L. Y. Spear Award for standing first in his class. He also graduated first in the U. S. Naval Academy Class of 1953.

In addition to the 110 U. S. Navy line officers and 4 U. S. medical officers finishing the course, there are: 9 line and 1 medical officers of the Japanese Maritime Self Defense Force; 2 Peruvian line officers; 1 Brazilian medical officer and 1 Venezuelan line officer.

This is the first Japanese group to be trained at the base.



MASS SHIPPING OVER was celebrated by special festivities with feast and prizes for the 61. Rex and court of 'lady pollywogs' were guests of honor.

Charleston Beauties Reign in 'Shipping Over Festival'

Men in the Atlantic Fleet Mine Force believe in shipping over in droves rather than one at a time. This was demonstrated at a recent "shipping over festival" which saw 61 career Navymen raise their right hands and sign on for another hitch.

In honor of the mass reenlistees, the Mine Force sponsored a special celebration and Charleston, S. C., businessmen donated "individual tokens of esteem" awarded to the men shipping over.

Rear Admiral Kenmore M. Mc-

Manes, USN, Commander Mine Force, swore the men in and presented the reenlistment bonus checks. He was "assisted" by five young Charleston girls who had been selected as special guests of the Navy.

Also on the schedule was a special "shipping over" dinner, comprised of beef, roast turkey and baked ham with all the trimmings.

When the day rolled to an end all 61 of the reenlistees agreed that the day was one of the best they had ever experienced.



SIXTY-ONE CAREER NAVYMEN of MinLant are sworn in for another hitch. RADM Kenmore M. McManes, USN, Mine Force CO, administered oath.



'CHAMP' DANCE at Jacksonville, NAS, was a big affair for men of USS Lake Champlain (CVA 39) and their guests.

Radar Weather Trackers

A new step in storm and hurricane weather protection service went into operation 1 July at NAS Jacksonville, Fla.

This protection is a new weather detection radar system that enables the aerological department at NAS Jax to pick up and track, within a 200-mile radius, storms or tropical disturbances when they reach the Daytona Beach area. It then follows

them northward up the Atlantic Coast.

Pilots who avail themselves of the new service are able to determine whether or not they should fly an altitude of 45,000 feet to get over a suspicious cloud bank or whether to fly at 5000 feet to pass under it.

The range of the new weather protection system will take in Charleston, S. C.; Macon, Ga.; Tallahassee and Daytona Beach, Fla.,

and as far as 200 miles out to sea. Similar weather detection systems have been installed and are already in operation at the Fleet Weather Control office in Miami and at the Naval Air Station, Norfolk, Va.

Power Plant Saves the Day

The next time you sit down to a meal which includes salmon, it may be that the fish served on your plate is through the courtesy of the U.S. Navy.

A short time ago in Neah Bay, Washington, heart of the Northwest's salmon fishing grounds, a fire wiped out the only power plant in the small community during the height of the salmon season.

The town, populated almost exclusively by members of the Makah Indian tribe, owes its existence to fishing, and when the power plant went out it appeared that huge quantities of fish would spoil before a new plant could be built.

Since the fishermen usually bring in about 20,000 pounds of fish a day, lack of refrigeration would soon have ruined much of the season's catch.

That's when the Navy came in on the situation and provided assistance. The leader of the Indians, Chief Ward, put in a call to the Navy at Seattle describing his problem. In a matter of hours a 600-kilowatt generator, weighing 23 tons, was on its way to the stricken community.

The Navy, and the generator, arrived in time to save the catch already on hand and provided adequate electricity until the power plant could be rebuilt.

Latest Fashions for the Arctic Sailor

Goggles without lenses and cold weather clothing with plastic foam lining are undergoing tests in the Antarctic as part of Operation Deepfreeze. (See page 2.)

The design of the wind-resistant goggles is based on the Eskimo practice of cutting star-shaped slits in goggles carved from whalebone, combined with recent experiences in testing standard goggles with large holes cut in the lenses.

Lenses of conventional goggles become rapidly fogged by condensation of moisture evaporated from the eyes at low temperatures. In the experimental type, the lenses are omitted and a transparent, plastic, kidney-shaped cylinder is fitted to the foam rubber frame. The open-end cylinder projects directly forward to shield the eyes. Stagnant air within the cylinder deflects the wind.

Men testing the equipment said no tears came to their eyes in laboratory tests at 20 degrees below zero in winds up to 70 mph.

The new cold weather clothing is designed to keep a man overboard afloat indefinitely, and although it does not give prolonged protection from extremely cold water it would lessen the danger from exposure in an open boat following immersion in the sea.

Of waterproof outer fabric, the cold weather clothing has been interlined with a non-wettable perforated plastic foam, a chemical compound called polyvinylchloride. Zippered slits across the chest and thighs are designed to permit evaporation of body moisture when the wearer is engaged in heavy work. The slits are zipper-closed and then covered to resist penetration by driving snow or water breaking over the deck in a heavy sea. Moisture also may be evaporated through the holes in the plastic foam without affecting its insulating qualities.

Cells of the foam material are separated from one another and do not absorb water.

Navy Chief Is Credited With Seven Inventions (That Work)

To come up with a work-saving method of eliminating five hours of a 15-hour job is quite an accomplishment; to develop a means of saving 10 hours on a 15-hour job is indeed praiseworthy; but originating an idea for doing a 15-hour job in three hours is really something to shout about.

The cause of this shouting is Owen N. Coffee, ADC, USN, who has invented seven devices for saving man hours in jet engine maintenance.

In 1947 when Chief Coffee was assigned to VF-171 at Quonset Point, R. I., the jet squadrons had very few tools designed specifically for jet engine maintenance. The chief decided that something should be done about this and the little wheels of invention in the back of his brain immediately went into operation. It was not long before he came up with his proudest invention—an "engine removal and installation work stand." By using his stand, maintenance personnel can remove a jet engine in three hours—a job that formerly took 15 hours.

The stand is built, essentially of a jack and a cradle fitted with casters. Work crews roll the stand under the aircraft's power plant, lift it free with the jack and lower it onto the cradle.

When VF-171 transferred to NAAS Cecil Field, Fla., it was there that Coffee discovered a pre-

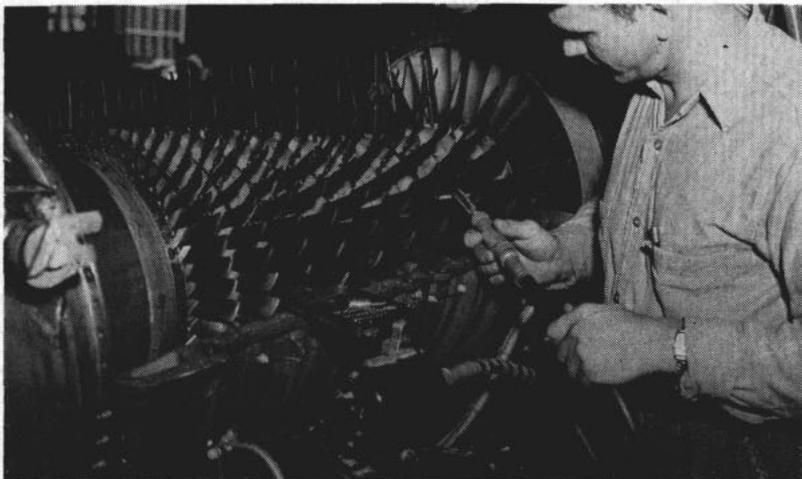
serving, depreserving and pre-oiling apparatus. Its essential characteristic is a capacity for building up pressure and forcing oil through the engine passages.

Not long after this, Coffee noticed that the method being used to transport jet engines to test cells was pretty slow. A ton-and-a-half truck carried one engine at a time and it had to be accompanied by a separately transported crane for loading and unloading. Using his ingenuity he made a few changes in a torpedo transfer dolly which is equipped with its own boom and came up with a vehicle that can carry two engines at once.

In 1950 while on duty with FASRon Six at NAS, Jacksonville,

Fla., he came up with another invention. At that time, when overhauling an engine, it was standard procedure to remove manually the rust and pits from the 600-odd turbine blades by means of crocus cloth—a long laborious process. After studying this operation for a couple of weeks Chief Coffee came up with a rotating brush apparatus that eliminated 80 per cent of the time formerly required for this job.

In the same year he produced a fuel nozzle tester and in 1951 a hoist for removing turbine wheels. The Bureau of Aeronautics has authorized two of his seven inventions and he has received two commendations for his contribution to jet engine maintenance.



ONE OF SEVEN time-saving devices invented by Owen N. Coffee, ADC, USN, is a rotating brush which replaces hand polishing on jet turbine.

Sea-Going Rivers

Medium Landing Ships (Rocket) (LSMRs) make up the latest group of vessels to achieve greater individuality by being designated by name as well as hull number.

As noted in the May 1955 issue of

ALL HANDS, the naming of "dungaree Navy" craft was being considered in a move to increase the Navyman's sense of identification with his ship. At that time, it was announced that names had been selected for de-gaussing vessels (ADG) and, in the

September 1955 issue of the magazine, names of LSTs were listed on page 39.

LSMRs are named for rivers in the United States. Here is a current list of names assigned to the LSMRs, effective 1 Oct 1955:

Classification	Name				
LSMR-401	—Big Black River	LSMR-501	—Elk River	LSMR-513	—Laramie River
LSMR-402	—Big Horn River	LSMR-502	—Escalante River	LSMR-514	—Maurice River
LSMR-403	—Blackstone River	LSMR-503	—Flambeau River	LSMR-515	—Owyhee River
LSMR-404	—Black Warrior River	LSMR-504	—Gila River	LSMR-516	—Pearl River
LSMR-405	—Broadkill River	LSMR-505	—Grand River	LSMR-517	—Pee Dee River
LSMR-406	—Canadian River	LSMR-506	—Green River	LSMR-518	—Pit River
LSMR-407	—Chariton River	LSMR-507	—Greenbrier River	LSMR-519	—Powder River
LSMR-408	—Charles River	LSMR-508	—Gunnison River	LSMR-520	—Raccoon River
LSMR-409	—Clarion River	LSMR-509	—Holston River	LSMR-521	—Rainy River
LSMR-410	—Clark Fork River	LSMR-510	—James River	LSMR-522	—Red River
LSMR-411	—Cumberland River	LSMR-511	—John Day River	LSMR-523	—Republican River
LSMR-412	—Des Plaines River	LSMR-512	—Lamoille River	LSMR-524	—St. Croix River
				LSMR-525	—St. Francis River
				LSMR-526	—St. Johns River
				LSMR-527	—St. Joseph River
				LSMR-528	—St. Marys River
				LSMR-529	—St. Regis River
				LSMR-530	—Salmon Falls River
				LSMR-531	—Smoky Hill River
				LSMR-532	—Smyrna River
				LSMR-533	—Snake River
				LSMR-534	—Thames River
				LSMR-535	—Trinity River
				LSMR-536	—White River

THE BULLETIN BOARD

Navy's Reenlistment Rate Doubles over 6-Month Period, Shipping Over Info Provided

The Regular Navy reenlistment rate has more than doubled in recent months. For the first six months of 1955, according to a recent survey, the over-all reenlistment rate was 18.8 per cent.

For those Navymen ending their first enlistment, the rate was 11.8 per cent, while for those ending their second or later enlistments (career reenlistments), the rate was 82.9 per cent, that is, more than four out of every five eligible men shipped over.

In contrast, the over-all rate during the preceding six months had been 8.2 per cent (or 5.4 per cent and 53.0 per cent for first term and career reenlistments, respectively).

The doubled rate, which benefits both the Navy as an organization and the men of the Navy as individuals, calls attention to several points.

It means that more Navymen realize that the Navy can offer them an attractive career and, in many cases, training opportunities which have few counterparts outside the Navy. Many, for example, have received extensive technical instruction during their preceding term of enlistment—now they're ready to cash in on it, and have decided that the Navy offers the best future.

The increased reenlistment rate benefits everyone in the Navy. More reenlistments mean a greater retention of Navy skills and know-how. At the same time, the increased rate has a beneficial effect on stability. With the Navy's reenlistment count up, there need be fewer transfers within a fleet, force, air group, division or squadron. Transfers occur more frequently when an organization is below strength.

All ships and stations were assisted in their reenlistment efforts by three programs. Each of these programs gave an objective comparison of the prospects of a return to civilian life with the prospects of a continuation of naval service. The programs were:

- A presentation entitled "Your Reenlistment Date." In mid-February all ships and stations received a talk



"I think the chief wants us . . ."

outline and a series of 20 charts prepared by this Bureau. These formed the basis of a presentation by petty officers to small groups of men.

- A presentation or demonstration by Career Appraisal Teams (Nav-CATS). A story on these teams will appear in a future issue.

- A Reenlistment Interview program. More fully explained in BuPers Inst. 1133.3B, this program is built around the Reenlistment Interview Guide (NavPers 15878) and various portions of the *BuPers Manual*.

Draft of 10,000 Authorized To Keep Navy at Full Strength

In spite of the improved reenlistment rates and the present strong recruiting program, the Navy will be unable to fill all gaps and maintain the personnel strength needed to meet its worldwide commitments this year.

As a result, Selective Service has been requested to provide 10,000 men for induction into the Navy in November. Details of the plan may be found in NavAct 5.

The reason for the draft call is the unusually large number of enlistments at the time of the Korean crisis which are now expiring.

Adoption of the draft does not change the Navy's basic reliance upon the four-year voluntary enlistment as the primary means and source for manning its ships, planes and stations. The Navy's last draft call was in May 1946.

If You're Headed for Duty In Hawaii, Check Latest Summary on Living Conditions

Although Hawaii is not in any sense a foreign country, we're presenting a brief rundown on housing conditions in our overseas living conditions series because we've discovered that Navymen and their dependents some time receive erroneous information before leaving the U. S. For more about Hawaii see page 8.

Here's the straight scoop, as compiled by the 14th Naval District Housing Office, in cooperation with the Base Pool Housing Office, Pearl Harbor:

Entry approval to the Hawaiian area is no longer required. All requests for travel of dependents should be addressed to the Commandant, Twelfth Naval District. Hotel reservations or other arrangements for temporary housing should be made before commencing travel, as government housing upon arrival cannot be assured.

Housing applications cannot be accepted until you actually report to this area and you must have at least six months' foreseeable duty in this area at the time your name is reached for housing. Submit a request to the Base Pool Housing Office, Pearl Harbor, via your commanding officer. Your name will be placed on the appropriate housing list under the date of eligibility, which generally is the date of arrival on Oahu or date of reporting to a Pearl Harbor based reporting to a Pearl Harbor-based unit assigned to forward areas such as Midway and Kwajalein Islands are *not* eligible for housing at Pearl Harbor, even though Hawaii may have been designated as a point of selection.)

Eligibility for one-, two- or three-bedroom units is determined by number, ages and sex of dependents. One bedroom units are assigned only to couples without children. Three-bedroom units are assigned to families with children in the following age groups: Two children of opposite sex, both six years of age or older; three children, one of whom is six years of age or older, or all of whom are four

years of age or older; four or more children. Two-bedroom units will be assigned in other cases.

Several different types of housing are available. The salient features of each are:

- **Officers' housing.** Furnished Public Quarters and unfurnished rental housing are available. Public Quarters are furnished with a basic allowance of furniture which includes mattresses, lamps, rugs, appliances (range, water heater, and refrigerator), etc. Title VIII (Wherry) Housing is unfurnished with the exception of major appliances (stove, refrigerator, water heater). The following tables show the size of unit and rental rate:

NAVY-OWNED PUBLIC QUARTERS

Size of Unit	Rental Rate	Remarks
1 bedroom	BAQ	Includes utilities
2 bedroom	BAQ	Includes utilities
3 bedroom	BAQ	

NAVY-SPONSORED (WHERRY HOUSING)

TITLE VIII

Junior Officers	Rental Rate	Remarks
1 bedroom	\$ 72.50	Rent includes minimum amt. of electricity
2 bedroom	82.50	
3 bedroom	92.50	

Senior Officers

2 bedroom	106.50	
3 bedroom	115.50	

- **Enlisted Personnel housing.**

There are no furnished quarters available to enlisted personnel; therefore, it is essential that personal furniture be shipped from the United States or that you be prepared to buy furniture upon accepting housing. Stoves, heaters and refrigerators are furnished in all units. If you are in pay grade E-4 with more than four years of service or are in a higher pay grade, you are eligible for both Defense Rental and Title VIII units. If you are in pay grade E-4 with less than four years' service, you may be assigned housing in Defense Rental units after the needs of the higher pay grades have been met. Table below shows size of unit and rental rate:

NAVY-OWNED DEFENSE HOUSING

Size of Unit	Rental Rate	Remarks
1 bedroom	\$54.00	Includes utilities
2 bedroom	64.00	
3 bedroom	71.00	

NAVY-SPONSORED (WHERRY HOUSING)

TITLE VIII

1 bedroom	\$61.50	Rent includes minimum amt. of electricity
2 bedroom	71.50	
3 bedroom	81.50	

A limited number of married enlisted men's quarters (one- and two-

bedroom units) are reserved for personnel in key billets. These are furnished units which are considered billet housing and require forfeiture of BAQ allowance.

General information. When you are assigned to Navy-controlled housing, you may rent furniture through the Public Works Center, Pearl Harbor, for a period not to exceed 90 days while awaiting shipment of household effects. It is suggested that you either bring or be financially prepared to buy items such as linen, dishes, pots and pans, as these are not included under the rental plan. 220-volt wiring is not available in Defense Rental units. If you have appliances which require more than 110-volt wiring, they cannot be used. However, 220-volt wiring can be installed in Title VIII units for a small charge.

Waiting periods for permanent housing vary from time to time. In general, waiting periods for enlisted

personnel in the upper pay grades are approximately two months for one-bedroom units; two months for two-bedroom units; three to four months for three-bedroom units. Waiting periods for officers' Public Quarters are approximately the same. Average waiting period for officers' Title VIII units is two months.

Title IX housing (privately-owned rental units) are available to both officers and enlisted personnel. There are approximately 700 units in the Pearl Harbor area. Rental rate for a one-bedroom unit is \$76.50; for a two-bedroom unit, \$87.00; for a three-bedroom unit, \$97.00. These rates do not include utilities.

Civilian housing is generally available within commuting distances to Pearl Harbor, at nominal rental rates.

Inquiries regarding housing should be addressed to the Command Housing Officer, Fourteenth Naval District, Navy No. 128, Fleet Post Office, San Francisco, California.

WHAT'S IN A NAME

Famous Ports: Hong Kong

Hong Kong is not the name of a city in China as many "Atlantic" Navymen suppose, but the name of an island and a territory near the mouth of the Canton River. Hong Kong proper is a rocky island about 11 miles long and four miles wide lying in the South China Sea southeast of Canton and east of Macao. The British East India Company had headquarters at Canton as early as 1684. At that time Hong Kong was a desolate island inhabited only by a few scattered fishermen and pirates. At the end of a war between Britain and China, which lasted from 1839 to 1842, the island was formally ceded to Great Britain by China.

The highest of Hong Kong's six mountain peaks is Victoria Peak with an elevation above sea level of 1825 feet. Victoria, now a populous city, was built as the capital of the island and named after Queen Victoria. Later the British acquired by cession and lease several neighboring islands and territory on the mainland. Greater Hong Kong, composed of Hong Kong proper, the Kowloon Peninsula, the New Territories, Stonecutter's Island and several smaller islands (with a total area of about 391 square miles) became the British Crown Colony of Hong Kong.

Today Hong Kong is an important British naval station — it is the gateway between the East and the West and one of the greatest trans-shipment ports in the world. It has one of the few harbors in the world that can be called "perfect." And in spite of the hun-



dreds of bumboats, sampans and junks there are numerous docking facilities. Known as the "Pearl of the Orient" it is a favorite liberty port for Navymen in the Far East. Its streets are filled with bright red rickshaws, people of many nationalities, curio shops and bazaars. The tailor shops there enable Navymen on liberty to pick up a hand-tailored suit made of the finest fabrics for a reasonable price and the restaurants offer "real" Chinese food. Hong Kong is a cameraman's paradise with its terraced farms, Tiger Balm Garden and Oriental beauties who still wear the traditional dress. The name *Hong Kong* is derived from two Chinese characters that have been variously interpreted as meaning "sweet stream" and "fragrant port."

Get the Straight Facts on Living Conditions at Adak, Alaska

JUST MENTION that you're planning to take your family to your new duty station in Adak, Alaska, and some clown is sure to comment: "Boy! What a place to take your family!"

While nobody would claim that Adak is comparable to Hawaii as an island paradise, living conditions for dependents are not so bad as they've been painted. As a convincer, ALL HANDS presents through the courtesy of Adak Naval Station a roundup of the latest information on living conditions aboard the Navy's Aleutians outpost.

Physically, Adak is one of the Andreanof Group of islands, located in the southernmost part of the Aleutian Chain. The terrain is mountainous and rugged, with much tundra and few trees, and numerous fresh water lakes and streams. The island has no native population and no civilian communities.

Thanks to the warm Japanese ocean current, Adak's mean winter temperature is only 32 degrees Fahrenheit, while the mean summer temperature is a relatively mild 44 degrees. The thermometer rarely climbs into the 60s. Although there

are some long wet spells, the average rainfall is 44 inches per year, less than in some U. S. areas. During the winter, snow and sleet flurries occur almost daily, although heavy snows are infrequent in the base area. Perhaps the most disturbing climatic feature are the "williwaws," gusty winds with velocities varying from 80 to 100 knots. Although these sound rather dangerous, they actually affect station life very little.

• **Transportation.** Dependents' travel from Seattle to Adak is strictly controlled by the Commandant, 17th ND with commercial air and government air and water accommodations available. However, authority for entrance of dependents will not be granted until government quarters are available at Adak.

Authority for entrance of dependents via commercial means must be obtained from Com SEVENTEEN, prior to entry. Commercial air travel is available only through Anchorage, where the Adak Naval Station maintains a commercial air terminal. And, as pointed out above, no commercial sea transportation is available.

Government sea and air transportation is assigned by the Comman-

dant, 13th N. D. after dependents' entry into the Adak area has been authorized by Com SEVENTEEN. However, living expenses in Seattle must be considered, so your family should not proceed to that point until notified that their entry into Adak is authorized. Dependents must pay for meals during transit.

• **Housing.** Housing is available only for married officers and married enlisted personnel in pay grades E-6 and E-7. Except for certain key billets which have been designated for preferential housing, quarters are not immediately available. Waiting periods vary from three to four months for officers and from six to eight months for enlisted personnel.

• **Household Effects.** The government quarters at Adak contain all basic furnishings, including kitchen range and refrigerator and washer and dryer. Sufficient floor lamps and rugs are also included in the furnishings. Instead of shipping your own items of this type to Adak, you should have them stored at a Navy storage facility. (Your Supply Department should have copies of Bu-SandA Publication 260, containing full information on shipment and storage.)

A limited amount of highchairs, cribs, china, kitchen utensils and other household essentials is available for use until arrival of your own furniture. Some pianos are also available on a rotation basis, but the waiting period is quite long.

You are allowed to ship 500 pounds of household effects express to Seattle, then to Adak via ship, at government expense, from your last duty station. This shipment should include necessary essentials such as linens, silverware, china, kitchen utensils and other light furnishings.

Additional equipment needed to make the quarters livable should be made ready for packing and turned over to the shipping activity as soon as possible after receiving orders. You should allow at least two months from time of pickup until delivery at Adak. This will vary according to location of shipping activity.

• **Autos.** Private automobiles are practically a basic necessity and may be transported without cost from Seattle to Adak via MSTs. Cars

WAY BACK WHEN

Start of Permanent U. S. Navy

At the close of the Revolution only three men-o'-war remained. When these were disposed of in 1785, the United States was left without a single armed vessel.

In this state of defenselessness, our country's commerce suffered such inroads by Algerine pirates that Congress, in 1794, authorized six frigates to be laid down. The Act gave the President the option of building four 44-gun ships and two 36-gun ships, or of procuring an equivalent force by purchase, provided, in case of a peace with Algiers, that no further proceeding should be had under the Act. Construction was begun on *Constitution*, *President*, *United States* and *Chesapeake* each of 44 guns and *Congress* and *Constellation* of 36 guns. (Later, the battery of *Chesapeake* was changed to 36 guns.)

Under the 1795 treaty of peace with Algiers, work was suspended on the ships. However, a new Act passed in 1796 directed the completion and equipment of three of the frigates. *United States*, launched on 10 Jul 1797, went to sea on 13 Jul 1798, Cap-



tain John Barry in command; *Constitution*, launched 21 Oct 1797, took to sea on 22 Jul 1798 under Captain Samuel Nicholson; and *Constellation*, launched 7 Sept 1797, went to sea 26 Jun 1798 under Captain (Commodore) Thomas Truxtun.

These ships marked the beginning of the permanent U. S. Navy.

should be solid, sensible types of vehicles in excellent mechanical condition. Garage facilities and parts are extremely limited. Heavy tires, snow tires, and chains are advisable, and it is highly recommended that the car be undercoated before shipment. Gasoline is available for about 20 cents a gallon.

Incidentally, Adak contains approximately 125 miles of roads, with most of them in good repair. Busses on regular schedules cover the major parts of the station area.

● **Personal Effects.** Alaska is not a perennial icebox, and your present wardrobe, with some additions, should prove adequate. The over-all emphasis should be on fall clothing, because the summer is rarely hot and the winter rarely cold. The average year-round temperature might be compared with autumn. A warm overcoat is a necessity, as are heavy-soled walking shoes, raincoat and galoshes. Heavy clothing is not needed for daily routine, but sessions at the Ski Lodge make it advisable to bring woolen suits, sweaters, woolen socks, warm gloves, woolen scarves and earmuffs.

For a child, a ski suit is an ideal garment.

Generally speaking, the accent is on informal dress. However, evening gowns and dinner jackets are desirable for occasional formal parties.

● **School.** Schooling on Adak extends from kindergarten through the 12th grade, with the school being administered by the Territory of Alaska Department of Education. The school building is new, near the housing area, and served by Navy busses. Diplomas issued by the high school are acceptable in any state institution of higher learning in the continental U. S. Courses not offered by the high school may be obtained from the Extension Division of the University of Nebraska, and studied under supervision of accredited high school teachers. The degree of supervision is variable, depending on availability of teachers, and may be entirely lacking in some subjects.

Although the quality of instruction in the school is generally excellent, the depth of instruction for high school students (especially juniors and seniors) is limited, since there are only two teachers for the four high school grades. Parents of



"I can't let you have emergency leave for your grandmother's funeral again this week Smith . . . but I must say . . . you gave a sterling performance."

students in this category, particularly of those who will graduate during their tour at Adak, should carefully consider the advisability of bringing them to Adak as against leaving them in a stateside school.

It should also be pointed out that students transferring to Adak during the school year run the risk of losing credits in the event that courses they have been taking are not available at Adak.

● **Churches.** Both Protestant and Catholic chaplains are assigned to Adak and regular religious services are held. Bus transportation is available for those wishing to attend.

● **Medical and Dental Care.** Medical facilities for dependents include a general medical clinic and a maternity clinic. Dependents under special medical care are advised, however, that there are no specialists on Adak. Emergency medical care is available at all times, and house calls are made by the station doctors when necessary. Dependents having optical difficulties should equip themselves with glasses and make arrangements for replacement before leaving the U. S.

Dependent dental care is available on an emergency basis only.

● **General.** A Navy post office offers money order and parcel post services, while a tailor shop, cobbler shop, Navy Exchange and Commissary Store are also available. The Commissary is well-stocked and has both baby food and milk. Branch bank facilities are also available.

● **Recreation.** Recreational facilities at Adak are varied, with the village gymnasium issuing gear for the

following sports: basketball, softball, badminton, boxing, wrestling, track, skiing, rifle, and fencing. Bowling alleys and a rollerdrome are located in the gymnasium. A swimming pool is located in the Bering Recreation Center, offering year-round swimming. The Fletcher Library boasts more than 14,000 volumes, ranging from fiction to highly technical works. The local theater offers nightly movies. An enlisted men's club, known as Club Bayview, is open to all enlisted personnel and their guests. Package privileges exist at all clubs.

Another popular activity is the hobby shop, offering equipment and supplies for leathercraft, model-building, textile painting and many other hobbies.

A ski lift and ski lodge are located some five miles from the base.

Candidates At Naval Prep Selected for NROTC Program

Names of 68 Navy Fleet candidates who have passed all phases of the 1955 competition for entry into the Naval Reserve Corps have been announced.

Final selections were made from those who have been attending the Naval Preparatory School, Bainbridge, Md., since May. They have been receiving an academic refresher course to prepare them for their entry into college this fall.

The successful candidates will be given a four-year college education with government assistance and will be commissioned as officers of the Navy or Marine Corps upon graduation.

They will be discharged from their enlisted status in order to accept appointments as midshipmen, USNR, and will be ordered to one of the 52 colleges and universities having NROTC units.

Each year, nominations are received from all commands, commencing 1 August. Deadline date for nominations to be received in the Bureau for 1956 is 19 October.

If you are considered qualified, your commanding officer will receive a copy of your Navy College Aptitude Test before the national test to be held on 10 Dec 1955. Details of the program may be found in BuPers Inst. 1111.4B, described in the September 1955 issue of ALL HANDS.

Schools in Field of Naval Aviation For Officers, Enlisted Men

IN THE AUGUST 1955 issue of ALL HANDS, a list of the Navy's schools established in shore-based training facilities and under the management control of this Bureau was presented. Here, you will find those schools and courses for officers and enlisted personnel which are under the cognizance of the Naval Air Technical Training Command, as listed in the official 1955 *Bulletin*.

Training begins with the recruit and progresses to the point where it includes fleet-experienced technicians who enroll in various schools and courses for refresher training and advanced instruction in their technical specialty. In addition to classroom work, there are periods devoted to practical laboratory and shop practice.

Naval Air Technical Training is tied to the flexibility of aerial warfare and is in reality an adjunct of the Fleet. Adaptability to the constantly changing needs of the Fleet has kept Naval Air Technical Training standards high since its inception.

Today, the headquarters of the Naval Air Technical Training Com-

mand is based aboard NAS Memphis, Tenn., and has Technical Training Centers and Units at strategic locations from coast to coast. The classes of schools follow a similar plan to those described in the August issue:

• **Class P schools**—The only Class P schools in Naval Air Technical Training are the Airman Schools, located at NAS Jacksonville, Fla., and at Norman, Okla. These schools provide the trainee with the basic knowledge common to all naval aviation ratings, and fit the man to the job for which he is best suited, subject to the needs of the service.

• **Class A schools**—In general, these schools provide the basic knowledge of the skills required for technical duties of the lower petty officer rates. The curricula are based upon the qualifications set forth in NavPers 18068, *Manual of Qualifications for Advancement in Rating*.

• **Class B schools**—They equip naval aviation personnel with information required for advancement to PO1 and CPO. Curricula include all technical qualifications as required by NavPers 18068.

• **Class C schools**—They train personnel in a particular technique or on a specific item. The curricula do not include the full requirement for advancement in rating.

• **Class C courses**—These schools train personnel in a particular equipment or skill requirement of a rating to meet service needs. They are usually integrated administratively with one of the regular B schools.

• **Class O schools** (for officers)—While the majority of schools are directed to the preparation of enlisted personnel, several schools and courses are conducted primarily for officers to fill specialized technical aviation billets. In addition to providing technical information, officers are trained to supervise and administer training programs for enlisted personnel within their technical field. However, any school within the Naval Air Technical Training Command is open to naval officers.

Convening dates are published monthly by CNATechTra Notice to all holders of the Naval Air Technical Training Command Bulletin. This notice gives convening dates of all schools for the next three months.

TYPE OF TRAINING	LENGTH OF COURSE	ENTRANCE REQUIREMENTS	LOCATION
CLASS A SCHOOLS			
Aviation Boatswain's Mate	16 wks.	Mech score of 50, or MK Mech score of 50. 24 months' obligated service. Waves ineligible.	Philadelphia, Pa.
Air Controlman	12 wks.	ARI and GCT score totaling 110. 24 months' obligated service.	Olathe, Kan.
Aviation Machinist's Mate	14 wks.	ARI plus Mech totaling 105, or ARI plus MK Mech totaling 105. 24 months' obligated service. Waves ineligible.	Memphis, Tenn.
Aviation Electrician's Mate	22 wks.	GCT plus Mech scores totaling 105, or GCT plus MK ELECT scores totaling 105. 36 months' obligated service. Waves ineligible.	Jacksonville, Fla.
Aerographer's Mate	14 wks.	GCT and ARI of 110; clerical score of 50. 24 months' obligated service.	Lakehurst, N. J.
Aviation Storekeeper	12 wks.	GCT and ARI score of 105. 24 months' obligated service.	Jacksonville, Fla.
Aviation Structural Mechanic	14 wks.	ARI plus Mech totaling 105, or ARI plus MK Mech of 105. 24 months' obligated service. Waves ineligible.	Memphis, Tenn.
Aviation Ordnanceman	14 wks.	GCT plus Mech scores totaling 105, or GCT plus MAT scores totaling 105. 24 months' obligated service. Waves ineligible.	Jacksonville, Fla.
Aviation Electronics Technician	28 wks.	GCT and ARI scores totaling 115, or Mech or MK ELECT score of 55. Mech or MK ELECT for Waves is reduced to 40. 36 months' obligated service. Eligible rates: AA/AN, ALAN, AL3 and AL2.	Memphis, Tenn.
Photographer's Mate	14 wks.	GCT and ARI scores totaling 105. 24 months' obligated service.	Pensacola, Fla.
Parachute Rigger	15 wks.	GCT plus Mech scores totaling 105, or GCT plus MAT scores totaling 105. 24 months' obligated service.	Lakehurst, N. J.

TYPE OF TRAINING	LENGTH OF COURSE	ENTRANCE REQUIREMENTS	LOCATION
Tradevman	20 wks.	GCT plus ARI totaling 110 and a Mech score of 55, or GCT plus ARI totaling 110 and a MAT score of 55. 24 months' obligated service. Mech and MAT score requirements for Waves is reduced to 40 each.	Memphis, Tenn.
CLASS B SCHOOLS			
Air Controlman	16 wks.	AC2 or equivalent Marine Corps rate or AC3 or Marine Sergeants who have completed the AC(A) School. 18 months' obligated service.	Olathe, Kans.
Aviation Machinist's Mate	24 wks.	AD2 and above, or equivalent Marine Corps rating. 24 months' obligated service. At least 18 months of present tour of sea or shore duty and within three months of rotation. Waves ineligible.	Memphis, Tenn.
Reciprocating Power Plants....	3 wks.		
Ignition	4 wks.		
Fuel Metering	3 wks.		
Propellers	3 wks.		
Jet Power Plants	6 wks.		
Helicopters	2 wks.		
Aviation Electrician's Mate	33 wks.	AE2 and above, and AE3s who have had 12 months in rate. At least 18 months of present tour of sea or shore duty and within three months of rotation. 24 months' obligated service. Waves ineligible.	Jacksonville, Fla.
Aerographer's Mate	20 wks.	AG2 and above or equivalent Marine Corps ratings. 18 months' obligated service. Minimum GCT plus ARI score of 110 and a Clerical score of 50. USAFI GED Test (high school level) with score of 35, or a Navy Correspondence Course, 91220. Six months' minimum sea duty if serving on shore duty.	Lakehurst, N. J.
Aviation Structural Mechanic	24 wks.	AM2 and above, and AM3s with 12 months in rate, or equivalent Marine Corps ratings. 24 months' obligated service. At least 18 months of present tour of sea or shore duty and within three months of rotation. Waves ineligible.	Memphis, Tenn.
Aircraft Metals	5 wks.		
Welding	4 wks.		
Non-Metallic Materials	2 wks.		
Hydraulics	7 wks.		
Airframes, Oper. Maintenance	3 wks.		
Aviation Ordnanceman	25 wks.	AO2 and above, and AO3s with twelve months in rate, or equivalent Marine Corps ratings. 24 months' obligated service. At least 18 months of present tour of sea or shore duty and within three months of rotation. Waves ineligible.	Jacksonville, Fla.
Aviation Electronics Technician	40 wks.	AL2, AT2 and above, and AT3s with twelve months in rate or equivalent Marine Corps rating, or rating that has technical knowledge equivalent to that of an AT2. Candidates other than ATs must be qualified for, and ask to transfer to AT rating. Must be recommended by commanding officer. Three years' obligated service. Minimum of two years' service since graduation from Class A School. At least 18 months' of present tour of sea or shore duty and within three months of rotation. Waves eligible, exempt from sea duty requirement.	Memphis, Tenn.
Photographer's Mate	21 wks.	PH2 and above. 24 months' obligated service (Waves 18). 6 months' minimum sea duty. At least 18 months of present tour of sea or shore duty and within 3 months of rotation. Waves eligible, but restricted from inflight training.	Pensacola, Fla.
Tradevman	36 wks.	TD2 and above, comparable Marine Corps rates, and other PO2s and above, with training devices background. 24 months' obligated service. If now on shore duty, must have had six months' minimum sea duty. Waves exempt from sea duty requirements.	Memphis, Tenn.
CLASS C SCHOOLS AND COURSES			
Aviation Storekeeper (Marines only)	6 wks.	GCT and ARI score of 105. 24 months' obligated service. Typing experience preferred.	Jacksonville, Fla.
Rawin Set Operator	5 wks.	AG2 and above, and EM of equivalent grade from other services. Recent radiosonde experience. 18 months' obligated service. If now on shore duty must have had six months' minimum sea duty. Waves exempt from sea duty requirements.	Lakehurst, N. J.

THE BULLETIN BOARD

TYPE OF TRAINING	LENGTH OF COURSE	ENTRANCE REQUIREMENTS	LOCATION
Hydraulic Course	8 wks.	AM2 and above, and AM3s with 12 months in rate, or equivalent Marine Corps ratings. 24 months' obligated service. Waves ineligible.	Memphis, Tenn.
Aerological Electronic Maintenance	6 wks.	AL2, AT2 and above, and AT3s with 12 months in rate or equivalent Marine Corps rating, or AT2 equivalent. Must be recommended by commanding officer. Three years' obligated service. A minimum of two years' service since graduation from Class A School. 6 months' sea duty minimum requirement, except for Waves.	Memphis, Tenn.
Operational Flight Trainer	16 wks.	TD2 and above, comparable Marine Corps rates, and other PO2s and above, with training devices background. 24 months' obligated service. If on shore duty must have six months' minimum sea duty (except for Waves).	Memphis, Tenn.
Camera Repair	12 wks.	Rated personnel desirous of camera repair duty. If a PH(A) School graduate, must have completed one year's service since graduation. 18 months' obligated service. EM on shore duty must have 6 months' minimum sea duty (Waves excepted from this requirement).	Pensacola, Fla.
Catapult & Arresting Gear	11 wks.	Officers are selected by BuPers. Enlisted candidates must be aviation boatswain's mates 3rd class or above. 18 months' obligated service. EMs on shore duty must have six months' minimum sea duty and a minimum Mech score of 50, or MK Mech score of 50.	Philadelphia, Pa.
Catapult	7 wks.		
H2 and H4	3 wks.		
H-8	2 wks.		
C-11	2 wks.		
Arresting Gear	4 wks.		
Carrier Gasoline & Inert Gas Systems	6 wks.	Selected, aviation boatswain's mates 3rd class and above or equivalent Marine Corps rating. GCT and ARI combined score of 100. Meet visibility requirements. If on shore duty must have a minimum of six months' sea duty and have 18 months' obligated service. Officers selected by BuPers. Waves ineligible.	Philadelphia, Pa.
Ground Controlled Approach			
GCA Operator Phase	8 wks.	Certain Navy and Marine Corps aviators; qualified AC and enlisted Marine Corps personnel; 18 months' obligated service for EMs.	Olathe, Kan.
GCA Technician Phase			
CPN-4	18 wks.	Designated Electronics Maintenance Officers; AT3s and above who are graduates of Class A AT school, or equivalent. 18 months' obligated service.	Olathe, Kan.
MPN-5	18 wks.		
GCA Engineman Phase	10 wks.	EN3 or above. 18 months' obligated service. Must have completed 18 months' sea or shore duty, preferably within three months of rotation. Waves ineligible.	Olathe, Kan.
Instructor Training			
Instructor Course	4 wks.	Personnel selected for assignment to instructor duty.	Memphis, Tenn.
Instructor Course (C)	4 wks.		Jacksonville, Fla.
Supervisor Course	2 wks.		Memphis, Tenn., and Jacksonville, Fla.
Motion Picture Camera	14 wks.	Personnel 3rd class and above. If a PH(A) School graduate, must have completed one year's service since graduation. 18 months' obligated service. EM serving on shore duty must have six months' minimum sea duty. Waves exempt from sea duty.	Pensacola, Fla.
Oxygen Equipment	8 wks.	PR2 and above, or equivalent Marine Corps rating. 18 months' obligated service. If serving on shore duty must have a minimum of six months' sea duty.	Lakehurst, N. J.
Airborne CIC Operator Course (to be established about 28 Nov 1955)	7 wks.	AC or AL ratings destined for airborne CIC billets. 18 months' obligated service required.	Glynco, Ga.
Target Drone	9 wks.	Naval Aviators and Aviation Ground Officers. Must have electronics or aeronautical background, be not over 40 years of age. 20/20 vision uncorrected. AD2 and above. AT ratings should be graduates of AT(A) School. AMs must have welding experience. 18 months' obligated service. Six months' minimum sea duty. Waves ineligible.	El Centro, Calif.

TYPE OF TRAINING	LENGTH OF COURSE	ENTRANCE REQUIREMENTS	LOCATION
Naval Air Weapons System (Bomb Director Maintenance Course)	23 wks.	ATAN with one year fleet-experience or AT3 and above. Others eligible are Group IX candidates with preliminary electronic training for rate conversion in accordance with BuPers Inst. 1440.13. Candidates should be volunteers for course and change of rating to AQ and sign page 13 entry Service Record to that effect prior to transfer. Two years' obligated service.	Jacksonville, Fla.
Naval Air Weapons System (Aircraft Armament Control System, (General) Maintenance Course)	23 wks.	Same as above.	Jacksonville, Fla.
Naval Air Weapons Systems (Air Launched Guided Missiles (General) Maintenance Course)	23 wks.	Same as above, but ratings will be changed to GF.	Jacksonville, Fla.
Trademan (Moving Radar Targets Generator)	14 wks.	TD2 and above, comparable Marine Corps rates, and other PO2s and above, with training devices background. 24 months' obligated service. If now on shore duty, must have had six months' minimum sea duty. Waves exempt from sea duty requirements.	Jacksonville, Fla.
CLASS O SCHOOL Aircraft Maintenance	10 wks.	Officers of the naval aeronautical organization below the rank of commander.	Memphis, Tenn.
Aviation Electronics	33 wks.	Aviation ground officers or naval aviators of the ranks of Lieutenant and Lieutenant (junior grade). No previous engineering, mathematical or electronics background is required other than that required of a general service officer.	Memphis, Tenn.
Aviation Ordnance	10 wks.	Selected junior officers, unrestricted line, fulfilling qualifications established by the Chief of Naval Operations.	Jacksonville, Fla.
Combat Information Center	15 wks.	Officers selected by Bureau of Naval Personnel. Formal clearance for Secret material required.	Glenview, Ill.
Photographic Officers	21 wks.	Officers selected by the Bureau of Naval Personnel.	Pensacola, Fla.
Photographic Reconnaissance	21 wks.	Candidates must be designated Naval Aviators. Pilots will be trained in the VP phase unless jet qualified, since the VF phase is conducted in jet aircraft only.	Pensacola, Fla.
Naval Air Weapons System (Bomb Director Maintenance)	23 wks.	Aviation ground officers or naval aviators who have graduated from the AE(O) School or equivalent (AT(B) or certain electronic background).	Jacksonville, Fla.
Naval Air Weapons System (Aircraft Armament Control Systems (General) Maintenance)	23 wks.	Same as above.	Jacksonville, Fla.
Naval Air Weapons System (Air Launch Guided Missile (General) Maintenance Course)	23 wks.	Same as above.	Jacksonville, Fla.
Aviation Ground Officer (Indoctrination Course)	8 wks.	Aviation Ground Officers.	Jacksonville, Fla.
CIC School	15 wks.	Aviation Ground Officers and Naval Aviators.	Glenview, Ill.
CIC Officers' School (Advanced Air Control Course) (to be established about December 1955)	5 wks.	Graduates of Glenview or equivalent.	Glynco, Ga.
CIC Officers' School (Naval Air Observer Course) (to be established about November 1955)	For personnel destined for assignment in airborne CIC billets.	Glynco, Ga.

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, Instruction 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. 52—Announced approval by the President of the reports of selection boards which recommended officers of the Regular Marine Corps for temporary promotion to the grade of major general and brigadier general.

No. 53—Announced approval by the President of the reports of selection boards which recommended officers of the Regular Navy for temporary promotion to the grade of rear admiral in the Medical Corps, Supply Corps and Civil Engineer Corps.

No. 54—Announced approval by the President of the report of a selection board which recommended an officer of the Regular Navy for temporary promotion to the grade of rear admiral in the Chaplain Corps.

No. 55—Concerned the effective date of payment of per diem as established by Change 36 to *Joint Travel Regulations*.

No. 56—Announced approval by the President of the report of a selection board which recommended officers of the Regular Marine Corps for temporary promotion to the grade of colonel.

No. 57—States that free mailing privilege of military personnel serving in Korea or hospitalized outside continental United States as result of Korean service, is ended.

No. 58—Announced that a written request for ballot for Maine special election held 12 September, would be honored.

No. 59—Announced approval by the President of the report of a line

selection board which recommended officers in the Regular Navy and Naval Reserve for temporary promotion to the grade of captain.

No. 60—Announced the convening of staff corps selection boards to recommend temporary promotion of Regular Navy and Naval Reserve officers on active duty to the grades of captain and commander.

No. 61—Message by ADM Robert B. Carney to naval personnel upon the occasion of his retirement.

No. 62—Statement by ADM Burke on occasion of assuming position as Chief of Naval Operations.

No. 63—Requested cooperation with Red Cross in connection with flood disaster in Northeastern United States.

NavActs

No. 4—Announced details of the Reserve Forces Act of 1955 as applicable to personnel entering the naval service on and after 10 Aug 1955.

BuPers Instructions

No. 1001.21 — Provides information concerning retention on active duty and recall of enlisted Naval Reserve and Fleet Reserve personnel.

No. 1111.2C—Establishes the procedure for handling and administering the Navy College Aptitude Test to Navy and Marine Corps candidates nominated for the Naval Officers Training Corps.

No. 1111.4B—Concerns procedure for handling and administering Navy and Marine Corps examinations for the NROTC.

No. 1120.3C—Outlines the requirements and method of application for appointment of Naval Re-

serve medical and dental officers in the Medical Corps and Dental Corps of the Regular Navy.

No. 1120.20A — Invites applications for flight training from active duty enlisted naval personnel and describes procedures for submission of applications.

No. 1418.7B—Describes the system concerning service-wide competitive examinations and performance tests for advancement of enlisted personnel.

No. 1440.5A—Announces instructions regarding changes in rate, rating or rate symbols of enlisted personnel.

No. 4651.1—Establishes instructions which govern permanent changes of station under conditions which would result in more than one permanent change of station during a fiscal year.

BuPers Notices

No. 1552 (1 August)—Directed attention of eligible officers to the fact that subscriptions to the Naval War College Review automatically terminate with the June 1955 issue.

No. 1440 (3 August)—Noted changes in rating resulting from modification of the enlisted rating structure affecting Reservists and Fleet Reservists on active duty in AOF, FTG and ABA ratings.

No. 1710 (10 August)—Established procedures concerning fund raising activities in connection with the National Olympic Fund Drive and National Olympic Day, 22 Oct 1955.

No. 1050 (15 August)—Promulgated information concerning the 28th National Convention, Fleet Reserve Association.

No. 1000 (19 August) — Announced Change No. 1 to BuPers Inst. 1000.9, which is concerned with the administration of Army personnel performing duty with the Navy.

No. 1401 (19 August) — Announced selection of applicants for permanent appointment to the grade of ensign, Medical Service Corps, USN.

No. 1111 (24 August)—Provided information concerning the selection of enlisted personnel on active duty in the Navy and Marine Corps for appointment as midshipmen in the NROTC program for the class entering school in the fall of 1956.



"Ok Smith . . . Stop goofin' off and get back to work!"

Identification Tags Will State Religious Preferences

Religious preferences of all Armed Forces personnel will be spelled out on their identification tags in the future instead of being designated by a single letter.

Two identification tags, giving name, service number, blood type and religious preference, are issued to all service personnel. In the future, wherever space permits, the religious preference of the individual will be spelled out on the tag. When it is impracticable to spell out the religious preference, abbreviations will be issued.

At present religions of Armed Forces personnel are indicated on the tags with the letter "P" for Protestant, "C" for Catholic and "J" for Jewish. The letter "X" has been used to denote other religions and the letter "Y" is now used when personnel do not desire to have a religious preference indicated.

The decision to spell out religious preferences was made to identify more appropriately members of faiths which have previously been included in the "P" or "X" category. The principal reason for denoting religious preferences on identification tags is to assure that chaplains, in emergency, have a clear knowledge of an individual's faith to see that appropriate last rites are administered.

Personnel coming into the service in the future will have their religious faith identified on the tags according to the new plan. Tags already issued will not be called in. However, those now in the service who desire to have their faith designated in full may make arrangements for new identification tags.

Special Clothing Allowance Set Up for EM Recruiters

—A supplementary clothing allowance has been established for all enlisted personnel reporting to a normal tour of recruiting duty subsequent to 1 Jul 1955, with provisions being made for certain men and women already serving on recruiting to collect the new allowance.

Upon assignment to a normal tour of recruiting duty Waves and CPOs will qualify for an extra allowance of \$80. Men in pay grades E-6 and below will receive \$50.

A Letter from a Navy Veteran, Ten Years After WW II

A few days after Pearl Harbor, a certain young man shut the doors of his small business on the West Coast to enlist in the Navy. With World War II at an end, he received his honorable discharge in 1945 as a chief petty officer.

Years passed. His resumed business was highly successful. The former Navyman, now not quite so young as he had been, thought quite a bit about his experiences during the war and in the Navy. Not long ago he wrote a letter to the Chief of Naval Personnel:

Dear Sir:

I am writing to ask you if it would be at all possible for me to return my Navy pay earned during World War II. I am now nearly 42 years old and fully realize that it was a privilege for me to serve this Republic. This wonderful country has been extremely good to me and I owe it more than it owes me.

If the above is possible, please advise me. I can afford to repay it at \$50 or \$100 per month. Also tell me how much I would owe, including everything.

Under no circumstances is any publicity to be given this.

His base pay amounted to nearly \$5000, his special pay and allowances to another \$4000. In informing him of this, and of the fact it would be possible to make such a refund, VADM J. L. Holloway, Jr., USN, said in part:

May I say that by its simple and

dignified sincerity, your letter released in this Bureau a renewed faith in the natural goodness of man. It also seemed to bring alive an old-fashioned and almost forgotten virtue—the loyalty and love of country which prompts a man to regard his service to this free land of ours as a privilege rather than an onerous duty.

May I suggest two alternatives which may not have occurred to you? One is a scholarship plan for deserving sons or daughters of Navy men or perhaps to young men who might wish to prepare for a Navy career. You might also consider the Navy Relief Society as a possible recipient of a fund.

As the Chief of Naval Personnel, I wish to voice my admiration for you personally and the honor which you as a former member of the service have bestowed on the Navy.

The Chief of Naval Personnel also requested permission to tell the Navy about the gift, promising that no identifying details would be given. This is the reply:

Your scholarship plan sounds wonderful and I should like to contribute to it besides repaying Uncle Sam for the privilege of being in the U. S. Navy. Perhaps others would also like to contribute.

If you feel my letter would have effects for good, by all means use it (without my name, of course).

The first of his monthly checks was enclosed.

Those already on recruiting duty, with one year remaining on a normal tour of duty as of 1 Jul 1955, qualify for the allowance as do personnel currently and subsequently assigned to the Commandants of the 10th, 14th and 17th Naval Districts for duty in connection with recruiting.

QUIZ AWEIGH ANSWERS

QUIZ AWEIGH IS ON PAGE 7.

1. (c) Officer in the U. S. Coast Guard.
2. (b) A line officer in the Merchant Marine.
3. (c) Molder.
4. (b) Group VII—Engineering and Hull.
5. (a) USS *Willis A. Lee* (DL 4).
6. (b) Frigate.

Legal Specialists Get New Officer Correspondence Course

A new officer correspondence course, *The Law Officer* (NavPers 10724), is now available at the Naval Correspondence Course Center. Enrollment in this course is restricted to special duty officers, law (1620, 1625). The course consists of nine assignments, and is evaluated at 18 Naval Reserve points credit. Satisfactory completion of this course provides promotion examination exemption in the subject of Military Justice for officers with designator 1620 or 1625 in the promotions from LT to LCDR and from LCDR to CDR.

Here's List of BuPers-Controlled Enlisted Instructor Billets

IF YOU'RE LOOKING for shore duty, the path to your goal may be shortened if you apply for instructor duty, especially in those ratings in which there are fewer shore billets.

There is a continuing need for qualified instructors at many training activities and, since the quality of training directly affects the performance of ships of the Fleet, commanding officers have been asked in BuPers Inst. 1306.22B to nominate all volunteers who qualify for instructor duty.

The instruction also sets forth the policy and procedure for the assignment of enlisted personnel to instructor duty in shore and Fleet shore training activities under the management control of this Bureau and of BuAer and BuMed. It also lists the types of schools or training commands, and a detailed list of BuPers-controlled instructor billets by area, school or training activity and the ratings desired for each activity.

You must possess the following qualifications to be eligible:

- Show an interest in training and a desire to serve as instructor.
 - Show evidence of leadership ability.
 - Have a clear record.
 - Be able to speak clearly.
 - Demonstrate an ability to work with others under supervision.
 - Have ability to exercise sound judgment.
 - Be military in bearing and deportment.
 - GCT of 55. Consideration will be given for waiving GCT scores under 55 if otherwise qualified candidates when waiver is recommended by commanding officer.
 - Be considered by your commanding officer as a good security risk.
- To be eligible to request assign-

ment to instructor duty in the continental limits of the United States, you must meet the sea duty and other eligibility requirements for shore duty. Applicants for instructor billets located outside the continental limits of the United States must meet the sea service and other requirements for overseas duty in accordance with the applicable current Fleet instructions. You must have three years' obligated service or agree to extend enlistment as necessary for the required obligated service to be eligible.

If you have completed 17½ or more years of active service you must, before transfer to instructor duty, execute an agreement in service record to remain on active duty as follows:

"In consideration of my being assigned to instructor duty I hereby agree that should my transfer to the Fleet Reserve be effected while serving on Instructor duty, I will remain on active duty for a period of 24 months from date of reporting to such duty unless my earlier release to inactive duty is directed by the Chief of Naval Personnel."

Sea duty in the Naval Air Mobile Training (NAMT) Program may not be counted in determining eligibility.

The normal tour of shore duty is three years unless you serve a two-year tour as described above.

Submit your request via your commanding officer direct to the Bureau (Pers B233d) using the Instructor Duty Request Card, NavPers 1247 (Rev. 6-53). If you are assigned to Class "B" Schools and certain other activities, you must be a graduate of the school or course concerned. You may list duty preference by area, school or broader preferences under "any instructor billet." Here are a couple of examples:

Duty Preferences

- (1) 1. Washington, D.C.—NavScol IC"B"
2. Bainbridge, Md.—CruitTraComd
3. Great Lakes—NavScol IC"A"—NavScol EM"B"
4. "Any instr billet" located:
 - East Coast West Coast
 - Anywhere U.S.

Duty Preferences

- (2) 1. San Diego—Flt Sonar School—CruitTraComd
2. San Francisco—NavScol Harbor Defense
3. Key West—Flt Sonar School
4. "Any instr billet" located:
 - East Coast West Coast
 - Anywhere U.S.

When only area preferences are indicated, you are assured of getting one of the areas listed when your name comes up. Listing one of the broad preferences normally reduces the waiting period.

The Chief of Naval Personnel assigns personnel directly to all BuPers-controlled instructor billets. These billets are included in the following type schools or training commands under the management control of BuPers, BuAer and BuMed:

- Class "A," "B," "C," "P" Schools and functional training activities
- Recruit Training Commands
- Naval Retraining Commands
- Officer Candidate Schools
- Officer Technical Schools
- NROTC Units
- Honor Naval Schools
- Merchant Marine Academies
- Aviation Schools under Commander, NATTC
- Fleet Training Centers
- Fleet Sonar Schools
- Fleet Air Defense Training Centers
- Fleet Gunnery Schools

Here's the list of BuPers controlled instructor billets with eligible ratings.

AREA	SCHOOLS OR TRAINING ACTIVITIES	RATINGS ELIGIBLE AS INSTRUCTORS
• FIRST ND Portsmouth, N. H.	Naval Retraining Command	QMC, QM1, YNC, YN1, CSC, CS1, SHC, SH1, JOC, JO1, PIC, P11, MUC, MU1, MMC, MM1, ENC, EN1, BTC, BT1, FPC, FP1, DCC, DC1, PHC, PH1, BMC, BM1, BM2, GMC, GM1, GM2
Davisville, R. I.	Naval Construction Training Unit	BMC, BM1, GMC, GM1, SVC, SV1, CEC, CE1, CDC, CD1, CMC, CM1, BUC, BUT, SWC, SW1, UTC, UT1
Newport, R. I.	Commissaryman (A), Disbursing Clerk (A), Storekeeper (A), Torpedoman's Mate (A), Commissaryman (B), Storekeeper (C-1), Torpedoman's Mate (C-1), NavScol Officer Candidate, NavScol Officer Communications, NavScol Torpedo Officers, Fleet Training Center, NavScol Justice	BMC, BM1, QMC, QM1, TMC, TM1, YNC, YN1, SKC, SK1, DKC, DK1, CSC, CS1, MMC, MM1, ENC, EN1, BTC, BT1, EMC, EM1, MEC, ME1, DCC, DC1, TDC, TD1, HMC, HM1, RDC, RD1, RD2, RD3, SOC, SO1, SO2, GMC, GM1, GM2, FTC, FT1, FT2, RMC, RM1, RM2

AREA	SCHOOLS OR TRAINING ACTIVITIES	RATINGS ELIGIBLE AS INSTRUCTORS
● THIRD ND Bayonne, N. J.	NavScol Salvage	BMC, BM1, ENC, EN1, MEC, ME1, FPC, FP1, DCC, DC1, (All qualified divers)
Brooklyn, N. Y.	NavScol Cryptographic Repair (C-1)	TEC, TE1 (Qualified in Crypto Repair)
● FOURTH ND Lakehurst, N. J.	Naval Air Technical Training Unit,	PRC, PR1, AGC, AG1
Philadelphia, Pa.	Boilerman (A), Damage Controlman (A), Boilerman (B), NavScol Atomic Defense, NavScol Fire Fighting, NavScol Reinforced Plastic Emergency Pipe Repair, Naval Air Technical Training Unit	BMC, BM1, ETC, ET1, MMC, MM1, ENC, EN1, BTC, BT1, EMC, EM1, MEC, ME1, DCC, DC1, ABC, AB1
● FIFTH ND Bainbridge, Md.	Fire Control Technician (A), Gunner's Mate (A), Personnel Man (A), Radioman (A), Teleman (A), Yeoman (A), Yeoman (B), Naval Hospital Corps School, Recruit Training Command, NavScol Steward Apprentice (Class P), Naval Dental Technician School, Personnel Man (C-1)	BMC, BM1, QMC, QM1, RDC, RD1, SOC, SO1, TMC, TM1, GMC, GM1, FTC, FT1, ETC, ET1, IMC, IM1, TEC, TE1, PNC, PN1, SKC, SK1, SHC, SH1, DMC, DM1, MMC, MM1, ENC, EN1, MRC, MR1, BTC, BT1, EMC, EM1, ICC, IC1, FPC, FP1, BUC, BU1, SWC, SW1, SDC, SD1, RMC, RM1, RM2, YNC, YN1, YN2, MEC, ME1, ME2, HMC, HM1, HM2, DCC, DC1, DC2, DC3, DTC, DT1
Norfolk, Va.	Pipe Fitter (A), Metalsmith (A), Radarman (A), Radioman (A), Instructors (C-1), Motion Picture Operator (C-1), Naval Hospital Corps School, Naval Retraining Command, Fleet Training Center, NavScol AC & R (C-1), NavScol Compressed Gasses (C-1), NavScol Teletype Maintenance (C-1)	QMC, QM1, ETC, ET1, TEC, TE1, YNC, YN1, PNC, PN1, MMC, MM1, MRC, MR1, BTC, BT1, FPC, FP1, CEC, CE1, BUC, BU1, UTC, UT1, AOC, AO1, SOC, SO1, SO2, FTC, FT1, FT2, ENC, EN1, EN2, EMC, EM1, EM2, MEC, ME1, ME2, HMC, HM1, HM2, BMC, BM1, BM2, BM3, RDC, RD1, RD2, RD3, GMC, GM1, GM2, GM3, RMC, RM1, RM2, RM3, ICC, IC1, IC2, IC3, DCC, DC1, DC2, DC3, TDC, TD1, TD2, TD3
Yorktown, Va.	NavScol Mine Warfare	BMC, BM1, QMC, QM1, ENC, EN1, TMC, TM1, TM2, MNC, MN1, MN2, ETC, ET1, ET2, EMC, EM1, EM2
Dam Neck, Virginia Beach, Va.	Fleet Air Defense Training Center, NavScol Guided Missiles	ETC, ET1, FTC, FT1, FT2, GSC, GS1, GS2, RDC, RD1, RD2, RD3, GMC, GM1, GM2, GM3, RMC, RM1, RM2, RM3, TDC, TD1, TD2, TD3
● SIXTH ND Charleston, S. C.	Fleet Training Center	QMC, QM1, RDC, RD1, SOC, SO1, GMC, GM1, RMC, RM1, MMC, MM1, ENC, EN1, BTC, BT1, EMC, EM1, MEC, ME1, FPC, FP1, DCC, DC1, DC2, BMC, BM1
Key West, Fla.	Fleet Sonar School, NavScol Advanced Undersea Weapons, NavScol Underwater Swimmers	BMC, BM1, RDC, RD1, TMC, TM1, GMC, GM1, FTC, FT1, ETC, ET1, EMC, EM1, MEC, ME1, FPC, FP1, AEC, AE1, HMC, HM1, SOC, SO1, SO2
Jacksonville, Fla.	Naval Air Technical Training Center	ADC, AD1, ATC, AT1, AOC, AO1, GFC, GF1, AQC, AQ1, ABC, AB1, AEC, AE1, TDC, TD1, AKC, AK1
Pensacola, Fla.	Naval Air Technical Training Unit	ATC, AT1, AEC, AE1, PHC, PH1
Memphis, Tenn.	Naval Air Technical Training Center	ADC, AD1, AOC, AO1, AEC, AE1, AMC, AM1, AGC, AG1, TDC, TD1, ATC, AT1, AT2, ABC, AB1, AB2
● EIGHTH ND Norman, Okla.	Naval Air Technical Training Center	ADC, AD1, ATC, AT1, AOC, AO1, ABC, AB1, AEC, AE1, AMC, AM1, PRC, PR1, ACC, AC1, AGC, AG1, TDC, TD1, AKC, AK1, PHC, PH1, DMC, DM1
● NINTH ND Great Lakes, Ill.	Boilerman (A), Electrician's Mate (A), Engineman (A), Electronics Technician (A), Fire Control Technician (A), Gunner's Mate (A), I. C. Electrician (A), Instrumentman (A), Journalist (A), Machinist's Mate (A), Opticalman (A), Electrician's Mate (B), Fire Control Technician (B), Gunner's Mate (B), Engineman (C-1), Electronics Technician (C-1), Instrumentman (C-1), Instructors (C-1), Opticalman (C-1), Steward Apprentice (Class P), Naval Dental Technician School, NavScol Electronics Maintenance, NavScol Electronics Officers, Naval Examining Center (Item Writer), Naval Hospital Corps School, Recruit Training Command	BMC, BM1, QMC, QM1, RDC, RD1, SOC, SO1, TMC, TM1, GMC, GM1, FTC, FT1, MNC, MN1, ETC, ET1, IMC, IM1, OMC, OM1, TEC, TE1, RMC, RM1, YNC, YN1, PNC, PN1, SKC, SK1, DKC, DK1, CSC, CS1, SHC, SH1, JOC, JO1, LIC, LI1, MUC, MU1, MRC, MR1, BTC, BT1, EMC, EM1, ICC, IC1, FPC, FP1, BMC, BM1, MLC, ML1, SVC, SV1, CEC, CE1, CDC, CD1, CMC, CM1, BUC, BU1, SWC, SW1, UTC, UT1, ADC, AD1, ATC, AT1, AQC, AQ1, GFC, GF1, MAC, MA1, AOC, AO1, ACC, AC1, ABC, AB1, AEC, AE1, AMC, AM1, PRC, PR1, AGC, AG1, TDC, TD1, AKC, AK1, HMC, HM1, SOC, SO1, PHC, PH1, GSC, GS1, ENC, EN1, EN2, MEC, ME1, ME2, DTC, DT1, DT2, DMC, DM1, DM2, DM3, MMC, MM1, MM2, MM3, DCC, DC1, DC2, DC3
Olathe, Kansas	Naval Air Technical Training Unit	ATC, AT1, ACC, AC1, AGC, AG1, TDC, TD1, ENC, EN1

THE BULLETIN BOARD

AREA	SCHOOLS OR TRAINING ACTIVITIES	RATINGS ELIGIBLE AS INSTRUCTORS
ELEVENTH ND San Diego, Calif.	Commissaryman (A), Communications Technician (A), Disbursing Clerk (A), Electrician's Mate (A), Engineman (A), Pipe Fitter (A), Fire Control Technician (A), I. C. Electrician (A), Metal-smith (A), Molder (A), Machinery Repairman (A), Patternmaker (A), Radioman (A), Storekeeper (A), Teleman (A), Yeoman (A), Yeoman (B), Metalworkers (C-1), Cryptographers (C-1), Instructors (C-1), Motion Picture Operator (C-1) Personnel Man (C-1), Welding (C-1), Steward Apprentice (Class P), Naval Dental Technician School, Naval Hospital Corps School, Recruit Training Command, Naval Retraining Command, Fleet Air Defense Training Center, Fleet Sonar School, Fleet Gunnery School, Fleet Training Center, NavScol AC & R (C-1), NavScol Teletype Maintenance (C-1)	BMC, BM1, QMC, QM1, TMC, TM1, TEC, TE1, RMC, RM1, PNC, PN1, SKC, SK1, DKC, DK1, CSC, CS1, SHC, SH1, JOC, JO1, DMC, DM1, MMC, MM1, ENC, EN1, MRC, MR1, BTC, BT1, EMC, EM1, ICC, IC1, FPC, FP1, PMC, PM1, MLC, ML1, BUC, BU1, SWC, SW1, ATC, AT1, ABC, AB1, TDC, TD1, HMC, HM1, SDC, SD1, SOC, SO1, SO2, GMC, GM1, GM2, FTC, FT1, FT2, ETC, ET1, ET2, YNC, YN1, YN2, MEC, ME1, ME2, DCC, DC1, DC2, DTC, DT1, DT2, RDC, RD1, RD2, RD3, CTC, CT1, CT2, CT3
El Centro, Calif.	Naval Air Technical Training Unit	AEC, AE1, ADC, AD1, AD2, ATC, AT1, AT2, AMC, AM1, AM2, PRC, PR1, PR2
Pomona, Calif.	NavScol Guided Missiles	FTC, FT1, GSC, GS1, GS2
Port Hueneme, Calif.	NavScols Construction	BMC, BM1, GMC, GM1, SVC, SV1, CMC, CM1, SWC, SW1, UTC, UT1, CEC, CE1, CE2, CDC, CD1, CD2, BUC, BU1, BU2, DMC, DM1
TWELFTH ND Vallejo, Calif.	NavScol Cryptographic Repair (C-1)	TEC, TE1 (Qualified in Crypto Repair)
Tiburon, Calif.	NavScol Net	BMC, BM1, MEC, ME1
Monterey, Calif.	Naval Postgraduate School	QMC, QM1, GMC, GM1, FTC, FT1, ETC, ET1, AGC, AG1, RDC, RD1, RD2, SOC, SO1, SO2
Treasure Island, San Francisco, Calif.	Damage Control (A), Electronics Technician (A), Radarman (A), Electronics Technician (B), Electronics Technician (C-1), Damage Controlman (Primary), NavScol Atomic Defense, NavScol Fire Fighting, NavScol Harbor Defense	BMC, BM1, SOC, SO1, GMC, GM1, FTC, FT1, MMC, MM1, ENC, EN1, BTC, BT1, ICC, IC1, MEC, ME1, FPC, FP1, HMC, HM1, RDC, RD1, RD2, ETC, ET1, ET2, EMC, EM1, EM2, DCC, DC1, DC2, DC3
Oakland, Calif.	NavScol Freight Transportation	BMC, BM1
POTOMAC RIVER NAVAL COMMAND Washington, D. C.	Fire Control Technician (A), Lithographer (A), Fire Control Technician (B), Gunner's Mate (B), I. C. Electrician (B), Gunnery Officers Ordnance School, NavScol Music, NavScol Deep Sea Divers	BMC, BM1, FTC, FT1, GMC, GM1, MUC, MU1, MMC, MM1, ICC, IC1, MEC, ME1, DCC, DC1
Indian Head, Md.	NavScol Explosive Ordnance Disposal	BMC, BM1, TMC, TM1, MNC, MN1, AOC, AO1, PHC, PH1, GMC, GM1, GM2
Bethesda, Md.	Naval Dental Technician School	DTC, DT1
SEVERN RIVER NAVAL COMMAND Annapolis, Md.	Naval Academy	BMC, BM1, QMC, QM1, ETC, ET1, RDC, RD1, RD2, SOC, SO1, SO2, GMC, GM1, GM2, FTC, FT1, FT2
TENTH ND Guantanamo, Cuba	Fleet Training Center	RDC, RD1, RD2
FOURTEENTH ND Pearl Harbor, T. H.	Fleet Training Center	BMC, BM1, QMC, QM1, TMC, TM1, FTC, FT1, ETC, ET1, TEC, TE1, RMC, RM1, MMC, MM1, MRC, MR1, EMC, EM1, ICC, IC1, HMC, HM1, RDC, RD1, RD2, SOC, SO1, SO2, GMC, GM1, GM2, TDC, TD1, TD2, DCC, DC1, DC2, DC3

NOTE: Personnel assigned to "Class B" Schools are normally required to be a graduate of the school concerned. This also applies to following schools: NavScol AC & R (C-1), NavScol Advanced Undersea Weapons, NavScol Compressed Gases (C-1), NavScol Cryptographic Repair (C-1), NavScol Deep Sea Divers, NavScol Explosive Ordnance Disposal, NavScol Guided Missiles, NavScol Justice, NavScol Salvage, NavScol Teletype Maintenance (C-1), NavScol Underwater Swimmers.

(Continued)

INSTRUCTOR DUTY AT SPECIAL SCHOOLS

NROTC UNITS

52 NROTC Units—QM, GM, FT, YN, SK (One of each rating pay grade E6 or E7)

HONOR SCHOOLS

Admiral Farragut Academy, Pine Beach, N. J.—QMC, GMC, ENC (One each)

Admiral Farragut Academy, St. Petersburg, Fla.—QMC, GMC, ENC (One each)

The Bolles School, Jacksonville, Fla.—QMC, GMC, ENC (One each)

MERCHANT MARINE & STATE MARITIME ACADEMIES

Maine Maritime Academy, Castine, Me.—GMC, FT1, YNC (One each)

Massachusetts Maritime Academy, Buzzards Bay, Mass.—GMC, FT1, YN1 (One each)

U.S. Merchant Marine Academy, Kings Point, N. Y.—BMC, GMC, GM1, GM2, FTC, FT1 (One each) YN1 (2)

New York State Maritime College, Ft. Schuyler, Bronx, N. Y.—GMC, FT1, YN1, YN3, (One each)

California Maritime Academy, Vallejo, Calif.—GMC, FT1, YN1

Eight New Correspondence Courses Ready for USN, USNR Officers

Eight new officer correspondence courses are now available at the Naval Correspondence Course Center:

• **Organization for National Security**, NavPers 10721, consists of five assignments and earns 10 points Naval Reserve credit. This course was originally titled *Navy Organization*, and earns the promotion examination exemptions announced for *Navy Organization*.

• **Air Navigation**, Part II, NavPers 10960, consists of eight assignments and earns 24 points Naval Reserve credits.

• **Photographic Interpretation**, NavPers 10958-A, consists of nine assignments and earns 18 points Naval Reserve credit. Officers who completed the earlier course, NavPers 10958, will receive additional credit for this course.

• **Combat Information Center**, NavPers 10952, consists of twelve assignments and earns 24 points Naval Reserve credit. This course is classified and is available only to active-duty personnel.

• **Operational Communications**, NavPers 10760 consists of six assignments and earns 12 points Naval Reserve credit. This course is classified and is available only to active-duty personnel. Applicants must have access to NWP 16 and NWIP 16-1, as texts are not supplied with this course.

• **Operational Tactics**, NavPers 10761, consists of eight assignments and earns 16 points Naval Reserve credit. This course is classified and is available only to active-duty personnel. Applicants must have access to ATP 1, as the text is not supplied with the course.

General Communications, NavPers 10916-A. 7 assignments. 14 points Naval Reserve credit. Reserve officers who completed the earlier

course, NavPers 10916, may receive additional credit for this course.

Surveys, Drawings, and Specifications, NavPers 10754. 3 assignments. 6 points Naval Reserve credit. This course is available only to officers of the Civil Engineer Corps.

Application for enrollment should be made on form NavPers 992 forwarded via official channels to the Naval Correspondence Course Center, Building RF, U.S. Naval Base, Brooklyn 1, New York.

Course on Lab Techniques Ready for Medics and Dentists

The Medical Department correspondence course in clinical laboratory procedure has been revised and is now available at the U. S.

Naval Medical School and the U. S. Naval Dental School. The new course, *Clinical Laboratory Procedures* (NavPers 10994), is designed to furnish officer and enlisted personnel of the Medical Department with a concise guide and a ready reference.

The revision is an objective question type course consisting of eight assignments. It is evaluated at 24 Naval Reserve points credit.

Application for enrollment should be made on form NavPers 992 (making the appropriate change in the "To" line), forwarded via official channels to the U. S. Naval Medical School, National Naval Medical Center, Bethesda 14, Maryland, or to the U. S. Naval Dental School at the same address.

Latest Enlisted Correspondence Courses Available

Twelve new Enlisted Correspondence Courses are now available to all enlisted personnel whether on active or inactive duty.

Applications should be sent to the U.S. Naval Correspondence Course Center, Bldg. RF, U.S. Naval Base, Brooklyn 1, N.Y., via

your commanding officer.

In most cases, you may be enrolled in only one correspondence course at a time.

The courses indicated by an asterisk are completely revised and may be taken for repeat Naval Reserve credit.

TITLE	NAVPERs	RATES APPLICABLE
*Quartermaster 2, Vol. 1.....	91286-1	QM, QMS
Chief Fire Control Technician, Vol. 1.....	91332	FTA, FTM, FTU, FTG
Chief Gunner's Mate.....	91357	GMM, GMT, GMA
*Commissaryman 3.....	91440-1	CSG, CSB, CSR, and strikers
*Commissaryman 1.....	91442-1	CSG, CSB, CSR
*Chief Commissaryman.....	91443-1	CSG, CSB, CSR
The U.S. Navy Shore Patrol.....	91468-1	All ratings
*Aviation Supply.....	91653-1	AB, ABG, ABU, AC, AD, ADE, ADF, ADP, ADG, AE, AEM, AEI, AK, AL, AM, AMS, AMH, AO, AOU, AOT, AOF, PR, TD, TDI, TDR, TDU, TDV, and strikers.
Handbook for Hospitalmen.....	91667	HM and strikers
Handbook for Hospital Corpsman 3.....	91668	HM
Handbook for Hospital Corpsman 2.....	91669	HM
Handbook for Hospital Corpsman 1 & C.....	91670	HM

Take in a Movie Tonight—
Courtesy of Your BuPers
Central Recreation Fund

The latest list of 16-mm. feature motion pictures 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 movie is followed by

the program number. Technicolor films are designated by (T). Distribution of these films began in August.

Films distributed under the Fleet Motion Picture Plan are leased from the motion picture industry and are distributed free to ships and most overseas activities. Films leased under this plan are paid for by the BuPers Central Recreation Fund (derived from non-appropriated funds

out of profits by Navy Exchanges and ship's stores) supplemented by annually appropriated funds. Plan and funds are under administration of Chief of Naval Personnel.

The Robe (333) (T): Biblical Drama; Richard Burton, Jean Simmons.

The Long Gray Line (334) (T): West Point Drama; Tyrone Power, Maureen O'Hara.

Three Ring Circus (335) (T): Comedy; Dean Martin, Jerry Lewis.

The Shrike (336): Drama; Jose Ferrer, June Allyson.

Female on the Beach (337): Drama; Joan Crawford, Jeff Chandler.

An Annapolis Story (338) (T): Drama; John Derek, Diana Lynn.

Underwater (339) (T): Adventure Drama; Jane Russell.

Heartbreak Ridge (340): War Drama; Documentary

Love Letters (341) (Re-issue): Drama; Jennifer Jones, Joseph Cotton.

Ain't Misbehavin' (342) (T): Comedy; Rory Calhoun, Piper Laurie.

Sabre Jet (343): War Drama; Robert Stack, Coleen Gray.

A Prize of Gold (344): Drama; Richard Widmark, Mai Zetterling.

Will Any Gentleman (345): Comedy; George Cole, Veronica Hurst.

Dial Red O (346): Murder Melodrama; Bill Elliott, Helene Stanley.

The Purple Mask (347) (T): Adventure; Tony Curtis, Colleen Miller.

Jezebel (348) (Re-issue): Drama; Bette Davis, Henry Fonda.

Marie Antoinette (349) (Re-issue): Drama; John Barrymore.

Spy Chasers (350): Comedy; Leo Gorcey, Huntz Hall.

Bachelor Mother (351) (Re-issue): Comedy; Ginger Rogers.

Escape to Burma (352) (T): Drama; Barbara Stanwyck, David Farrar.

Francis in the Navy (353): Comedy; Donald O'Connor, Martha Hyer.

Stranger on Horseback (354): Western; Joel McCrea, Miroslava.

The Adventures of Sadie (355): Comedy; Joan Collins, Kenneth More.

Tall in the Saddle (356) (Re-issue): Western; John Wayne.

Foxfire (357) (T): Drama; Jane Russell, Jeff Chandler.

HOW DID IT START

Panama Canal

For more than four centuries before the Panama Canal was carved through the Isthmus of Panama, sailors searched for a short cut between the Atlantic and Pacific oceans.

Vasco de Balboa, Hernando Cortes and other early Spanish explorers, as early as the 16th century, enthusiastically urged their government to dig a canal across the isthmus. Finally in 1523 Charles V of Spain started the ball rolling by ordering a survey made of the isthmus to determine the feasibility of such a canal. The results of the survey favored such a project but nothing concrete was ever done about it and seamen sailed through the Strait of Magellan for another 325 years before the gold rush in California stirred up interest in the U. S. for a short-cut between the two oceans.

The discovery of gold in California in 1848 and the resulting rush of would-be miners stimulated U. S. interest and desire for a canal across the isthmus. Various surveys made between 1850 and 1875 indicated that only two canal routes were practical—the route across Panama and a route across Nicaragua. In 1876 an international company was organized which two years later obtained a concession from the Colombian government to build a canal across the isthmus.

The international company was not successful and in 1880 a French company was organized to dig a canal. This organization spent eight years in an unavailing attempt to push a sea-level canal across the isthmus before going bankrupt in 1889. In 1894 the company was reorganized and recommended work on the canal.

In the meantime, U. S. interest in an Atlantic-Pacific canal continued to grow, and when the French company offered to sell out the U. S. was quick to accept their offer. A year later, the U. S. ratified a treaty with the Republic of Panama that granted to the U. S. the Canal Zone—a 50-mile strip of land between the Atlantic and Pacific oceans, extending roughly five miles on either side of the center line of the present day canal.

The U. S. began work on the canal on 4 May 1904 and it was opened for business

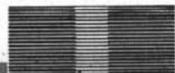


15 Aug 1914 to the cheers of sailors all over the world. The first self-propelled boat to pass through the canal was a crane boat which made the passage on 7 Jan 1914. Commercial traffic was inaugurated through the canal 15 Aug 1914 by the passage of the government steamship *Ancon*, carrying the Secretary of War and 200 guests. The passage took nine hours and 40 minutes. In its first year of operation 1317 ocean-going vessels passed through the canal.

The "Big Ditch" cut down the sailing time from New York to San Francisco by more than half. Ships sailing from New York via the Strait of Magellan to San Francisco traveled 13,135 miles. Via the Panama Canal it is 5262 miles—a saving of 7873 miles. From New York to Yokohama, Japan, via the Suez Canal it is 13,040 miles but via the Panama Canal it is 10,093 miles—a saving of 2947 miles.

Navymen sailing through the canal are sometimes confronted with a rather unusual phenomenon, for on some parts of the canal the sun appears to rise in the Pacific and set in the Atlantic. Contrary to popular belief, the canal does not run east and west but runs in a northwesterly-southeasterly direction. Balboa at the Pacific entrance is actually farther east than Cristobal at the Atlantic entrance—and for this reason, Navymen unfamiliar with the charts are a little confused when that evening sun starts to go down—in the Atlantic.

DECORATIONS & CITATIONS



DISTINGUISHED SERVICE MEDAL

"For exceptionally meritorious service to the Government of the United States in a duty of great responsibility . . ."

★ DYER, George C., RADM, USN, for the performance of service as Commander United Nations Blockading and Escort Force in Korea from 20 Jun 1951 to 30 May 1952. During this period, Rear Admiral Dyer successfully welded the naval forces of 10 countries, including those of the newly created Republic of Korea which were organized and trained under his direction into an effective fighting unit. The forces under his command blockaded enemy-held territory, provided fire support for ground forces, interdicted enemy communications, defended islands held by friendly forces, destroyed port and supply facilities and countered the extensive mining activities of the enemy.



LEGION OF MERIT

"For exceptionally meritorious conduct in the performance of outstanding services to the Government of the United States . . ."

★ GALLAHER, Wilmer E., CAPT, USN, member of the staff of Commander Naval Forces, Far East, from 16 Jul 1951 to 9 Jul 1953.

★ STREIT, Harold A., CDR, (MC) USN, member of the headquarters staff of the First Marine Division in Korea from 15 Sep to 15 Dec 1950. Combat "V" authorized.

Gold star in lieu of second award:

★ O'REGAN, William V., RADM, USN, Commander Cruiser Division 5 in Korea from 22 Nov 1952 to 28 Apr 1953. Combat "V" authorized.

★ SCHINDLER, Walter G., RADM, USN, Commander Cruiser Division 3, in Korea from 14 Jul to 27 Nov 1952 and from 26 Apr to 27 Jul 1953. Combat "V" authorized.

Gold star in lieu of third award:

★ BIGGS, Burton B., RADM, USN, Commander Service Squadron 3 and Commander Task Force 90 in Korea from 29 Feb to 21 Nov 1952. Combat "V" authorized.



MEDAL OF HONOR

LTJG JOHN K. KOELSCH, USN, is the first Navy helicopter pilot to be awarded the Medal of Honor. The award was made posthumously for his heroic rescue of a Marine aviator shot down behind enemy lines in Korea.

Without fighter plane escort, Lieutenant Koelsch voluntarily lowered his helicopter through an almost solid overcast below mountain peaks and into intense enemy fire, which struck his aircraft once, to locate Major (then Captain) James V. Wilkins, Marine aviator who had been shot down and was suffering from serious burns on the legs and arms.

While the injured flier was being hoisted into the copter, it was struck by enemy fire and crashed on the

side of the mountain. Koelsch extricated his crewman, George Milton Neal, AD3, USN, and Wilkins from the wreckage. He led them from the area, gave all possible medical aid to the burned pilot, and succeeded in evading the enemy troops for nine days before the group was captured. Lieutenant Koelsch later died in a North Korean POW camp.

Lieutenant Koelsch volunteered for Korean rescue duty with Helicopter Squadron two, which operated from an LST in Wonsan harbor. He previously had participated in other rescue missions as a helicopter pilot aboard the aircraft carrier *USS Princeton* (CVS 37) in Korean waters.

★ STONE, Earl E., RADM, USN, Commander Cruiser Division 1 and as Commander Task Group 77.1 in Korea from 16 Aug to 6 Jun 1952. Combat "V" authorized.

Gold star in lieu of sixth award:

★ SANDERS, Harry, RADM, USN, Commander Cruiser Division 1, in Korea from 27 Feb to 27 Jul 1953. Combat "V" authorized.

★ TAYLOR, Bobby J., CN, USN, for heroic conduct in connection with a rescue in Subic Bay, Philippine Islands on the night of 9 May 1954.

★ TREBOR-MAC CONNELL, Barrie K., ENS, USNR, for heroic conduct in connection with a rescue off Sasebo, Japan on 17 Aug 1954.

★ WATERS, Jerry M., SA, USN, for heroic conduct in rescuing a shipmate from drowning in water outside the Harbor of Keelung, Formosa, on 30 Jan 1955.



NAVY AND MARINE CORPS MEDAL

"For heroic conduct not involving actual conflict with an enemy . . ."

★ BEACH, John L., SN, USN, for heroic conduct in connection with a rescue on 5 Jul 1954, Sasebo Harbor, Japan.

★ BRETSCHER, Thomas J., RDSA, USNR, for heroic conduct in rescuing a shipmate from drowning in waters outside the Harbor of Keelung, Formosa, on 30 Jan 1955.

★ FILEMAN, Henry, Jr., AO, USN, for heroic conduct in connection with a rescue on 14 Aug 1954, at Oceana, Va.

★ GRIFFIN, Herschel A., BML, USN, for heroic conduct while serving on board the *USS Balduck* (APD 132) during the underway transfer of personnel on 8 Feb 1955.



BRONZE STAR MEDAL

"For heroic or meritorious achievement or service during military operations . . ."

★ POLK, Edwin W., LTJG, USNR, for heroic achievement in the Southwest Pacific Area on 25 Nov 1944. Combat "V" authorized.

★ TAYLOR, Donald E., HM, USN, for heroic achievement in Korea on 21 Sep 1950. Combat "V" authorized.

Gold star in lieu of second award:

★ KATZ, Benjamin, CAPT, USN, for meritorious achievement in the Western Pacific-Far Eastern Area from 6 Jul 1950 to 31 Aug 1951.

BOOKS PLENTY OF GOOD SEA TALES IN THIS MONTH'S SELECTION

THREE SELECTIONS by the Bureau of Naval Personnel library staff for your reading pleasure this month tell how various aspects of World War II appeared to our opponents. All make exciting reading.

Commando Extraordinary, by Charles Foley, however, is more than just exciting. Insights into a special sort of warfare are explored through the example of Hitler's spectacular commando, Otto Skorzeny. Convinced that the best secret weapon was man himself, Skorzeny applied the theory of the individual mind against the well-trained soldier massmind to achieve such improbable feats as rescuing Mussolini from an embattled mountain-resort prison

(by glider, yet!) and kidnapping Admiral Horthy from Hungary in a carpet. The author applies his methods to comment on Allied chances missed, such as the 20 Jul 1944 assassination plot against Hitler which left the War Office in blind turmoil with Skorzeny blandly issuing orders that, for 36 hours, moved the German forces over the face of Europe. What, asks the author, would have been the result if an Allied agent had been in his place? Fortunately for the Allies, most of Skorzeny's ambitious projects were stifled by the German High Command. He didn't follow channels, they complained.

The Secret Raiders, by David Woodward, is a summary of the German merchant raiders, the Q-ships of WW II. It tells of these disguised marauders whose toll of Allied shipping was greater than all the German battleships and mines laid by the German Navy combined. The raiders sailed the seas of the world—the South Atlantic, the Pacific and the Indian Ocean—and they tied up Allied shipping and portions of the combat fleets for three years. However, they didn't have it all their own way. Two of them were lost in single-ship combats so fierce that, although they were sunk, their opponent went to the bottom with them.

Defeat at Sea, by C. D. Bekker, is somewhat more formal. The author, a former German naval officer, includes firsthand accounts of various U-boat operations and also tells the story of *Bismarck* and *Tirpitz*, and the Channel escape of *Scharnhorst* and *Gneisenau*. The book demonstrates the hopelessness of the German cause after the failure of the U-boat campaign of 1942, shows how Allied air power bottled up the German capital ships and how, after 1943, the ghost raiders found it almost impossible to operate because mother ships could no longer supply them with fuel.

Submariners will also take a personal pride in **Hellcats of the Sea**, by RADM Charles A. Lockwood and Hans C. Adamson. It's the story of "Operation Barney." Nine submarines, known collectively as the "Hellcats," in 1945 entered the Sea of Japan and with incredible luck

and daring sent to the bottom 70,000 tons of enemy shipping. This is their story and, as well, the story of the development of special sonar equipment which enabled the undersea forces to weave their way through the network of mine fields.

One other book of the sea, made available in your ship or station library several months ago, deserves special mention. A well-done tale of **Captain Cook and the South Pacific**, by John Gwyther, tells of the most remarkable voyage of *Endeavor* which lasted four years and opened up the mysterious South Pacific to England and the world, is the subject. The author also reveals Captain Cook as a humane, conscientious and competent sailor.

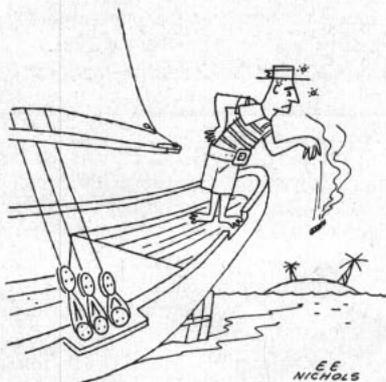
There are plenty of sea tales in Lowell Thomas' **Great True Adventures**, which range in time from the Bible and Julius Caesar's *Commentaries* to *Kon Tiki* and *Annapurna*. The places are world-wide. The subject is courage, daring—and luck.

Inside Africa, by John Gunther, is more localized. It covers only a continent. It is said that, in preparation for the writing of his book, Gunther traveled 40,000 miles, visited 103 localities and interviewed more than 1500 people. In any event, he succeeds in giving a comprehensive view of a continent four times the size of the United States—one as ancient as the pyramids and as modern as stainless steel and uranium. A readable book, crammed with facts as seen by the author, with human interest in his portraits of the leading figures of many of the countries, and lightened by his own experiences.

One of the fiction selections for the month is **Marjorie Morningstar**, by Herman Wouk, author of *The Caine Mutiny*. This time it's the portrait of the — almost — universal woman. He tells of the apparently smug, self-satisfied successful matron and the transition from her former self—starry-eyed about life and love and her own special genius.

Something unusual is **This is Goggle**, subtitled "The Education of a Father," by Bentz Plagemann. The father of the book comes home from the war and meets, instead of the pink-cheeked five-year-old son he left behind, a way ten-year-old stranger with scabby knees, a quick one-two punch and an unusual vocabulary. Magazine readers will recognize an old friend with delight.

SONGS OF THE SEA



A Cigar Is Man's Best Friend

'Twas off the blue Canary Isles, a glorious summer day,
I sat upon the quarter deck and whiff'd my cares away —

And as the volumed smoke arose, like incense in the air,
I breath'd a sigh to think in sooth, it was my last cigar.

Chorus:

It was my last cigar, it was my last cigar —
I breath'd a sigh to think in sooth, it was my last cigar.

I've seen the land of all I love fade in the distance dim,

I've watched above the blighted heart where once proud hope hath been;

But I've never known a sorrow that could with that compare,

When off the blue Canary Isles I smoked my last cigar.

FLYING THE ATLANTIC 1919



Not long ago, 12 U. S. jet planes left an air base in England on a routine deployment flight and landed in Texas some 10 hours later. The first successful flight across the Atlantic (by Navy pilots in Navy flying boats) was much different. It happened 36 years ago. Here's the story:

The first flight across the Atlantic was made in May 1919 by the NC-4, one of four seaplanes built, manned, and specially equipped for such a journey. Two of the planes, the NC-1 and NC-3, began the flight in company with NC-4 but were forced down at sea. The NC-2 had earlier been cannibalized to provide spare parts.

Included among members of the division were names which were to become very familiar to a later generation of Navymen. CDR John H. Towers, USN, was commander of the NC Division. (By his death earlier this year, the Navy lost one of its most courageous and far-sighted men.) The others on the flight have earned for themselves a special place in naval annals. LCDR Marc A. Mitscher, USN, was second in command of the NC-1. LCDR Richard E. Byrd, USN, who helped develop and try out the new-fangled navigation instruments used, flew to Trepassey on the NC-3. LCDR Albert C. Read, USN, was commanding officer of the successful NC-4, and LCDR P. N. L. Bellinger, USN, piloted the NC-1.

Sixty-eight destroyers had been strung across the ocean as "marker buoys," supported at 400-mile intervals by five battleships to act as weather stations. All these ships were to use smoke by day and searchlights by night, and as the planes passed overhead star shells were to be fired until a radio check-in from each plane had been received. Against the possibility of having to make forced landings on the sea, the flying boats were provided with bow flares to illuminate the surface. Among their special in-

struments they had not only a new type of bubble sextant but also a course and distance indicator.

Present-day Navy pilots might find the frequent mechanical failures, and the almost casual attitude toward such failures, to be of interest. Here are extracts from the reports, paraphrased for easier reading, of each of the commanding officers of the three planes. We start off with the account of CDR John H. Towers, USN, commander of the division, and flying in the NC-3.

WE HAD PLANNED to start for Trepassey at 5.30, but examination showed cracked propellers on both the NC-1 and NC-3. Because there were not sufficient hubs available on Baltimore, we were compelled to borrow hubs from the Canadian air station, and thus we were unable to depart on May 9. Trouble was also experienced with the starter gears, and it was necessary to change two starters.

Left the water at noon the following day and after traveling 38 miles, landed because of lack of oil pressure on pusher engine. The sea was comparatively smooth, although a long, low swell was running. After landing it was discovered that the starboard propeller was cracked and it would be necessary to return to Halifax. The seaplane left the water without difficulty and once in Hali-

From Annual Reports of the Navy Department, 1919, Appendix G, pp 216-232, Government Printing Office, 1920.

fax the starboard propeller was taken off, the center tractor placed on the starboard engine, and a new propeller placed on center tractor.

Left Halifax again and proceeded up the coast of Nova Scotia to Trepassey. Many icebergs were sighted, and as visibility was exceptionally good, there was no difficulty in picking out Trepassey Harbor.

Because of the strong wind and presumably rough air around Trepassey we decided to work off shore and to leeward and then make a long glide into the wind for landing, which required 40 minutes above the actual running time. Very rough air was encountered during the glide, but a normal landing was made just inside the harbor.

On May 16 all forecasts were favorable and at 15.00 a start was decided upon. The wind was still blowing across the harbor. After two failures to take off, a boat was called alongside and Lieut. Rhodes and our tube radio set were transferred to the boat. The third attempt was successful, seaplane leaving water at 22.00. The air was rough, but no real difficulties were encountered until dusk, when the cloudiness increased and visibility became rather poor. We turned on the running and interior lights, but after a very short time they began to fail individually, due to both filaments and fittings, and eventually all the running lights and most of the interior lights had gone out.

The moon rose at 00.19, and as it was rapidly becoming overcast I decided to go above the clouds so the pilots might use the moon and stars as reference points for altitude as the light on the instrument board had failed. At dawn, we realized that it would be necessary to get below clouds in order to pick up the destroyers, and we came down through a hole at 7.07, expecting to sight No. 14 destroyer. Found weather very hazy, visibility rather low.

Later we sighted on the starboard beam what was taken to be No. 15 destroyer. This was a surprise, as I believed that we were a little to the south of the course and had expected to pick her up on the port bow. Information received later from a reserve destroyer at Station No. 16 leads me to believe that the vessel sighted was another naval vessel on the way to the destroyer No. 15. Believing that I was considerably off course to north, I changed course 20° to southerly in order to pass within sight of No. 16 and pass over No. 17.

The weather became thicker and neither No. 16 nor No. 17 was sighted. Upon reaching the point which I believed was the beam of No. 17, the fog at the time being very thick, I changed course 10° to northward, which brought us on a course parallel to the line of destroyers. I hoped that visibility would improve sufficiently to enable me to sight either No. 18 or No. 19. I had sent a radio message at dawn to destroyers requesting



LCDR A. C. Read, USN.

them to continue firing star shells and further requesting radio compass bearing signals. As far as I know, there was no response to these signals. It was discovered upon landing that the ground wire of the radio antenna was broken, and checking up with the destroyers it appears that this break occurred between destroyers No. 16 and No. 17.

As the Azores were approached the fog became thicker and thicker, and, still believing that I was to southward of course and fearing that seaplane might run into the mountains of Flores, I eased a little farther to the southward. Various altitudes were tried to avoid the fog, but it merged with the clouds, which most of the time extended very high and made flying at any altitude over 1000 feet very difficult.

At 13.05, while flying at an altitude of 1000 feet, I obtained a glimpse of the sun sufficiently long to take a quick observation. The air was very rough, and I did not place a great deal of faith on the accuracy of the observation, as the bubble of the aircraft sextant was pumping. I quickly worked out the sight and obtained a line of position. This line passed directly through the center of Pico, and I immediately changed course 60° to the northward, running up the line of position, with the hopes of perhaps sighting that mountain.

Shortly afterward the engineer officer came forward and reported that we had a scant two hours of fuel remaining. Being by no means sure of position, I gave this knowledge to the pilots and asked their opinion as to the advisability of landing and obtaining either radio compass bearing or sight, if the sun became visible, or both.

After an inspection of the surface we agreed that, lightly loaded as we were at this time, we could both land and take off. I sent out this information by radio, giving what I believed to be the approximate position of landing, then gave the signal, and we glided down through the fog. When too close to the water to put on the power without danger of striking a wave with full power on and thereby surely wrecking the seaplane, both the pilots and I realized that the sea was too rough.

We touched the top of a wave and jumped from that wave to the top of another, then slid down the face of the second one with high velocity and took the approaching wave with a very heavy blow. An examination of the plane showed the forward part of the hull above the water line badly split in many places, several longitudinal scratches, and considerable leakage. The center tractor engine struts were badly bowed, making it impossible to run that engine.

I got another observation of the sun, and the radio officer got a bearing of *Columbia* which cross gave our position as 34½ miles southwest of the Island of Fayal.

The broken ground wire of the radio was remedied and the generator remounted on the



CDR John N. Towers, USN.

frame of the port engine. This engine was run intermittently for several hours, and radio signals sent out, but it appeared that no one was listening in on our wave length. *Columbia* was only 40 miles away, her signals riding out the extremely bad weather.

During the afternoon the wind became so heavy I decided it was not possible to run the engine without grave risk to the seaplane, as the waves were striking the bow with great violence. Watches were set, stock of food and water taken, and preparations were made for riding out the extremely bad weather which was approaching.

Two canvas buckets which were aboard for emergency use were rigged as a sea anchor and served this purpose very well for a while. There were sufficient emergency rations aboard to last for several days, and a large quantity of water in the water systems of the engines. The tin of drinking water had been left at Trepassey because we decided that the radiator water would be drunk if necessary, and all efforts were being made to lighten the seaplane. The sandwiches which we took aboard at Trepassey had been almost entirely consumed and the small remainder had fallen in the bilge when the landing was made, along with almost everything else in the seaplane which was not tightly secured. There were a few cakes of chocolate aboard, and we subsisted almost entirely upon these during the 53 hours on the water. We soon learned that the emergency rations created a thirst which made it necessary to drink considerable quantities of the extremely unpalatable radiator water.

During the afternoon and evening of May 17 the seaplane was permitted to drift head to wind, a record of the courses was kept, and a mean course of approximately 110° true being made good. The wind increased in velocity during the evening of the 17th with occasional rain squalls. The early morning of the 18th the wind reached gale force, with hard rain, which lasted off and on all forenoon.

The sea had by this time become extremely heavy, and on the morning of the second day, the port wing pontoon was suddenly carried away. A watch station was immediately established on the starboard wing tip to give added weight to that wing in order that the port wing tip would be kept clear of the water at all hazards, and by very careful manipulation of the controls this result was accomplished more or less satisfactorily.

The high seas very shortly began to break the ribs of the lower plane and split the fabric, and as soon as the water began to collect inside the wings it became necessary to slit the fabric for drainage purposes.

At noon, the lower elevator was forced under water by an exceptionally high lift of the bow due to a steep wave, and this elevator was broken. It began to disintegrate, and, flying about on the wires, was a great menace to the whole tail structure and to the stern of the pontoon, until it was eventually swept completely off.

The hull was leaking badly and required much pumping. As the seas appeared to be more than the seaplane could stand very long, an experiment was tried of bringing the hose of the bilge pump to the lower connection of the oil tank and putting oil overboard. The drift of the seaplane, however, was so rapid that the oil slick was too far to windward to be of much real service, and the hose was replaced on the bilge pump.

In the afternoon, the top of the mountain of Pico was sighted. A fix showed us to be 35 miles from the



MECHANICS make last adjustments before flight. Wooden propellers cracked easily, necessitating replacement.

nearest point of the island of Pico. As the wind at this point was setting us in a direction clearing all of the islands, the advisability of taxiing up to Pico was discussed, but was given up as hopeless in view of the high seas and heavy wind, which wind at this time was blowing about 60 miles per hour.

Another attempt was made, however, to communicate by radio, and two signals were sent out. As the seaplane was nearly wrecked in the process we promptly stopped and tried to work toward San Miguel by taking advantage of every lull in the waves to head off a little and make a course slightly across the wind. This became more and more successful as the pilots gained experience.

By midnight of May 19, we realized that the best course which could be made would pass us well to the southward of Ponta Delgada. The heavy wind and seas continued throughout the night, and the starboard wing pontoon required constant tightening up of wires and bolts because of the heavy blows which it was receiving. By daylight, there was practically nothing left of the lower wings except the beams, heavy ribs between struts, and the starboard wing pontoon.

The wind about this time began to moderate slightly, continuing to blow from the WNW. A course was laid for the west portion of San Miguel.

The day before, we attempted to measure our speed by dropping a piece of broken rib at the stern of the hull and timing its passing the length of the hull, and I think very accurate speed estimates were obtained this way.

At 10.15 San Miguel was sighted and course was changed slightly more to the north to allow a margin in case the wind increased in velocity, thereby coursing us more to the southward. When seven miles off the harbor, the seaplane was sighted from shore, and a few minutes later the destroyer *Harding* came into sight standing out at full speed.

Although the seas were still running rather high and the starboard pontoon was on the point of collapse, her offer of assistance was refused as I was convinced we could make harbor by continuing to sail down to leeward and coming up under our own power.

A cross sea later swept off the starboard pontoon and while it dragged in the water, still being held by one of its wires, we were nearly capsized. The wreckage was eventually cut loose, and by keeping an officer ready on each side to run out on the wing, and using the three available engines which had been started, it was possible to more or less preserve a state of equilibrium,



GIANT NC-4, first plane to cross the Atlantic, is assembled. Sister plane was cannibalized for parts.

though the seaplane very nearly capsized twice again before reaching moorings.

A message had been sent by Aldis lamp to *Harding* to radio in for some punts or whaleboats to go under the wings when the engines were stopped, and these boats were standing by when we got into the harbor. Just before reaching the moorings a line was passed from a motor launch, and that boat ran the line to the moorings, to which we were eventually secured, at 18.30.

Next time you feel uncomfortably bored on your flight from Patuxent to Hendon, you might consider the palatability of radiator water. The account of the flight of NC-1 is understandably briefer than the others because the flight itself was shorter. Here's what happened, as told by LCDR P. N. L. Bellinger, USN.

CONSIDERABLE DIFFICULTY was experienced in attaining planing speed when attempting the getaway and the air was finally taken after porpoising on fairly good ground swells at the entrance to the harbor. Everything functioned satisfactorily and the course was followed as planned until forced to land.

The NC-1 operated independently, as the two other planes were so far in the lead at the start that they were soon lost to view, although in reality as we later learned, the greater part of the night the NC-1 was very near the NC-3, but the running lights of the NC-3 were not burning. No great difficulty was encountered during the night, although the conditions were not ideal.

At times the sky was completely overcast but for the moon which gave some light through the clouds. Navigation was not difficult under these conditions. The star shells fired by the destroyers were visible for a much greater distance than the searchlights, and on one occasion the star shells of one destroyer were visible when abeam of another. The flare buoys were used during the night, to get the drift, but in a slightly bumpy air when the course cannot be followed very accurately it is necessary to drop many of them.

At an altitude of 600 feet, and when destroyer No. 18 should have been sighted, the NC-1 ran into a very thick fog. Endeavored to climb out of it and at 2500 feet got above it for a few minutes, but soon was in it again. At 3500 feet got above fog for 20 minutes, then encountered more, which continued. The fog was so dense that the pilots had to fly with one hand, wiping goggles and instruments continuously with the other. It was very difficult to follow a given course, and on two occasions our course was unintentionally changed 180°. We could not see from one end of the plane to the other. A sextant altitude of the sun was taken about 11.50

and a line obtained, but due to the movement of the plane, caused by the uneven atmospheric condition, it was not sufficiently satisfactory to be relied upon.

Not able to see the water for two hours, we decided to come down through the fog in order to note conditions at low altitude. From 3200 feet passed through dense fog to an altitude of 75 feet, and found the visibility to be about half a mile and noted that the wind had shifted.

The air conditions at this altitude were very bumpy. We laid a course to compensate for this change of wind, but as the fog became more dense the question of landing and getting our position by taking radio compass bearings on destroyers appeared to be the best thing to do, as it was not known how much we were off our course.

We knew that we were in the near vicinity of the Azores with practically two-and-a-half hour's fuel, and the danger of crashing into one of the islands now presented itself. The situation was sized up, the water conditions appeared suitable, and when denser fog was encountered a radio message, requesting compass signals, was sent out, and at 13.10 landed, having been in the air 15 hours.

The weather conditions were considerably worse than was expected, the fog apparently causing the water to appear smoother than it really was. The plane took the water satisfactorily, porpoising twice, and ending up with a considerable shock, but apparently nothing gave way.

We realized at once that the water was entirely too rough to attempt to make a get-away. About a 22-mile wind was blowing, with a cross sea and a heavy swell. The maximum height of the waves was estimated to be 20 feet. The regular sea anchor was put over, but the wire cable parted almost immediately. A metal bucket with a hole in the bottom was then secured to a manila line and put over the bow. This assisted to a great extent in checking the sternway of the plane and in holding it up into the wind, but even with the drag of the bucket the plane drifted astern so rapidly that the trailing edge of the lower wings and the elevators often caught in the water and finally were broken away. About one hour after landing the right wing tip float was broken and carried away by a cross sea.

For four hours the battery radio set was used trying to call destroyers, but no answer was received. The generator set was slightly more successful, as the signals were evidently heard. The propeller of the center tractor motor produced a blast on the wind driven generator, but because of the waves, it was not considered advisable to run it at full speed. Consequently, the generator was not working at full capacity.

At one time while the center tractor was running, a cross sea caught the right wing, minus a float, and buried it to such an extent that the upper wing was also taken under water, breaking off the balance portion of its aileron. The motor was stopped and the weight of four men on the left wing finally righted the plane.

At 17.40 sighted a steamer heading on a course passing very near our position. We tried to taxi with the center tractor and head on course to intercept her track.

The steamer was seen to change course and head either toward or away from the plane. Shortly afterwards the fog closed in and the steamer was lost to view. Later she appeared coming through the fog, heading

for the plane and close aboard. The steamer was the ss *Ionia* en route from Hampton Roads, Va., to Gibraltar. The *Ionia* arrived alongside of the plane at 19.20. A lee was made, a boat lowered, and the crew of the NC-1 taken on board the *Ionia* an hour later.

USS *Gridley* [Which had arrived meanwhile] stood by the plane, later being relieved by other destroyers until the weather moderated. An attempt was made to tow it, but the weather again became bad, the plane broke adrift, and was later located upside down. It finally sank out of sight.

In comparison with the other two planes, the flight of the NC-4 was relatively uneventful. That plane and its crew succeeded in accomplishing its historic mission—and after landing at Lisbon went on to England. Here is the account as related by LCDR Albert C. Read, USN, commanding officer of the NC-4.

AT 5.50 OIL PRESSURE in center after engine dropped and ignition was cut. Ran under three engines at slightly reduced speed.

At 6.05 sighted destroyer No. 1 and passed over her at an altitude 2800 feet. Soon sighted other two planes ahead and to starboard, gradually overhauling them.

When a little over half way to next destroyer, connecting rod in center forward engine let go. As two engines could not keep the plane in the air, we landed at 6.53. We were unable to make repairs. Sight of sun indicated our position about 80 miles east of Cape Cod.

Two hours later, we started taxiing for Cape Cod, hoping to pick up a destroyer en route. None of them could be raised with the battery set, although one was sighted about 10 miles to the north. Headed for her for 15 minutes, making about 10 knots with the two wing motors, then resumed course to west as she drew away. The sea smoothed down after the first two hours.

We had intended to start at daylight of the 14th but delay was experienced in installing the new starter; by failure of oil pressure in the center forward engine and by wobbling of the propeller on the same engine, which was discovered in a 6-minute trial flight. The oil pressure finally worked up to normal after considerable water had been drained off. The vibration of the propeller could not be eliminated, and it was decided to commence the run [to Halifax] favoring that engine.

The principal work done [at Trepassey Bay, Newfoundland,] was removal of the center forward (low compression) engine and replacing with a high compression, and the replacing of the three Olmstead propellers (the fourth had been changed at Halifax) with propellers of Bureau Steam Engineering design.

In attempting a start for the Azores the following day, NC-4 took off and stayed up 18 minutes to give all

installations a test. Everything worked well.

The wind at start was blowing about 30 knots, but it fell somewhat as land was left behind. Sea appeared slightly rough. NC-1 was well behind. Lights of NC-3 did not work and NC-3 and NC-4 separated at dark. The functioning of power plant during this entire run was excellent. Each destroyer was sighted in turn up to and including No. 16—first, by means of the star shells (during the night only); second, by the searchlights, and third, by the destroyers' lights. In daylight the smoke was always picked up first, except once in a while, during semidarkness or thick weather, the searchlights would be seen first.

Sighted northern end of Fayal; air clearer in lee of that island. Rounded Fayal and landed at 1.15 in a bight mistaken for Horta in the thick weather. Five minutes later, we took off, rounded the next point, and landed near USS *Columbia* off Horta. We were held at Horta by fog and later a gale until the 20th.

Start was made from Horta, Azores, shortly after noon of the 20th, wind about 25 knots. Sea rough. Visibility, 20 miles or better. Air rough around Pico; later smoother, but not very good. Destroyers were sighted as usual. Passed a rain squall to starboard. Sighted San Miguel at 1.54, and landed at Ponta Delgada at 2.24.

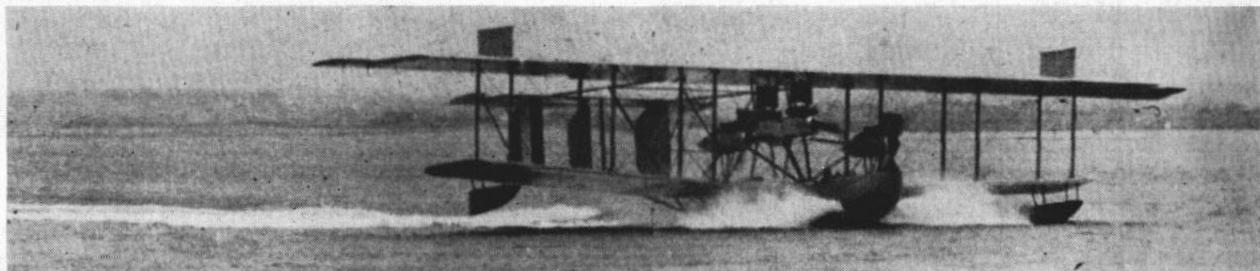
On the 21st, an attempt was made to start from Ponta Delgada to Lisbon, but the center after engine lacked 300 revolutions, due to starving, and there was insufficient room to get off except with all engines delivering full power.

We were held up by storms until the morning of the 27th, when the sea smoothed down somewhat, and good weather was reported along the course to Lisbon.

The start had been planned for daylight, but was delayed on account of starving of port engine. A new carburetor had been installed the night before on account of a stiff butterfly valve, and the work had not been done with sufficient care. Pieces of rubber were found. The carburetor was again changed and functioned properly.

One rather hard porpoise was made in getting away. This caused one gimbal of the navigator's compass to jump out, causing an error of 7° to 8°, although it was not noticed until some time later. The first destroyer was picked up apparently in its proper place, but it must have been out of position to the southward. No. 2 was passed 10 to 12 miles to the north of us and only the smoke sighted. No. 3 was not seen at all. Headed on a more northerly course, and with the aid of the radio compass, picked up No. 4 on the port bow. All the remaining destroyers were sighted.

Sighted Cape Roca, and passing over the lower Tagus, we landed at 8.01 in Lisbon Harbor.



TRANSATLANTIC seaplane, NC-4, taxis over temporarily placid Atlantic. Heavy seas stopped NC-1 and NC-3.

TAFFRAIL TALK

WE'VE BEEN WONDERING—where do you find your copy of ALL HANDS, and how soon do you get it? We assume, of course, that one copy is retained in the exec's office and the yeoman gets another, but how about you? How do you get it, and when? We've discovered that AH is well read in such community locations as barbershops, messhalls and lounges. Any other favorite spots? Let us hear about it if your activity has found other methods of prompt and wide circulation. We understand one library has found a sure way of keeping tabs on its copy—it has the current issue chained to the reading desk.

★ ★ ★

The Navy's habitability program has angles never dreamed of by ship designers. As a result of their scheming, for the first time in 16 years, Boatswain's Mate William H. Smith, won't be a sorehead. Since drawing duty on USS *Carronade* (IFS 1) the Navy's most habitable rocket ship, Smith is able to move below decks without ducking or scraping his skull on the low overhead. At the time of his first enlistment in 1939, he was a mere 5'-9". Today, he's 6'-4".



When the pressure of municipal government, civic duties and business becomes too great, LT Robin W. Goodenough, USNR, of Coronado, Calif., has a scheme by which he can get away from it all. He applies for active duty training with the Naval Reserve. A frogman, he finds a refresher course in underwater demolition to be peaceful and relaxing—comparatively speaking.

★ ★ ★

ALL HANDS' sprightly opposite number in the Canadian Navy, the *Crowsnest*, disputes our hypothesis that VADM Arthur D. Struble, USN, Navy's representative of the Joint Chiefs of Staff on the Military Staff Committee of the Security Council of the United Nations, had one of the longest titles ever held by an admiral.

Crowsnest's candidate is RADM Harry George DeWolf, CBE, DSO, DSC, CD, RCN, who is, so help us:

"Principal Military Adviser to the Canadian Ambassador in Washington, Chairman Canadian Joint Staff, Washington Representative in Washington of the Chiefs of Staff, Canadian Representative of the Military Representatives Committee of the North Atlantic Treaty Organization and Canadian Liaison Representative to SACLant."

We give up. No contest.

The All Hands Staff

ALL HANDS

THE BUPERS INFORMATION BULLETIN

With approval of the Bureau of the Budget on 23 Jun 1955, this magazine is published monthly by the Bureau of Naval Personnel for the information and interest of the naval service as a whole. Opinions expressed are not necessarily those of the Navy Department. Reference to regulations, orders and directives is for information only and does not by publication herein constitute authority for action. All original material may be reprinted as desired if proper credit is given ALL HANDS. Original articles of general interest may be forwarded to the Editor.

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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.

In most instances, the circulation of the magazine has been established in accordance with complement and on board count statistics in the Bureau, on the basis of one copy for each 10 officers and enlisted personnel. Because intra-activity shifts affect the Bureau's statistics, and because organization of some activities may require more copies than normally indicated to effect thorough distribution to all hands, 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; requests received by the 20th of the month can be effected with the succeeding issues.

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. Requests from Marine Corps activities should be addressed to the Commandant.

REFERENCES made to issues of ALL HANDS prior to the June 1945 issue apply to this magazine under its former name, The Bureau of Naval Personnel Information Bulletin. The letters

● AT RIGHT: MOORED at Japanese pier, cruisers USS *Toledo* (CA 133) and *Helena* (CA 75) take a breather while with U.S. Fleet Activities Yokosuka, Japan.





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