

★ ALL HANDS ★

THE BUREAU OF NAVAL PERSONNEL CAREER PUBLICATION



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FEBRUARY 1968





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Nav-Pers-O

NUMBER 613

VICE ADMIRAL BENEDICT J. SEMMES, Jr., USN
The Chief of Naval Personnel
REAR ADMIRAL BERNARD M. STREAN, USN
The Deputy Chief of Naval Personnel
CAPTAIN JAMES G. ANDREWS, USN
Assistant Chief for Morale Services

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John A. Oudine, **Editor**

Associate Editors

G. Vern Blasdell, **News**
Don Addor, **Layout & Art**
Ann Hanabury, **Research**
Gerald Wolff, **Reserve**

● **FRONT COVER:** FLIGHT DECK DANCE—Some signals by flight deck crewmen resemble gyrations of a modern dance. Here, flight deck crewman directs aircraft aboard *USS Hancock* (CVA 19) while the carrier was with Detachment Charlie off coast of Vietnam.—Photo by R. D. Moeser, JOC, USN.

● **AT LEFT:** HOME TOUCH—It will soon be mail call aboard this Seventh Fleet destroyer as the helicopter pilot hovers his bird over the ship. Copters deliver mail daily to ships operating in the Tonkin Gulf.—Photo by R. C. Veeder, PHC, USN.

● **CREDIT:** All photographs published in ALL HANDS Magazine are official Department of Defense photos unless otherwise designated.



ONE MORE RECRUIT FOR

LAST SEPTEMBER 20 was Newman Day in Twin Falls, Idaho. Why? Because young John Newman was joining the Navy, that's why.

The Governor of Idaho, a former Navyman himself was there. The oath of enlistment was administered by none less than Captain W. R. Gebert, Director of Navy Recruiting for the Eighth Area. The captain, who came all the way from San Francisco for the ceremony, also read a letter of congratulation from the Secretary of the Navy.

Radio commentators and reporters were there and so were news photographers and television cameramen—their bright lights flooding the scene and their cameras snapping and grinding away.

Harold F. Smith, AE1, USN, the Navy recruiter at Twin Falls was there feeling proud of a job well done. It was largely through his interest that the day's events were taking place.

Members of the Snake River Mothball Fleet, a group of retired Navy people from Magic Valley, were present as were relatives and friends of John and his parents who, of course, were there too.

So why should the brass, the press, the local citizens and all the relatives and friends of the family turn out just to watch John Newman become

When John Newman joined the Navy, his six brothers had already given the sea service a total of nearly 50 years of active duty. Five brothers had seen service in Vietnam and the sixth had pulled duty in the Pacific. All of the well-traveled Newmans preceding John are Golden Dragons.

The six brothers have completed the courses necessary for advancement to the rate they hold and, during their Navy careers, all the brothers with sufficient service have been awarded the Good Conduct Medal.

With half a century already behind them, the six Newman brothers have a Navy service potential of 120 years before they would ordinarily join the Fleet Reserve.

If John Newman goes for 20, this figure would rise to 140 years of active duty in the Navy given by the sons of one family.

a Navyman?

It was because John's enlistment was something special in two ways. First of all, John had worked particularly hard just to join the Navy. Secondly, John's name on the enlistment contract placed his parents among the very few in U. S. history

to have seven sons on active Navy duty at one time.

Although almost every acquaintance of the Newmans seemed to be on hand with congratulations, John's six brothers were nowhere to be seen in Twin Falls.

Their absence, however, was easily explained. They were all in U. S. Navy ships and naval stations at points between the west coast of the United States and Vietnam.

JOHNSON, although he merited special attention, was also acting as a kind of ceremonial focal point for honors intended for the entire family.

Kirby Newman, Jr., the oldest of John's brothers, missed the festivities at Twin Falls because he was completing his 16th year of active Navy service at the U. S. Naval Aerospace Recovery Facility at El Centro, Calif. Kirby is a photographer's mate first class and, one might add, a first class photographer.

George Newman is also a photographer's mate and is at the U. S. Naval Station Photo Lab on Guam. George is a 12-year Navyman.

Edward Newman, an 11-year Navyman, is a machinery repairman and was serving on board *uss Sperry* (AS 12) when John joined the Navy.

Brother Joseph Newman was a bit farther afield than Edward. Joseph

GONE NAVY—Seventh member of the Newman family, John M., learns the Navy way in boot camp at NTC, San Diego.



NEWMAN'S NAVY

was a boilerman assigned to *uss Epping Forest* (LSD 4) and was spending his sixth year in the Navy at Sasebo, Japan, when Newman Day was celebrated in his hometown.

John Newman's other two brothers have been in the Navy for a comparatively short time. David joined in October 1964, and was serving as a communications yeoman aboard *uss Tripoli* (LPH 10) on Newman Day.

Brother Weldon, the Newman with the least naval service, was in his third month as a Navyman aboard *uss Frank Knox* (DDR 742) which was in Vietnamese waters on his youngest brother's big day.

Weldon was the only Newman brother who had military service before he joined the Navy. He served in the Army between 1962 and 1966.

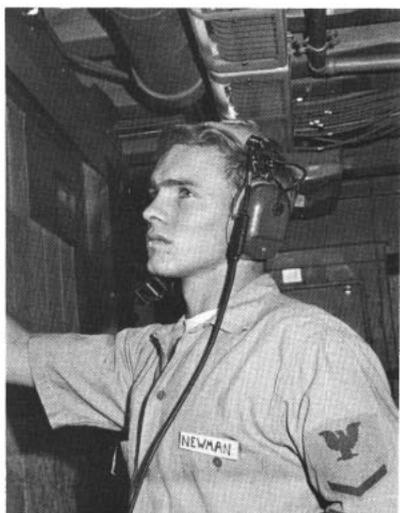
JOHN NEWMAN had not completed high school, but he was advised by his brothers that this in itself would not be a bar to enlistment in the Navy. He would have to pass the basic test battery, however.

Several of the Newman boys had worked at civilian jobs before they began their military service. With this combination of education and experience each of the six brothers beforehand had successfully come through the test battery given to prospective recruits. Their General Classification Tests also pointed the way to the diverse Navy fields in which each was interested and for which he was suited.

During their service careers, the Newman brothers took advantage of the education available through the Navy—correspondence courses, United States Armed Forces Insti-

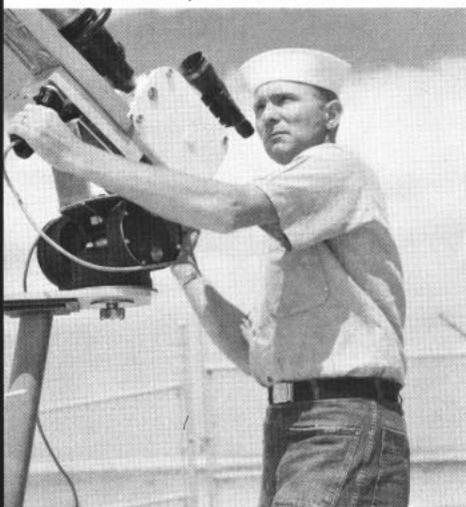


Seaman Recruit John M. Newman

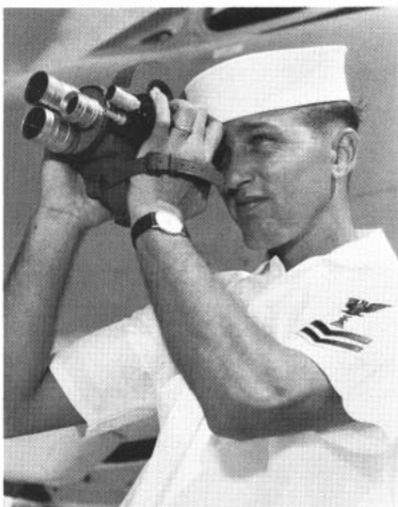


David Newman, CYN3, USN

Joseph Newman, BT2, USN



Kirby Newman, Jr., PH1, USN



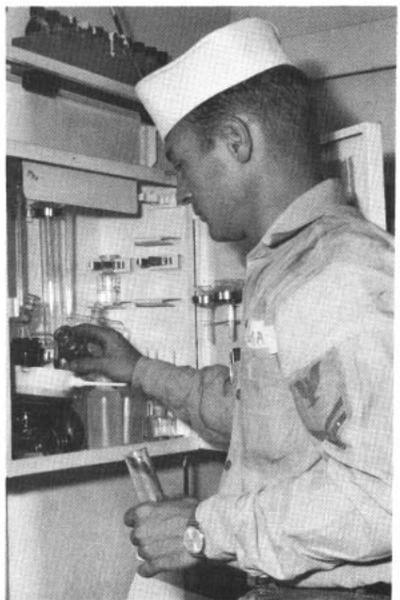
George Newman, PH2, USN



Edward Newman, MR2, USN



Weldon Newman, SN, USN





CONGRATULATIONS—The governor of Idaho, Don Samuelson, congratulates John. Rt: Enlistment contract is signed.

tute and Navy schools—to increase the scope of their knowledge and to advance in their rating.

Those who had been in the Navy long enough to make a mark for themselves had done well and were considered to be good leaders, skilled in their jobs and a credit to the service.

WITH SIX OF THEIR SONS already in the armed forces, it probably

came as no surprise to John Newman's parents that their youngest son also wanted to join the Navy.

John's sketchy education, however, conspired against him. The first time he tried, he failed the Navy test battery.

It was a big disappointment for young John. His brothers were serving in all parts of the world—and now it appeared he might not make it in the Navy.

Petty Officer Harold Smith, the Navy recruiter at Twin Falls, took John's rejection to heart almost as much as John. He just couldn't let this happen.

With Smith at his side, John met the Job Corps' representative at Twin Falls and was accepted into the Job Corps program—as a preliminary to making his second application for the Navy.

He made the grade with the Job

Full Crew for USS Siblings, and Others

On 9 Sep 1941, 52-year-old Clarence Floyd Patten had the unusual experience of enlisting as a fireman first class, USNR, in the presence of his seven sons who were also Navymen.

The enlistment ceremony took place on board *uss Nevada* (BB 36) and the sons who were present were Gilbert Russel Patten, Allen Mayo Patten, Clarence Floyd Patten, Jr., and Myrne Roosevelt Patten—all of whom were firemen first class.

The other brothers were Marvin Kenneth Patten and Bruce Calvin Patten who were watertenders second and third class, respectively, and Roy Hart Patten, an apprentice seaman.

Clarence Patten's only remaining son later enlisted, thereby making the Navy membership of the Patten family almost unanimous.

There was only one holdout—a

married daughter who apparently did not see her way clear to join the Waves.

The World War II era also saw the seven Mazoway brothers, Louis, Leo, Harry, Joe, John, William and Ed, all of whom are reported to have been on active naval duty at the same time.

During their days in the Navy, the Mazoway brothers were called the Mazoway Task Force, which can be taken as a tribute to their effectiveness.

Family combinations are far from unusual in the Navy but some stand out from the others. No such accounting, for example, should omit families like the Leblancs of Litchburg, Mass.

In 1951, the Leblancs not only had 12 sons and daughters in the armed forces, seven of the Leblanc brothers had seen service in the United States Navy.

When Ernst Schneider, AN, USN was stationed at NAS, Moffett Field, Calif. in 1956, he could claim nine brothers who either had previous service in the Navy or who were serving with him at that same time.

In the same year, seven children of the Moses family of Coxton, Ky., were serving in the Navy.

Sets of twins and triplets serving in one ship are well represented as well as sets of brothers. In 1963, *uss McCaffery* (DD 860), for example, claimed seven brother combinations and Helicopter Antisubmarine Squadron Two had five brother combinations including two sets of identical twins.

No matter how you mix them up—father, son, brother, sister—the Navy can probably come up with the combination which all goes to show that, for many, Navy life is a family affair.

Corps and, after graduation in 1966, was hired by the Department of Employment.

That simple statement covers a lot of ground for, as Smith says: "John has carried out our suggestions and recommendations to the letter throughout the last two and one-half years, and he has had many obstacles thrown in his path during his time in the Job Corps. A tremendous amount of determination."

John was getting into the swing of things now. His job with the Department of Employment indicates his progress: As one of the first youngsters from Magic Valley to graduate from the Job Corps, he went about Twin Falls county, explaining the Job Corps to high school dropouts.

The Employment people liked John just fine and asked him to stay in that program. He wasn't having any, thanks. He wanted in the worst way to follow his brothers into the naval service.

THE NEXT TIME John tried the Navy test battery, the education he had received since his first enlistment attempt paid off. He passed.

"With John, it wasn't that intelligence was lacking," says one of his neighbors. "Only the means to express it." He had now caught up on his education—making up for being a high school dropout.

It was a happy day for John Newman when he was told he could join up. And the celebration of Newman Day at Twin Falls was a day of great satisfaction for Harold Smith, the Navy recruiter who had guided John to the enlistment ceremony from the beginning.

According to Petty Officer Smith (who had been on the job for three years), he had never interviewed a young man who was so motivated and determined to pursue a naval career as young John was.

Will the seventh seaman Newman start his service at any of his brothers' duty stations?

The new Navyman expressed a desire to go it alone and make his own mark in the sea service, therefore, he probably will not be stationed with any of his brothers.

John's Navy career will provide him with the same opportunities for travel, education, experience and career advancement that his brothers have enjoyed. And, older brothers being what they are, John may re-

It's All in the Family

The Newman boys are not what show biz might call the only brother act in the Navy. There are probably hundreds of them—some more unusual than others.

Recently, for example, James A. Steib, SN, USN, reenlisted for six years under the Navy's STAR Program and reported to Data Processing "A" School.

Such an event, of course, is not unusual in itself. James Steib's reenlistment, however, is extraordinary in that he has another brother, John, who also requested data processing—under the SCORE Program.

Possibly both were influenced in

their decision by a third brother, William, an eight-year Navyman who became a data processing technician after changing his rating from disbursing clerk.

With three brothers on stage with their computer act, a fourth brother, Harry, remains in the wings. Harry, who persists in being different, is a fire control technician aboard a nuclear submarine.

With three brothers on stage the act is complete. There are probably other families which have four sons serving on active duty in the Navy but maybe three in one rating is, if you will forgive the expression, unique.

ceive more fraternal advice on how to get along in the Navy than he wants or needs.

Help and advice from John's brothers, however, shouldn't be necessary. If the new man's service

matches his determination to enlist, the mark John Newman will make for himself will be one of which he, his six brothers, Twin Falls and the Navy can be proud.

—Bob Neil

I DO—John Newman is administered oath of enlistment at Twin Falls, Idaho.

—Photos on pages 2, 4 and 5 by Jan Arthur Sainsbury, courtesy of Twin Falls, Idaho, Times-News.





NAVY ENGINEERS work behind the scene to provide propulsion. Here a machinery repairman makes a boiler plug.

BOILER & FIRE ROOMS ARE

'ON THE READY, GRIDLEY'

THE CO of USS *Gridley* orders: "All engines, ahead flank."

Promptly, and consistently, the ship obeys. Most of the action you see in the performance of this operation is on the bridge. But there is another performance going on elsewhere in the ship, some decks below.

Seldom seen topside, quietly efficient and dependable Navy engineers insure that the ship answers the CO's command. In fact, *Gridley's* engineers are so reliable that people topside rarely consider the human element involved in all of these near-automatic responses.

Most important to the functioning of the ship is the main propulsion plant, the heart of the engineers' work environment. This intricately balanced system that takes black oil

and turns it into power is maintained and operated by Machinist's Mates and Navy Boilermen. "MMs" and "BTs" are the prime partners in the production of ship's propulsion.

Under the BT's guidance, boilers produce steam at high pressures and temperatures. The turbines capture the steam and use its force to turn the ship's propellers. In their partnership, machinist's mates and boilermen must maintain just the right ratios of air-to-oil inside the boilers and pressure-to-speed in the operation of the turbines.

Boilers and their associated equipments are located in the firerooms. These tube-filled steam makers are the largest equipments carried in a ship. They are huge furnaces whose special fire-resistant brick walls con-

tain the intense heat necessary to turn water in the surrounding tubes into steam.

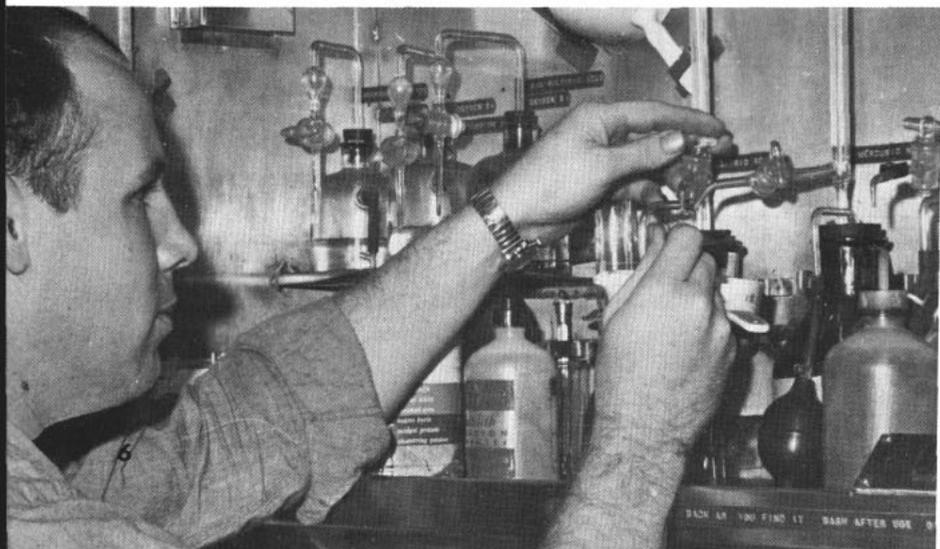
The boilers are fed with a fine spray of oil which has been forced through sprayer nozzles into the fire-box and a heavy volume of air from high speed blowers. As in a giant engine cylinder, fire is added to this mixture, causing combustion to take place. The steam that is formed in the tubes of the boiler travels through high pressure lines into the engine-room.

THE MOST IMPORTANT equipment in each of the two enginerooms is the turbine complex. But the bulk of the equipment located there is auxiliary to the turbine's function of turning the steam into thrust.

For instance, after the turbine blades extract all of the energy from the steam, the steam turns to water, called condensate, in the main condenser. This condensate must be quickly pumped back to the boiler for re-use.

Also, the ship would soon literally grind to a stop if lubrication oil pumps did not continuously distribute oil to all moving parts of the system. Machinist's mates in the enginerooms operate the ship's two 12,000 gallon-per-day distilling plants which turn sea water into fresh water and also produce very pure "feed" water for boilers.

ONE JOB of a boilerman is to maintain the purity of boiler feed water.



But the main function of the engine rooms is found in the turbines.

Each turbine is a cased row of bladed wheels. Steam is forced through the blades of these wheels and causes them to turn like a pinwheel held in the wind.

Steam first enters the high pressure turbine, which is small and turns rapidly, and then enters the low pressure turbine, which is large and, using less energetic steam, turns more slowly.

These two turbines are geared to a propeller shaft by means of the main reduction gears. This massive thirty-five ton set of intermeshed gears takes the power of the high speed turbines and focuses it on the propeller shaft. Up to 40,000 horsepower is transferred by the reduction gears to the twenty-four inch wide gear around the shaft. The turning of the shaft, and its associated propeller, moves the ship through the water.

DEALING WITH STEAM pressures in the area of 1200 pounds and temperatures around 900° F. dictates that the main propulsion system and its operation be sound. The engineer spends long hours on watch checking the plant's operation. Gauges are read, tanks are sounded and temperatures are taken.

In addition to the primary mission of main propulsion, the engineers provide the ship with the same utilities that are required by a city, and a few more besides.

There is electricity (several different voltages and frequencies).

There is steam for cooking.

There is compressed air, cold water, hot water, iced water, refrigeration, heating, air-conditioning and intra-ship and outside phone service.

Very important also, the engineers keep the liberty boats running.

Engineers — electrician's mates, machinist's mates, machinery repairmen, shipfitters, damage controlmen, interior communications electricians and enginemen—are on call at any hour assuring that all of these services are delivered.

An engineer is a shipmate with sweat on his brow. He is the man you saw leave the ship at 2300 last night. He frequently rises earlier and works later. When he succeeds in a tough job, he is happier. When he occasionally fails, his disappointment is tempered with a genuine tiredness.

He likes the sound of the engine room when things are running smoothly. He doesn't like paper-work, cleaning firesides, quarterdeck watches, (or officers-of-the-deck wearing smoke-colored glasses).

Whether working soot-faced and wet-faced in the fireroom, or saluting the colors as he crosses the quarterdeck in pressed dress whites, the typical member of *Gridley's* Engineering Department is a hard working proud professional.

Without him, the ship—and its crew—would get nowhere at all.

USS Gridley has earned its reputation for being "on the ready," and is well named. It honors the naval officer who has gone down in history as the one to whom Admiral Dewey addressed the famous order, "You may fire when ready, Mr. Gridley."

—C. Ward Bond, LT, USN



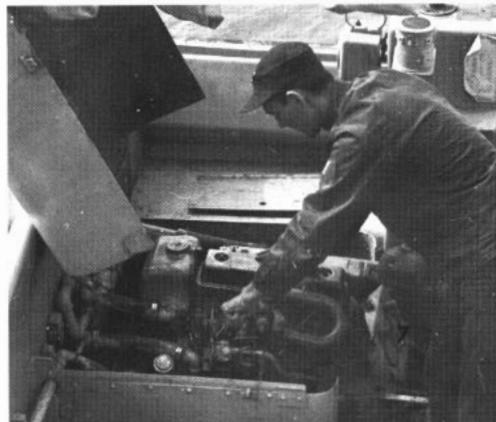
COMMUNICATIONS are vital, and are maintained by IC department.



SEA WATER is distilled for use in boiler. The boiler always comes first. Rt: Boilerman completes mud drum inspection. Above: *Gridley* underway.



KEEPING FIRE MAINS operational is a continuing job of the damage controlman. Rt: An engineman tunes the propulsion unit of a liberty boat.



Navyman's Best

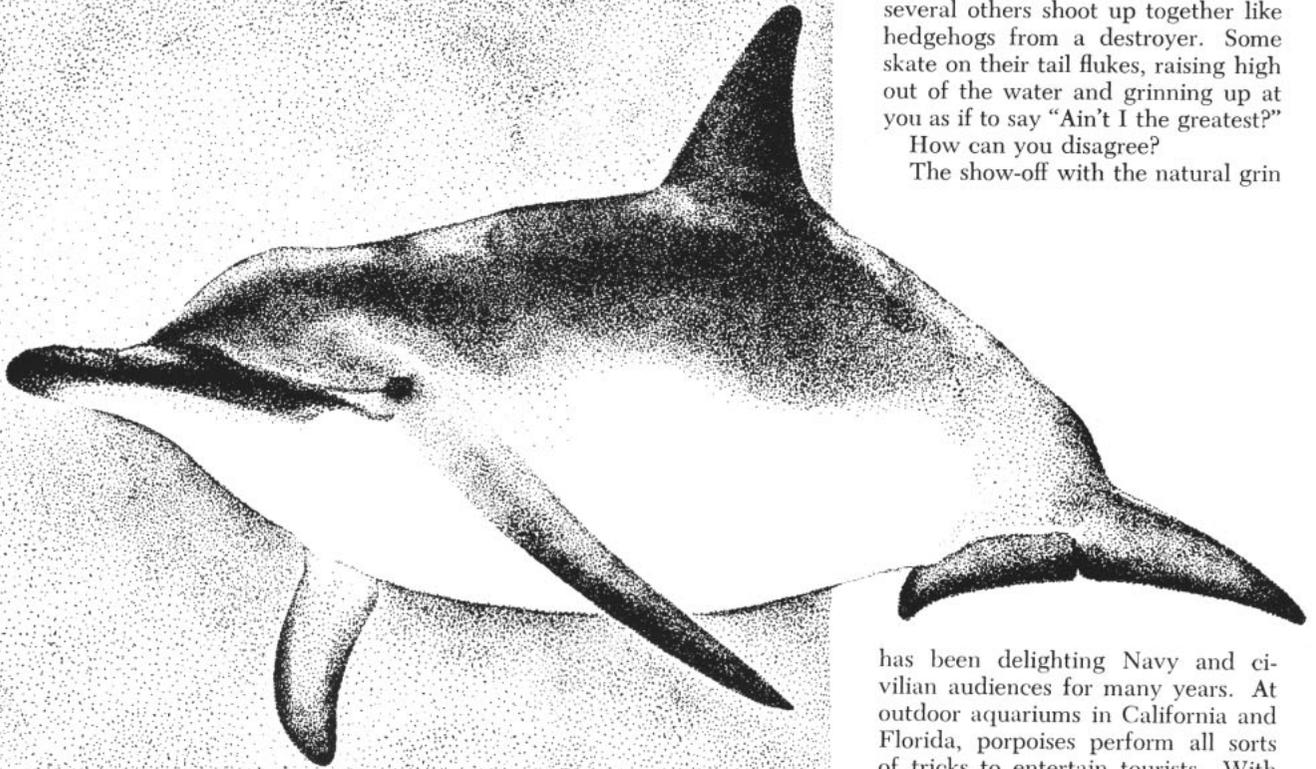
YOU'RE LYING in the rack listening to the dull groan of the engines as you head toward the Mediterranean at 20 knots. Not much to do. You're bored. Then the IMC blares out a welcome message: "Porpoise off the starboard bow."

You grab your camera and join the general rush topside. You can be sure of one thing: you're in for an entertaining performance. When you reach the bow, you can see the show has already begun. There below is a school of gamboling porpoises easily keeping up with the ship.

They play follow-the-leader. One jumps high out of the water, then several others shoot up together like hedgehogs from a destroyer. Some skate on their tail flukes, raising high out of the water and grinning up at you as if to say "Ain't I the greatest?"

How can you disagree?

The show-off with the natural grin



has been delighting Navy and civilian audiences for many years. At outdoor aquariums in California and Florida, porpoises perform all sorts of tricks to entertain tourists. With very little training, they have learned to play water polo, basketball, and even to bowl.

There's really no need to describe a porpoise, especially if you have a TV set. If so, you've probably seen one starring on his nationwide show at least once.

FOR THE UNINITIATED, a porpoise looks much like any other fish, although he's really not a fish at all.

Friend: The Porpoise

—Or Is It a Dolphin?

He's a mammal, classified in the same zoological order as the toothed whale—Cetacean.

Thousands of years ago, his ancestors lived on land, but he's been on sea duty so long that he now looks like a fish to most people, even though he can't breathe underwater and has to come up for air every few minutes.

In popular usage the name porpoise has come to include not only porpoises, but also bottle-nosed dolphins and assorted other mammals which belong to the Cetacean family. Since that usage helps keep the mammal known as the dolphin from being confused with the gamefish of the same name, it's the one this article will use.

Seafaring men have long considered the porpoise a friend. As an example, some years ago there was one known as "Pelorus Jack" who was well known among the sailors who visited New Zealand, because of his habit of escorting ships as they steamed through Pelorus Sound.

There is abundant lore concerning porpoises, some of it provable, some not. One of their accomplishments that has been observed is their ability to act as seagoing cowboys, skillfully herding schools of fish in whatever direction they wish. Often, they will herd a school to shallow water, where, acting like a well-coordinated fishing team, they will dart in one at a time to take a fish, then return to the circle while another streaks in to get a strike.

OVER THE YEARS, many people have related stories about porpoises having saved them from various dangers such as shark-attack and drowning. Scientists know that porpoises are, indeed, the natural enemies of sharks.

When a school of porpoises decides to attack a shark, they again use the herding technique, and will cut out a lone shark from the school and surround it. Then, they drive in and butt the shark with their hard noses, again and again. This finally ruptures the shark's internal organs, and kills him.

One of the more recent incidents in which humans were saved from an attack by sharks was told by a Florida couple who, along with their dog, were adrift in a small disabled boat for five days.

On the second day adrift, a school of sharks surrounded the boat. The dog began barking, and shortly thereafter a large school of porpoises arrived on the scene and drove away the menacing sharks. From then on, the porpoises stood guard over the boat, driving away the sharks each time they came back for another try.

Many people have told of being in trouble swimming, and of having a friendly porpoise push them toward shore, apparently saving them from drowning.

Some scientists believe such stories should be taken with a grain of salt. They point out that porpoises simply like to push things around, and they would just as soon push a mattress

around as push a human toward shore. It stands to reason, they say, that if a man were pushed toward shore, he'd have a good story to tell. If he were pushed the other way, he could not tell his tale.

IT HAS BEEN well documented, however, that porpoises do seem to like their human cousins. People who have experimented with porpoises report that these creatures, for some reason, will let human beings do things to them for which they would kill a fish or any other animal. Porpoises will keep right on smiling while blindfolds are put into place, harnesses are strapped on, and a swimmer grabs a dorsal fin for a free ride. This friendliness is one of the reasons the porpoise is such a good subject for Navy-backed experiments.

The Office of Naval Research has been sponsoring research involving porpoises since the early 1950s. Navy

UP FRONT—Porpoises seem to be escorting *USS Hawkins* through the sea.



scientists have been, and continue to be, interested in three principal areas of research—hydrodynamics, sonar, and communications.

One of the most-studied aspects of porpoise capability is their swimming ability. As many sailors know, a porpoise can keep up with a ship which is making 30 knots or more, apparently with little effort. Yet, analytically speaking, a porpoise can swim only about 11 knots. The final answer has not been found yet, but several experiments have thrown some light on the subject.

ONE THEORY which has often been advanced maintains that a porpoise's speed is achieved by using a boundary layer control to reduce drag. A porpoise's skin is nearly bloodless at its forward end, where a smooth water flow exists. Toward the tail, where turbulence and drag normally build up, there are progressively increasing numbers of vessels supplying blood to the skin area. It is possible that this greater vascular

circulation aft could produce a smoother flow by decreasing water turbulence through heat transfer.

Another theory concerns the action of the porpoise's body in moving its tail flukes up and down like a skin-diver's flippers. Scientists know what happens when a rigid body is moved up and down in such a way, but they are not sure what happens when a mobile body, such as a porpoise's is moved likewise in the water.

Recent tests in Hawaii by two noted scientists in the cetacean research field, Dr. Thomas G. Lang and Dr. Kenneth S. Norris, of the Naval Ordnance Test Station in Pasadena, Calif., have proved pretty conclusively that porpoises aren't as speedy as we think they are.

Star of the tests was a three-year-old Pacific bottlenose porpoise named Keiki.

Keiki was first trained to race in a 10-foot deep lagoon about 30 feet wide and 200 feet long, enclosed by a chain link fence. An entrance cut out of one end and an exit on the

other marked the start and finish lines. Keiki learned to sit with his trainer's hand on his back at the rear of the pen. When the hand was lifted, Keiki sped to the entrance of the course. As his nose passed through the entrance, or starting line, an underwater signal was given which told him to "turn it on." He then raced the length of the course. If he made a good, fast run, three fish were given as a reward. If his time was outstanding, he got six fish.

SEAFARING men's observations notwithstanding, Keiki's best speed was 16.1 knots. And that was in the smooth water of the lagoon. Other tests were conducted off Oahu, where Keiki had to chase a homing signal transmitted from a moving speedboat. Keiki's best speed in the rough water was 14.5 knots. During the tests, accurate speed measuring devices included motion picture cameras, stopwatches, and a speedboat with a highly accurate speedometer.

What's the explanation? Are sailors seeing things when they watch porpoises swim with their fast destroyers and cruisers? The scientists do have a couple of answers. For one thing, the observers riding in the speedboat all guessed Keiki's speed to be more than 20 knots. The sea was rough, and the boat crashing from crest to crest greatly added to the illusion of speed.

But more important is the discovery that porpoises are adroit surfers, and know a lot about riding bow waves and making use of various hydrodynamically favorable pressure fields which can give them a free ride.

THE PORPOISE you see keeping up with your fast destroyer is probably riding the favorable pressure field caused by your ship's bow. This pressure field, scientists have discovered, extends a short distance out in front of the ship, which explains why many porpoises seem to be easily winning the race with your 30-knot destroyer. They're simply hitchhiking.

The use of favorable pressure fields created by moving bodies is old hat to porpoises. They often get free rides from each other, too. A small porpoise will position himself behind and slightly to the side of a larger animal, and thus will be dragged along by the big fellow's energy.

SALTY 'SHIPMATE'—Tuffy, a shark-scarred Atlantic bottlenosed porpoise, was trained to help Navy divers during Sealab II and will again during Sealab III.



This is, presumably, the same kind of phenomenon which racing drivers know as "drafting," that is, positioning one's car in the pressure field right behind a speeding competitor.

Navy scientists—and those sponsored by the Navy—are also intensively studying the porpoise's amazing sonar capabilities. Some of the early research sponsored by the Navy in this field was undertaken by Dr. W. N. Kellogg, then professor of experimental psychology at Florida State University.

He studied the echo-ranging ability of two porpoises named Albert and Betty, in a large pool on the Florida coast beside the Gulf of Mexico.

The pool was usually so muddy that the average visibility in it was only about 20 inches. Yet, by bouncing sound pulses—"clicks"—off objects, they could identify and locate the objects through their echoes. The porpoises performed all sorts of feats to show off their sonar.

IN ONE SERIES of tests the 55-by-70-foot pool was studded with metal poles which, if touched or struck lightly, gave off a bell-like ring. During their first 20-minute session of swimming through the maze, the two porpoises together brushed the poles a total of only four times.

In the second session with this obstacle course, the porpoises made even fewer contacts with the poles, and after that they negotiated the course in test after test without touching the poles at all. Even in the dark, the porpoises swam all over the pool without touching the obstacles.

How does a porpoise's sonar work? As we might expect, much like the sonar used on our submarines. Sending out clicks while he swims, a porpoise scans by moving his head from side to side. When he gets an echo, he sends out more clicks, and at a faster rate. Like our subs, he knows how far he is from his object by measuring the time interval between the clicks and the echoes.

From the early experiments by Dr. Kellogg, researchers went on to find out just how good the porpoise's sonar is. Can he, for example, discriminate between subtle differences in the size of two objects? Dr. Kellogg had already found out that the animal's sonar was capable of picking out a six-inch spot fish (which he



PORPOISE AND FRIEND—Navy photographer shoots underwater motion picture of porpoise during training at Naval Missile Center Point Mugu, Calif.

likes better) over a 12-inch mullet, but that's quite a considerable difference in size.

Dr. Kenneth S. Norris decided to find out how small a disparity between sizes the porpoise could detect. He suspended two nickel steel ball bearings beneath the water, with a lever in front of each. If the porpoise picked out the right (smaller) ball, she got a fish. The animal was blindfolded, of course.

When one ball was $2\frac{1}{8}$ " and the other $2\frac{1}{2}$ " or larger, the porpoise's sonar enabled her to pick out the right ball every time. When the difference between the two balls was brought gradually down to one quarter of an inch, the porpoise's performance fell to 77 per cent correct.

During the animal's attempt to discriminate between the two ball sizes, she was sending out clicks at rates ranging from 20 clicks per second up to 230 per second. The harder the choice, the more clicks she sent out.

The number of clicks rose sharply in one phase of testing, Dr. Norris reported. Two balls of the same size were lowered into the tank. The porpoise sent out many more clicks than usual, but she would not try to choose between them. Somehow, she knew it was impossible. She turned away as if to say "Don't be ridiculous."

Other scientists have found that a blindfolded porpoise, asked to distinguish between two discs, one aluminum, the other copper, can pick out the copper one every time.

PROBABLY the most well-known among porpoise-researchers is Dr.

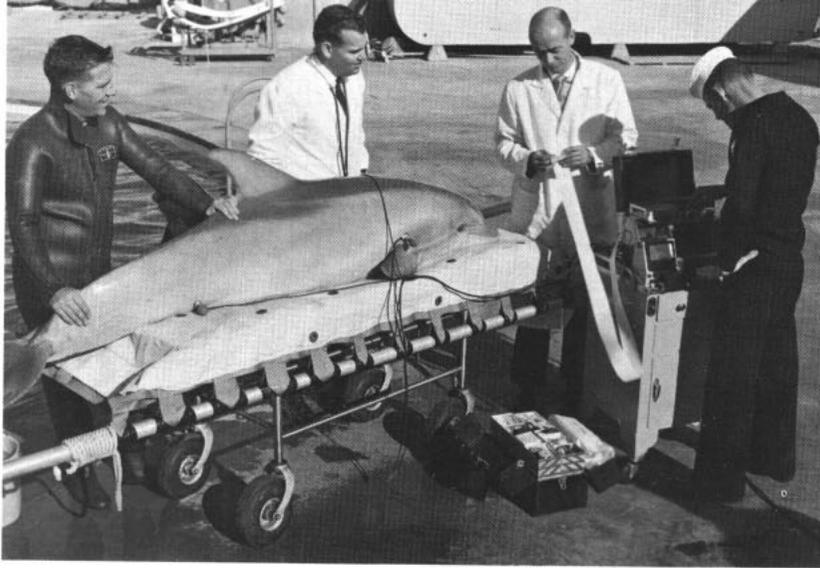
John C. Lilly, a research neurologist and head of Communications Research Institute, in Miami, Fla. He has been studying the porpoise's intelligence and his language for many years.

From what he has learned about these animals through the years, Dr. Lilly is convinced porpoises are the most intelligent beasts on earth. He ranks them far above the chimpanzee, which is generally considered the brightest land animal, and way ahead of such sentimental favorites in the animal IQ derby as dogs, cats, and horses.

A porpoise's brain is larger than that of a human being, and his cerebral cortex, or gray matter (the seat

WELL DONE—Navy diver rewards Tuffy during experiments to see how the porpoise might assist divers.





OUT OF WATER—U.S. Navy scientists perform an electrocardiogram on a porpoise while investigating its skill and capabilities at Point Mugu test pool.

of consciousness where the higher mental functions take place), is apparently just as complicated if not more so.

The porpoise can learn some things just as quickly as a human does, and much faster than any other animal can.

In one experiment porpoises learned in a single demonstration to operate a device it takes a chimp dozens of tries to master. The device consisted of an electrical apparatus which gave the animal a pleasant tingle whenever he worked a switch correctly. The gadget gave the porpoises such a charge that their eyes would light up and the muscles around their blow holes would break into a sort of smile whenever they got their electrical treat. When this was used as a reward, the porpoises

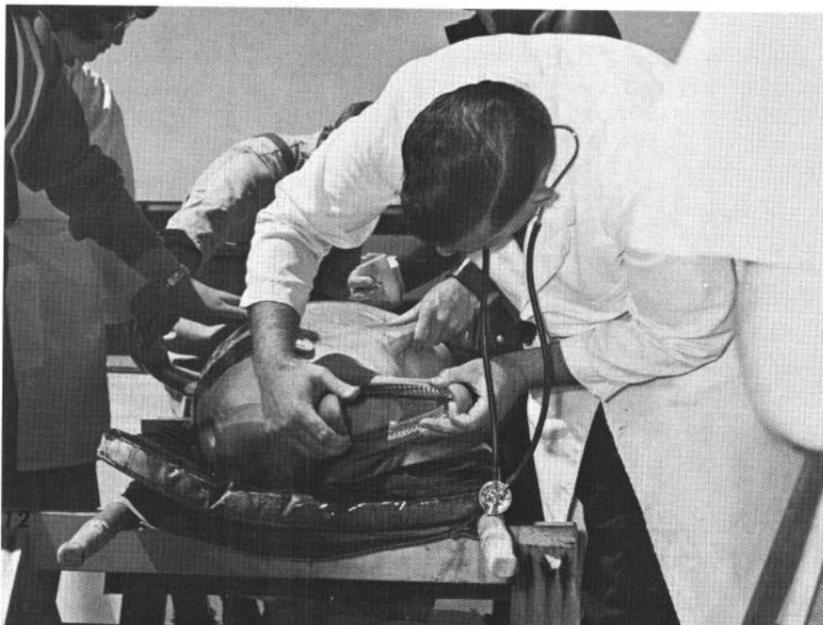
would do their darndest to earn it.

Dr. Lilly's experiments of late have been aimed at communications between man and dolphin. He has had some success teaching porpoises to say English words and phrases, but so far the porpoises have only managed parrot speech, or mimicry. His research is continuing.

EVEN IF WE CAN'T teach porpoises to talk to us in our language, it may someday be possible to talk to them in theirs. One Navy-sponsored project is to develop an electronic device which turns words into whistled tones, like those emitted from porpoises. A device has been manufactured, but this research is still in its infant stages.

While research into man-porpoise communication is still in progress,

SAY AHHH—Porpoises don't seem to mind medical checks of this nature. Here, Navy veterinarian looks into porpoise's mouth to check animal's health.



other Navy experiments have proven that the animals do talk to each other.

Dr. Jarvis Bastian recently conducted tests at the Marine Biology Facility, Naval Missile Center, Point Mugu, Calif., in which two porpoises first had to learn a pattern of instructions.

The animals, Buzz, a male, and Doris, a female, were first trained to press one of two paddles, depending on what kind of light signal they received from an automobile headlight. A continuous light meant push the right paddle; a flashing light indicated the left one. If they got it correct, they received a fish for their efforts. The two porpoises quickly mastered it.

The next step was to train Buzz and Doris to work together in coordination. Doris was taught she was to wait until Buzz had pressed his paddle before she pressed hers. Again they learned fast. There was, after all, a fish involved.

Next, a partition was lowered into the tank to separate the two porpoises. They could no longer see each other, and Buzz could no longer see the headlight. The partition was not sealed tightly, however, so the two could still hear one another. Then the light was turned on. While Doris waited for Buzz to push his paddle, she gave off a combination of whistles and pulse trains—and Buzz pushed the correct paddle. They got it right every time.

Finally, several layers of acoustic paneling were placed between Buzz and Doris. Now they could neither see nor hear one another. Still they tried, but Buzz's performance dropped to the level of chance. Obviously, he was no longer getting the message.

WHY DOES the Navy provide funds so that scientists like Dr. Bastian can play complicated games with porpoises? There are many reasons. By studying porpoises, scientists hope to acquire knowledge which human beings can use in all sorts of ways. For instance, if we could find techniques for understanding porpoise talk, we might be able to use these same methods to learn to say "Take us to your leader" in the languages of other planets. Chances are whom-ever or whatever we meet on other planets won't be much more unusual than the porpoise.

Porpoises are known to be capable of descending to 1000-foot depths

and of absorbing enough oxygen to remain there for a long (as far as we're concerned) period of time. Why can they withstand these deep ocean pressures which are beyond the physiological limits of other mammals? Scientists say an explanation of this may lead to the development of techniques enabling divers to work deeper and men to escape submarines without long periods of decompression.

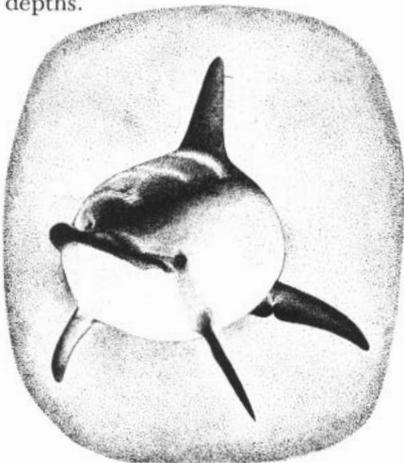
Does the porpoise know a lot more about hydrodynamics than we do? If we can find some of his secrets, we could perhaps reduce the drag of underwater missiles and torpedoes, and thus use smaller power plants to propel them.

Can we improve our sonar so that it approaches the capabilities of porpoise sonar? Our antisubmarine warfare experts would like to know. They would also like to be able to communicate with porpoises. It is, after all, only a little bit fantastic to imagine a school of porpoises assigned to an ASW task force. An imagined communication might read: "Hunter-killer leader to Albert, Buzz, Betty,

Doris and Tuffy. Any contacts?"

Tuffy, by the way, has already proven himself to be quite a helpful animal. During the Sealab II man-in-the-sea experiments, Tuffy became a familiar sight to the inhabitants of the Navy's underwater house.

Instead of carrying a warming flask of brandy to aquanauts lost in the Pacific, Tuffy was trained to carry a lifeline to undersea travelers who lost their way in the murky depths.



Each of the aquanauts had an acoustic signaling device strapped to his wrist which, when turned on, would contact Tuffy and send him rocketing with his lifeline toward the "lost" diver. Tuffy also acted as the Sealab messenger, carrying bags of mail and tools in a special harness from the surface base to the aquanauts below.

Tuffy is scheduled to provide similar, more advanced services during the coming Sealab III experiments.

Which all brings us back to the basic question. Are porpoises really very smart? One aspect of their behavior provides us with a helpful clue.

Porpoises will eat only live fish when they are roaming the open ocean, and have to be trained to acquire a taste for dead ones. After a while in captivity, however, they learn to enjoy their handouts, and will swim patiently all day in a pool full of fish until they are fed from a pail of dead fish. They're at least smart enough to let their keepers do the fishing.

—Jim Teague, JO1, USN

The Sixty-Four Dollar Question — Is It a Porpoise or Dolphin?

There are some arguments among Navymen that go on year after year with neither altercator ever being convinced. How did the markings on the enlisted uniform evolve? What ratings take precedence over the others?

One question that has served to while away many an hour on the fantail goes something like this: Is the gambling prankster a porpoise or a dolphin?

In common, everyday American usage, you can call it either a porpoise or a dolphin, we've discovered. As was noted above, the accompanying article uses porpoise indiscriminately, to avoid confusion with the gamefish called dolphin.

Even scientists who are engaged in porpoise (dolphin?) research are inclined to use the two names rather loosely. They don't have time to worry about an animal's right name when they're busy measuring the time intervals between his sonar clicks.

However, as any experienced taffrail debater knows, common, everyday usage does not an argument win, nor a purse fatten. If one debater can spice his rhetoric with a few hifalutin, scientific,

latin names, he can sufficiently confound the issue to leave his opponent openmouthed and empty-palmed.

With this in mind, here are some notes with which prospective arguers and arbiters can arm themselves:

Firstly, taxonomists (people who worry about such things) assign very definite rankings for groups of animals or plants having similar characteristics. The rankings with which we are concerned, from highest to lowest, are *order*, *family*, and *genus*. You might compare them with states, counties, and cities. Each state (order) has within it several counties (families), and within each county are several cities (*genera*—plural for *genus*).

This is, of course, too easy. The ranks are further broken down into *sub-orders*, *sub-families*, and *sub-genera*.

All whales and other mammals who live exclusively at sea and resemble fish are of the order *Cetacea*. The sub-order *Odontoceti* includes the sperm whales, killer whales, pilot whales, dolphins, and porpoises.

Up to this point, the taxonomists

are in agreement. The friendly animals are *Odontocetous*. From here on, however, the classification depends on what taxonomist you are quoting. Some say there are two different families—*Delphinidae* (dolphins), and *Phocaenidae* (porpoises). Others affirm (and are backed up by Webster's unabridged of 1967) that the family *Phocaenidae* are included in the larger family *Delphinidae*.

At any rate, the family *Phocaenidae* includes, among others, the genus *Phocaena phocaena*, or common harbor porpoise; and the family *Delphinidae* includes, but is not restricted to, the genera *Lagenorhynchus*, *Delphinus delphis*, and the *Tursiops truncatus*. The *Tursiops*, incidentally, is the one you will usually find in the oceanariums, and has the most prominent grin.

After sifting through all of this scientific data, we were still a little fuzzy about what to call the subject of the accompanying article. A call to the friendly expert in the Smithsonian Institution was meant to straighten it all out. "Call them porpoises," our friend said. You see, there's this gamefish...—J. R. T.

IT'S NOT LIKE THE SONG—

Cruising Down the River

CRUISING UP AND DOWN a lazy, flowing river sounds like a fine way to spend a long, hot summer unless you happen to be in Vietnam. Then the placid setting develops into one with dangerous overtones, like the scene last summer when a group of U. S. Navymen cruised the Long Tau River, main shipping channel from Saigon to the South China Sea.

They were engaged in what was perhaps one of the most historic and hazardous oceanographic surveying ventures ever conducted in Southeast Asia. Under any other circumstances it might have been a pleasant job.

Together with five scientists and engineers from the Naval Oceanographic Office and the Navy Research and Development Unit, Vietnam—referred to as NRDU Vietnam—the 11 Navymen aided in an environmental study of the shipping channel from Phu An, north of Saigon, to Kan Gio, where the Long Tau enters the South China Sea.

It was a survey of some 35 miles of deep draft channel, conducted under combat conditions, with the men in constant danger from Viet Cong sniper fire and river mines.

In other words, it wasn't exactly a riverbank picnic type cruise. But then neither are any of the other tasks undertaken by the NRDU Vietnam group, the only unit of its kind in Southeast Asia.

Its reputation is founded on "quick fixes" or solutions provided, usually within 30 to 90 days, to technical problems arising in the field with the operating forces. Therefore, when the requirement arose to discover how characteristics of the Long Tau River affect sonar and other watermine countermeasures of the Navy, NRDU Vietnam naturally took up the job.

NRDU'S BASE for operations was the Vietnamese-U. S. Naval Base at Nha Be located eight miles south of Saigon. There, scientific equipment for the survey was gathered from the Naval Oceanographic Office, but everything else had to be sought out and pieced together.

A 51-foot armored LCM landing craft, converted to a minesweeper to clear enemy watermines, was provided by Nha Be's Mine Squadron 11 detachment for use as a survey

craft. It was soon to carry some of the most sophisticated oceanographic sensors ever to probe Vietnamese waters.

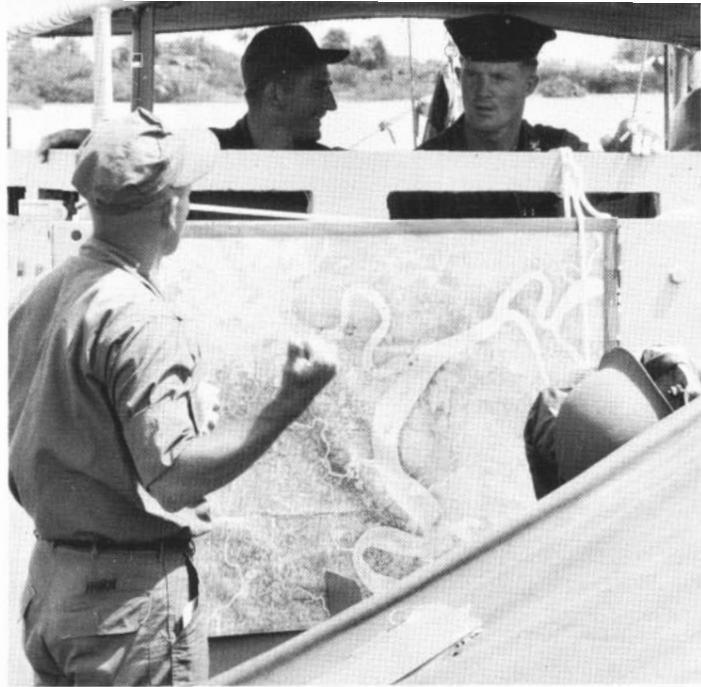
To man the landing craft and assist in the survey, the Navymen were "borrowed" from other units in the area. Rounding out the team were the civilian scientists and engineers.

Since most of the Navymen had no previous surveying experience, the first two days were spent in training, learning how to operate the equipment. From then on the men became adaptable to any situation, making modifications to the equipment as they went along.

To prepare themselves for possible enemy attack, the surveyors also borrowed machine guns, automatic grenade launchers and individual rifles and side arms from the mine squadron detachment. Each man, civilian and military alike, was checked out and required to fire every weapon in the arsenal. Then they were assigned battle stations aboard the LCM. Throughout the project, they worked with weapons close by, although they never came into direct contact with the enemy.

ON THE BOTTOM—Survey team members operate bottom profile recorder. **Rt:** Sediment sampler is readied for test.





RIVER RECORDING—Crewmember stands by to lower current meter. Rt: River navigation problems are discussed.

PLANs CALLED for the team to survey the entire length of the shipping channel, with specific observations to be conducted at three main points along the way. This meant the LCM would be anchored as long as 12 hours at the three stations.

Busy river traffic constantly moved about them and nearly proved disastrous at one station located at a bend in the river where the survey craft was almost rammed by a large merchant ship rounding the blind turn. Fortunately, the ship spotted the team and turned away at the last moment, avoiding a collision.

Enemy mines were another constant source of danger. Working 15 to 18 hours a day, on occasion the team would leave the base at Nha Be before the Navy minesweepers got underway. And, more often than not,

BOTTOMS UP—EOD diver brings up a core sample of the river's bottom.



the team would return long after the last sweeper had been tied up to the pier.

DURING THE SURVEY the team tested the water for temperature, salinity, conductivity, currents and sound velocity at some 65 different observation points. Water samples were obtained and analyzed for sediment content. At each point, Navy divers from an accompanying EOD team obtained bottom cores or samples of the riverbed and performed other underwater measurements such as visibility and bottom hardness.

Data was analyzed in a makeshift laboratory at Nha Be and forwarded to the U. S. Naval Oceanographic Office for further analysis.

Seismic and bathymetric profiles were made of the entire length of the Long Tau and along both banks. The seismic record revealed the structure of sediments beneath the riverbed while the bathymetric record displayed the configuration of the river's bottom. Buried river channels were discovered along with numerous migrating sand ridges or dunes, ranging from 30 to 60 yards in length and from six to eight feet in depth.

Navy divers installed current meters on the river bottom in various locations. This made possible the recording of the direction and speed of water movements. The speed of the currents, often up to three knots,

and the zero visibility underwater made this a most difficult task for the EOD team. Nevertheless, the divers managed to attach sonic beacons to the instruments so they could be located and recovered by using underwater listening devices.

After the Navymen mastered the scientific devices, they took on more and more responsibility from the civilian scientists in monitoring and handling the complex equipment.

Finally, the last piece of information was gathered and recorded, and the individual team members returned to their parent organizations. Their experience had lasted 30 long, hot and dangerous days, but the result will be appreciated for months to come by Vietnamese and U. S. vessels navigating the Long Tau River.

—Ray Tills, JO2, USN

CURRENT TEST—Sound velocimeter is lowered into waters of Long Tau river.





LOGISTICS HELICOPTER leaves *Wainwright* for other ships. *Rt*: Long day of watching continues through the night.

USS WAINWRIGHT HAS

PIRAZ, officially known as Positive Identification Radar Advisory Zone, is an area covering much of the Tonkin Gulf. It is also the station name of the ship which controls this zone.

uss Wainwright (DLG 28), a guided missile frigate, is one such ship. She provides Navy and Air Force pilots with continuous air navigation, quick advice on the nearest

tanker service, and sorts out the good guys from the bad guys.

Wainwright frequently cruises some 100 miles north of Yankee Station where Navy carrier-based pilots begin and end their combat flights. The distance to Hanoi and Haiphong is much less to the north and west.

On a typical day on Piraz, activity in CIC (Combat Information Center) begins to pick up around daybreak.

Shortly thereafter, planes of the three attack carriers of Task Force 77 are overhead on their way to targets in North Vietnam.

This routine is repeated day after day and often hour after hour by the men and ships who man the Piraz station. For *Wainwright*, this is her second line period.

One piece of gear which makes her particularly useful at this sort of job is her Naval Tactical Data System, which is a high-speed, computerized system of collecting, displaying and evaluating combat information. *Wainwright* needs all the help she can get, for at times the air space in her area is as crowded, if not more so, as the world's busiest airports during peak flying hours.

For 24 hours a day, *Wainwright* air intercept controllers identify and track all aircraft over the Tonkin Gulf. During the almost-daily strikes, they have their hands full.

First come the defensive F4B *Phantom* jet fighters, then the supporting tankers and radar aircraft. Finally, the attack aircraft—the *Phantoms*, *Thunderchiefs*, *Intruders*, *Skyraiders*, *Skyhawks* and *Crusaders*—check through Piraz on their way to the north.

All the aircraft in the armada are identified, assigned a computer identification code and tracked to the target and back out.

At the same time, *Wainwright's*

ON PIRAZ STATION—Reveille is sounded and the morning watch is set as *USS Wainwright* (DLG 28) maintains a radar fix for pilots flying in Vietnam.





CONTROLLERS track all aircraft over the Tonkin Gulf. Below: Flight deck crewmen help refuel SAR helicopter.

LOTS OF PIRAZ

helicopter takes off. In company with the other sea-air-rescue helos, "Big Mother" will hover just off the coast of North Vietnam near the coast-out (or attack exit point) throughout the mission. They wait to give a helping hand to returning pilots who may be in trouble and have to ditch.

Back in CIC the air intercept controller identifies and tracks all friendly aircraft. By doing so, he will be able to know promptly of any enemy air activity and to divert the defensive *Phantoms* to the intercept.

Should the enemy break through the defensive fighters, or if the enemy were to make an attempt on the fleet in the Tonkin Gulf, *Wainwright* would shift to her main battery, the *Terrier* surface-to-air missile system.

More than once, *Terriers* have been readied when unidentified and unaware friendlies forgot to check into the Piraz area.

Although *Wainwright's Terriers* have never been fired in anger, her missilemen check and double check the system daily to ensure it will be ready if needed.

In addition to her primary mission of keeping track of all aircraft over the Gulf, *Wainwright* also passes such information as weather, courses to home base and locations of other aircraft in the Gulf to pilots when they need it.

Throughout the day, the cycle

continues. Attack aircraft coast-out with empty bomb racks, take a fix on *Wainwright* and head for home.

No matter whether they are going in or coming out, work does not slow down aboard *Wainwright*. During the lull between strikes, data on the next attack is fed into the computers and marked on the plotting board.

Men and machines work together to form a team where a score of 99 out of 100 is not good enough.

—Text and photos by
Willard B. Bass, Jr., JO1



MISSILE CHECK—Member of *Wainwright's* weapons division relays information via phone as the ship's *Terrier* surface-to-air missile system is checked.





MOPIC Team Covers Vietnam

IF THEY WANT a piece of the action, the Navy's Combat Motion Picture Team has to keep on the move.

Providing news film for release to stateside TV networks, the MoPic team's cameras probe every niche and corner of Vietnam. The on-the-go team films such projects as jets striking North Vietnam from Yankee Station carriers, U. S. Army artillery batteries bombarding the enemy, Sea Dragon ships smashing military targets in North Vietnam, Marine amphibious assaults, and Vietnamese military training centers.

Their original Saigon office, in the Kindo building, was demolished last winter by a terrorist bomb, but the team was not at home. They were on the move.

They make only brief visits to their new Saigon retreat in the Brinks Hotel to complete their data sheets and scripts. Then they are off again on another assignment.

One of their recent projects was a documentary report on casualty care. Another job involved filming underwater inspection of ships for explosives performed by an explosive ord-

nance disposal team. A Vietnamese paratroop drop was another.

The team finds the helicopter an indispensable form of transport. Since many films open with establishing aerial views, the team logs a lot of whirly-bird time.

Often, they earn the title "combat team." Recently, they joined Vietnamese Junk Forces on the Mekong River in attacking a fortified Viet Cong outpost. The junks made a run on the outpost. Firing was heavy from both sides. Enemy tracers burst in bright red streaks, ripping through the wooden-hulled junks.

The MoPic team's officer in charge grabbed a camera and jumped up to film the exchange of fire. When a junk force sailor beside him was hit, he turned and filmed the action as a U. S. advisor treated the man's wounds.

Officially, the team's mission does not require them to engage the enemy. Sometimes it's necessary. The team members have been subjected to enemy automatic weapons fire, sniper fire, mortar attack, and have barely missed tripping VC booby traps. But they keep filming. And they keep moving.



Clockwise from Top Left: (1) An



in Depth

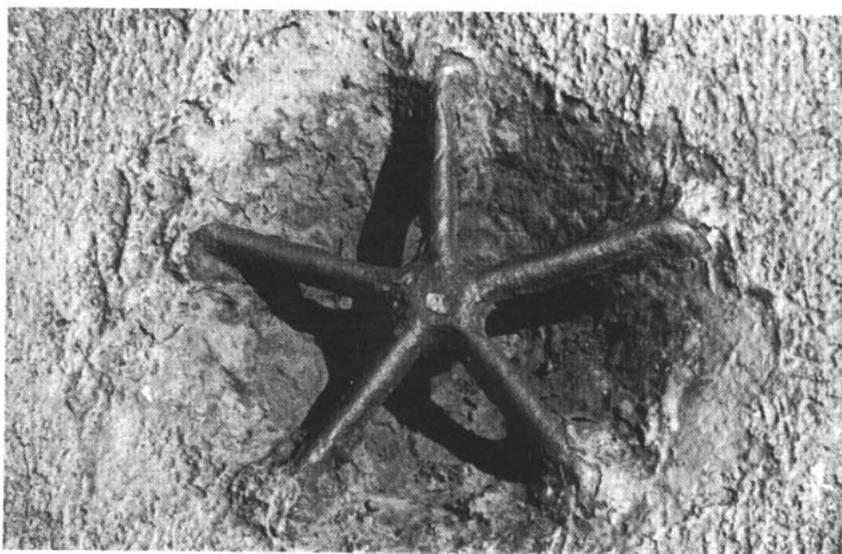
American advisor to Vietnamese Junk Force unit gets acquainted with children in village. Cinematographer Roy Gilbertson, USN, films the moment to add sidelight interest to MedCap visit. (2) In Ben Cat hamlet, South Vietnam, Navy cine-soundman Dick Read records music and song of Vietnamese Cultural Team while cameraman records the event. (3) Navy cinematographer Roy Gilbertson shoots motion pictures in South Vietnam for American TV viewers. (4) U. S. Army troops leave Riverine landing craft in enemy-held area of Mekong Delta. Facing boat at far right, LT Vincent Madonia fills in as cameraman to film troop landing from shore view. (5) Leader of Cultural Team in hamlet undergoing revolutionary development performs magic tricks to gather crowd of on-lookers. Songs, dances, and comedy skits also encourage feeling of national pride and point up the fallacies of Viet Cong propaganda. The Navy MoPic Team portrays many nation-building efforts for U. S. TV viewers. (6) Vietnamese Junk Force lands on muddy Mekong riverbank near village. Cinematographer George Husted shoots establishing scene for news film of MedCap visit.

—Tom Zell, JO1, USN



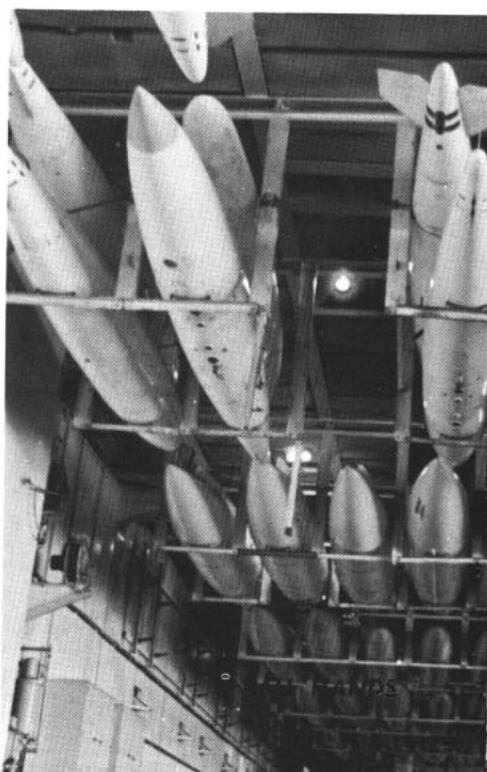
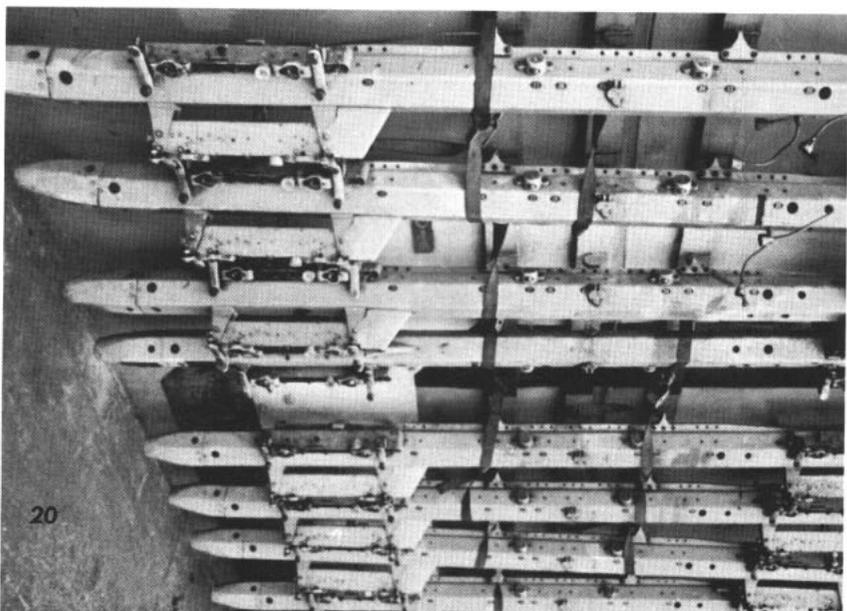


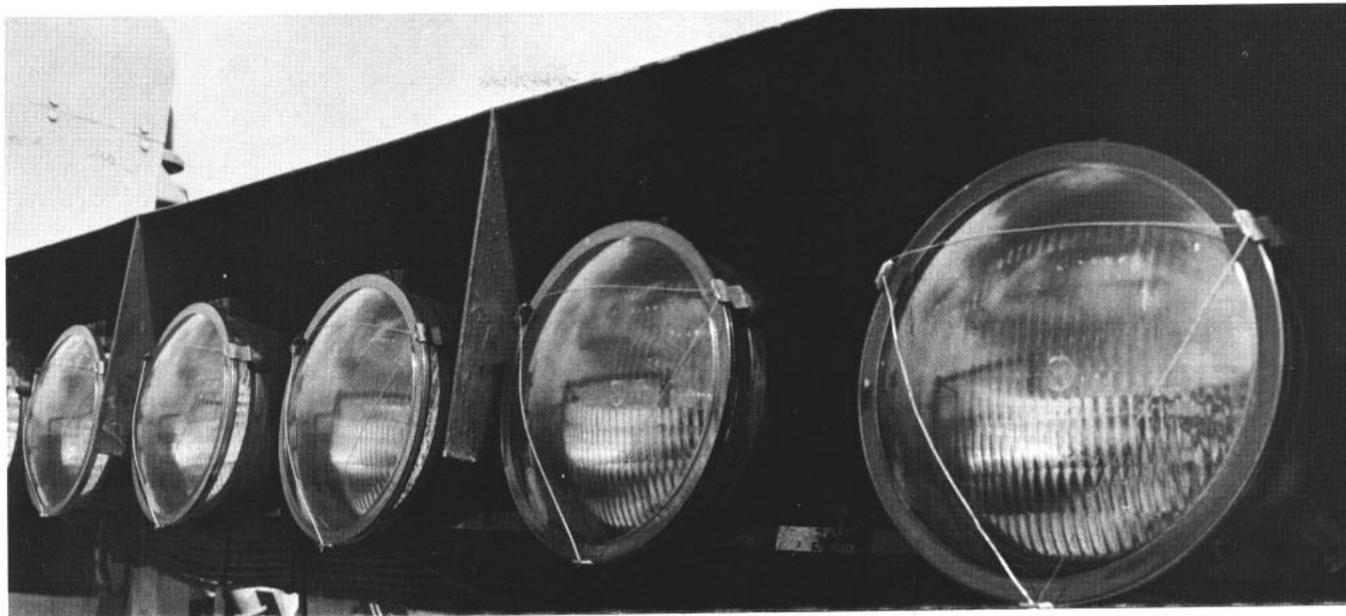
USS Constellation: Carrier



FOR THE OFFICERS and men of the attack aircraft carrier USS *Constellation* (CVA) 64 on station off North Vietnam, air strike operations against North Vietnam are an everyday pattern of existence.

Operating on the line in the Gulf of Tonkin, men and machines are intertwined to form a smooth-running pattern of aircraft launches and recoveries . . . a never-ending cycle in the Navy's air war over North Vietnam.



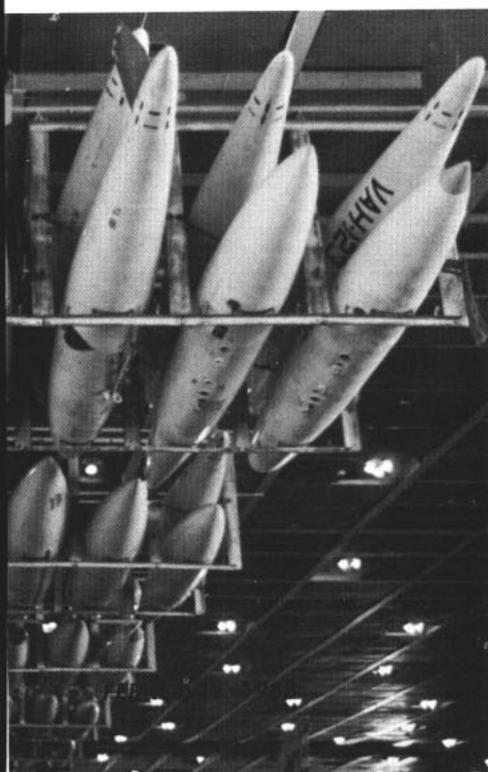


Patterns

The tools of war that pervade the atmosphere of *Constellation* often make patterns of their own. These patterns tend to escape the naked eye because they are a natural and integral part of carrier combat operations.

Isolated from their surroundings by the camera, they form patterns and designs of their own, creating a touch of beauty in the cold, gray reality of war.

—Photos and story by Jack Reeves, JO3, USN





U. S. NAVY advisors PO1 Jerry Crow and CPO Edgar E. Luke instruct students in typing and diesel engine repair.

Naval Academy, Vietnam

SOUTH VIETNAM'S fast-growing Navy, numbering more than 600 craft and almost 16,000 men, gets most of its trained officers and enlisted technicians from the Vietnamese Naval Training Center at Nha Trang.

Located on the quiet shores of the Bay of Nha Trang, the Training Center includes the Vietnamese Naval Academy and 14 Class "A" schools for enlisted trainees. The Center has the responsibility of producing those line and engineering officers, as well as specialized enlisted technicians and seamen, who will keep the Vietnamese Navy in constant combat readiness.

A team of U. S. Navymen, three officers and four enlisted men, advises the Vietnamese instructors.

The 264 midshipmen presently in

training at the Academy have but a single ambition—to become commissioned officers through 18 to 24 months of rigorous mental and physical preparation.

At the same time, 506 enlisted trainees in Class "A" schools are acquiring a variety of technical skills fitting them to serve in fleet ships and jobs ashore.

At the Naval Academy, classes have steadily grown since the first eight midshipmen were graduated in 1952, and now number approximately 130 men each, with two classes being conducted concurrently.

Graduating midshipmen receive a Reserve commission and are obligated to five years of naval service. The top 40 or 50 of each graduating class join elements of the U. S. Seventh Fleet in WestPac for train-

ing cruises. Still others are sent to the U. S. to qualify as Academy instructors.

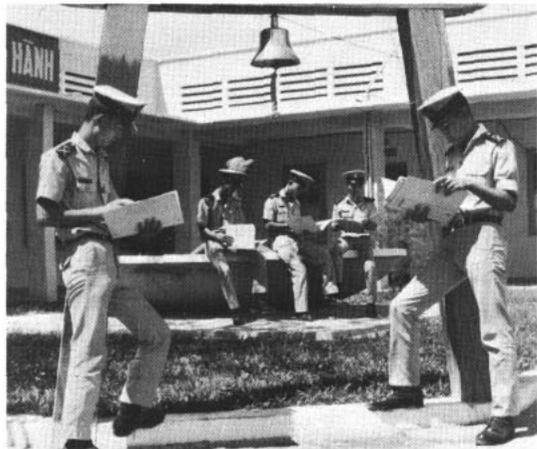
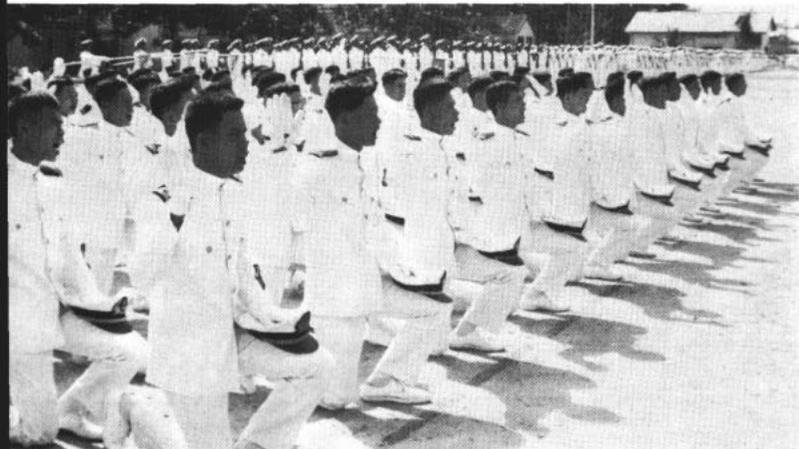
The 14 Class "A" schools at the Training Center, ranging in length from 16 to 24 weeks, offer enlisted men technical training in such skills as radar, communications and gunnery.

Since 1952, more than 9000 enlisted men have graduated from the Class "A" schools. On completion of training, each graduating student is promoted in his specialty to the rank of seaman.

Selected students in nine ratings are then sent for more advanced training to Class "B" school, located in Saigon, where courses last 20 weeks.

Story by Ray Tills, JO2, USN
Photos by B. Wendell, PH2, USN

VIET NAVAL Academy midshipmen take commissioning oath at graduation and study notes at academy entrance.



LETTERS TO THE EDITOR

Dependents in Japan

SIR: I am going to Vietnam soon, and I would like to send my wife and son to Japan to live with my in-laws. My wife is a naturalized U. S. citizen. Must I get permission from the Navy for my family to go to Japan?

Also, will my wife be able to use the services provided by the Navy in Japan, such as commissaries and exchanges?

I presume the Navy will not pay for her transportation, but will she be entitled to dislocation allowance?—T. S., QMC, USN.

• You do not need permission from the Navy, but you do need the approval of the Japanese government. Your family will not be eligible to enter Japan in a dependents' status, and therefore will have to comply with applicable Japanese customs and immigration requirements. They will have to apply for a tourist passport and a visa.

Unfortunately, none of the Navy's services—except medical care on a space available basis—will be available to your family. Due to our country's Status of Forces agreements with Japan, your dependents will not be allowed to use the commissary store, the exchange, or other privileges. Your son may attend the dependents' school, but there will be a tuition charge of \$2.60 per day.

You will have to pay your family's fare to Japan. You are entitled to travel allowances on behalf of your dependents, however, on a not-to-exceed basis of the allowances accruing from your ship's home port and your family's point of departure from the U. S. You are also entitled to the dislocation allowance

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, Pers G15, Bureau of Naval Personnel, Navy Dept., Washington, D.C. 20370.

after their travel has been completed.

Dependents should arrive in Japan with a completed Application for Uniformed Services Identification Privilege Card (DD-1172) in their possession. The procurement of the New Limiting Card (DD-1173) should be accomplished immediately upon arrival of the dependents in Japan.

The above procedures will assist COMNAVFORJAPAN in ensuring that the provisions of the Status of Forces Agreement (United States-Japan) regarding the logistic support authorized dependents of members of U. S. Armed Forces are complied with by those dependents in Japan unaccompanied by their sponsor.—ED.

Warrant Conning Officer

SIR: The Blue crew of *uss George Bancroft* (SSBN 643) herewith lays claim to having had aboard a man who may well be the Navy's only warrant officer (W-1) to qualify as an FBM submarine conning officer.

Newly appointed warrant officer Thomas E. Brayman, USN, qualified as a *Bancroft* conning officer during a patrol late last year. He has since been transferred, but our crew still talks

about his initiative and drive to meet the strict SSBN conning officer qualifications.—D. W. B., YN1 (SS), USN.

• In order to qualify as conning officer, a submariner must first convince his commanding officer that he is a qualified officer of the deck for both surface and submerged operations. This calls for thorough knowledge of the ship and considerable experience in an OOD/junior OOD capacity.

A junior warrant officer who qualified as OOD on board a Fleet ballistic missile submarine is something we hadn't heard about before. We have no way of knowing, at this point, exactly how many others there might be. Perhaps we'll hear from some.

In any event, we tip our hat to conning officer Brayman.—ED.

Pro Pay for RMs

SIR: The Manpower Authorization requirements of this command lists billets for: one 1539, one 1544 and one 1547—all of which are codes for certain equipment technicians.

The problem is, however, there are actually four men on board with the 1539 NEC. Two are ETs and two are RMs. According to our BuPers Report 1080-14, one RM is assigned to the 1539 billet and the two ETs are filling the 1544 billet.

Now comes the sticky part: I understand that RMs carrying any one of the NECs I've mentioned are entitled to draw proficiency pay. Does this mean, then, that both RMs filling the same billet are authorized the extra pay? If not, why?—P. J. B., RM1, USN.

• If the command Manpower Authorization authorizes only one NEC

INTERNATIONAL AFFAIR—Italian frigate and *USS Shangri-La* are refueled by British oiler during NATO exercise.





BUSY STINGER—This Orion, based at NAS Moffett Field, shows its "stinger."

1544 billet, then only one individual with an NEC 1544 is eligible for the extra pay. Selection of the individual to fill the billet is determined by the command.

Although a man holds an NEC for which pro pay is authorized, he may not receive the pay unless the command has such a billet available and it is being filled by him. This ruling can be found in change six to BuPers Inst 1430.12.—Ed.

Tucker Was First

SIR: I was surprised to see an ALL HANDS article some time back stating that USS *Hamner* (DD 718) was the first ship to bombard Viet Cong coastal positions in Vietnam.

An earlier issue of ALL HANDS had carried a report which claimed that USS *Henry W. Tucker* (DD 875) was the first ship to fire a shore bombardment mission in Vietnam.

ALL HANDS reported in its earlier issue that *Tucker's* claim had been confirmed by the Naval Advisory Group of the Military Assistance Command, Vietnam. The date of *Tucker's* firing was 16 May 1965—four days before that of *Hamner's* on 20 May.

I would appreciate your resolving the conflict in claims so that the crew of *Tucker* can receive the recognition which is justly theirs.—J. W., CDR, USN.

• USS *Tucker* reported to us in 1966 that she was the first destroyer to fire naval gunfire support in Vietnam. As you say, this was confirmed by the Naval Advisory Group of the Military Assistance Command, Vietnam.

Some time later ALL HANDS published a report that *Hamner* was claimed to be the first ship to bombard Viet Cong coastal positions. This report came from

a Navy headquarters release, "Review of our Navy in Vietnam."

Following the counterclaims, we checked the events, as recorded in the ships' logs. Here's what the Correspondence and Services Branch had to say on the subject:

"The ship's deck log of USS *Henry W. Tucker* (DD 875) for 16 May 1965 does not show that this ship conducted any shore bombardment on that particular date; however, entries in the log for 15 May show that, on that date, *Tucker* did conduct firing of her port batteries while patrolling in area No. 6 off the coast of Vietnam and that she commenced firing to port at 0820 and ceased firing at 0833. The log does not indicate the circumstances which necessitated the aforementioned action, nor the type of action that she was engaged in at that time.

"The ship's deck log of USS *Hamner* (DD 718) shows that this ship conducted shore bombardment near the village of Trung Nghia, South Vietnam, on 20 May 1965."

Next we turned to the Director of Naval History who provided us with the following information:

"*Henry W. Tucker* (DD 875) was the first to conduct a bombardment mission on the coast of South Vietnam. Official reports, using Greenwich Mean Time, show this took place 16 May 1965. This would have been 15 May 1965, local time, as reported in the ship's deck log of *Henry W. Tucker*. This was an emergency call-fire mission.

"*Hamner* (DD 718) has the distinction of having conducted the first scheduled (pre-planned) bombardment of the coast of South Vietnam. This took place 20 May 1965."

This should be the definitive word on the records of *Tucker* and *Hamner*.—Ed.

The 18-Inch Ghost Guns

SIR: I believe that 18-inch guns never existed, but a friend of mine insists that they did. I base my stand on information I think I read in ALL HANDS some years ago. What saith ALL HANDS now?—R. M. Y., Sunnyvale, Calif.

• You may have placed yourself on the losing side because of your recollection of only a part of the intermittent discussion of 18-inch guns which has appeared in ALL HANDS for these many years.

The last (we think) such sea story appeared in the May 1964 issue, in which inquiry was made concerning the possibility of an 18-inch gun aboard USS *Vega* (AK 17) used for ballast. We also made reference to the legend that an 18-incher had been used for ballast aboard USS *Relief* (AH 1) (not true, we said) and to the 18-incher built as an experimental model and said to be at the Naval Proving Ground, Dahlgren, Va., back in 1947.

In short, with the possible exception of the Dahlgren version, we implied that there was no such critter in the U. S. Navy, nor had there been. It's a little difficult to establish the nonexistence of something—even as large as an 18-inch gun—and we didn't discuss at that time the 18-inch guns in the navies of other nations.

That's where you got fouled up. Your friend is correct. Two Japanese battleships, *Yamato* and *Musashi*, did carry 18-inch guns—18.1 inch guns, to be more precise.

The story of these ships began in the mid-1930s with a directive which, in effect, ordered the Japanese Navy to build the most powerful warships in the world.

Original plans called for three Yamato-class BBs with basic statistics as follows: length, 863 feet over-all; beam 127 feet; displacement, 72,809 tons (full load); trial speed, 27 knots; main batteries, nine 18.1-inch guns. Note that the guns were actually one-tenth of an inch larger than generally known.

Japan realized that her existing battleships were inferior in firepower to those of the United States. The Yamato-class BBs were to be the largest, most powerful ever built.

The interesting feature of the superbattleship was the 18-inch gun. (We have been advised that during WW I the British had built HMS *Furious* with 18-inch guns, but these were later removed when she was converted to an aircraft carrier. Other than this, naval guns had not exceeded 16 inches.) *Yamato* and *Musashi* were each armed with nine of the weapons, six forward and three aft.

The third ship of the Yamato class was converted, while still under construction, to a large aircraft carrier

named Shinano. More on her later.

The 18-inch guns were capable of propelling 3220-pound projectiles more than 25 miles. They measured some six feet in length, and could be fired at 40 second intervals.

The two-inch difference in diameter between the 18- and 16-inch gun did not indicate realistically the specific differences in weight, size and technical problems. For example, the weight of a 16-inch projectile was approximately 2200 pounds. The 18-incher weighed 1000 pounds more. A triple-mount, 18-inch gun turret weighed in at 2774 tons—as much as a large destroyer.

The effects of the blast from an 18-inch gun brought about complications. In technical terms, two 16-inchers fired simultaneously produced a blast of 49.7 psi at a point 50 feet from the gun muzzles. The 18-inch guns produced a blast of some 99.6 psi at the same distance. It was noted that a blast pressure of only 4 psi was enough to destroy small boats slung nearby. A blast pressure of 16.5 psi could tear the clothing from gunners and knock them unconscious.

The blast pressures from Yamato's big guns called for special battery shields, and hangars for the ship's boats.

Yamato was believed to be the most heavily armored man-of-war ever built. The sides of her vital parts were protected by 16.4 inch armor plates capable of withstanding the force of an 18-inch projectile fired at more than 22,000 yards. Her deck armor could be penetrated only by a 2200-pound bomb dropped from a height of 11,000 feet or more.

The size and power of Yamato and Musashi were shrouded in secrecy until early 1944, when U. S. intelligence officers compiled enough information to realize their potential.

However, the wartime history of the super-BBs was essentially a story of absorbing punishment rather than dish-ing it out. Neither lasted five years, and each saw only limited action.

Yamato was placed in commission on 16 Dec 1941. Sketchy historical data does not account for her whereabouts during the next two years, but on 25 Dec 1943 she was hit by a torpedo from USS Skate (SS 305) and laid up for repairs. Skate's commanding officer knew he had hit a large ship, but it was too dark for accurate observation.

During the Battle for Leyte Gulf in October 1944, Yamato received three bomb hits near her number one turret, but damage was superficial and she was easily repaired.

In April 1945, Yamato was designated as the major unit of a task group ordered to disrupt U. S. landings at Okinawa. Other Japanese ships in the force were the light cruiser Yahagi and eight destroyers.



BATTLESHIP GUNS claimed to be largest ever used aboard ship are shown on Japanese Yamato during construction. The huge guns measured 18.1 inches.

At 1000 on 7 April, Yamato and other ships in the group made hazy radar contact with U. S. Navy carrier planes. The ships prepared for a battle that was to begin shortly after noon that day.

As Yamato increased speed, two large groups of U. S. aircraft swooped down through a broken cloud cover. Japanese screening ships began their usual circling tactics.

The first wave resulted in four bomb hits in the vicinity of Yamato's number three turret and two or three torpedo hits on her port side. Two bombs penetrated the flying and main decks and detonated above the armored deck. One of these bombs passed through the secondary fire control station and destroyed the after director of the secondary battery (triple-turret 6-inch guns).

During a second attack 40 minutes later, Yamato was hit by three torpedoes and possibly a fourth on her port side and one starboard. She began to list as much as 16 degrees to port.

A third attack meant additional punishment—and the end—for Yamato. Two or three torpedoes struck to port and one to starboard. The big BB's speed was cut to less than 10 knots, and only her starboard engine was still operative. A list to 18 degrees rapidly developed, and all power was lost at approximately 1400.

The list then increased at an alarming rate, and Yamato's commanding officer gave the order to abandon ship. She capsized before men could escape from below decks. As she reached an angle of 120 degrees, Yamato exploded

and disappeared from the surface.

The second 18-inch gun battleship, Musashi, was commissioned in August 1942. Her wartime service apparently was not too distinguished; little about her has been compiled by naval historians.

Musashi was reported to have been with the Japanese fleet in June 1944 during the Battle of the Philippine Sea.

In October 1944, she joined the Japanese Center Force of the Combined Fleet off Singapore and got underway for the Philippines. On 24 October, her formation was attacked by U. S. aircraft.

Musashi was hit on the starboard side by one torpedo but took on only three degrees of list and maintained a 22-knot speed.

An hour later, Musashi was attacked for the second time. Two bombs did considerable damage; the first, which was a dud, plunged through the fore-castle down and out through the port shell plating above the waterline. The second pierced two decks and detonated. The port inboard engine room filled with steam and was vacated.

Three more torpedo hits were reported, this time on the port side. The ship then began to list to port. Counter-flooding brought the battleship back to an even keel.

During a third attack about 30 minutes later, fragments from a near miss damaged the aircraft crane on Musashi's stern, and a torpedo hit forward, flooding several large storerooms.

Half an hour later, four bombs penetrated topside decks and exploded inside the ship. Four torpedoes were reported to have hit.

The waterline forward soon reached the main deck, and trim by the bow was so serious that Musashi dropped out of formation, reduced speed to 16 knots, and began to limp northward.

A fifth attack inflicted no damage, but by this time Musashi was forced to decrease speed. Her bow was almost under water.

The sixth and final attack on Musashi lasted only a few minutes. Ten bomb hits turned topside areas into shambles. Ten torpedoes zeroed in on her now-vulnerable armor. Her crew was ordered to abandon ship, and about an hour later Musashi lurched to port and slid under the surface.

Shinano, the third planned Yamato-class battleship, was converted during construction to a large aircraft carrier. The decision here was made after the Japanese lost four carriers in the 1942 Battle of Midway.

Commissioned on 18 Nov 1944, Shinano was comparable in dimensions and displacement to the United States Midway-class carriers.

Shinano's commissioned service was short-lived. During the early morning hours of 29 Nov 1944, she was tracked and attacked by *uss Archerfish* (SS 311). Firing from an ideal position, Archerfish launched six torpedoes; the first ripped into the carrier's after parts, sending a ball of fire climbing up her side. Another hit 50 yards forward of the first. Other hits were heard by the submariners, but not observed; at this point a Japanese DD was headed for the sub and forced her under.

Flooding of Shinano's port voids temporarily checked her list at 12 degrees, but by 0600 all power was lost. Two hours later Shinano began the transfer of her crew to Japanese de-

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, Pers G15, Arlington Annex, Bureau of Naval Personnel, Navy Department, Washington, D. C. 20370, four months in advance.

• *uss Lexington* (CV 2)—The 15th reunion will be held 26 through 29 June at the Edgewater Hotel, Long Beach, Calif. Contact Walter D. Reed, 5608 Ocean View Drive, Oakland, Calif. 94618, for details.

• *uss Franklin* (CV 13)—A reunion will be held 6 and 7 April at New York City. Contact Richard Ful-farr, 2485 Falcon St., East Meadow, N. Y. 11554.

• *uss Wichita* (CA 45)—The fifth reunion will be held at Hotel Lassen, Wichita, Kan., 28 through 30 June. For information, contact J. A. Glass, 111 Dupre Ave., Norfolk, Va. 23503.

stroyers. Her list increased slowly. She then rolled over, and with her bottom up, Shinano slid underwater stern first. Approximately 475 men in her crew of 1900 were killed.

The loss of Yamato and Musashi, meanwhile, marked the end of the interesting and powerful 18-inch gun.

A few old 18-inch projectiles on display in Japan are believed to be the only ones in existence. None of the big gun barrels were preserved. It is believed that all were scrapped, except, of course, those aboard Yamato and Musashi which still lie at the bottom.

So that's the story—in part—of the 18-inch guns.—Ed.

Guyed or Not, It's Still Half-Mast

SIR: Doesn't half-mast mean halfway up the flagpole? At my station, the national ensign when flown at half-mast is only about three feet lower than the top of the flagstaff. The ensign appears to be considerably higher up the staff than it should be, if, indeed, half-mast means halfway. What's the experts' opinion?—B. C. G., PN2, USN.

• Not knowing the dimensions of your station's flag, nor the height and type of flagstaff, we have no idea whether three feet below the top of the pole is appropriately half-mast.

It sounds as though your station may have a flagstaff with cross-tree or cross-arm. Is this the case, the ensign when flown at half-mast should be positioned halfway between the peak of the staff and the point of attachment of the cross-tree or crossarm. The ensign would be at half-mast, but would be closer to the top than to the bottom of the flagpole itself.

U. S. Naval Flags and Pennants (DNC 27A) describes the half-mast and half-staff positions of a flag or ensign as follows:

"For an unguyed, single piece flagstaff, the half-staff position is the point where the top of the hoist portion of the flag is halfway between the peak and the foot of the flagstaff.

"For a guyed flagstaff or a flagstaff with a cross-tree or crossarm, the half-staff position is the point where the top of the hoist portion of the flag is halfway between the peak of the flagstaff and point of attachment of the guy cables or the position of the cross-tree or crossarm."

Note that it's the top of the flag that reaches the halfway mark.—Ed.

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FIGHTING LADY—USS *Bunker Hill* (CV 17) shown above in 1944 portrait ran up quite a record in the Pacific. Below: Crewmembers fight fires topside and below after she had been hit twice within 30 seconds by kamikazes.



Your Uncle Helped Make History

SIR: What can you tell me about uss *Bunker Hill* (CV 17)? My uncle served in her during World War II and has been talking about her ever since.

Frankly, some of his stories sound pretty far out. On the other hand, I know some ships performed prodigious deeds during World War II.

If your account confirms even a quarter of my uncle's stories, *Bunker Hill* must have been quite a ship—R. L. H., PN2, USN.

• She was quite a ship. We can't know, of course, just what your uncle has told you, but he had plenty of raw material to work with. His carrier was so active it would be impossible for us to recount all her exploits, so we'll just try to fill in the main outlines. He can take it from there.

Bunker Hill first arrived on the battle scene when she participated in an air attack on Rabaul, New Britain, in November 1943. To help orient you youngsters, this was about 18 months after the crucial battle of Midway.

The tenor of *Bunker Hill's* World War II career was set at Rabaul, for a heavy toll was taken there in both Japanese planes and shipping.

After Rabaul, the carrier's activities continued to be so invariably successful that her history could be considered almost monotonous, for she, and the other ships with which she sailed, consistently inflicted heavy damage against the enemy.

At Tarawa, for example, she pounded the island's dugouts, gun emplacements and other shore installations, heavily damaging the enemy's air facilities and destroying many of his planes.

It was at Tarawa, on the night of 18 Nov 1943, when 16 enemy bombers attacked the invasion fleet. Of the 16,

Bunker Hill's anti-aircraft gunners downed six.

Bunker Hill was not only an active ship, but also she was comparatively lucky, too. She usually damaged the enemy badly without sustaining appreciable damage to herself.

In December 1943, for example, after damaging enemy shipping at Nauru in the Gilberts, *Bunker Hill* and other task force ships wreaked havoc on harbor shipping at Kavieng, New Ireland, yet withdrew unscathed.

Additional Japanese shipping entered Kavieng Harbor the last week in December and a second strike was planned for New Year's day. For the enemy, it wasn't a happy holiday—between 20 and 30 of his aircraft were shot down that day.

Bunker Hill's story rolls on in the same vein—massed Japanese bombers destroyed on the runways at Eniwetok Atoll; installations smashed and ships sunk at Truk (including the Japanese light cruiser *Naka*); waves of several hundred enemy planes attacking the U. S. task force driven off with great damage to the Japanese.

When *Bunker Hill* was pursuing the Japanese First Mobile Fleet on 20 Jun 1944, she scored hits on an enemy battleship and helped sink a carrier. One of *Bunker Hill's* torpedoes also damaged a Japanese destroyer.

By the spring of 1945, targets in the Pacific were becoming relatively scarce, but *Bunker Hill's* planes still helped to sink a Japanese battleship on 17 April as well as the light cruiser *Yahagi* and four destroyers. Two other destroyers were left in flames.

In May, *Bunker Hill's* flight deck was crashed by a Japanese Zeke. A *Judy* followed and released a 500-pound bomb. The resultant fires and explo-

sions caused many casualties to the crew and extensive damage to the carrier. She then proceeded via Pearl Harbor to Puget Sound for repairs and overhaul.

After the war, *Bunker Hill's* battle score was totaled. It was found that she had destroyed 430 planes in the air; 230 on the ground and sunk 140,-803 tons of enemy shipping.

The deeds of the ship and her crew were recognized by the award of a Presidential Unit Citation for extraordinary heroism in action against enemy Japanese forces in the air, ashore and afloat in the South, Central and Western Pacific from 11 Nov 1943 to 11 May 1945.

It might also be noted that *Bunker Hill* earned 11 battle stars on the Asiatic-Pacific Area Campaign Medal.

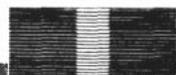
If this hasn't vindicated your uncle's veracity, you might consider that we haven't even touched upon happenings at Tinian, Woleai, New Guinea, Saipan, Pagan, Guam, Iwo Jima, Haha Jima, Chichi Shima, Palau, the Philippines, Leyte, Okinawa, Formosa, Cebu, Saipan and possibly some other places upon which *Bunker Hill's* crew laid eyes. We think, however, that you can understand how your uncle has been able to spin sea stories about his ship for lo these many years.

By way of epilogue, we might say that *Bunker Hill* later served the Navy as an auxiliary aircraft transport and was identified by the hull number AVT 17.

On 9 Jan 1947, *Bunker Hill* was placed out of commission in reserve, attached to the U. S. Pacific Reserve Fleet.

Her long and honorable career ended on 1 Nov 1966 at which time she was stricken from the Navy list.—ED.

HEROES and LEADERS

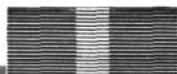


NAVY CROSS

"For extraordinary heroism . . ."

★ **PRENDERGAST, Francis S.**, Lieutenant (jg), USNR, as a flight officer serving with a reconnaissance attack squadron on a combat mission over North Vietnam on 9 Mar 1967. After being shot down and captured by enemy soldiers, he assessed his situation and cunningly conserved his strength for a dramatic escape. He succeeded in eluding his captors and was then rescued by a helicopter.

★ **SPEER, Paul H.**, Commander, USN, as a pilot in a fighter squadron on 19 May 1967. He led a flight of six F8 aircraft on a mission with two A4 aircraft during a strike against a thermal power plant in North Vietnam. Commander Speer maintained flight discipline and integrity in his group despite intense surface-to-air missile, anti-aircraft and MIG attack. The A4 aircraft, which his group was escorting, scored direct hits on the assigned target. He downed a MIG, and members of his flight downed two other aircraft while seriously damaging another when MIGs attacked the A4s during retirement from the target.



DISTINGUISHED SERVICE MEDAL

"For exceptionally meritorious service to the Government of the United States in a duty of great responsibility . . ."

★ **ENSEY, Lot**, Vice Admiral, USN, as Deputy Chief of Naval Operations (Logistics) from Aug 1964 through Aug 1967. During this period, he was responsible for supervising and monitoring all Navy logistics, worldwide.

★ **RIGGS, Cecil D.**, Rear Admiral, Medical Corps, USN, as Assistant Chief for planning and logistics, Bureau of Medicine and Surgery, from Jul 1963 to May 1967, and while serving simultaneously as Inspector General, Medical, until 4 Mar 1966.

★ **STROH, Robert J.**, Vice Admiral, USN, as Deputy Director, Strategic Target Planning, from 25 Jul 1963 to 25 Sep 1967. Vice Admiral Stroh was responsible for exercising direct supervision over the activities of the Joint Strategic Target Planning Staff.



SILVER STAR MEDAL

"For conspicuous gallantry and intrepidity in action . . ."

★ **BOS, Roger C.**, Commander, USN, while serving with an attack aircraft squadron during

a strike against the Haiphong Thermal Power Plant (West). As strike leader for 27 aircraft, Commander Bos displayed outstanding professional competence as he modified the flight plan while nearing the target to enable the flight to maintain flight integrity and successfully attack the target.

★ **COLES, Alexander, Jr.**, Hospital Corpsman Third Class, USN, posthumously, as a corpsman with a platoon of Marines brought under a barrage of enemy small-arms fire on 23 Jan 1967. Petty Officer Coles moved into an open rice paddy to treat several seriously wounded Marines. While crawling to the aid of a wounded man, he was fatally wounded by enemy gunfire.

LEGION OF MERIT

"For exceptionally meritorious conduct in the performance of outstanding service to the government of the United States . . ."

★ **BEARDSLEY, Henry L.**, Rear Admiral, Supply Corps, USN, posthumously, from 22 Sep 1965 to 8 Apr 1967 as Director of Financial Services in the Office of the Comptroller of the Navy.

★ **BOYDSTUN, Howard J.**, Captain, USN, from Jul 1965 to Jul 1967 as Commanding Officer, U.S. Naval Air Station, Lemoore, Calif.

Gold star in lieu of second award

★ **BRANDLEY, Frank A.**, Rear Admiral, USN, from Dec 1965 to Aug 1967 as Commandant, 11th Naval District and commander, Naval Base, San Diego, Calif.

★ **BRANDOW, Henry W.**, Captain, Supply Corps, USN, while assigned to field command, Defense Atomic Support Agency, Sandia Base, Albuquerque, N.M., from 24 May 1963 to 1 Aug 1967.

★ **BURKLE, Joseph S.**, Captain, Medical Corps, USN, while assigned to the Defense Atomic Support Agency, Washington, D.C., from 7 Aug 1965 to 31 Aug 1967 as Deputy Director (Operations and Administration), Armed Forces Radiobiology Institute and later as director, AFRI.

★ **CALDWELL, Henry H.**, Rear Admiral, USN, from 30 Sep 1965 to 31 Oct 1967 as Commander Fleet Air, Jacksonville. During this period he was task group commander in major training exercises CLOVE HITCH, LANTFLEX and MINIBEX series, and also commander of orange forces during joint NATO exercise LASHOUT.

★ **CHEFFEY, John H.**, Captain, Medical Corps, USN, while serving successively in the Bureau of Medicine and Surgery, on the Secretary of the Navy's Retention Task Force and in the office of the Deputy Assistant Secretary of Defense (health and medical) from Jul 1964 to Jul 1967.

Gold star in lieu of second award

★ **CLARK, John E.**, Rear Admiral, USN, from Sep 1965 to Aug 1967 as Commandant, 12th

Naval District, and as commander of the Naval Base, San Francisco, Calif.

★ **CLARK, Richard M.**, Captain, USN, as assistant for NATO affairs, European region, Office of the Assistant Secretary of Defense, International Security Affairs from 10 Jun 1964 to 12 Aug 1966.

Gold star in lieu of second award

★ **COUSINS, Ralph W.**, Rear Admiral, USN, from Oct 1966 through Sep 1967 as Assistant Chief of Staff plans, headquarters, Commander in Chief Pacific, Camp H. M. Smith, Hawaii.

Gold star in lieu of second award

★ **CRENSHAW, Russell S., Jr.**, Captain, USN, as military assistant to the Director of Defense Research and Engineering from Aug 1964 through Sep 1967.

★ **DILLON, John G.**, Captain, Civil Engineer Corps, USN, as commanding officer of the South-east Division, Naval Facilities Engineering Command from Nov 1965 through Sep 1967.

★ **DUNCAN, Charles K.**, Vice Admiral, USN, as Commander Amphibious Force U.S. Atlantic Fleet from 15 Jun 1965 to 16 May 1967.

Gold star in lieu of second award

★ **FERRALL, William E.**, Rear Admiral, USN, from 21 Jul 1964 through 30 Sep 1967 as Commandant 13th Naval District and Commander Northern Sector, Western Sea Frontier.

★ **GAYLER, Noel A. M.**, Rear Admiral, USN, as Director, Development Programs Division and Assistant Deputy Chief of Naval Operations (Development) from Sep 1963 to Sep 1967.

★ **GORDER, Merle H.**, Commander, USN, as operations officer for Commander Task Group 77.4, Commander Task Group 77.7 and Commander Carrier Division Three from 14 Oct 1966 to 14 Apr 1967.

★ **GRIMSLEY, Geleter**, Captain, Supply Corps, USN, from Jul 1965 through Jun 1967 while serving on the staff, Commander Service Force, U.S. Pacific Fleet as budget officer during the buildup of forces in Southeast Asia.

★ **HAGERMAN, George M.**, Captain, USN, as Assistant Chief of Staff, J-5, United Nations Command, and as Assistant Chief of Staff, United States Forces, Korea, from Mar 1965 to Jul 1967.

★ **HETLER, John C.**, Captain, Supply Corps, USN, as Chief, Programs and Policy Division and Deputy Assistant Director, Plans, Programs and Systems, Headquarters Defense Supply Agency, from Jan 1962 to Oct 1967.

★ **LOWE, Grady H.**, Captain, USN, while serving successively as officer in charge, Pasadena; Commander, Naval Ordnance Test Station; Commander, Naval Undersea Warfare Center; and Commander, Naval Weapons Center, from 2 Aug 1963 to 15 Sep 1967.

Gold star in lieu of second award

★ **LUKER, George R.**, Rear Admiral, USN, from Aug 1966 to Jun 1967 as Commandant Third

Naval District at which time the First and Third Naval Districts were consolidated.

Gold star in lieu of second award

★ McCORMICK, William M., Rear Admiral, USN, as the Special Assistant for Arms Control, Joint Staff, Organization of the Joint Chiefs of Staff, from Jul 1965 through Jun 1967.

★ McDONALD, David L., Admiral, USN, from Aug 1963 through Jul 1967 as a member of the Joint Chiefs of Staff.

Gold star in lieu of second award

★ McELWAIN, Harry W., Captain, USN, as Deputy Assistant Chief of Staff for Intelligence, staff, Commander in Chief Pacific from Jul 1964 to Jul 1967.

★ MEIER, Louis L., Jr., Captain, USN, as Military Assistant (Legislative and Legal) to the Chairman, Joint Chiefs of Staff, from Jul 1965 to Jul 1967.

Gold star in lieu of second award

★ MILLER, Henry L., Rear Admiral, USN, as Commander Attack Carrier Striking Force Seventh Fleet (CTF 77), from 24 Sep 1964 to 17 Mar 1965. The combat distinguishing device is authorized.

★ MORTON, William W., Captain, USN, as the head of Data Processing, Management and Analysis Section, Aviation Programs Division, Office of the Deputy Chief of Naval Operations (Air).

★ MUSIAL, Fred A., Commander, USN, as electronic warfare officer, Communications-Electronics Support Branch, Communications and Electronics Division, Headquarters Pacific Command, from Jul 1963 through Jun 1967.

★ NAYLOR, Jesse A., Captain, USN, from 6 Sep 1962 to 15 Jul 1965 while serving in the Defense Intelligence Agency.

★ NUESSE, Francis E., Rear Admiral, USN, as Commander Fleet Air Norfolk, from 3 Mar 1966 to 1 Apr 1967. During this period, he was responsible for shore-based training and operations of three attack carrier air wings, two carrier antisubmarine air groups and a carrier airborne early warning wing.

★ OSBORNE, David P., Captain, Medical Corps, USN, as Chief of Surgery, U.S. Naval Hospital, National Naval Medical Center, Bethesda, Maryland, from Mar 1960 to Nov 1966, the latter five months of which time he also functioned as the Director of Clinical Services to the Commanding Officer of the Hospital; and far continuing as the Director of Clinical Services and Coordinator of the Department of Surgery from Nov 1966 to Jul 1967.

★ PATTERSON, William H., Captain, USN, as Chief, Plans Branch, Transportation Division, J-4, and as Chief, Plans Division, Office of the Special Assistant to the Joint Chiefs of Staff for Strategic Mobility from Jul 1964 to Apr 1967.

★ PINNEY, Frank L., Jr., Rear Admiral, USN, as Deputy Chief of Naval Material (Development) and Chief of Naval Development, from Jun 1965 to Jun 1967.

★ REINHART, George R., III, Captain, USN, as Assistant Chief of Staff for Plans on the staff of Commander in Chief Atlantic, from Jan 1966 to Jun 1967.

★ RYDEEN, Francis C., Captain, USN, as Chief



BRONZE STAR WINNER—RM2 Robert L. Keim is presented the Bronze Star with combat "V" by Rear Admiral Robert W. McNitt. Keim won the award for heroic action while serving with Patrol Craft Fast Division 103 in Vietnam.

of Staff and Aide to Commander Service Force, U.S. Pacific Fleet, from Jun 1964 through Jun 1967.

★ SANDERS, Viola B., Captain, USN, while serving as Deputy Assistant Chief of Naval Personnel for women from Feb 1958 to Oct 1961, and as Assistant Chief of Naval Personnel for women from Sep 1962 to Aug 1966.

★ SHARRATT, George S. H., Jr., Captain, USN, as Fleet Legal Officer on the staff of Commander in Chief Atlantic from 7 Jul 1963 to 26 Jun 1967.

★ SHERWOOD, Stephen, Rear Admiral, Supply Corps, USN, as Deputy Chief of the Bureau of Supplies and Accounts and as Vice Commander, Naval Supply Systems Command, from Jun 1965 to Jun 1967.

★ SHIFLEY, Ralph L., Rear Admiral, USN, as Vice Chief of Naval Material from Jun 1963 to Aug 1967.

★ SIMMONS, Charles T., Jr., USN, as Air Tactical Data Systems Computer Program Project Officer from Jul 1965 to May 1967.

★ SMITH, John V., Rear Admiral, USN, as Assistant Director, Strategic Plans and Policy Division in the office of the Chief of Naval Operations from 21 Jul to 2 Dec 1965; as Director, Strategic Plans and Policy Division from 3 Dec 1965 to 30 Nov 1966; and as Assistant Deputy Chief of Naval Operations (Plans and Policy) from 1 Dec 1966 to 1 Oct 1967.

★ SONENSHEIN, Nathan, Rear Admiral, USN, as the Program Coordinator and Project Manager, Fast Deployment Logistic Ship Project, from 18 Oct 1965 to 1 Aug 1967.

★ STOKES, Griffith P., Captain, USN, as Deputy Assistant Chief of Staff for Plans, Headquarters, U. S. Military Assistance Command, Vietnam, from 10 May 1966 to 9 May 1967.

★ STROUD, George W., Captain, USN, as Assistant Chief of Staff for Operations and Plans on the staff of Commander Amphibious Force, U.S. Seventh Fleet, from 13 May 1965 to 4 Sep 1966.

★ SUTHERLAND, William A., Jr., Rear Admiral, USN, as Commander Fleet Air Hawaii, Commander Naval Air Bases, 14th Naval District, Commander Barrier Forces Pacific and Commander Hawaiian Sea Frontier, from Jul 1964 to Oct 1967.

★ SWEENEY, William E., Rear Admiral, USN, as Project Manager, F-111B Phoenix, Naval Material Command, from Mar 1965 to Sep 1967.

Gold star in lieu of second award

★ TAYLOR, John M., Rear Admiral, USN, as Commander Western Sea Frontier from May 1964 through May 1967, and while assigned additional duty as Commandant 12th Naval District and Commander Naval Base, San Francisco until 9 Sep 1965; Commander Naval Defense Forces, Eastern Pacific until 20 Sep 1966; and Commander Pacific Reserve Fleet until 1 Oct 1966.

★ TOLSON, Walter E., Captain, Supply Corps, USN, as Director, Defense Contract Administration Services Region, Detroit, Mich., from Oct 1965 to May 1967.

★ UNDERHILL, Edward G., Captain, Civil Engineer Corps, USN, as Chief of Staff, Commander Naval Construction Battalions, Pacific, from Dec 1963 to Apr 1967.

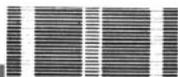


CITED FOR HEROISM—John W. Larimer, Jr., MM1, receives citation and Navy and Marine Corps Medal for rescuing shipmate washed overboard in Atlantic.

★ **WADLEIGH**, John R., Rear Admiral, USN, as Assistant Deputy Director, Defense Communications Agency from Jul 1965 to Nov 1966, and as Assistant Deputy Director for Defense Communications Systems Operations from Nov 1966 to Sep 1967.

★ **WHEELER**, Kenneth R., Rear Admiral, Supply Corps, USN, as Fleet and Service Force Supply Officer, as Director, Commander in Chief U.S. Atlantic Fleet Resource Management Planning Group and as the Deputy Chief of Staff for Logistics and Management, on the staff of Commander in Chief, U.S. Atlantic Fleet, from Jul 1965 to Jun 1967.

★ **WYMAN**, Charles L., Captain, USN, as Commander Task Group 142.9 from 14 Nov 1966 to 19 May 1967.



DISTINGUISHED FLYING CROSS

"For heroism or extraordinary achievement in aerial flight . . ."

★ **BOSTON**, Leo, Commander, USN, while leading a 26-plane strike into the heavily defended area of Vinh, North Vietnam on 4 Apr 1966. Commander Boston, despite intense antiaircraft fire, inflicted serious damage to a naval base, a petroleum storage area and a marshalling yard and repair facility.

★ **FITZSIMMONS**, Eugene W., Lieutenant Commander, USN, on 23 Nov 1966 as a pilot in a fighter squadron, without benefit of any pre-flight briefing, volunteered to escort a photographic reconnaissance aircraft on a mission to cover two targets in the Haiphong complex. Despite heavy enemy artillery fire and surface-to-air missiles, he successfully escorted the photo plane to the safety of the Gulf of Tonkin.

Gold star in lieu of second award

★ **FITZSIMMONS**, Eugene W., Lieutenant Commander, USN, as a section leader in a flight of six F4B aircraft assigned as flak suppressors to

support a major, coordinated air-wing strike against the vital Ninh Binh railyards in North Vietnam, on 11 Nov 1966.

★ **JAMISON**, Joe R., Lieutenant, USNR, on 23 Sep 1965 during a coordinated strike on an airfield under construction in North Vietnam.

★ **LUKER**, Richard A., Lieutenant, USN, on 20 Apr 1967 as a wingman of a flak suppression division of A4C aircraft involved in a coordinated air-wing strike against the Haiphong Thermal Power Plant (East).

★ **MORISSETTE**, Clement J., Lieutenant Commander, USN, posthumously, from 5 Jul to 22 Oct 1966 as a pilot leading daily strikes against important targets in Southeast Asia.

★ **OLSEN**, William P., Lieutenant, USN, on 16 Nov 1965 as leader of the second section of a flight of four A4C aircraft in an attack against the Phong Bai highway bridge in North Vietnam.

★ **ROBERGE**, Francis D., Lieutenant Commander, USN, on 19 Jan 1967 as the leader of a division of A4E Skyhawks participating in a coordinated attack on the Dong Phong Thung rail-

road and highway bridge complex in North Vietnam.

★ **WELCH**, Clyde R., Commander, USN, posthumously, as a pilot during operations over hostile North Vietnamese territory on 22 Oct 1966.



NAVY AND MARINE CORPS MEDAL

"For heroic conduct not involving actual conflict with an enemy . . ."

★ **BINDER**, Rubin G., Seaman, USN, on 9 Jan 1967 while serving with a River Patrol Section on the Mekong River, he helped rescue five survivors of the dredge Jamaica Bay. After hearing tapping on the hull of the sinking dredge, Binder unhesitatingly plunged into the debris-clogged river to effect the rescue of the trapped man.

★ **CAPOZZI**, Robert, Chief Engineman, USN, during a military operation deep in enemy territory on 16 Aug 1966. Capozzi saw a shipmate fall over the side of an LCM and succumb to the current due to the weight of his battle dress. Despite the fact that he was also in battle dress, Chief Capozzi succeeded in rescuing his shipmate, a naval officer.

★ **CLARK**, John M., Aviation Boatswain's Mate Second Class, USN, in connection with a major shipboard fire while serving aboard USS Oriskany (CVA 34) during combat operations in Southeast Asia.

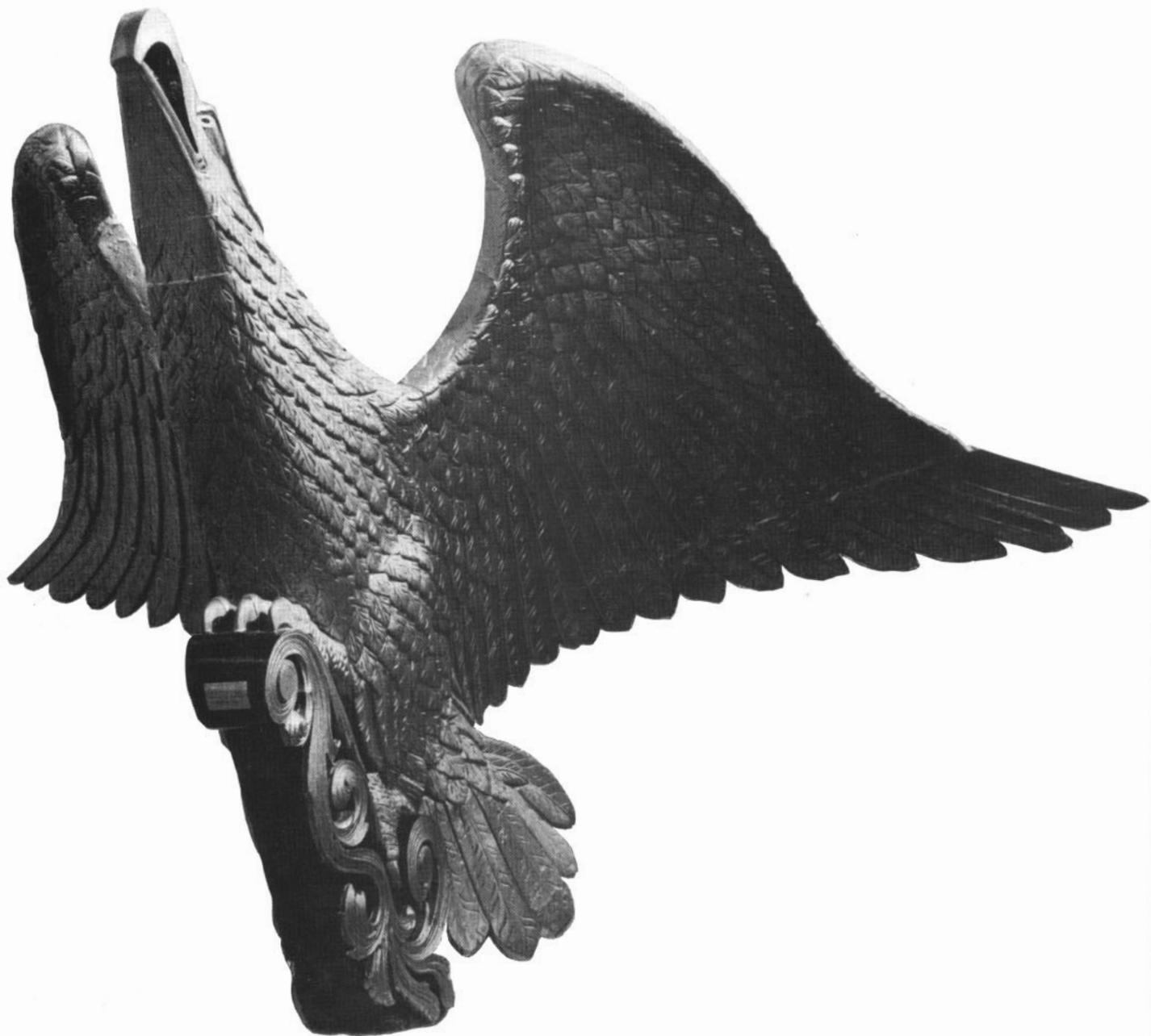
★ **GARNER**, Stanley W., Fireman Apprentice, USN, on 21 Jan 1967 on board USS Alamo (LSD 33) after observing a shipmate receive an electric shock from a portable drill. Garner pulled the electrical wires from their connection and administered mouth-to-mouth resuscitation until the arrival of medical personnel, helping to save his shipmate's life.

★ **McISAAC**, Neil E., Hospital Corpsman First Class, USN, following a collision between his ship USS Tombigbee and USS McMorris on 31 Jan 1967. McIsaac boarded McMorris and administered oxygen therapy to a crewman pinned in wreckage and suffocating from diesel oil fumes released as a result of the collision.

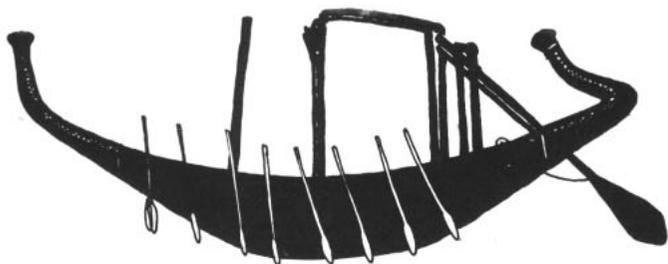
CHAPLAIN WINS BRONZE STAR—Robert R. Cunningham, LT, CHC, is presented the Bronze Star by ADM T. Moorer, CNO, at Naval Academy for rescuing several Marines from overturned boat while under fire on Thu Bon River.



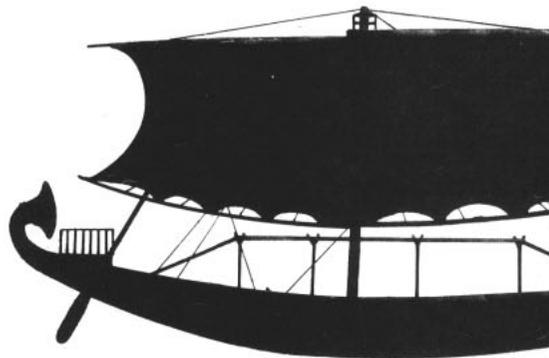
NAVY'S HERITAGE *in the* ARTS



FIGUREHEADS, SYMBOLS and DECORATION NAVY'S HERITAGE



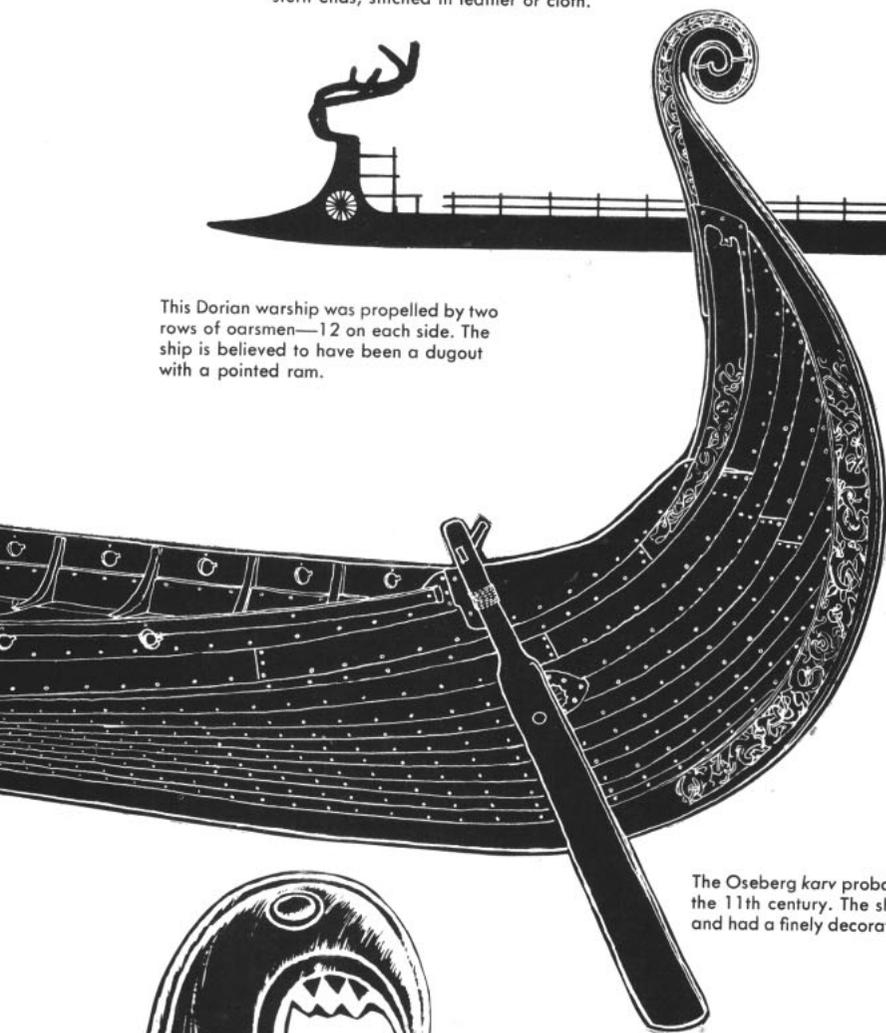
The Nile boats of 2000 B. C. are thought to have been made of papyrus. The craft shown had beautifully formed bow and stern ends, stitched in leather or cloth.



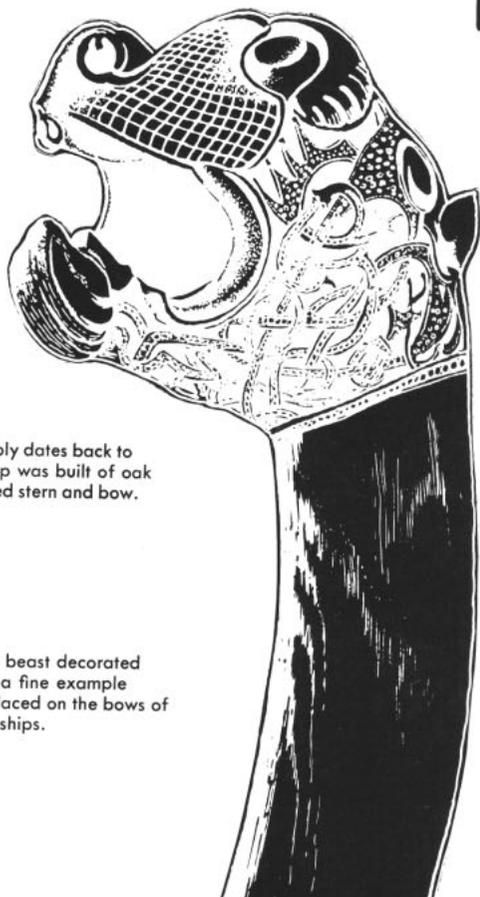
The warships of Ramses II date back to about 1200 B. C.



This Dorian warship was propelled by two rows of oarsmen—12 on each side. The ship is believed to have been a dugout with a pointed ram.



The Oseberg karv probably dates back to the 11th century. The ship was built of oak and had a finely decorated stern and bow.



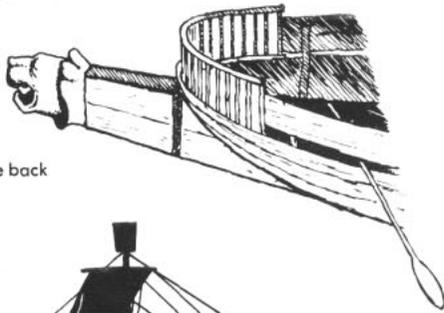
This head of a beast decorated a post, and is a fine example of the heads placed on the bows of Viking fighting ships.



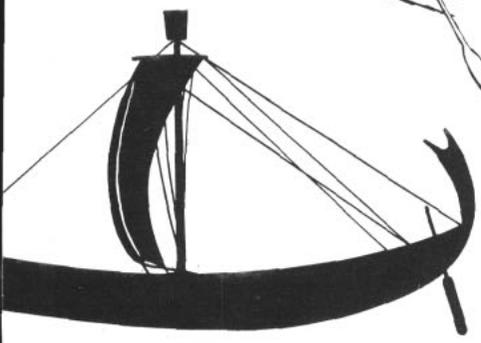
This dragon head is from a Viking ship.

ONS... in the ARTS

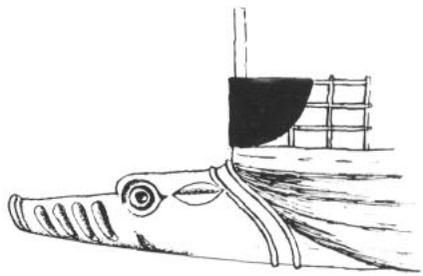
In 1500 B. C., Egypt had seagoing ships with a vertical prow and a curved aft ending in a lotus flower.



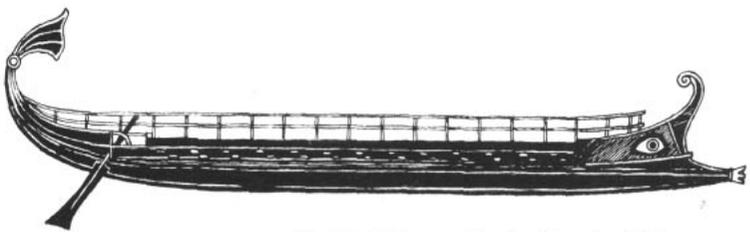
...date back



Phoenician trading ships, about 700 B. C., may have looked like this.



The light and elegant Greek bireme of the sixth century B. C. had a carved ram.



The Greek bireme of the fourth century B. C. had a fishtail-like stern. The ram was an integral part of the hull.

The use of decorations on the prows or sterns of ships extends far back into the mists of antiquity. Of the long-past civilizations, the figure-head may first have come from ancient Egypt, or from India—or earlier—with an eye painted on each side of the prow. It was the belief that these eyes, or *oculi*, would help the ship find its way safely over the water. Today, these all-seeing eyes may still be found in small craft in the Far East and in the Mediterranean.

With the progress of time and the shift of beliefs, the reason for the use of the figurehead as decoration also changed. At one time, it paid homage to an idol, or was the idol itself. It later became a mythological symbol, a symbol of guidance, an emblem indicating nationality, or a figure to symbolize the ship's name.

In Egypt, by 1500 B. C., the prows or sterns were molded into graceful lotus flowers. As early as 1000 B. C., the stem and sternpost of Egyptian ships were carved into heads, then painted. Later, Roman vessels were to use the same form.

The ancient Egyptians, Phoenicians, Greeks and early Romans built the bow and stern stemposts so that they extended well above the hull, thus creating a focal point of interest well suited for decoration. However, when the ram type of prow was used as a weapon of war by both the early Romans and Phoenicians, the ram itself frequently was decorated instead of the stempost. The Romans later distinguished their merchant ships with graceful swans' heads which curved high above the sternpost.

The Oseberg Viking ship was probably a pleasure craft called a *karv*. Both bow and stern were richly carved, as shown in the illustration. The Vikings customarily placed the head of a serpent, a beast or a dragon at the bows of their fighting ships. The Viking longships, or *drakkars*, in which 40 or more oars provided the major propulsion, had a figure-head much like the one illustrated. The Vikings were noted for their raids against what is now the British Isles, the West Coast of Europe and, at their peak in about the 9th century A. D., the Mediterranean.

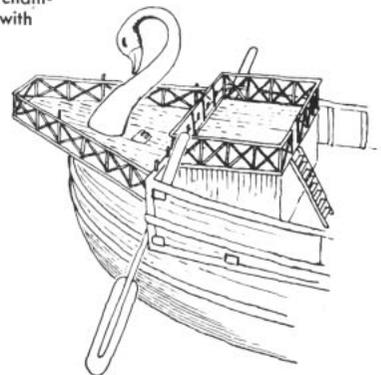
Perhaps the oldest recorded description of a Chinese junk was given by Marco Polo in the latter part of the 11th century. Again, we hear of the all-seeing eye. According to Polo, the Foochow junks were brightly painted with distemper to represent dragons and sea monsters.

In the late 1500s Flemish galleons were richly carved and gilded, as were many of the French and English ships of the following century.

Built during the reign of Charles I in 1637, the *Sovereign of the Seas* (or called the *Golden Devil* by the opponents of England) was an English man-of-war which was considered at the time to be the most richly decorated ship in the world. It may be that no ship has since surpassed it in decorative and fanciful carving. Its "figurehead" consisted of the entire fore quarter of the ship.

During the Elizabethan era that followed, the galleons had great carvings about the quarter galleries and around the stern, as well as on the bow.

In the third century A. D., Roman merchantmen sailed these broad, round ships with the sternpost shaped into a graceful swan's neck.



FIGUREHEADS, SYMBOLS and DECORATIONS...

As warships increased in effectiveness, so their austerity grew. At the time the United States Navy helped this country gain its independence, the bows of its ships still had figureheads.

In 1815, the U. S. Navy began the practice of adopting the names of states, such as Ohio, North Carolina, Delaware and Pennsylvania, for its ships, and the prows of these were simply decorated with bust figureheads.

Ten years later construction began on 10 sloops of war and, for the first time, no figureheads were contemplated. In their place were to be "billetheads"—scrolls or ornamental carvings.

Only the Clippers of the period from 1840 to 1850 marked a brief efflorescence of the art of the figurehead. Some of the famous Clippers again used the full-length figure but they were, in general, fitted much more snugly than those that had gone before. At this period, some of the carvings were of soldiers, generals, U. S. statesmen, Indian chiefs and maids, sea animals and serpents. Some of the well-known clipper figureheads of the period were the *Minnehaha* and *Galatea*.

The whaling ships actually belong to no specific period of history as do the clippers. Their functions were usually severely utilitarian and their decorations reflected this attitude. Busts or billets were usually to be found on their bows, although there were some, such as the *Commodore Morris*, which were excellent by any standards.

From the middle of the 19th century onward, the U. S. Navy used only billets, flat seals, insignia of cities and states, and eagles. By the end of the century, the original form was seldom used and, in 1909, the Secretary of the Navy ordered the removal of figureheads from all U. S. Navy ships.

One of the last figureheads to appear was the large eagle on *USS Lancaster*. One of the finest examples now known of figurehead carving, it had a wingspread of 18 feet, eight inches, and is attributed to John Bellamy, a wood carver of Kittery, Maine. *Lancaster*, originally built in 1858, had no figurehead at all during its early years. The eagle was installed in 1880 when the ship was being reconditioned.

Although the U. S. Navy managed to control its enthusiasm over figureheads for its men-of-war, the United States had many excellent wood carvers such as William Rush, Solomon Willard, Samuel McIntire, William Luke, Laban S. Beecher and Bellamy, creator of *Lancaster's* eagle. Some of these master carvers were also cabinetmakers or furniture makers as well as ship's carpenters.

The cost of a figurehead in the United States in 1816 ranged from \$700 for a bust of an outstanding statesman for a 74-gun vessel, to \$46 for the figurehead on the revenue cutter *Eagle*.

As we browse through the various marine museums, we find few examples today of the carved figureheads that once rested so majestically on the prows of so many ships.



Figurehead from an early American ship, probably carved by Samuel McIntire.

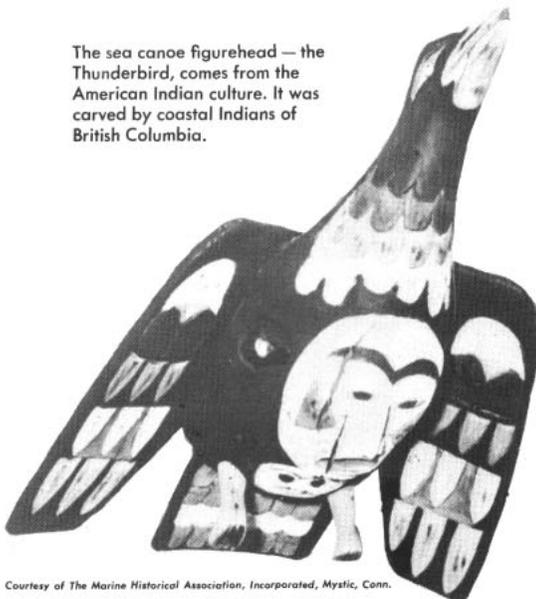
Courtesy of The Peabody Museum of Salem, Mass.

18th century port lid, used in the section of the stern where the porthole comes in at the curve of the stern galleries.



Courtesy of The Marine Historical Association, Incorporated, Mystic, Conn.

The sea canoe figurehead — the Thunderbird, comes from the American Indian culture. It was carved by coastal Indians of British Columbia.



Courtesy of The Marine Historical Association, Incorporated, Mystic, Conn.

Courtesy of The Marine Historical Association, Incorporated, Mystic, Conn.



This 17th century lantern post, also known as a "jack post," probably supported a globe-type lantern on the stern.

Projecting over the rails at either bow of the sailing ship were heavy timbers for the purpose of hoisting the anchors to the rails. These were called catheads and the decorations were often the faces of animals.



Courtesy of The Marine Historical Association, Incorporated, Mystic, Conn.

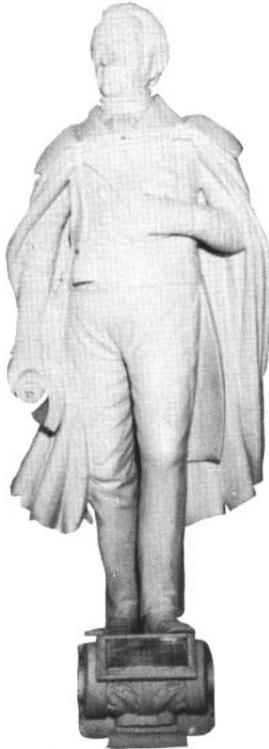
The second figure of Andrew Jackson, carved by J. D. and W. H. Fowle of Boston in 1846 replaced Beecher's figure and is about nine feet high.

Courtesy of U. S. Naval Academy Museum, Annapolis, Md.



Courtesy of Museum of the City of New York.

The figure Andrew Jackson, carved by Laban S. Beecher of Boston in 1834 for the frigate *Constitution*. This figure, measuring about 10 feet high, was decapitated shortly after installation.



Courtesy of The Mariners Museum, Newport News, Va.

From the early 19th century craftsman's shop came this portrait bust of Commodore Perry, slightly smaller than life.

Pictured is Tamanend, chief of the Delawares, carved by William Rush for the ship of the line *Delaware*. Tamanend, now cast in bronze, is located at the United States Naval Academy, where the midshipmen call the figurehead "Tecumseh." It is also sometimes called "Powhatan."



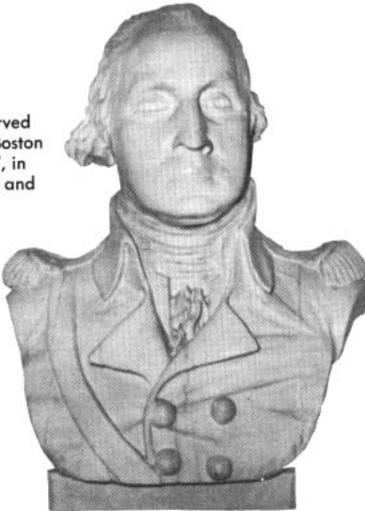
Courtesy of U. S. Naval Academy Museum, Annapolis, Md.

The ship *Galatea* was built in 1854. The figurehead is the goddess Galatea.



Courtesy of The Mariners Museum, Newport News, Va.

George Washington, carved by Solomon Willard of Boston for the *Washington "74"*, in 1814. The figure is three and three-quarters feet high.



Courtesy of U. S. Naval Academy Museum, Annapolis, Md.



Courtesy of U. S. Naval Academy Museum, Annapolis, Md.

General Armstrong, of Revolutionary fame, from the ship *General Armstrong*.



The gargoyle pictured has no documented history, but is thought to have been on a privateer of the War of 1812.

Courtesy of The Marine Historical Association, Incorporated, Mystic, Conn.

The *Great Republic*, launched in 1853, was the largest wooden ship ever built. The ship had a large eagle's head over five feet long and two feet, six inches high, carved by S. W. Gleason & Sons of Boston. At the time of the ship's rebuilding the head was replaced with a scroll.



Courtesy of The Marine Historical Association, Incorporated, Mystic, Conn.

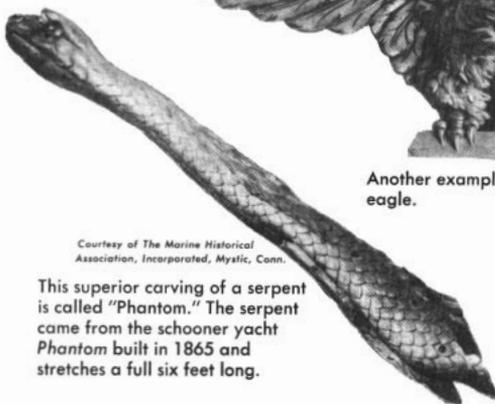
Prepared by ALL HANDS Magazine

FIGUREHEADS, SYMBOLS and DECORATIONS...



Courtesy of The Marine Historical Association, Incorporated, Mystic, Conn.

Pilothouse eagles were originally on steamers, but finally became familiar ornaments also on the pilothouses of tugboats. They were very well carved and were gilt or painted and mounted on a ball as a base.



Courtesy of The Marine Historical Association, Incorporated, Mystic, Conn.

This superior carving of a serpent is called "Phantom." The serpent came from the schooner yacht *Phantom* built in 1865 and stretches a full six feet long.



Courtesy of The Marine Historical Association, Incorporated, Mystic, Conn.

Another example of the pilothouse eagle.

Courtesy of U. S. Naval Academy Museum, Annapolis, Md.



Bust of Benjamin Franklin at the time of the building of *USS Franklin* in 1815. This bust is attributed to Rush.



Courtesy of The Peabody Museum of Salem, Mass.

Indian Princess, an eight-foot figurehead, from the ship *Indian Princess*.



Courtesy of The Mariners Museum, Newport News, Va.

Commodore Morris of New Bedford whaling barque *Commodore Morris*.



Courtesy of The Marine Historical Association, Incorporated, Mystic, Conn.

This figurehead of the golden lion was removed from the brig *HM Boxer*, possibly at its time of repair.



Courtesy of National Archives, Washington, D. C.

This billettehead is said to have decorated the frigate *Constitution* during the war of 1812.



Courtesy of National Archives, Washington, D. C.

Constitution's second billettehead had a handsome foliated carved pattern.



Courtesy of National Archives, Washington, D. C.

This is the billettehead of *Constitution* at the time of her reconstruction in 1907.



Courtesy of National Archives, Washington, D. C.

Gangway headboards from USS St Louis.



Courtesy of The Marine Historical Association, Incorporated, Mystic, Conn.

Alexander Hamilton and Thomas Jefferson are attributed to ships of those names. Their origin, together with the identity of the ships they once graced, has been lost in history.



Courtesy of Louisiana State Museum, New Orleans, La.

This gilt eagle, carved by Rush, came from the sternboard of USS Columbia.

Courtesy of U. S. Naval Historical Display Center, Washington, D. C.



This figurehead may represent either the Prince Regent or Duke of Wellington. The figure comes from an early 19th century British ship.



Courtesy of The Marine Historical Association, Incorporated, Mystic, Conn.



Courtesy of The Marine Historical Association, Incorporated, Mystic, Conn.

Inboard decoration panel from USS Hartford.



Courtesy of The Marine Historical Association, Incorporated, Mystic, Conn.

Gangway boards from the sloop-of-war John Adams built in 1830.



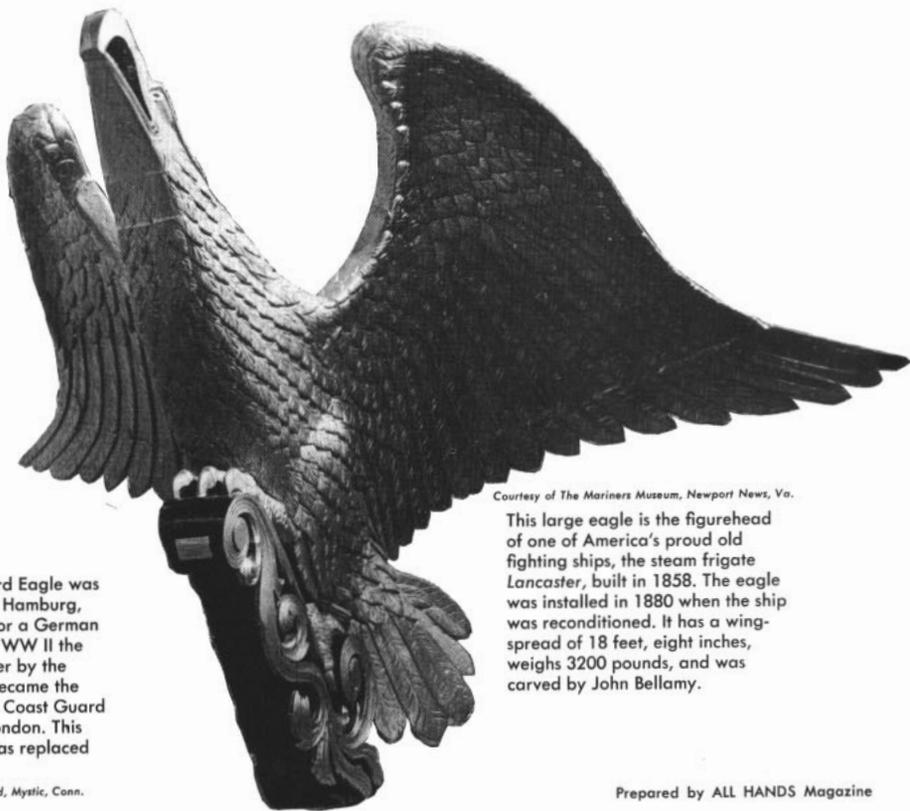
Courtesy of The Mariners Museum, Newport News, Va.

USCGC Bear was purchased twice for Admiral Byrd's Antarctic expeditions, first in 1884 and again in 1933. This figurehead of the bear was removed before the second expedition and presented to the Mariners Museum.



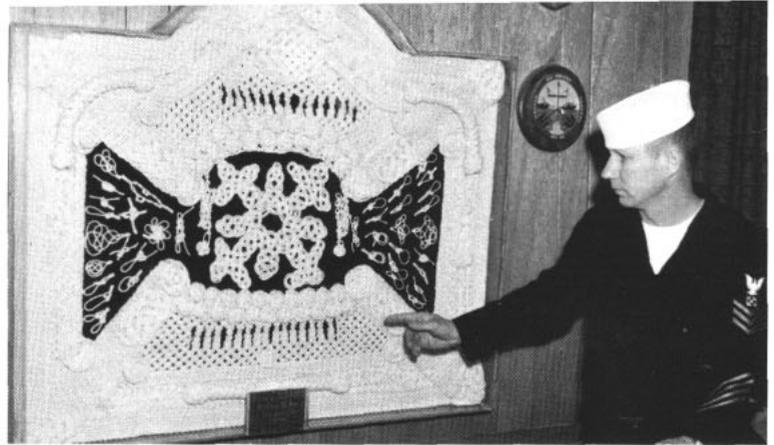
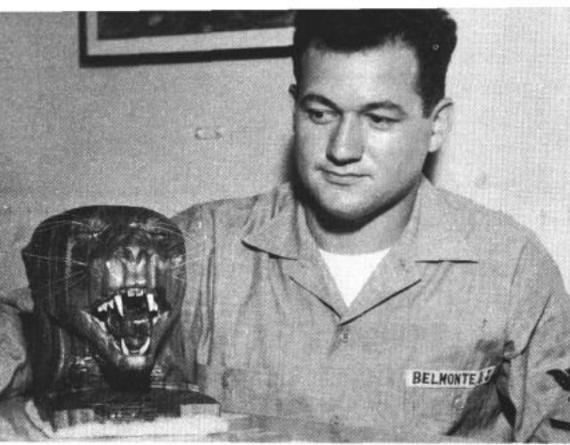
Courtesy of The Marine Historical Association, Incorporated, Mystic, Conn.

The U.S. Coast Guard Eagle was originally carved at Hamburg, Germany, in 1937 for a German training bark. After WW II the vessel was taken over by the United States and became the training ship for the Coast Guard Academy in New London. This eagle figurehead was replaced with a duplicate.



Courtesy of The Mariners Museum, Newport News, Va.

This large eagle is the figurehead of one of America's proud old fighting ships, the steam frigate Lancaster, built in 1858. The eagle was installed in 1880 when the ship was reconitioned. It has a wingspread of 18 feet, eight inches, weighs 3200 pounds, and was carved by John Bellamy.



NAVY ART—D. J. Belmonte, ADJ3, creates modern scrimshaw by carving squadron mascot. Rt: Fancy rope work by Sumner F. Ellis, BM1.

Sailor's Art: Two Samples

THERE ARE THOSE who become so expert at their jobs that they decide to see just how good they can get. An engraver might try his hand at inscribing the Lord's Prayer on the head of a pin. A pianist learns to play blindfolded, gloved, and with a tablecloth over the keys.

Since the earliest days of the Navy, seamen have shown that they, too, excel at their jobs. Often, the result exposes a hidden artistic bent in the deck hand's makeup.

In the days of wooden ships, all sailors had to be good with a knife. This led some tars to become expert carvers of fancy designs. The old sailors would take wood, bone, or whatever other material they had on hand and liberate their artistic muse by whittling beautiful figures and designs. This carved art came to be known as scrimshaw.

These days, any seaman worth his salt is good at fancy rope work. Since boatswain's mates deal daily with lines and small stuff, they naturally become proficient at handling all kinds of rope. During lulls in the workday, and after hours, you may find seamen sitting in small groups below or topside weaving intricate designs with white line, or learning to tie some of the more difficult knots.

Because of its practicability and smart appearance, fancy rope work can be found in many different areas throughout a ship. Vent pipes are often given a protec-

tive and decorative covering with crosspoint patterns.

Elsewhere, pipes may be decorated with "fox and geese," a checkboard design woven with dark and light line. On the admiral's barge and the captain's gig are found ornamental knots and "MacNamara Lace," the fancy lace curtains and other trimmings woven with canvas threads.

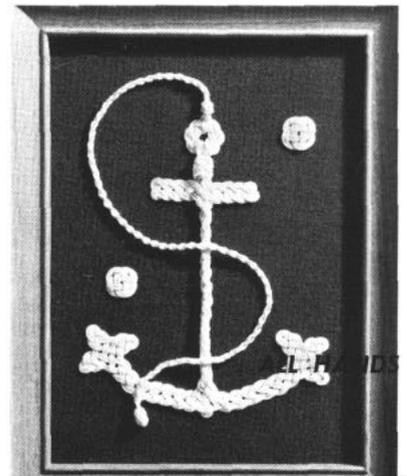
Perhaps the most popular form of artistic expression practiced by seafaring men these days is the tying of knots, and the making of knot boards to display the proficiency among boatswain's mates aboard certain ships.

These knot boards are usually filled with as many functional and decorative knots as an enterprising boatswain's mate can remember (or, we suspect, think up). The knots on display range from the simple, unassuming Granny Knot to the fantastically intricate Interlocking Sennit Carrick Bend.

Another way for sailors to show their marlinspike proficiency was demonstrated by *uss Mount McKinley* (AGC 7) a few years ago. Her crew held a knot-tying bee. The event was run off with eliminations after the fashion of the rounds of a spelling bee and prizes went to the winners.

As you can see, marlinspike seamanship is not a lost art in today's Navy. At sea, as elsewhere, there is still the desire—and the ability—to excel.

OLD TRADITION—Marlinspike seamanship is exemplified by fancy work on admiral's barge and decorative anchor.



★ ★ ★ ★ TODAY'S NAVY ★ ★ ★ ★

Welcome Home, Daddy

A strange thing happens to a sailor walking away from the brow after a long deployment. He walks funny—as though he expects the port side of the pavement to come up to meet his foot.

There's a simple explanation, as all of you old salts know. He's still walking on sealegs. The crews of several ships have been wide-stancing it lately, after long tours away from terra firma.

Tying up at Pacific piers were:

- The attack carrier *uss Hancock* (CVA 19), back in her home port, Alameda, Calif., after her third combat deployment to the Tonkin Gulf. During her seven-month cruise, *Hancock's* pilots flew more than 8900 combat and combat support sorties.

Major bombing targets of her 7000 tons of expended ordnance included the Vin Loc highway bridge, the Chu Ne army barracks, Hai Dong rail bridge complex, Kien An airfield, the Chu Son military storage area, the Cong My and Loi Dong petroleum transshipment points near Haiphong, and the Doan Vi transshipment point.

- *uss Hornet* (CVS 12), after a seven-month Far East deployment, back in Long Beach, Calif. During the cruise, *Hornet* spent about 35 per cent of her time in the Vietnam combat zone, and also took part in three training exercises with foreign navies.

The antisubmarine warfare carrier steamed nearly 60,000 miles, logging 5510 arrested landings and 2670 helicopter landings.

- The San Diego-based tank landing ships *uss Tioga County* (LST 1158) and *Holmes County* (LST 836), after eight-month tours in WestPac.

The amphibious force ships operated as resupply and support vessels for River Assault Flotilla One, in the Mekong Delta and Rung Sat Special Zone. In addition, *Tioga County* took part in Operations Beacon Guide, Beacon Gate, and Beacon Point. In Beacon Gate, she used her landing craft in a waterborne assault against enemy forces for the first time.

- The dock landing ship *uss Monticello* (LSD 35), back in San Diego after eight and one-half months in WestPac.

As a unit of Amphibious Ready Group Bravo, *Monticello* took part in eight amphibious operations in South Vietnam. They included Beacon Hill, Beacon Star, Belt Tight, Beaver Track, and others. About half of her deployment was spent in sight of the shores bordering the DMZ.

Welcome home ceremonies were arranged in Atlantic ports for:

- The guided missile cruiser *uss Boston* (CAG 1), back in Boston, Mass., after a six months' tour of duty with the Seventh Fleet in WestPac.

Boston took part in Operation Sea Dragon during her cruise, destroying or damaging 360 waterborne logistics craft in her six months in the combat zone. Her guns destroyed or damaged countless rail lines, bridges, supply transfer points, warehouses and coastal defense guns during 750 missions in Vietnam. She also

knocked out a SAM missile site under construction.

The deployment was the first time *Boston* has served in WestPac since World War II, when as a heavy cruiser she took part in 10 campaigns while serving with the Third and Fifth fleets.

- Destroyer Squadron 16, home after seven months' duty with the Seventh Fleet. The squadron is composed of *uss Bigelow* (DD 942), *Allen M. Sumner* (DD 692), *Ault* (DD 698), *McCaffery* (DD 860), *Charles R. Ware* (DD 865), *Forrest Royal* (DD 872), *Dahlgren* (DLG 12), and *Barney* (DDG 6).

While in Vietnamese waters the squadron fired a total of 46,000 rounds of 5-inch ammunition in naval gunfire missions against enemy troops, installations, vehicles, and boats.

During her tour, *Dahlgren* spent 62 days on the northernmost search and rescue station in the Tonkin Gulf, during which she rescued seven U. S. pilots.



CAREER NAVYMEN—Captain R. Stone, XO of *USS Essex* (CVS 9), gives reenlistment oath to Norman Davison, SKCM; John Hudimac, BMC; B. A. Spriggs, ABC; and R. C. McGovern, MMC. They have a total of 83 years' navy service.



HELPING HAND—Dick Stapleman of MCB 71 lends helping hand to villagers near Chu Lai. He and other Seabees devote spare time to helping Vietnamese.

Horn Alert

The threat of mortar or rocket attack, ever present in unsettled combat areas in Vietnam, requires encampments to have a distinctive alarming device ready for use under varying conditions, day and night.

Such an alerting mechanism has been developed by Mobile Construction Battalion Three Seabees who claim their alarm is operable completely independent of any external power. It consists of four dual truck

horns connected by copper tubing to a regulated oxygen bottle. The system is activated by opening a simple shuttlecock in the copper line. This allows oxygen to escape through the pipe to the horns. The result is a loud, shrill, piercing noise.

MCB-3, which has been toured three times in Vietnam, has the horn alarms strategically placed about the camp and by magnifying the sound with megaphones, every man is alerted, even those asleep.

Record for Sea Stallions

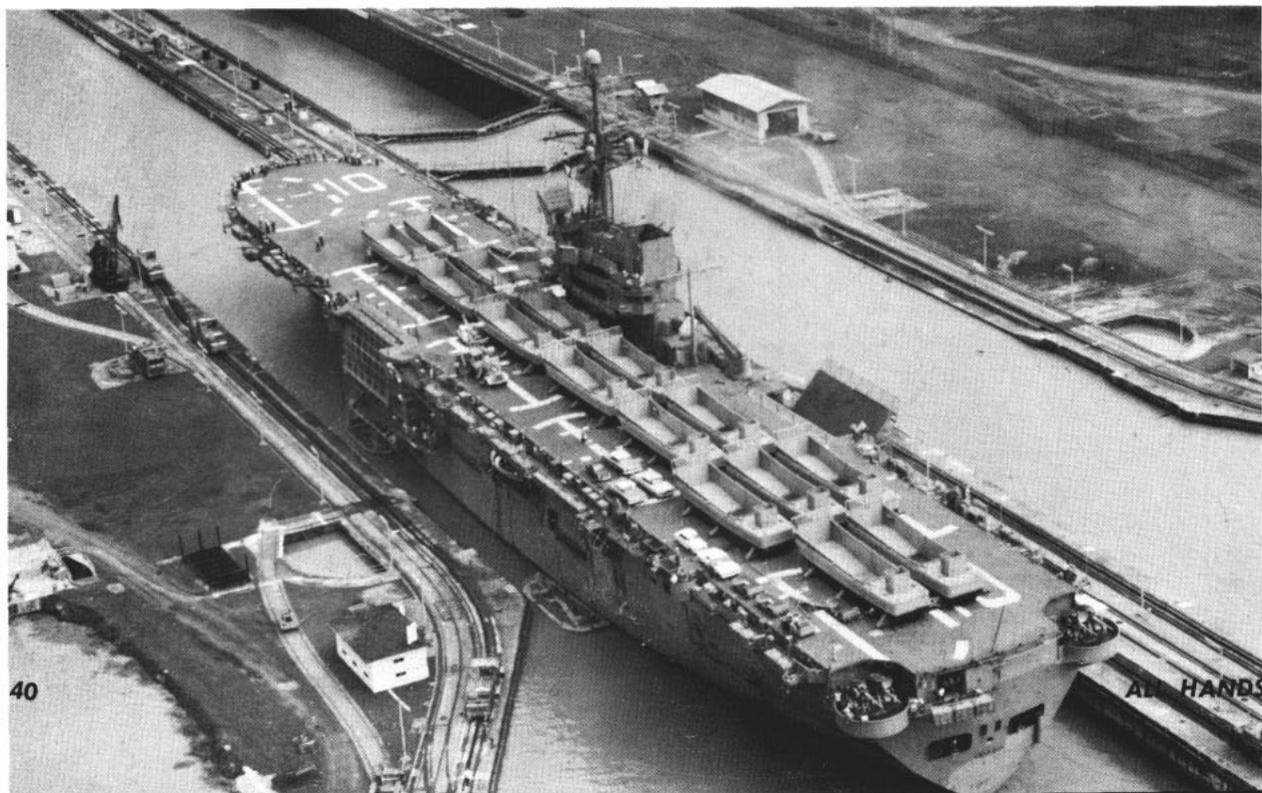
When the CH-53A *Sea Stallion* helicopters of Marine Heavy Helicopter Squadron 463 departed USS *Tripoli* (LPH 10) recently, they left an enviable record behind them. In just a few hours, the huge helicopters had transported a battalion landing team, their supplies, weapons, and support equipment from the carrier's flight deck to the designated area for Operation Formation Leader.

This operation reportedly marked the first time that the *Sea Stallion* had been used as the primary amphibious assault vehicle in Vietnam. While *Tripoli* steamed just off the coast, the *Sea Stallion* choppers made round trips to the operation area and back to the amphibious assault ship's flight deck.

This required quite an effort from the ship's forces in order to have cargo and personnel ready to be loaded. All cargo was assembled on the hangar deck and loaded on the deck-edge elevators normally reserved for the movement of aircraft. Then it was brought to the flight deck level and loaded into the helos for movement ashore. Formation Leader was a success.

Since deploying to WestPac, *Tripoli* has participated in seven full-scale amphibious assaults. While off Vietnam, she serves as flagship for the commander of Seventh Fleet Amphibious Ready Group Bravo.

LOCK UP—Amphibious assault carrier USS *Tripoli* (LPH 10) rises to the occasion at Miraflores Locks, Panama Canal.



Tico Sets Fast Pace

Crewmen in the attack carrier *uss Ticonderoga* (CVA 14) may earn the equivalent of a high school diploma, college credits, or technical training through correspondence courses when the ship is at sea. Members of the crew may attend college classes on board through the Navy's Program for Afloat College Education (PACE).

PACE brings teachers on board from San Diego State College to teach seven freshman-level courses to more than 100 *Ticonderoga* crewmen. Each course offers three college credits, acceptable at most colleges and universities, for a cost of only \$10 to \$15, plus books.

In addition, a sailor student may choose from among more than 6000 correspondence courses from 46 colleges and universities through USAFI, which also offers some 200 of its own courses covering pre-high school, high school, college and technical subjects.

The college correspondence courses cost about \$10 to \$25 each, including books, whereas USAFI charges



A GOOD TOUR—Master Chief Petty Officer Paul N. Cockreham is piped ashore during retirement ceremonies at Patrol Squadron 17. Chief Cockreham ended a 27-year Navy career that started 10 months before Pearl Harbor.

\$5 for the first of its courses. If the student passes, he may take any other USAFI courses at no cost. About 400 *Tico* men are enrolled in USAFI courses each year.

Ticonderoga's Educational Services Office, which maintains a training library that houses about 300 training films, also administers entrance exams for colleges, handles applications for the Navy's own service schools, and gives Navy-wide

tests for advancement in rating. It even has on record that it administered the final exam for a teaching certificate to a civilian—the wife of a crewman.

All this points to the fact that on board *Ticonderoga*, or anywhere else in the Fleet, a man needs little more than the desire for an education. The Navy, as a rule, takes care of just about all the rest.

—Frank Silvey, JO3, USN

Home Away from Home

According to the Navy boat crews and the soldiers of the Mobile Riverine Force at Vung Tau, they live in the first APL to arrive in Vietnam and the only green one in the entire country. The paint job is for camouflage against a jungle background.

Their home is an auxiliary personnel lighter (APL 26) which serves as a hotel for Navy Task Force 117 and also supports one river assault division and squadron staff, two rifle companies and one headquarters company as well as a Navy explosive ordnance disposal team.

Although the residents of APL 26 don't claim their home is the most peripatetic in the world, they do say it has been around quite a bit. According to their calculations, APL 26 has traveled more than 7000 miles in the past year unhampered by the fact that it has no means of self-propulsion.

The floating barracks, which was built in 1944, was taken out of the mothball fleet at Seattle and modernized for service in Vietnam.

Just before Christmas of 1966, she began her long voyage under tow bound for Vung Tau where, after a short stop at Subic Bay, R. P., she arrived on 22 Feb 1967.

Additional mileage was accumulated as APL 26 was towed up and down the rivers of the Mekong Delta and the Rung Sat Special Zone accompanying the other ships which make up the base for the Mobile Riverine Force.

Steam and hot water are provided for APL 26 residents by two boilers and its evaporators produce

more than 24,000 gallons of drinking water a day.

Two electrical generators provide power for lighting and air-conditioning.

In addition to the utilities on board, facilities also include a minor surgery ward and a sick bay which accommodates 10 patients.

Although the residents of APL 26 agree that it isn't the Ritz, it ranks favorably with the other floating barracks located elsewhere in Vietnam and, anyway, it beats sleeping in a pup tent on the beach.





PORT CALL—USS *Antelope* (PG 86), a new sister ship of *Asheville* and *Gallup*, steams under the Golden Gate bridge during a visit to San Francisco. The new 165-foot oceangoing gunboat was commissioned at Tacoma, Wash.

Three Purple Hearts

At the age of 20, Hospital Corpsman Second Class Clarence W. Young is a Vietnam veteran with three years of service and three purple hearts.

While treating a fallen Marine one rainy night on well-known Hill 881, Young was hit by a grenade which put him out of action with a shoulder wound.

Later, near Con Thien when the Marines were taking over an apparently deserted village, Young caught a piece of shrapnel in his right arm.

On another night, just before the end of an operation in Quang Tri province, Young and his platoon were waiting to be airlifted by helicopter back to *uss Tripoli* (LPH 10) when snipers attacked and shrapnel from a mortar fragment struck Young's left arm.

While assigned to the pacification program, Young treated about 50 villagers a day.

Young once wrote home for soap for the Vietnamese, and his mother

and her church group sent over 1000 bars to supplement his medical supplies. The Vietnamese children liked the smell of some of the perfumed soap, and followed Young's instructions on how to use it.

Now at Naval Aerospace Medical Institute, in Pensacola, Fla., Young found it satisfying to treat the sick and wounded. When he completes his current enlistment he plans to enter college and continue a career in the field of medicine.

Coming Up for Air

Fifteen proud sailors emerged from beneath the surface of the sea recently to accept their diplomas—as Navy divers second class. They were graduates of COMSERVLANT diving school. The difficult 10-week course is under the administration of COMSERVRON Eight, and is held aboard *YRST 2* at Destroyer and Submarine Piers in Norfolk.

The curriculum includes underwater welding and cutting tech-

niques, medical aspects of diving, underwater demolition, operation of pneumatic power tools, maintenance and repair of diving equipment, vigorous physical training with an accent on distance swimming, shallow water diving, Scuba diving and deep-sea diving, down to a maximum depth of 150 feet.

A typical day in the life of a diving student begins with 45 minutes of physical exercise. Distance swims of 500 to 1500 yards are held almost daily to ensure a high level of stamina.

On certain days *YRST 2* gets underway for Cape Charles for on-the-job training under the close supervision of Chief Warrant Officer W. S. Dool, officer in charge. CWO Dool is a veteran of 27 years of naval service who began his career as a diver second class in 1943.

Comprehensive weekly examinations are given to assure the high degree of proficiency needed for this hazardous duty.

—V. C. McGee, Jr., LT, USN.

Coral Sea Angels

How do you say "angel" in Chinese? Thirty-seven Hong Kong sailors would probably find the word useful as they tell relatives and friends about their recent experiences aboard helicopters from the U. S. aircraft carrier *uss Coral Sea* (CVA 43).

The two helos fought strong winds and high seas to rescue the Chinese sailors from the deck of a grounded Liberian freighter off the coast of mainland China.

The freighter, *Loyal Fortunes*, had smashed into Pratas Reef 170 miles southeast of Hong Kong. A distress call was relayed to *Coral Sea*, then on her way to Hong Kong, and the carrier changed course and made for the stricken freighter.

The copters made over a dozen trips to *Loyal Fortunes*, which was being pounded by 15-foot waves. All of the rescued sailors were in excellent condition despite their 24-hour ordeal.

The freighter was en route from Saigon to Kaohsiung, in southern Taiwan, when she was buffeted by the powerful winds of Typhoon Emma.

The helo pilots were Lieutenant Commander Norman L. Haney and Lieutenant (jg) William J. Ruhe.

He Sails With Vietnam's Mine Force

When John Carkeek goes to work, he takes a canteen, a portable radio transmitter, and a .45. He might use all of them before the day is over.

He's a boatswain's mate first class serving as an advisor to the Vietnamese Navy Mine Force.

He seems to like his job. When he jumps aboard the 50-foot motor launch minesweeper each morning, he invariably greets the Vietnamese crew with a big, hearty grin. They grin back.

He doesn't speak a lot of Vietnamese, but he has picked up the essential phrases. He gets his ideas across.

He is one of five U. S. advisors attached to the Vietnamese Mine Force. The minesweepers try to cut the control lines of Viet Cong mines, sweeping with an anchor

chain having steel cutting blades welded to it.

Carkeek advises the crew in minesweeping techniques, maintenance, and weapons. He knows how. A boatswain's mate for over 19 years, he spent seven aboard oceangoing minesweepers.

He looks relaxed while the boat sweeps close to the Long Tau riverbank. Except his eyes. They keep moving. The days are long and hot, but he doesn't get drowsy. He keeps alert. Figures he'll live longer that way.

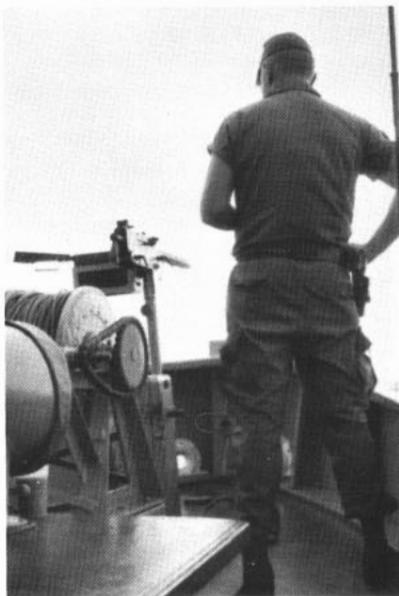
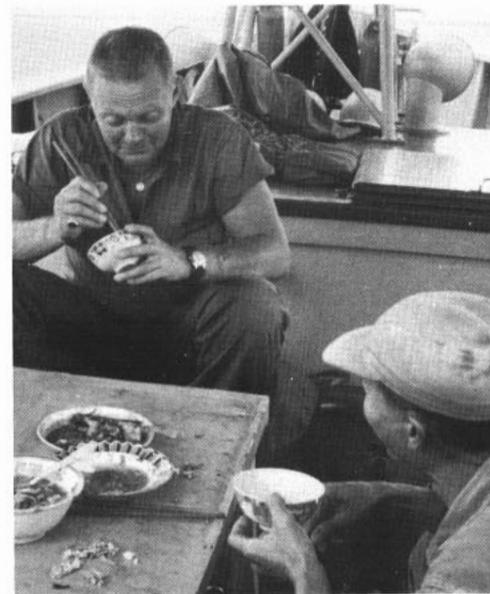
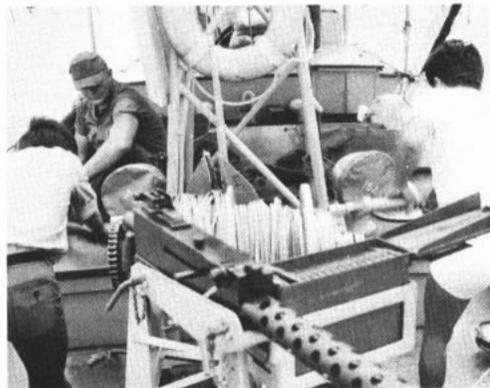
He eats formerly strange meals. Rice. Fish. Local vegetables. He's had the job for four months. He's used to the diet.

John Carkeek thinks he has the best duty in Vietnam.

—Story and Photos by
Tom Walton, JO1, USN

Photos Clockwise from Top Right:
(1) BMI John Carkeek advises two minesweeper crewmen as they reel in sweep gear following a day's operation. (2) 50-foot Vietnamese motor launches travel the Long Tau and Dong Nai Rivers in pairs. (3) Good working relationship with crewmembers is essential in the job of keeping the rivers free of Viet Cong mines. (4) Chopsticks serve as eating utensils for this Navyman who eats his

meals topside. (5) Boatswain's Mate Carkeek doesn't speak Vietnamese fluently, but has learned enough phrases to get a point across quickly to the crew. Eyes continually search the river's banks for the enemy who hide in the brush which lines the muddy river. (6) Carkeek is one of five U. S. advisors attached to the Vietnamese mine force. The minesweepers attempt to cut control lines of Viet Cong mines.





SMOOTH RELEASE results in bull's-eye for Thomas Coggins, AT2. Rt: Lyle Steward, YN1, shows hunting position.

Archers—Navy Style

Archery is an ancient sport, but like many others it has become modernized as design concepts have changed and types of material have expanded.

Cupid couldn't have been as accurate with his weapon as Navy bowmen Thomas Coggins, AT2, and Lyle Steward, YN1. Modern bowstrings, balanced aluminum arrows,

new bow designs, bow sights and modern manufacturing procedures are a few innovations which have made the modern archer a technical and avid sportsman.

There are two distinct camps in the sport, target archery and field archery. Coggins, stationed aboard *uss Franklin D. Roosevelt* (CVA 42), is a champion target archer, and Steward, stationed at Supreme Allied Commander Atlantic headquarters,

is an accomplished hunter or field archer.

Thomas Coggins has a valued souvenir as a result of his ship's visit to Barcelona. Coggins competed in and won the first place gold medal of the Spanish Archery Championship round. He was invited to participate after inquiring about the tournament at the local USO Club.

Although Coggins had won a military invitational meet at Pensacola in 1966 and placed in several other major archery tourneys, he had never shot in a European round with its longer shooting distances. Normal distances to target in the U. S. are from 20 to 80 yards, while in European matches they range from 32 to 99 yards.

Coggins also shoots without a bow-sight (instinctive style), and this gave him a further disadvantage, as bowsights are standard equipment in Spanish tournaments. Despite the disadvantages, Coggins proved that he is a champion archer by defeating the best archers in Spain. Coggins now has his eye on another target, the 1972 Olympic games.

Field archer Lyle Steward put a feather in his archer's cap this past deer season by bagging a four-point buck.

Bow hunting is a lonely, cold, and often unrewarding sport. It often means sitting and waiting in a cold, damp woods in the early morning hours. Besides patience, it also requires keen instinct and excellent bowmanship.

Many times the hunter doesn't see a deer or fire an arrow, but when he does, luck, skill and an unobstructed

Here's the 1968 All-Navy and Interservice Sports Schedule

Event	All-Navy	Interservice
Basketball	Naval Station, Pearl Harbor 19-23 February	Maxwell AFB, Ala. 4-8 March
Boxing	Naval Station, Charleston, S. C. 18-22 March	Camp Lejeune, N. C. 12-16 August
Judo	Not Scheduled	Naval Air Station, Miramar, Calif. March 25-28
Volleyball	Naval Air Station, Jacksonville, Fla. 15-19 April	Dover AFB, Del. 22-26 April
Wrestling	Not Scheduled	Naval Training Center, San Diego, Calif. 1-5 April
Bowling	Naval Air Station, Memphis, Tenn. 13-17 May	Keesler AFB, Miss. 20-23 May
Track and Field	Not Scheduled	Will be held Date undecided
Tennis	Naval Station, Newport, R. I. 29 July-2 August	Camp Pendleton, Calif. 5-9 August
Golf	Naval Station, Long Beach, Calif. 19-23 August	MCS, Quantico, Va. 26-30 August
Softball	Naval Submarine Supply Facility, Ballast Point, San Diego, Calif. 26-30 August	Ft. Eustis, Va. 2-6 September

line of fire are required to make the kill.

Steward also has a host of trophies to show for participation in various tournaments. He is now looking forward to next year and possibly a six-point deer.

Lots of Bounce in Subic

The Subic All-Star basketball team completed a five-month exhibition basketball season with a 110-89 victory over the Payumo Selection team of Dinalupihan, Bataan.

The Subic squad, composed of Navy and Marine Corps personnel stationed at the Subic Bay Naval Station, traveled throughout the Philippine Islands during their exhibition tour.

The team played 20 squads during their tour, winning 16 games and losing four. The speed, agility and excellent ball handling of their opponents offset the height advantage of the Navymen, and made for several close scores. At times, the Subic cagers found that playing conditions were almost as tough as the opposition. They often played outdoors in hot and humid weather on cement courts lined with hundreds of cheering spectators.

During the tour, the Navymen learned that, at least in the Philippines, basketball is an international language.

VICTORY AT SEA—LCDR Joseph Dupcak, Jr., won the 45-minute battle with this 405-pound blue marlin off San Juan, P. R., coast. He caught the prizewinning fish during an outing sponsored by the naval station's special services division.



FEBRUARY 1968

FROM THE SIDELINES

THE NUMBER 530 has been filed in the mind of Allen F. Buntrock, AOCS, along with black cats, walking under ladders, Friday the 13th and other nemeses and ill omens.

You see, Buntrock is a skeet shooter, and quite successful with a shotgun and clay bird. You might say that he is a perfect shot . . . almost.

Almost, because he lost the military division of the world skeet championships this year at Savannah, Ga., to Airman Second Class Jimmy Bellows of Lackland Air Force Base. But what a way to lose.

Senior Chief Buntrock qualified, along with 11 others, for the finals of the championship by shooting a perfect score of 250x250. During the shootoff, nine marksmen were eliminated, leaving the two finalists. Buntrock and Bellows continued to burst bird after bird without a miss.

You guessed it, on the 530th bird Chief Buntrock missed and lost the world skeet championship.

But if his shooting ego became a little bruised by the loss, he need only take a look at his past record. Among the trophies he has earned is a gold medal from the 1967 Pan American Games. In his 12 years of competitive shooting, he has won more than 400 trophies and medals.

★ ★ ★

Olympics is a magical word for Navy sportsmen as they dream of gold medals in 1968.

One of the many Navy hopefuls is Bruce E. Glenn, SN, assigned to the U. S. Naval Academy. Glenn won the Greco-Roman competition for his weight division in the 1967 interservice wrestling competition, and placed second in the

free-style wrestling event.

Now the 170-pound grappler has another credit. He has been presented an AAU All-American Championship award for participating in the 1967 tournament. Glenn has a history of national competition dating back to 1963, including the 1964 Olympic tryouts in which he placed third in Greco-Roman style wrestling. He will be a top Navy contender for a spot on the Olympic team.

The incentive of a possible Olympic bid and gold medal will add to the excitement of All-Navy and interservice competition this coming season. After all, gold is a Navy color.

★ ★ ★

Either holes-in-one are not as rare as was previously reported in the October 1967 "From the Sidelines," or there are a lot of lucky Navy golfers.

Since the article on the lucky linksmen, there have been many such claims to fame from Navymen in many parts of the globe. Holes-in-one have been made on long and short holes. They have been made by bouncing off rocks and flagpoles, rolling into, bouncing into and backing into the elusive cup. Aces have been made by novices and by golfing veterans.

But S. W. Hutcheson, Jr., HM2, stationed at Corpus Christi, has the most unusual ace tale to date. The event took place at the 10th hole at a country club in Houston, Tex. Hutcheson's ball didn't bother with usual preliminaries on the 134-yard par-three hole. From tee to cup was the route the ball took, going into the hole on the fly.

—Larry Henry, JO2, USN

THE BULLETIN BOARD

EPDOCONUS Introduces New Assignment System

ENLISTED personnel presently on Seavey and anticipating orders to shore duty under distribution control of EPDOCONUS will be assigned through a new system recently introduced by that EPDO.

Purpose of the new system is to produce a greater degree of success in satisfying the duty preferences of those being assigned.

In the past, assignment desks in EPDOCONUS have been responsible for detailing personnel in essentially all ratings to the activities located in the few naval districts for which each desk was responsible.

Under the new system, each desk will assign personnel in a few ratings throughout CONUS. This system of rating distribution will supersede the former system which divided the responsibility of assignment desks essentially on a geographic (naval district) basis.

The new system of distribution

parallels the rating control concept presently being evaluated in BuPers for practically all ratings.

A major reorganization of EPDOCONUS was necessary to introduce the new system. Formerly, personnel made available on a wholesale basis by BuPers for orders to shore duty on a needs-of-the-service basis were first assigned to naval districts on a fair-share basis by the Personnel Management Department, and then ordered to their final duty station by the district assignment officer in the distribution department.

Under the new system, all personnel being assigned by EPDOCONUS are ordered to their final duty station directly by the assignment desk handling the individual's rating, thereby eliminating the former two-step operation. This streamlining of the assignment procedure permits a closer consideration of the individual's preference of duty.

Another aspect of the efforts to look out for the enlisted man at sea can be found in the monitoring of Tour Completion Dates (TCDs). While not new to EPDOCONUS, TCD monitoring is the system established by EPDO to insure that every individual receives the amount of shore duty to which he is entitled.

Other advantages, in addition to improvement in chances of assignment to an individual's duty preference, and greater responsiveness to activities' manning requirements, are included in EPDO's recent reorganization.

With elimination of the naval district "middleman," assignment of personnel has been reduced to a single-step operation, thus introducing a more efficient procedure which can be accomplished by a smaller staff. As a result, EPDOCONUS has been able to reduce the number of personnel attached to the command.

Further, the new system, in paralleling the Pers-B2 shift to rating control, permits simplification of contact points between the Bureau of Naval Personnel and EPDOCONUS. Customers now encounter similar organization in the two offices.

Additionally, the reorganization improves NEC familiarity for ratings and provides for their better over-all management.

A discussion of EPDO's reorganization would be incomplete, however, without mention of the disadvantages involved.

The shift from a proven system to the unknown has resulted in a temporary increase in workload and the confusion of change. Additional reports are now required from PAMICONUS, plus a wider distribution of some reports previously utilized.

Also, the new procedure eliminates the single point of contact previously enjoyed by shore commands under the old district assignment organization. An activity's personnel officer now may need to talk to several assignment officers in order to cover all ratings represented in the

This Questionnaire Has a Bearing on Your Future

Have you filled out a questionnaire in the last year? One that asked about the type of training you have, and what you are qualified to do? One that you have returned to your Rating Control Officer in BuPers?

If you are in one of the following ratings, there is a questionnaire for you: FTB, GMT, IC, EN, HM, DT, AE, AQ, AO, AX, AT and ST.

The information obtained from your answers has a direct impact on many factors concerning both you and your rating. From your viewpoint, knowing that you have particular skills helps the detailer to give you a proper assignment.

"Proper assignment" in this instance, means working at the skills you have put forth a lot of effort to learn. It means keeping in touch with your rating so that you are better prepared for the next advancement exams. It may mean receiving or continuing to receive pro pay.

It also affects the training plans that are made and the number of people that the Navy must train in specific NECs. In this connection, it might be mentioned that when the RM rating was processed some time ago, it was estimated that more than five million dollars worth of training was reidentified. Rating Control hopes to do the same in some of the other ratings listed above.

So, if you are in one of the listed ratings and you have not filled out a questionnaire, check with your personnel office to see if they have one for you.

If not, ask them to notify your Rating Control Officer in BuPers, and he will be happy to send you one. The sooner he gets the information he needs, the sooner he can do a better job for you.

personnel allowance of his activity.

Initial plans for this reorganization in EPDOCONUS (which is located at the U. S. Naval Training Center, Bainbridge, Md.) began in early 1966. The program for the new system was discussed with BuPers in October of that year. Specifications for new documents and reports to be used by PAMICONUS were delivered to PAMI the following December.

The reorganization went into effect in September 1967.

Home Away From Home Port To Meet Needs of Dependents During Overhaul Periods

A ship overhaul following overseas deployment usually takes about three months. In many cases, the work is done in a shipyard hundreds of miles from the home port.

Those three months in the yards have seemed longer to many married men, particularly those who hadn't seen their families since departing for overseas months before.

This prolonged family separation problem has been partially solved through a new transient housing program, under which 643 fully furnished units are available to families of Navymen whose ships are in the yards at Portsmouth, N. H.; Norfolk, Va.; Bremerton, Wash.; and San Francisco. Here's how it works:

The ship scheduled for overhaul or repair at one of the yards is notified of the transient housing availability. The commanding officer is told exactly how many transient units will be available to his ship. Reservations are then made after the ship's family men have been surveyed and it is determined how many would have their dependents join them at the shipyard.

Notification of the housing availability is normally issued far enough in advance to permit those interested sufficient time to contact their dependents and arrange for family travel to the shipyard. (Families must arrange and pay for their own travel.)

The transient housing program is administered by the Chief of Naval Personnel, and is supported with nonappropriated funds on a self-sustaining, break-even basis. Nominal rent charges which pay for the cost of maintaining the units range from \$45 to \$80 monthly, depending

on size and location.

If you're interested, keep in mind that rental charges for your transient quarters at the shipyard would be in addition to whatever you pay for quarters at your home port.

BuPers Inst. 11101.3 series describes the program.

• **CALL IT FILM**—If you've just taken some fabulous pictures of the Bavarian Alps, don't send the exposed roll with your next parcel of gifts that you send home to Mom. The film might be blank when it gets there.

Customs officials are examining

packages mailed from military personnel stationed overseas, with portable X-ray machines to detect such non-mailable items as firearms and explosives.

As you probably know, fluoroscopic will erase the image from unprocessed film. It will also ruin unexposed film.

Therefore, if you wish to mail raw film home, you should pack and mail it separately. It should be clearly identified as film on accompanying customs declaration forms.

The customs forms are not required for film sent to the U. S. in film mailers provided by commercial film processors, provided they are clearly labeled "Film."

NOW HERE'S THIS

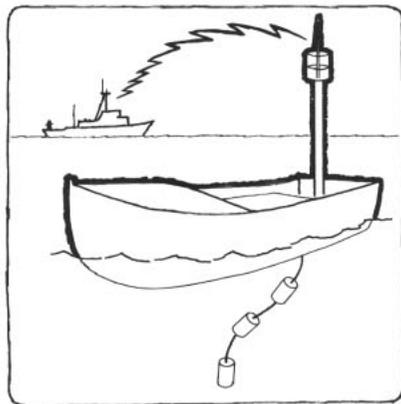
ESSA Has a System

The world's oceans, a major factor in creating weather, are of particular interest to ESSA (Environmental Science Services Administration). That is one reason it developed a tool which interests Navy oceanographers as much as it helps ESSA's meteorologists.

The new tool is a system which uses unmanned automated deep-sea buoys to measure the temperature, salt content and depth of water. It also measures the speed and direction of currents, barometric pressure, air temperature and wind speed and direction.

Some readings have been obtained on a limited basis from unmanned buoys before ESSA developed its system. Nevertheless it has advantages not commonly found in seagoing oceanographic data producers.

With the ESSA system, oceanographers can obtain automatic readings on water temperature and salt content at periods ranging from one minute to an hour.



Oceanographers customarily obtain such information by lowering Nansen bottles over the side of a ship but this takes at least six hours to make a 15,000-foot reading.

An oceanographic ship using the ESSA system doesn't have to remain stationary; it can monitor the buoys while doing something else up to 30 miles away. Other telemetering equipment can extend this distance up to 1500 miles.

The system accommodates up to 10 buoys, each of which can carry several surface and subsurface sensor packages with five sensors to a package. Other sensors can be added in the future to obtain additional data from the ocean.

As the sensors gather their oceanographic data, it is telemetered to a central recording station either in a ship or on land. The information is also recorded on magnetic tape at each buoy station.

The buoy system's mechanism can report continuously or can be set to report automatically every six, 12, 30 or 60 minutes. If a receiving station wants information before it is automatically reported, it need only call up the buoy and request faster service. Each of the 10 buoys is glad to report as often as required, and repeats the data sampling five times within 45 seconds.

The buoys can be left at sea for 30 days, then inspected and, if necessary, serviced. If a buoy is lost, its telemetry device tells searchers where it is.

ESSA expects its buoy system eventually will be used to study pollution in harbors and estuaries and to collect information on fish habitats. It may also be used to study the exchange between the ocean's surface and the air which affects the world's weather.

Read All About It: Navy's New NTC, Orlando

EARLY LAST SUMMER Vice Admiral B. J. Semmes, Jr., USN, Chief of Naval Personnel, turned the first spadeful of earth in a ceremony signaling the start of the new Naval Training Center at Orlando, Fla. Preparations are now underway for its official establishment as a naval training center on 1 Jul 1968. In the meantime the big job of setting up the new NTC will be carried out by a nucleus crew under Captain Enders P. Huey, USN, who takes over in January from the first skipper, Commander M. J. Ball, USN.

The establishment of the third recruit training facility is a result of overcrowding at the existing training centers at Great Lakes, Ill., and San Diego, Calif.

The Naval Training Center will be situated on approximately 1100 acres of the present Orlando Air Force Base property which will be transferred to the Navy on the first of July. It is located three miles east of the center of the city of Orlando, adjacent to Winter Park.

Orlando is considered a superior base for the new facility from the standpoints of cost, health conditions, training efficiency, community support and good morale environment. Much of the training operations are expected to be conducted outdoors. Orlando provides an ideal location from the standpoint of climate.

Initially, the Recruit Training Command, a tenant activity of the Naval Training Center, will process approximately 4000 recruits every 11 weeks. The Navy's plans will double the above figure, which will mean 8000 recruits every 11 weeks.

In addition, other facilities will handle advanced training as well as special schooling of various kinds, making NTC Orlando one of the principal training bases in the country. Service schools planned for Orlando will form a major part of the complex.

To conduct this training, the Navy will have a staff of 1400 or more men. Since most of these will be men with families, that means a permanent addition of 4000 to 5000 people to the community.

Officers and enlisted men of all general service ratings anticipating shore tours may apply for this duty.

Personnel vacancies are anticipated at the Naval Training Center and at the following tenant activities: Recruit Training Command, Training Devices Center, and the Advanced Undersea Weapons School. In 1971 or later, there will be vacancies at the Services Schools Command and the Nuclear Power School.

Here's some information on Orlando of interest to Navymen who may be assigned there for duty or training:

LOCATION—Orlando is in the central Florida lake region, approximately 140 miles south of the city of Jacksonville, and 100 miles east of Tampa. It is the hub of all central Florida industry and activity, and is Florida's largest inland city, with a population of more than 106,000 and a metropolitan area population of over 400,000. Orlando's location, at the center of the Florida peninsula, combined with an excellent highway system, makes the city an ideal point from which to tour the state and its many attractions.

Orlando has been known for decades as "The City Beautiful." Blossom-ringed lakes radiate a panorama of color over the city . . . stately oaks drench homes and streets in shade . . . public buildings are modern and clean.

CLIMATE—Central Florida offers a most enjoyable climate, in that it may be classified as warm, moist, invigoratingly cool in winter, with adequate sunshine. The normal January temperature, any year, is 60.4 degrees, with a normal July temper-

ature of 82.5 degrees; yearly mean temperature is 72 degrees.

The rainy season extends from June through September. During this period scattered afternoon thunder-showers are a daily occurrence, bringing a drop in temperature. Also, a breeze is usually present, contributing to general comfort.

Hurricanes usually are not considered a great threat to Orlando since, to reach this area, they must pass over a substantial stretch of land and, in so doing, lose much of their punch.

INDUSTRY—Orlando has a well balanced economy. Statistics show the following employee figures: retailing, 22,000; manufacturing, 18,800; services and miscellaneous, 17,600; government, 16,800; and wholesale trade 10,400. Manufactured products include citrus concentrates, plastic dinnerware, pleasure boats, fishing tackle and electronic components, among others.

HOUSING—Base housing is non-existent; however, housing in the area is considered very good with plentiful FHA and VA housing available. Private housing in Orlando is abundant at present. Orlando-Winter Park has gained recognition for its lovely homes. A wide range of these homes is available, with styles and prices so varied that any taste or budget can be easily suited.

The area's many lakes lend themselves to lake-front development. A great deal of this type of home building has been going on in recent years. Also, numerous planned developments are under construction, many featuring their own private playgrounds, swimming pools, golf courses and complete country club facilities.

Rental prices vary as follows:

- Two-bedroom house, unfurnished, with or without kitchen equipment. \$75.00 to \$125.00
- Two-bedroom, house, furnished. \$75.00 to \$150.00
- Three-bedroom house, furnished. \$100.00 to \$175.00
- One- and two-bedroom apartments, furnished or unfurnished. \$60.00 to \$150.00

Currently, the Orlando Air Force Base, which will become the Naval Training Center Orlando, on 1 Jul

William R. Maul, CTC, USN



"Wait'll you hear the new PA system they rigged up this morning!"

1968, has available a limited amount of transient officer and enlisted quarters. Until 1 July the availabilities are expected to be as follows:

For officers: Two kitchenette apartments with two rooms each, containing five beds, with cooking facilities. Cost is \$2.00 a person per night, maximum cost is \$8.00. Four apartments with two rooms each, without cooking facilities, are available at the same cost as the kitchenettes.

For enlisted: Ten motel units with one room, containing two beds, refrigerator and TV, with no cooking facilities. Cost is \$1.50 a person, maximum \$4.50 per night. Four units with two rooms, containing five beds, with cooking facilities, at \$3.00 a person, maximum cost, \$6.00 a night.

The maximum time limit for occupancy through 30 Jun 1968 is seven days with a three-day extension possible in emergencies. Personnel reporting aboard who desire these quarters should write to the Base Housing Office for reservations, specifying exact date that you will arrive.

There will probably be some transient quarters available on the base after 1 July; however, final decisions have not been made as to whether they will be operated by the Housing Officer of NTC, or will be available through the Guest Housing facilities under Navy Exchange management.

TRAILER INFORMATION—At this time because of space limitations, there are no plans for an on-base trailer park. However, there are several good trailer parks located within reasonable distances. Average rental is \$25.00 to \$30.00. Some parks charge an additional fee of \$2.00 for each child.

EDUCATION—Florida Technological University, a four-year state university, will open this year, with a student body of 1500. The new Valencia Junior College opened in the fall of 1967. Orange County has 27 public high schools, 73 public elementary schools, 10 parochial schools, nine private schools, four schools for the handicapped, three nurse training schools, four business schools, an adult education program, a county vocational school, a graduate engineering school, the Orlando

Junior College, and Rollins College, located in nearby Winter Park.

HOSPITALS—Hospitals serving the area are: Florida Sanitarium and Hospital (400 beds), Holiday Hospital (116), Orange Memorial (750), Sunland (1000), Winter Park Memorial (208), Mercy Medical Center (150), West Orange (86), Orlando General (48), Ecclestop-Callahan (32), and the Naval Hospital at the Naval Training Center (135). Plans call for expansion of the naval hospital facilities.

CHURCHES—That the Orlando area is a religious community is evidenced by the more than 200 churches in the city and surrounding area. All these spring from humble beginnings in the middle of the 19th century, and many are considered among the

most beautiful and finest in the state. Churches of practically every denomination and sect are conveniently located in all major neighborhoods.

RECREATION—Orlando's famous fishing grounds sprawl out across the surrounding central Florida citrus region, an area that cradles thousands of fresh water lakes and streams. Florida's principal game fish, the largemouth bass, abounds in these waters, and attains its largest size here. The bass range up to 15 pounds, with 10-pounders not being uncommon.

There are 54 lakes in the city and 2000 in the area. Eight public parks are located in Orange County. Located near springs, lakes or rivers, these parks are favorite areas for

HOW DID IT START

Admiral Luce and the Uniform

The contributions of Rear Admiral Stephen B. Luce (1827-1917) to the modern U. S. Navy have been many. Appointed midshipman in 1841, he became known both as the foremost seaman of his time and as father of the Naval War College.

Throughout his life, RADM Luce worked toward an improved Navy, and his contributions included writing the first standard text on seamanship; founding the merchant marine academies and the naval training system; and the reorganization of the Navy Department which resulted in the establishment of the Office of the Chief of Naval Operations.

In the field of enlisted welfare, his ships had the first patented coffee boiler, the first slide film projector ("magic lantern"), forerunner of today's shipboard movies, and the first dental corpsmen.

RADM Luce also made another contribution that has not been normally credited to him. It

concerns the dress blue uniform by which U. S. Navy enlisted men are easily recognized the world over.

On 18 Jan 1876, while in command of the flagship Hartford at Norfolk, then Captain Luce addressed the following letter to his superior, Commander North Atlantic Squadron:

"Admiral: I beg leave to offer the enclosed collar with stars and stripes as a suitable substitution for the plain collar now in use for the frocks of our seamen.

"As a single line of tape does not look well, it is proposed that the three stripes on the collar be for all grades, and the different ratings of the men be indicated by the stripes on the cuffs as at present.

"The pattern is generally approved by the commanding officers present."

Luce had evidently taken steps previously to publicize his new design, for on the same day, Rear Admiral James R. M. Mullany gave the letter his hearty endorsement:

"Approved and respectfully referred to the Chief of the Bureau of Equipment and Recruiting with the hope that the proposal of Captain Luce will receive the favorable consideration of the Department."

Two days later, Rear Admiral Robert W. Shufeldt, whose Bureau then had supervision of enlisted matters, wrote to Luce that his suggestion relative to the change of uniform had been adopted.

So the crew of Farragut's former flagship was the first to wear the dress blue uniform. Since then, it has been worn by their successors for some three generations with only minor changes.

—John D. Hayes, Rear Admiral, USN (Ret.)



boating, fishing, swimming, picnicking and other outdoor activities. The Orlando-Winter Park area has nine excellent golf courses. The present nine-hole Naval Training Center golf course will be eventually expanded to 18 holes. Recreational opportunities are so varied there is something for everyone. The mild climate lends itself to year-round sports and patio living.

An east coast Disney World will be built on 27,400 acres of land just 16 miles southwest of Orlando. Basic elements of the proposed development include a new amusement theme park similar to the world-famous Disneyland in California; a series of theme motels surrounding and compatible with the theme park development; outdoor sports centers for golf, tennis, boating, camping, and other recreational activities which will take advantage of and preserve the natural beauty of the area; an industrial park, covering about 1000 acres, planned as a "showplace to the world of American industry;" a "jet airport of the future" offering service to private and executive planes, commercial charters and freight carriers; and an experimental prototype community of tomorrow, planned for 20,000 permanent residents.

The development is scheduled to open to the public in January 1971.

TAX INFORMATION—Under Florida's Homestead Exemption Law, an owner-occupied home is exempt from municipal and county taxes for the first \$5000 of assessed valuation. No taxes are levied on real estate for state purposes. Florida has no income tax and sales taxes are not considered a general tax due to the exemption of certain items. Florida cities and counties levy general real property taxes.

William R. Maul, CTC, USN



"First . . . I'm going to ask for a volunteer."

Looking Forward to Tropical Duty With Family in Guam? Housing Is at a Premium

If you anticipate a tour of duty in Guam in the near future, better seriously consider leaving your family Stateside.

Housing of any nature is at a premium, no matter whether it's off base or public quarters at one of the various military housing compounds.

In spite of the 2110 existing housing units, military men ordered to Guam who need a two-bedroom house may expect to wait five to six months for government housing. The waiting period for a three-bedroom unit is from nine to 11 months.

The squeeze applies to those assigned to ships homeported at Guam as well as to men assigned to military installations.

Be that as it may, here is a thumbnail sketch of living conditions in Guam as seen by those who are there:

All officers are eligible for Navy public quarters, as are enlisted petty officers second class and above. Men who are PO3s are also eligible if they have four or more years of service for pay purposes and are assigned to Guam for a two-year tour.

Navy quarters are furnished with an electric stove, freezer, refrigerator, beds, mattresses, chests and desks. An extra refrigerator is handy.

The island is warm and humid and is not kind to overstuffed and veneered furnishings. The climate is also unhealthy for carpeting. In addition, appliances and silverware are subjected to corrosion by the salt air.

To combat all this, the Navy has "hot locker" space to combat mildew. The hot lockers work well for books, shoes and clothing.

Off-base housing is expensive and hard to find. If you do locate quarters in the civilian community, more often than not you will find them below the standards to which you were accustomed in the United States.

The rent will be higher. A two-bedroom house rents for \$150 to \$200. It will probably be wiped out in the next typhoon that comes along. So will your furniture.

At the moment, authorization has been obtained for the construction

of an additional 200 units in Fiscal Year 1968. Funds have not yet been allocated for this construction. However, the continued growth of the military population will outstrip the building program for some time.

Wilhoite's Reenlistments

When *uss Wilhoite* (DER 397) plies the coastal waters of South Vietnam to prevent Viet Cong infiltration, the patrols mean hard work in hot weather and long hours for the crew.

Work, heat and long hours notwithstanding, nine of *Wilhoite's* petty officers lined up on the deck recently, raised their right hand, and reenlisted for another tour in the Navy.

It was the first reenlistment for six of the petty officers and they took advantage of the Navy's STAR (Selective Training And Retention) program.

As every Navyman knows, the career advantages offered by STAR are considerable and the hard cash the variable reenlistment bonus provides can't be ignored, either. For shore-based Navymen it can mean a new car. For those overseas, it can mean an investment at 10 per cent interest.

Wilhoite's petty officers collected a nice bundle for spending or investing. The total tax-free bonus paid to them amounted to \$35,000. Most of it went to the men who reenlisted for the first time.

The advantages for everyone were obvious: The men who reenlisted had money in their pockets and further opportunity to grow professionally. The Navy gained continued benefit from the petty officers' 52 years of collective experience and was saved the expense of training new men.

J. H. Paoli, IC1, USN



"I don't understand how you ever made rate, I have to explain every little detail to you."

Deadline Nears for Submission of Your Command's History

YOUR COMMAND did something notable this past year. Even if you don't think so, the Chief of Naval Operations does. In fact, by 1 March, every ship, naval command and established shore or field activity is required to submit to CNO a history of its activities during the previous year.

These histories are essential if the Navy is to maintain a proper record of its experience and if the achievements of individual commands are to be preserved.

Large shore commands, ships, and other Fleet commands have long sent in histories. Now, however, even relatively small shore or field activities must submit brief accounts of their year's achievements so that these can be remembered for the future.

Information contained in histories is used to answer queries from the public and as material for current official studies as well as to develop morale and pride in the Navy. Eventually, the documentation of each command becomes the basis for compiling official naval histories.

A few words concerning the preparation of the past year's history might be in order at this point.

Because of the great diversity of commands, histories are expected to vary widely in content and length. There are certain characteristics, however, which should be common to all.

Manuscripts should be typed double-spaced on standard letter-size paper. If you have charts, tables, photographs, documents and graphs to illustrate the written material, by all means include them.

A good way to identify the major sources of information contained in your history is by using footnotes. In this manner, the user who requires more detailed information can readily identify the basic documents.

If used, footnotes showing the originator, serial and date of the source document should be typed single-spaced at the bottom of the page or at the end of the history.

Your primary aim should be the presentation of a complete summary of command information; therefore, you should use classified material

Louis Giordano, RMSN, USN



"It'll never go. Not enough sail."

whenever it is necessary to achieve this end.

Literary masterpieces are not expected. Clarity, however, is essential. This quality can be achieved by a simple, logical and concise presentation.

Avoid abbreviations and technical jargon when writing. If code words are necessary, they should always be defined.

You should, of course, be well on the way to completion of your command history. The recommended procedure is to begin early. Do not wait until the end of the year to begin collecting historical data. Continual attention during the year not only makes writing easier, but it assures a more complete final product.

Documents can be set aside and rough chronological drafts written throughout the year. This procedure pays dividends when the final deadline approaches.

No one person in a command knows everything that goes on. Historians should consult others concerning sources of information and major occurrences.

If this is not done, it is a safe bet that something important will be overlooked. Another method of insuring completeness is to circulate a draft of your history to as many knowledgeable people as possible before the final document is written.

Each history should be organized along the following broad lines: brief

over-all chronology; command organization and relations; operations or activities; special topics; and documentary annexes.

Incidentally, documentary appendices can be very helpful to the command historian. If, for example, the report of an operational exercise is well detailed in an annex to the history, it is not necessary to cover the same exercise in great detail in the basic narrative.

One point to remember, however, is that the total history must be thorough and detailed. You should take special pains to give precise information on the where, what, when, why, and how of every event. For example, it is not sufficient to remark in passing that five shipwrecked sailors were rescued during the year. The exact dates of the rescues, precise locations, the names of the persons rescued and their disposition, the identification of naval units and men making the rescues, as well as orders or commendations received from higher authority, need to be indicated.

It should be noted also that the presentation of such details can, with not too much effort, be made interesting and readable. A good example is the ship's log of *uss Triton* (SSRN 586), kept by her skipper, Captain Edward L. Beach, during the sub's famous submerged circumnavigation in 1960.

Although admittedly written with future publication in mind, this ship's log is a fine illustration of how to make a set of facts and figures become intensely readable.

Here are excerpts from Captain Beach's log as *Triton's* crew prepares to transfer Chief Radioman J. R. Poole to *uss Macon* (CA 132) for medical treatment:

"5 March 1960.

Our rendezvous with *Macon* is for 2 A.M. At 0100 we slowed and came to periscope depth. *Macon* is out there waiting for us.

The rendezvous is perfect. She is heading south, we north, and the two ships meet at the designated position.

0245—Approximately in position for the transfer.

0250—Broached on safety tank. Ship's draft reduces to 40 feet, indicating that the top of the conning tower is five feet out of the water. . . ."

The hatch is opened, and Captain Beach goes topside. Preparations are made for the transfer of Poole.

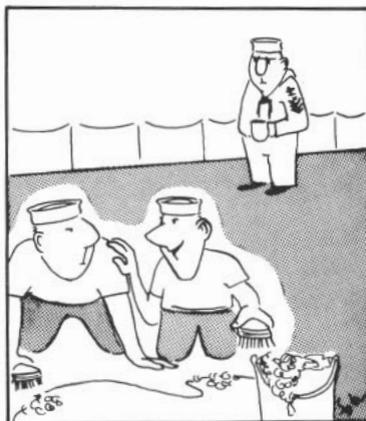
"The boat is alongside, bow painter around the cleat and held by Wilmot Jones. Two men in the boat hold her off from our side with reversed boathooks. Chief Fitzjarrald and Sawyer steady Poole and a couple of the men in the boat stand by to catch him. Seizing a moment when the gunwale of the boat is level with the edge of the deck, Poole steps easily and quickly into it. It is a standard Navy motor-whaleboat, evidently Macon's lifeboat, manned with a crew of about five people. It is a pleasure to watch the boat's coxswain maneuver his frail craft alongside. There is no doubt that he knows his business. Poole hasn't even got wet, and the boat's gunwale has only once touched our side.

"In a moment the riding line is cast off. The men with boathooks push hard, the coxswain guns the engine, and they are away. Another moment suffices to get George and company back on the lower bridge. Then they are below, hatch shut behind them.

"We sent a final message of thanks and then, with topside clear and hatch shut, I order Dick Harris, Diving Officer of the Watch, to return to periscope depth. The air bubble in our tanks is released, and gently Triton eases her sail into the warm sea. The total time with the bridge above water has been less than an hour. We shape our course at maximum speed southward."

As you can see, all the pertinent facts and figures are included in the

Joseph P. Fitzgerald, RM1, USN



"Keep smiling. It drives him crazy."

log, but it's a highly readable narrative.

More detailed information on the fine points of writing the command history can be found in OpNav Inst. 5750.12, Change 1.

Deep Freeze Heads South

It seemed like old home week in Christchurch, New Zealand, as units of Navy Task Force 43 gathered for Operation Deep Freeze. There was, however, little socializing and much

activity as the 13th annual operation got underway.

In the warm sunshine of late autumn, the first flight of the season left Christchurch bound for McMurdo, the Navy's largest Antarctic station. As soon as the weather permitted, the men on board would open the inland wintering-over stations at South Pole, Byrd and Plateau.

After several months in Antarctic darkness, happiness for the 250 Navy men and scientists was a replacement, and news of the party's arrival was more than welcome.

For the new arrivals, it meant the beginning of a procession of men and supplies which would move to Antarctic research stations by air and sea over a 12,000-mile supply line from the United States.

This year, more than a dozen ships and aircraft as well as nearly 2500 men of the U. S. military services will participate in Operation Deep Freeze during the southern hemisphere's summer.

They will provide supplies and transportation for civilian scientists who will conduct more than 60 scientific projects under the United States Antarctic Research Program.

Navy's Satellite Lends a Hand to U. S. Business

U. S. business will soon be able to take advantage of the Navy's satellite navigation system. This extremely useful network of satellites and ground equipment, called Transit, has previously been restricted to military use because of security considerations.

The Navy has been using Transit since 1964. Ships and aircraft equipped with the necessary receiving gear can use the system to pinpoint their position anywhere in the world.

The Transit system consists of up to four satellites, a ground tracking system and shipboard navigation equipment.

The satellites are launched into polar orbits from the Western Test Range. The satellites travel at altitudes of approximately 600 nautical miles.

The four ground tracking stations are located in Hawaii, California, Minnesota and Maine, two of which

include injection stations—meaning they can feed information into the Transit satellites as well as record tracking information.

Receiving systems, consisting of a radio receiver and an associated computer, can be installed aboard ships or aircraft.

As each satellite passes within range of a tracking station, the doppler shift of the satellite transmission is recorded and forwarded to a central computer, where it is used to predict the satellite's precise orbit path. Data on this path for the next 13 hours is then transmitted to the satellite, where it is recorded in the satellite's memory system and re-transmitted from space as the orbiting Transit satellite continues on its way.

Shipboard receiving stations pick up these broadcasts, recover the information on the satellite's orbit path. Navigators compute the satellite's position and, using the dop-

pler shift of the satellite transmission, figure the ship's position.

Because of the extreme accuracy of the Transit system, U. S. business has shown increasing interest in Transit over the past several years. For example, Transit could be extremely useful to civilian industrial oceanographers and off-shore oil exploration companies.

The Navy plans to provide the National Security Industrial Association with the necessary technical information and documentation concerning the shipboard receiving systems. NSIA will send this information—on an equal basis—to interested U. S. companies.

Much of the satellite information and tracking station data would remain classified, of course, as it is not needed for receiver operation. Any sale to foreign purchasers would be subject to normal munitions control procedures and export control regulations.

This Can Save You Money: Roundup on Travel During Leave

ARUSH OF TRAVELERS during the last Christmas and New Year's holiday season has once again emphasized the importance of planning your leave in advance. Reduced fares offered to military passengers by air, rail and bus carriers can save you money, but if your travel arrangements are not made in advance, you could find your saving involves more trouble than it's worth. What's more, if you don't check ahead of time, you may plan on a reduced fare and then, when you arrive at the airport, find that special rates are not in effect during the period you wish to travel.

This reminder to plan your commercial travel ahead of time is contained in Leave Travel Orientation, BuPers Inst 4650.16 series. The directive describes discount fares offered by major airlines and railroads, and discusses space-available, no-cost travel on board military aircraft. The Instruction describes the assistance available to you while traveling, and how you can help to improve commercial transportation service. It also gives detailed instructions on the use of the Military Standby Authorization for Commercial Air Travel (DD Form 1580). Here's a roundup:

Commercial Air

Most airlines offer discount prices under family, youth and excursion plans, and to military passengers who possess the DD Form 1580 described below. The amount of discount and conditions of travel vary, depending on the airline used (see page 54). In any event, you should confirm your ticket cost when you make your travel arrangements.

There are two popular categories of reduced-rate travel offered to military passengers.

Military Reservation Fare—This gives you a reserved seat at a savings of about one-third of the regular fare. However, many airlines do not permit travel under this plan during weekends and holidays. You should get details from the carrier, and make your reservation well ahead of the planned travel date. You must travel in uniform and present a copy of DD Form 1580.

Military Standby Fare—This offers a savings of approximately 50 per

cent of the regular fare. You travel on a space-available, standby basis, but once you are cleared by the airline and board the aircraft, you are treated the same as a full-fare passenger.

To qualify for the military standby fare, you must be on active duty, travel at your own expense, be in uniform, and present DD Form 1580 and your leave authorization at the time you purchase your ticket. (Note that Reservists who travel to or from active duty for training are not authorized the military discounts.)

Advance reservations are not usually permitted for military standby. This is important to remember, particularly during holiday periods when it is difficult to find space on many flights. (Reservations for emergency leave passengers may be accepted at the time of ticket purchase.)

Under usual procedures, you may not register as a military standby until you appear at the airport ready for departure. You should take your completed DD Form 1580 to the check-in desk of the airline on which you wish to travel, and have it validated with the date and time. This is important; standby travel is on a first-come, first-served basis.

If you are not able to obtain space on the flight you want, you should check with other airlines for their schedules to your destination. Your check-in time is validated by the first airline, plus your standby

tickets, will be honored by other carriers.

Once you are accepted for a flight, but before you board the aircraft, the airline will advise you of the point to which you have been cleared. If this point is not your destination, you are free to decline and wait for another flight.

You and other military standby passengers board the aircraft in the order of check-in times shown on the DD Form 1580, and in order of the following priorities: emergency leave; convalescent and combat leave; regular leave or liberty; and those discharged within seven days. Military travelers board ahead of all other standby passengers who do not have reservations.

Once you are cleared by the airline and board the aircraft, you are treated as a full-fare passenger. You should not be removed from the flight short of the point to which you have been cleared.

Your baggage is subject to the same weight or volume limitations that apply to a full-fare passenger. Once you are accommodated, any of your baggage which is mishandled by the carrier will be treated in the same manner as that of a full-fare passenger.

If meals are served on your flight, you should receive the same service as a full-fare passenger. (Some airlines occasionally experience a shortage of meals. If this happens on your flight, you will probably be issued a complimentary voucher to cover meal expenses at your destination.)

Jeremiah H. Paoli, IC2, USN



"Well! This is a pleasant surprise. We didn't think so many Navymen would be interested in anthropology."

DD Form 1580

The Military Standby Authorization for Commercial Air Travel (DD Form 1580) may be issued to you by your command each time you are authorized to be absent from duty on leave, delay en route to a new duty station, pass or liberty, or discharge or separation. Commercial airlines may insist that you possess a properly executed DD Form 1580 before accepting you as a reduced-fare military reservation or military standby passenger.

The form is simple, and for the most part self-explanatory (see cut). However, before issuing the form,

Airline Military Standby Fares, Military Reservation Fares and Reservation Youth Fares

Here's a listing of military standby, military reservation and reservation youth discount fares offered by some major airlines. Discounts shown are approximate, and are subject to change. Fare reductions offered by commercial carriers should be verified at the time you make travel arrangements.

To qualify for military standby and reservation fares, you must travel in uniform and have a completed copy of DD Form 1580. Some airlines may require you to surrender a copy of your leave orders.

Numbers in parentheses refer to notes at bottom of listing.

Airline	Regular Leave Standby 50% Discount	Emergency Leave Reserved Seat	Military Reservation Fare 25%-40% Discount	Youth Fare Reserved Seat Below Age 22 33-1/3%-50% Discount
Alaska	X	X		X 50% to Alaska
Allegheny			X 33-1/3%	X 33-1/3%
Aloha	X	X		
American	X	X	X (2) 33-1/3%	
Bonanza			X 40%	X 40%-50%
Braniff	X	X	X (2) 33-1/3%	
Central	X	X		X (2) 33-1/3%
Continental	X	X (1)	X (2) 33-1/3%	
Delta	X	X (1)	X (2) 33-1/3%	X 33-1/3%
Eastern	X	X	X (2) 33-1/3%	
Frontier	X	X	X 33-1/3%	X 40%
Hawaiian	X	X		
Lake Central			X 33-1/3%	X 33-1/3%
Mohawk	X	X (1)		
National	X	X (1)	X (2) 33-1/3%	
New York Airways	X	X		
North Central			X 33-1/3%	X 33-1/3%
Northeast	X	X (1)	X (2) 33-1/3%	
Northwest	X	X	X (2) 33-1/3%	
Ozark			X 33-1/3%	X 33-1/3%
Pacific	X	X (1)		X (2) (4) 50%
Pacific Northern	X	X		X 50% to Alaska
Pan American	X	X	X (2) 25% to Hawaii	X 33-1/3% to Alaska
Piedmont	X	X		
SFO/OAK Helicopter	X	X		
Southern	X	X (1)	X (3) 33-1/3%	X 50%
Trans Texas	X	X (1)		X 33-1/3%
Trans World	X	X	X (2) 33-1/3%	
United	X	X	X (2) 33-1/3%	
West Coast	X	X		
Western	X	X	X (2) 33-1/3%	

Notes: (1) Reserved seat to destination on going portion only
 (2) Consult airline for week-end and holiday restrictions
 (3) Applicable to passenger departures on Sat., Mon., and Tue. only
 (4) Reservations accepted three hours prior to departure only

certifying officers should be familiar with detailed preparation instructions contained in BuPers Inst 4650.16. Certifying officers may be officers, petty officers and civilian employees so designated by their command.

You should be issued five or more signed copies of the form—one for the ticket issuing agency, and one for each commercial flight on which you intend to travel.

The form does not in itself authorize you to be absent from duty. Air carriers have the right to inspect your leave papers and ID card at any point en route to your destination.

Wives' Travel to Hawaii

Round-trip tickets are available at reduced prices for wives of Vietnam-based Navy men who travel to the Rest and Recreation Center, Hawaii. The discount tickets, good for travel only between the West Coast and Hawaii, are issued by Pan American World Airways, United Air Lines, and Northwest Airlines.

If you are serving in Vietnam, and are scheduled for R & R in Hawaii, you may send your wife a copy of your R & R orders overstamped with a properly executed DD Form 1580. This, together with her Dependent's ID and Privilege Card, will qualify her for the reduced airline fare to join you in Hawaii.

Military Air

As a member of the military, you may travel at no cost on board aircraft of the Military Airlift Command (MAC), Navy and Air Force Reserve, and Air National Guard, plus other aircraft, including Fleet Tactical and Mission Support. It is the policy of all the services to accommodate leave personnel as passengers—on a space available basis.

Travel within CONUS—There is no specific system of priorities for space available passengers on board military flights within the continental United States. As a rule, passengers are accommodated on a first-come, first-served basis. However, most military flights with room for passengers will give priority to men on emergency leave.

A military hop is a catch-as-catch-can procedure. Most air stations have a desk or counter in or near base operations which serves as a processing

MILITARY STANDBY AUTHORIZATION FOR COMMERCIAL AIR TRAVEL					
1. LAST NAME - FIRST NAME - MIDDLE		2. GRADE	3. SERVICE NUMBER	13.	14.
4. ORGANIZATION AND STATION		PERIOD OF AUTHORIZATION			
		5. DATE FROM		6. DATE TO	
7. I CERTIFY THAT THE ABOVE NAMED PERSON IS TRAVELING AT HIS OWN EXPENSE DURING THE PERIOD STATED ABOVE ON: (Check one only)					
A. <input type="checkbox"/> EMERGENCY LEAVE, DESTINATION _____					
B. <input type="checkbox"/> COMBAT OR CONVALESCENT LEAVE					
C. <input type="checkbox"/> AUTHORIZED LEAVE/FURLOUGH/PASS					
<input type="checkbox"/> LIBERTY					
<input type="checkbox"/> DISCHARGE WITHIN 7 DAYS					
8. ORGANIZATION			10. CERTIFYING OFFICER'S NAME, GRADE & TITLE		
9. STATION		11. DATE	12. SIGNATURE		
FOR AIRLINE USE ONLY					
DD FORM 1580 1 NOV 66		AIRLINES RESERVE THE RIGHT TO INSPECT LEAVE/PASS/FURLOUGH PAPERS/IDENTIFICATION			

S/N-0101-812-3000

B-21135

station for space-available passengers. There usually is no advance information on itineraries, departure times or seat availability. However, most base operations offices can give you what they may call "conus flight advisory information."

If you want a hop, it's usually a matter of being there with bag in hand and ready to go. If you're lucky, a military flight to your destination will have room for you as a passenger.

Travel outside CONUS (Military Airlift Command)—Space available travel on board MAC aircraft may be permitted if there are vacant seats after all space-required passengers have been accommodated. The MAC space available system is operated under fixed, joint-service regulations which specify that travel as such be

P. McVay, LTJG, USNR



"I'll see your 25 thousand and raise you 30 thousand."

made available only within the following categories, in order of priority:

IA—Emergency leave to overseas area (military personnel only).

IB—Dependents and DOD civilians returning from emergency visit to CONUS.

II—Student dependents.

III—Active duty military personnel on ordinary leave, and retired military personnel and accompanying dependents.

Dependents of active duty personnel who are in pay grade E-5 or higher (or E-4 with more than four years of service) may travel MAC space available when they accompany their sponsor on ordinary leave.

MAC flights to the Pacific area originate at Travis AFB, Calif. Service to the Atlantic and European areas originates at McGuire AFB, N. J., and to the Caribbean area from Charleston AFB, S. C.

In accordance with the established priorities, assignments to available seats are made on a first-in, first-out system, based on date and time of check-in at the MAC Air Passenger Terminal. Active duty officers in grade O-6 and above may register by letter 30 days in advance of the desired date of travel. Other applications must be made in person by authorized passengers who are ready to travel.

There is no "best" time of any week or month for MAC space available travel. Waiting times vary, and are unpredictable.

Details with regard to baggage

allowance, flight insurance, transient accommodations and specific overseas destinations are contained in BuPers Inst 4650.16.

Train

If travel by land is more to your liking, you may receive a reduced "furlough fare" offered by many railroads. The price of a ticket, good for coach travel only, is about 50 per cent less than the regular fare. You must travel in uniform at your own expense, and must show leave or special liberty authorization.

Most round-trip furlough tickets are good for 90 days from date of sale. One-way tickets must be used within 45 days of purchase. The reduced-fare train tickets may be purchased throughout the year.

You may also find that a railroad

P. McVay, LTJG, USNR



"I had to remove your top-priority urgent rush typing to complete some emergency top-crash-priority urgent typing."

family plan for travel between many points in the western and eastern states can save you money. You pay the full fare, your wife and children between ages 12 and 21 pay half-fare, children ages five to 11 pay one-quarter fare, and children under five ride free.

Bus

Reduced fares for military leave

travelers once offered by major bus companies have, for the most part, been discontinued. You should check your local bus representative for information regarding the possibility of reduced fares between specific points.

Assistance While Traveling

What do you do if you miss your flight and are stranded at the airport,

perhaps faced with the possibility of becoming AOL? This problem and others may be solved with the help of a Military Information Desk or the Traveler's Aid Society, which has desks in most major air, rail and bus terminals. A Joint Airlines Military Traffic Office (JAMTO) may also be of assistance to you while traveling.

Military Information Desks are operated by the Armed Forces at five major airports, as follows:

O'Hare International Airport, Chicago, Ill.

National Airport, Washington, D. C.

Atlanta Airport, Atlanta, Ga.

San Francisco International Airport, Calif.

John F. Kennedy Airport (International Terminal), New York.

The above sources of assistance may help you to:

- Select an alternate airline or alternate destination if you are unable to obtain a flight.
- Obtain some alternate mode of transportation, perhaps a military flight.
- Find local ground transportation.
- Contact your duty station if you are unable to return to your base on time. (Note that local military installations and recruiting offices may also help you notify your commanding officer if you have travel problems while on leave. For a local listing, check the appropriate telephone directory under "U. S. Government.")

To improve transportation service to military passengers who travel at their own expense, BuPers Inst 4650.16 encourages you to report commercial carrier deficiencies.

If you have a complaint regarding your carrier's service, you should file DD Form 1341 (Report of Commercial Carrier Passenger Service) with the Military Traffic Management and Terminal Service. If DD Form 1341 is not available, you may send a letter report to the Commander, Military Traffic Management and Terminal Service, Attn: MTMTS-PTN, Washington, D. C. 20315.

You should describe the problem and specify the circumstances, and provide complete identification of carrier, origin, destination, flight number (if appropriate) and dates.

NOW HERE'S THIS

Hot Spot (In the Sea) Is No Place for a Party

Hot spots are at times jumping with go-go girls and other lively fauna. The Coast and Geodetic Survey ship USC&GSS Oceanographer (OSS 01), however, recently found one in the Red Sea which was a lifeless depression in the ocean floor filled with concentrated brine. Not a good place for a party.

In any right-thinking and right-living ocean, the water gets colder the farther down you go. Salt content usually runs about 3.6 per cent. In the Red Sea it is normally about four per cent.

But not in the hot spots. Just the reverse is true. Here, the temperature of the water increases the farther down one goes. Saline content is higher—much higher. Almost eight times the normal salt content. A pound of water from a hot spot would be more than one-quarter salt.

Bottom seawater with unusually high temperatures and salt content was first observed in the Red Sea in 1948 by a Swedish deep-sea expedition, but it remained for a British research vessel to determine, in 1964, that the bottom 600 feet in a depth of 6600 feet was filled with extremely dense brine with a temperature of 111 degrees. The expedition named it Discovery Deep.

Another hot spot in the same general central Red Sea area was found by the research vessel Atlantis II to reach a temperature of 133 degrees F., and was named the Atlantis II Deep. The only other hot spot discovered until the present was Chain Deep.

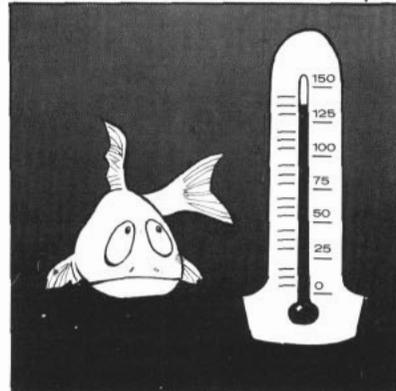
While in the area, Oceanographer took a look at the Atlantis II Deep. She found that the surface temperature of the water was 84 degrees. About 600 feet above the seabed, the temperature was 72 degrees. From there on down, the temperature continued to rise until it approached 102 degrees at a depth of 126 feet above the bottom. The temperature remained about the same until 54 feet above the bottom, then rose to 118 degrees in another 24 feet.

These hot spots are all located within a 10-mile area and surveys by other ships revealed no other examples until the fourth was

found by Oceanographer about 340 miles north of the others.

(It's much too early, of course, to advance any theory as to the causes of the hot spots. However, Oceanographer's discovery just about knocks out the extremely tentative hypothesis that such spots are caused by volcanic action. Two such phenomena seem to be pushing coincidence too far.)

The ship's schedule did not permit her to return to the site. However, on the basis of the profile reflection record, it was determined that the new hot spot was located in a depth of 4680 feet and was about 300 meters deep. It



was named Oceanographer Deep. The other three hot spots all were located at depths greater than 6000 feet.

Temperature readings were not taken. The ship was able to identify Oceanographer Deep by characteristics common to all of them. These are layers of some unknown composition which show up as profile reflections when recorded aboard the ship. The layers were found suspended at various depths throughout the deeps.

Some 150 to 200 gallons of water were gathered from the Atlantis II Deep by Oceanographer. This will be analyzed in an attempt to determine what causes the high temperatures. Apparently the phenomenon does not exist elsewhere.

No night life—or any other—was found in these hot spots.

A Factual Report on a Most Dangerous Subject

Here's an account that comes from the Naval Ammunition Depot at Hawthorne, Nev., on a subject that is close to its heart. As reported in the "Safety Review," NAD Hawthorne personnel are safety-conscious not only on station but off station, and they promote all kinds of safety programs.

It's appropriate, therefore, that safety-prone Hawthorne-ites should have something worthwhile to say on one aspect of this broad program—traffic safety.

GAS KILLED A lot of people last year.

Two per cent inhaled it.

Three per cent touched a match to it.

Ninety-five per cent stepped on it.

SPEED is the number one factor in vehicle accidents. Not in the sense that high speed alone is hazardous, but driving too fast for conditions is. Seventy mph on a modern freeway when the weather is clear is comparatively safe. Conversely, 30 mph may be too fast if visibility is restricted and the road surface is slippery.

Over most of the nation, the winter months are brutal for the driver and the normal hazards encountered in vehicle operation are augmented by adverse road and weather conditions, poor visibility, ice and snow. Here are some factors to consider:

• **THE WEATHER.** The sun is low on the horizon. Rain, snow, and fog reduce visibility, sometimes to a few

feet. Frost on the windshield and windows adds to the handicap.

• **SLIPPERY ROADS.** Driving under normal conditions on a dry paved highway, at a speed of 60 mph, you need 300 feet to bring your vehicle to a stop. If the pavement is coated with ice or snow, it could take up to 1000 feet to stop your car from 60 mph. The need to operate your vehicle according to conditions is obvious. Get the feel of the road by applying the brakes at low speed. Learn how to come out of a skid by turning the front wheels in the direction of the skid. If you lack experience in driving under adverse conditions, take it easy until you know you are in control. You cannot regulate the weather but you can regulate your driving.

• **SAFE FOLLOWING DISTANCE.** One of the cardinal rules of safe driving is to allow plenty of operating distance between your car and the vehicle you are following. If the car ahead makes a sudden, impulsive stop or turn, you will have time to take evasive action. And remember, you will need three to 10 times the normal distance to stop on ice and snow.

• **CARBON MONOXIDE.** This highly poisonous gas is more prevalent in cold weather. You cannot see, smell, or taste the fumes, but they are deadly. Make certain there is enough air circulating in your car to avoid this hazard. Cold air is better than none.

• **VISIBILITY.** When snow, sleet, rain, fog, and other conditions restrict your vision, speed should be reduced to the point where your ability to stop is well within your ability to see ahead.

• **THE DRIVER.** Accept your responsibility. Condition your car to meet foul weather conditions. Check the tires, brakes, lights, muffler, battery, wiper blades, and steering. Then check yourself.

Many drivers, when involved in an accident, are always quick to place the blame on outside forces. "The sun was in my eyes." "There was ice on the road." "The car ahead stopped suddenly." Stop alibiing—the car usually doesn't cause accidents, nor does the road. And don't blame it on the weather.

It's the driver, for he is the only one in a position of control. He can, if he will, adjust his driving to meet existing conditions. He can, if he will, operate his vehicle in a cautious, considerate manner. He can, if he will, drive defensively and avoid accidents.

Here's a portrait of the man who causes accidents:

• The driver who pulls out from a parked position or parks his car—without looking.

• The driver who passes on hills and curves and makes a snake trail through traffic.

• The driver who operates at excessive speed regardless of road and weather conditions.

• The driver who gets "oiled" or "boiled."

• The driver who tries to steer peering through a hole the size of a hat on a frosty windshield.

• The driver who is temperamental or intemperate, inconsiderate, or horn happy.

Highway accidents are the result of inattention, chance taking, excessive speed, recklessness, poor judgment, overconfidence, fatigue, emotional immaturity, and many other causes which only the driver can control.

Courtesy and consideration toward others is the mark of a mature and socially responsible driver. Accept your responsibility, drive defensively, yield the right-of-way, obey the Golden Rule of the road and always drive so that your license will expire before you do.

John Alan Long, ATN2, USN



"This is Jones, the station karate champion. He would like to get a 'No Salute' chit."

Billups E. Lodge, CDR, USN



"Oh, the groceries will fit okay, but you'll have to take a bus home."



FOR YOUR CONVENIENCE

THERE'S ALWAYS the possibility of getting off on the wrong foot when you arrive at your new duty station with your family and learn that the housing list is a month long and that the only other shelter readily available is a \$10-a-day motel room.

As a result, your dislocation allowance disappears, taking with it a large share of your Christmas sav-

ings. It can be rather depressing.

However, the odds are getting better than ever that some day in the future you will not be faced with such a depressing situation because the Navy is trying to provide a network of temporary havens across the nation and overseas for traveling Navy families.

These havens—temporary guest houses and overnight motel-type

rooms—are thus far located at 13 naval stations and seven Marine Corps activities spread throughout 13 states, the District of Columbia, and six overseas facilities. Almost daily the list continues to grow.

A typical example of the Navy guest house facilities available may be found at NAS Jacksonville, Fla. Operated by the local Navy Exchange, as all naval guest houses are,

LOCATION	FACILITIES	RATES	OCCUPANCY
MCAS Yuma, Ariz.	HH: five 2-bdrm a/c furn tv. No cooking. No pets. w/d, cribs, linen, towels available.	\$5 daily.	3 days—may be extended.
MCB Camp Pendleton, Calif.	HH: 40 2-bedrms, cafeteria, linen, towels, cots, cribs, laundry rm, communal bath, no pets.	\$3.50 per rm; \$1 cots; \$.50 cribs.	2 weeks—may be extended.
NAF El Centro, Calif. 92243	GH: 7 units with communal kitchen, utensils, towels, linen provided—crib, laundry available. Snack bar. Pets allowed with Security Off tag.	\$3.50 per single day; \$2.50 for 2 or more days plus \$1.50 linen fee.	15 days—one extension of 30 days allowed upon approval of commanding officer.
MCAS El Toro, Santa Ana, Calif. 92709	HH: 23 rms ea with 1 sgl, 1 dbl bed. Ref, bottle warmer, cribs, laundry, w/d, irons available, communal bath; towels/linen provided. No pets, (boarding info at HH).	\$3 daily.	3 days—may be extended upon approval by OIC.
USNS Washington, D. C. 20390	Motel Cottages: 3-, 2- & 1-bdrm units, all furn, utensils, dishes, cots, cribs, laundromat, phones, beauty shop/barber.	\$7-6-5 daily.	15 days max.
NAS Cecil Field, Fla. 32215	EM Guest Motel: (4 units) 3-, 2-bedrms. 'O' Guest House—3 bdrm. All a/c, furn, utensils, cots/cribs, laundromat, meals at cafeterias, messes, clubs nearby. No pets except fish, birds.	Motel: 3-bdrm \$7; 2-bdrm \$6; GH: \$7 daily.	15 days max.
NAS Jacksonville, Fla. 32212	Motel Guest Houses: eight 3-bdrm & 10 2-bdrm units. Fully equipped kitchens, towels/linens, cots/cribs/ laundromat available. Grocery store, meals at NX cafeteria. No pets except fish, birds.	\$7, 3-bdrm; \$6, 2-bdrm, daily.	15 days max.
USNS Mayport, Fla. 32228	Motel Trailer units: eleven 3-bdrm, five 2-bdrm. a/c, furn, cooking utensils, dinnerware; towel/linen service, cots, cribs, laundry pickup, grocery & NX snack bar meals available. No pets except fish, birds.	\$6.50, 3-bdrm. \$5.50, 2-bdrm, daily.	30 days.
NAS Pensacola, Fla.	GH Apts: eight 2-bdrm, eight 1-bdrm; a/c, furn, utensils, TV, dinnerware, daily towel/semiweekly linen service; cots/cribs, w/d laundromat available. No pets except fish, birds.	\$7.50, 2-bdrm; \$6.50, 1-bdrm; daily.	10 days, normally.
NAAS Whiting Field, Milton, Fla. 32570	Motel: nine 1-, 2- and 3-bdrm units. Kitchens, cots/cribs; towel/linen service. Daily laundry pickup & delivery; grocery shop, restaurant, Open Messes; no pets.	\$7.50, 3-bdrm; \$6.50, 2-bdrm; \$5.50, 1-bdrm; per day.	30 days if under PCS order; otherwise only seven days.
NTC Bainbridge, Md. 21905	GH: 29 rms with 4 sets adjoining. Communal kitchen (sandwiches only); communal bath. towels/linen/cots/cribs available. w/d; lounge w/TV; cafeteria/messes. No pets.	\$5 dbl; \$4 sgl; 50¢ for each additional person with max. of 4 persons per room.	30 days if under PCS order; otherwise seven days.
NAS Grosse Ile, Mich. 48138	GH: six 1-rm units with 4 beds; one 1-rm unit with 2 beds; communal kitchen (sandwiches only); communal bath except for one unit; daily towel/semiweekly linen service; cots/cribs/laundry; cafeteria/messes available. No pets.	\$4, four persons; \$3.50, three persons; \$3, dbl; \$2.50, sgl per day.	15 days, normally.

-NAVY GUEST HOUSES



the facilities consist of 18 units, eight of which are three-bedroom dwellings and 10 are two-bedroom units. Daily rates: \$7 and \$6, respectively.

Kitchens are fully equipped with utensils, dinnerware, pots and pans. Each unit has a private bath, and daily towel and semiweekly linen service is provided. Also available: cots and cribs, and the use of a coin-operated laundromat. Additional

convenience is marked by the availability of groceries at two stop-and-shop express stores on the base and inexpensive meals at the NX cafeteria.

While arranging for reservations may differ elsewhere, at NAS Jax they may be obtained by writing to the Navy Exchange. All military personnel, their dependents, relatives and guests, and official guests of the

station, are eligible to use the houses, normally not to exceed 15 days. This is generally true of all guest house operations, both Navy and Marine Corps, with the exception of those specifically noted.

Key: FCFS—first come, first served.
w/d—washer and dryer.
a/c—air-conditioner.
HH—Hostess House.
GH—Guest House.
ref—refrigerator

RESERVATIONS/ADDRESSES	ELIGIBILITY	CHECK-IN	CHECK-OUT
Accepted upon receipt of \$2 deposit. FCFS basis. Held for 12 hours. Write: Recreation Officer, U.S. Marine Corps Air Station Yuma, Ariz. 85364. Ph. 602, 725-2278.	All military personnel, their dependents and bona fide guests.	Recreation Officer, Bldg. 968, day or night. Payment in full required at time of registration.	By 1100. Any portion of time thereafter subject to full rate charge.
Required—FCFS basis also. Held until 1800 or as confirmed. Write: Base Hostess House, Bldg. 1146 Marine Corps Base, Camp Pendleton, Calif. 92055. Ph. 714, 722-4111, Ext. 5194.	All military personnel and their dependents.	At Hostess House at any hour.	By 1200 without prior arrangement.
Accepted up to 3 weeks in advance of arrival. FCFS basis also. Held until 2400. Write: Navy Exchange Office, Naval Air Facility El Centro, Calif. 92243. Ph. 714, 352-3310, Ext. 396 or 398.	All military personnel and their dependents. Priority given to individuals reporting for permanent duty.	During working hours, at Navy Exchange; after working hours, at Base Security.	By 1300 without prior arrangement.
No advance reservations accepted. Availability based on FCFS at time of registration or by phone early on day of registration. HH located in Bldg. 258. Ph. 714, 832-2484.	All military personnel and their dependents.	At Hostess House. Payment in full required at time of registration.	By 1100 without prior arrangement.
Required FCFS basis. Held until 1800 without confirmation, or until 2300 with confirmation. Write: Navy Exchange, Bellevue Naval Housing, 12 Bowline Green, S.W., Washington, D. C. 20032. Ph. 202, 562-9382.	All enlisted personnel authorized unlimited exchange privileges and official guests and visitors of the command.	Before 2300 at reservation desk, Bellevue Cottage Office. Deadline for arrival is 2300.	1200 daily. Late check-out subject to full rate charge.
Accepted FCFS basis. Held until 1400 or as confirmed. Reserved accommodations have priority over extensions of stay. Write: (for GH) Commanding Officer's Secretary, Naval Air Station Cecil Field, Fla. 32215. Ph. 904, 771-3211, Ext. 201. (for Motel): Navy Exchange Office, Bldg. 5. (Ext. 376).	All personnel authorized unlimited exchange privileges, dependents, guests and relatives, and official guests of command.	At Personal Services Desk, NX Country Store, Bldg. 5: 0900-1630 Mon.-Fri.; 0900-1300 Sat.; otherwise notify NX Office to leave keys with OOD at Main Gate.	By 1200. Late check-out without prior notice subject to one-half rate charge up to 1400; full daily charge after 1400.
Accepted FCFS basis up to four months in advance. Held until 1400 or as confirmed. Write: Navy Exchange Office, Bldg. 27, Box 13, Naval Air Station Jacksonville, Fla. 32212. Ph. 904, 389-7711. Ext. 665.	All personnel authorized unlimited exchange privileges, dependents, guests and relatives, and official guests of command.	At Bldg. 803, Apt. 1	By 1200. Late check-out without prior notice subject to one-half rate charge up to 1400; full daily charge after 1400.
Accepted FCFS basis up to 60 days in advance. Held until 1400 or as confirmed. Write: Navy Exchange Trailer Facility, U.S. Naval Station Mayport, Fla. 32228. Ph. 904, 246-5336.	Military personnel, their dependents, relatives and guests, and official guests of command.	At Trailer Facility located south of Lake Wonderwood between officer/enlisted housing.	By 1200. Late check-out without prior notice subject to one-half rate charge up to 1400; full daily charge after 1400.
Accepted FCFS basis up to 30 days in advance if accompanied by one day's payment. Held until 1600 or as confirmed. Deposit forfeited unless cancellation received one day in advance. Write: Navy Exchange Guest House, Naval Air Station Pensacola, Fla. 32508.	All military personnel, their dependents and guests. Individuals reporting to area for duty given priority.	During working hours, at NX Guest House, Bldg. 221; after working hours, at NX Canteen, Bldg. 634 until 2200. Payment in full required on first day of occupancy.	Not later than 1300.
Accepted on FCFS basis. Held until 1400 or as confirmed. Write: Branch Manager, Navy Exchange, Naval Auxiliary Air Station Whiting Field, Milton, Fla. 32570. Ph. 904, 623-3643, Ext. 387 or 437.	All military personnel, their dependents and guests.	During working hours, with Owens Court Canteen Manager, adjacent to Magda Village just outside Main Gate. Otherwise, with OOD.	Not later than 1200.
Accepted one month in advance on a FCFS basis. Held until 2100 or as confirmed. Write: Navy Exchange Guest House, Bldg. 409, Naval Training Center Bainbridge, Md. 21905. Ph. 301, 378-2121, Ext. 278.	All military personnel, their dependents and bona fide guests.	At Guest House, Bldg. 409, 24 hours; no advance payment.	As stated at registration.
Accepted on FCFS basis. Held until start of next working day. Write: Navy Exchange Officer, Naval Air Station Grosse Ile, Mich. 48138, Ph. 313, OR 6-3600, Ext. 268 (on Wed.-Sun.); Ext. 211 (on Mon.-Tue.)	Military personnel, their dependents and guests. Priority given to individuals reporting for duty	During working hours, at NX Office; after working hours, at Main Gate or with JOOD.	Not later than 1400.

NAVY GUEST HOUSES

LOCATION	FACILITIES	RATES	OCCUPANCY
NAAS Fallon, Nev. 89406	Motel: three 4-rm. cottages with kit. Towel/linen/laundry service; cots/cribs, snack bar/Open Messes available. No pets except fish and birds.	\$5.50 per day.	15 days, normally.
NAS Lakehurst, N. J. 08733	Motel: eight units with living room, 2 bdrms and kitchen. a/c; towel/linen service; cots/cribs/TV available; no laundry; eating facilities nearby. No pets.	\$6 per day.	7 days max.
MCB Camp Lejeune, N. C. 28542	HH: 29 rooms. No kitchen facilities; communal bath; towels/linens provided; w/d; cots/cribs available; snack bar/cafeteria in HH. No pets allowed.	\$3.50, rm with dbl and sgl bed; \$2.50, rm with twin beds; 50¢ additional per day for cots/cribs.	5 days, with a 5-day extension on space available basis only.
MCB Camp Lejeune, N. C. 28542	GH: 38-rm Jr. GH; 4-rm Sr. GH. No kitchen facilities; community refrigerator; private baths only in Sr. GH; towel/linen service; w/d in Jr. GH; TV in lounge areas; COM (Open) next door. No pets.	Sr.: \$5 per day; Jr.: \$4 per day. 50¢ for cot/crib.	Sr. GH: 5 days. Jr. GH: 15 days.
MCAS Cherry Point, N. C. 28533	HH: 16 rms. Small communal kitchen, no large meals; private baths; towels/linens provided; w/d; lounge w/TV; playground; meals available at snack bar and OPEN messes. No pets.	\$4, dbl; \$3, sgl; 50¢ for each child under 12.	5 days, normally; may be extended as space available.
USNH 17th St. and Pattison Ave., Philadelphia, Pa. 19145	Motel Suites: 2 w/kitchens, 4 without; towel/linen service; cots/cribs/laundry and meals in hospital. No pets.	Singles: \$5, \$7, \$8.50, \$10.50 daily; Doubles: \$5.75, \$7.75, \$9.25, and \$11.25 daily. 50¢ additional for each adult. Children under 12 free.	3 days, normally.
USNS Charleston, S. C. 29408	Motel Trailer Units: sixteen 2-bdrm, six 3-bdrm, a/c, kitchens. Towels/linens/cribs/laundry/cafeteria and grocery store available. No pets except fish and birds.	\$7, 3-bdrm; \$6, 2-bdrm; per day.	15 days max. Extension may be granted by CO.
USMCRD Parris Island, S. C. 29905	HH: 30 rooms. Limited kitchen facilities; towels/linens provided; cribs/laundry/beauty parlor/rec room w/TV/snack bar and restaurant. no pets.	Military: three persons \$2.50; dbl \$2; sgl \$1.50. Civilian: three persons \$6; dbl \$5.50; sgl \$3.50.	7 days max.
NAAS Chase Field, Beeville, Tex. 78102	Motel Trailer Units: three 3-bdrm; three 2-bdrm. Equipped kitchens. Daily towels/semiweekly linens; no cots/cribs. Laundry available; meals in NX, clubs. No pets except fish and birds.	\$7.50, 3-bdrm; \$6.50, 2-bdrm; per day.	10 days max.
NAS Corpus Christi, Tex. 78419	Motel Trailer Units: four 4-bdrm; five 2-bdrm. a/c; equipped kitchens; daily towel/semiweekly linen service; laundry pickup service; cribs/grocery items available. No pets except fish and birds. (Kennel info available).	\$6.50, 3-bdrm; \$5, 2-bdrm; per day.	10 days, normally.
MCS Quantico, Va. 22134	HH: 72 rooms. No kitchen facilities except for baby food preparation. Towels/linens and laundry service available. Eating facilities nearby. No pets.	\$4, twin beds w/communal bath; \$4, dbl bed w/semi- private bath; \$5, twin beds w/semi- private bath.	5 days—may be extended upon OIC approval.



RESERVATIONS/ADDRESSES	ELIGIBILITY	CHECK-IN	CHECK-OUT
Accepted one month in advance on FCFS basis. Held until stated time of arrival or as later confirmed. Write: Navy Exchange, Naval Auxiliary Air Station Fallon, Nev. 89406. Ph. 702, 423-2211, Ext. 2400 or 2516 (Mon.-Fri. until 1700); Ext. 2449 after 1700 and on weekends and holidays.	All military personnel, their dependents, relatives and guests, and official guests of the command.	At Navy Exchange between 0800-1700 Mon.-Fri., and 0800-1400 Sat.; after 1700 on weekends and holidays, at Enlisted Men's Club. Advance payment required at registration.	By 1200 without prior arrangement.
Accepted on FCFS basis. Held for 24 hours of confirmed arrival date. Write: Motel Reservations, Navy Exchange, Naval Air Station Lakehurst, N. J. 08733. Ph. 201, 657-7805, Ext. 297 (on weekends: Ext. 464).	All military personnel, their dependents, relatives and guests, and official guests of the command. Priority given to persons arriving for or departing from permanent duty at NAS.	During working hours, at NX Office, Bldg. 193; after working hours, with reservation at JOOD duty desk, Security Bldg. 255; without reservation, at EM Club. Advance payment required at time of registration.	Not later than 1100.
Accepted up to one month in advance on FCFS basis. Reservations must be paid in advance. Held until 1000 unless confirmed of later arrival. Write: Manager, Camp Lejeune Hostess House, Marine Corps Base Camp Lejeune, N. C. 28542. Ph. 919, 346-2111, Ext. 7-5708.	All enlisted personnel and their dependents.	At Hostess House. Advance payment required at time reservation is made.	Not later than 1000.
Accepted up to three months in advance on a FCFS basis. Must be reconfirmed one month prior to arrival. Held for 24 hours. Write: Officer in Charge, Commissioned Officers' Mess (OPEN), Marine Corps Base Camp Lejeune, N. C. 28542. Ph. 919, 346-2111, Ext. 6-6188.	All officer personnel and their dependents. Sr. GH for 0-5 and above; Jr. GH for 0-4 and below.	At COM (OPEN).	Not later than 1200.
Accepted up to 30 days in advance on FCFS basis. Held until 2330. If later arrival not confirmed, billing will be made. Write: Hostess House, Marine Corps Air Station Cherry Point, N. C. 28533. Ph. 919, 447-2111, Ext. 3558 or 2538.	All military personnel and their dependents.	At Hostess House located near Joint Reception Center on station. Desk closes at 2330.	Not later than 1200.
None accepted. Strictly FCFS basis. Ph. 215, 755-8721.	Visitors and dependents of critically or seriously ill patients.	During working hours, at NX Office; after working hours, with OOD. Advance payment not required, but recommended.	Not later than 1400.
Accepted up to three months in advance. Priority given to visiting dependents/relatives of military personnel confined to Charleston Naval Hospital. Otherwise, FCFS basis. Held until 1600 or as confirmed. Write: Navy Exchange (Dept. K-8), Bldg. 143, U.S. Naval Station Charleston, S. C. 29408. Ph. 803, 743-5540.	Individuals authorized unlimited exchange privileges, visiting relatives of military personnel, and official guests of the command.	At Motel Unit Eleven. Payment required at time of registration.	Not later than 1200 without prior arrangement.
Accepted with advance deposit on a FCFS basis. 10 rooms reserved for personnel reporting for duty or being transferred. Write: Officer in Charge, Base Hostess House, Marine Corps Recruit Depot Parris Island, S. C. 29905. Ph. 803, 524-2111, Ext. 4629 (EMs); and Ext. 5705 (officers).	All military personnel, their dependents, relatives and guests.	At Hostess House. Payment required at time of registration.	Not later than 1100.
Accepted up to three months in advance on FCFS basis (except for priority). Held until 1400 or as confirmed. Write: Navy Exchange, Navy Auxiliary Air Station Chase Field, Beeville, Tex. 78102. Ph. 713, FL 8-1120, Ext. 451.	Individuals authorized unlimited exchange privileges, visiting relatives and guests of military personnel, and official guests of the command. No minor dependents without parents or guardian. Priority given to individuals with orders to NAAS or tenant activities.	During working hours, at NX Service Station; after working hours, with OOD. Motel located near Main Gate.	Not later than 1200.
Accepted on FCFS basis with reserved accommodations having priority over extensions of occupancy. Held until 1400 or as confirmed. Write: Navy Exchange, Naval Air Station Corpus Christi, Tex. 78419. Ph. 713, WE 7-2811, Ext. 514 (from 0800-1630) or Ext. 535 (from 1630-0800).	All military personnel, retired members, dependents, relatives and guests, and official guests of the command. No one under 16 years old without parent or guardian. Sponsor must be identified by civilians.	Motel Office, Bldg. 1262, NX Service Station; motel located adjacent to NAS South Gate.	By 1200. Late check-out without prior notice subject to one-half rate charge up to 1400; full daily charge after 1400.
Required at least two weeks in advance of arrival, with deposit of one day's rate. FCFS basis. Held only until 1400 if no deposit is made. Write: Officer in Charge, Hostess House, Marine Corps Schools Quantico, Va. 22134. Ph. 703, 172-8295 or 172-8138.	All military personnel and their dependents.	At Hostess House any time after 1400. Advance deposit required.	Not later than 1200.



NAVY GUEST HOUSES

LOCATION	FACILITIES	RATES	OCCUPANCY
MCS Quantico, Va. 22134	GH: eight suites; 10 rooms with twin beds. Some with kitchens/private baths; towels/linens/daily maid service; laundry/meals available.	1 apt. w/2 bdrms, kit, lvrn, bath, TV, \$12.50; VIP 2-bdrm apt., \$12; 2-bdrm suite w/2 baths, \$7; rms w/bath, \$5.50; rms w/communal bath, \$4.	5 days, normally.
USNS Adak, Alaska	GH: one family unit w/dbl bed, 3 sgl beds and crib. Four units with twin beds. Family unit has equipped kitchen, w/d; all have towel/linen service provided; private/semiprivate baths; pets permitted.	\$3, dbl; \$2, sgl; children 6-16 yrs, 50¢.	15 days, normally.
USNS Kodiak, Alaska	GH: nine units. Communal kitchen equipped; daily towel/semiweekly linen service; private baths; cribs/laundry available. No pets, but kennels available at 75¢ (including food).	\$5 for family and \$2 for sgl occupant.	14 days, normally. Extensions may be authorized by CO. VIP quarters controlled by COM 17.
USNS Keflavik, Iceland	GH: 15 units. Communal kitchen; daily maid service; towels/linens/cribs available; semiprivate baths; laundry. No pets.	\$2 per person; \$1 for guest under 16 yrs old.	30 days, normally—may be extended by CO.
Navy Housing Activity Yokohama, Japan	GH (Hotel): 90 rms. Communal kitchen on each floor; bath facilities on each floor; cribs/beauty shop/laundry/child care/snack bar available. No pets.	\$3, dbl; \$1.75, sgl; per day.	60 days, normally.
Fleet Activities Yokosuka, Japan	GH (Hotel): 53 rms. Communal kitchen on each floor; sink in each room/bath on each floor; cribs/laundry available. Self-serve store open 0900-2300 except Sunday. No pets.	Four persons: \$6. Dbl, \$3.50; sgl \$2.50 per day.	60 days on PCS orders. 15 days max, otherwise.
USNS Midway Island	GH: six units (2 w/kit); towels/linens; private baths; pets allowed.	\$3.50, kit; \$2.50, wo/kit.	15 days, normally.
USNS Argentinia, Newfoundland	GH: 26 units each w/lvrn/bdrm/bath. No kitchens. Towels/linens/laundry available. Eating facilities/kennels for pets.	\$3 per unit daily.	30 days, normally.
USNS Subic Bay, Philippine Islands	Motel: 20 units. Twin beds/sofa bed; cribs; private bath; daily towel/linen/laundry/maid service; communal refrigerator/hot plate for infant care; ice/vending machines. No pets.	\$5, dbl; \$3, sgl. \$1 for each additional person over two years old. Under two free. Max. 3 persons unit including children under two.	15 days—may be extended on space available basis. Arriving guests have priority.
USNS San Juan, Puerto Rico	GH (Hotel): 87 rooms w/twin beds; a/c, refrigerator; cribs. Laundry/dry cleaning/maid service. No pets.	According to categories A, B, and C as listed under reservations.	15 days. PCS personnel may be granted extension.



RESERVATIONS/ADDRESSES	ELIGIBILITY	CHECK-IN	CHECK-OUT
Accepted up to 30 days in advance on a FCFS basis. Held until 2400 of the day of arrival. Write: Officer in Charge, Commissioned Officers' Mess (OPEN), Marine Corps Schools Quantico, Va. 22134. Ph. 703, 172-0180 (on base: Ext. 2-0180).	All officer personnel, their dependents and guests.	Registrations made in Harry Lee Hall. Guest rooms also in Waller Hall annex.	Not later than 1200.
Accepted up to 30 days in advance on a FCFS basis. Write: Navy Exchange Officer, Box 8, U.S. Naval Station, FPO Seattle, Wash. 98791.	All military personnel and their dependents.	At Navy Exchange Office, or OOD.	As arranged at time of registration.
Accepted up to two months in advance on FCFS basis. Held until time stated or as confirmed. Dependents authorized "entry approval" have priority. Reservations have priority over extensions of stay. Write: Navy Exchange, Naval Station, Box 31, FPO Seattle, Wash. 98790.	All individuals authorized unlimited exchange privileges.	At Navy Exchange Office, or OOD.	As arranged at time of registration.
Accepted up to one month in advance on FCFS basis. Write: U.S. Naval Station, Navy Exchange 280-030, Box 10, FPO New York 09571.	Individuals authorized unlimited exchange privileges, visiting relatives, guests of military personnel, and official guests of command.	At Navy Exchange Office, or OOD.	As arranged at time of registration.
Accepted not more than 30 days in advance of arrival on FCFS basis (waiting period for guest house accommodations is about 30 days). Write: Personal Services Manager, Bayside Courts Guest House, Navy Housing Activity, FPO San Francisco, Calif. 96661.	Personnel and their dependents awaiting permanent housing in area.	At Bayside Courts Guest House.	As arranged at time of registration.
Accepted not more than 30 days in advance on FCFS basis (waiting period for accommodations is about 30 days). Write: Personal Services Manager, Navy Exchange #260-010, Box 18, FPO San Francisco, Calif. 96662.	All members of the U.S. Armed Forces and their dependents.	At Navy Exchange Office, Yokosuka Naval Base.	As arranged at time of registration.
Accepted up to two months in advance of occupancy on a FCFS basis. Normally limited only to personnel departing Station. Write: Navy Exchange Officer, Box 29, U.S. Naval Station, FPO San Francisco, Calif. 96614.	Personnel and their dependents departing the station who have vacated Public Quarters. May, on occasion, be used by reporting personnel whose assigned Public Quarters are not ready on arrival. (There are no commercial hotels on Midway.)	At Navy Exchange Office.	As arranged at time of registration.
Accepted on FCFS basis; emergency situations handled on space available. Write: Navy Exchange 280-010, Box 44, U.S. Naval Station, FPO New York, N. Y. 09597.	Personnel authorized unlimited exchange privileges and bona fide guests.	At Navy Exchange Office.	As arranged at time of registration.
Accepted no more than 30 days in advance on FCFS basis in following priority: (1) dependents of Fleet personnel assigned to ships visiting Subic Bay; (2) U.S. Fleet personnel accompanying dependents; (3) military personnel with dependents transiting Subic Bay in leave status; (4) U.S. civilian employees with dependents transiting Subic Bay in leave status; (5) official visitors (not under orders); (6) guests of military personnel assigned duty in Subic-Cubi area; (7) guests of civilian personnel assigned duty in Subic-Cubi area; (8) other visitors as specified by CO. Held until time stated or as confirmed. Write: Navy Exchange Officer, U.S. Naval Station, FPO San Francisco, Calif. 96651. Ph. 44-25000.	Military personnel assigned to U.S. Fleet units and their bona fide dependents; military personnel, civilians and their dependents entitled to overseas differential pay when traveling, but not permanently assigned duty in Subic-Cubi area; official guests of command in Subic area; relatives and guests of personnel assigned duty in Subic-Cubi area as specifically approved by CO, Naval Station.	At Navy Exchange Office.	Not later than 1200 without prior approval. Late check-outs subject to full rate charge.
Required, but not accepted more than 30 days in advance on FCFS basis. Held until 1600 unless later arrival confirmed. Rates vary according to following categories: (A) Individuals in PCS status awaiting government housing: service charge equal to daily BAQ rate for first 30 days then normal charge (B) applies. (B) Individuals on leave, R & R, retired, civilian guests: single or double, semiprivate bath, \$5; small w/bath, \$6; large w/bath, \$7; suite, \$9. Individuals on leave not incident to PCS will forfeit BAQ after seven days. (C) Individuals in TDY status (not granted when accompanied by dependents): GH considered Govt Qtrs for per diem purposes, semiprivate bath, sgl, \$2; dbl, \$4; small w/bath, sgl, \$3; dbl, \$7. Write Navy Exchange Guest House, U.S. Naval Station, Box 29, FPO New York, N. Y., 09550. Ph. 772-0080, Ext. 520/623.	All individuals authorized unlimited exchange privileges, official guests of commands in San Juan area, and bona fide guests of active duty military personnel stationed in San Juan area.	Guests must register in Guest House Office, Room 610 (first deck of Wing 6, Bldg. 2).	By 1200 on day reservation terminates. Late check-outs subject to full rate charge.



TAFFRAIL TALK

WHAT IS A Navy pilot's life *really* like? Apparently, it depends on your point of view. If you take the word of news releases emanating from pilot training bases such as NAS Pensacola, Fla., and NAAS Chase Field, Texas, you find that he has spent countless hours of dedicated in-class and in-plane study before earning those Navy wings of gold.

If you are an attractive young lady, and have spent any time at all in the company of a Navy pilot, you are only too well aware that he is something resembling a composite of Mercury, Hercules, and Alexander the Great.

If, on the other hand, you are the fifth grade researcher we recently heard about, you have a much different conception of what a Navy pilot's life is like.

This young future aviator agrees about the glamorous aspects of being a pilot and he goes on to write:

"I want to be a naval aviator when I grow up because it's a fun job and easy to do. Pilots just don't need much school, they just have to learn numbers so they can read instruments. I guess they should be able to read maps so they can find their way if lost."

"Pilots should be brave so they won't be scared if it's foggy and they can't see or if a wing or a motor falls off they should stay calm so they'll know what to do."

"Pilots have to have good eyes, so they can see through clouds and they can't be afraid of thunder and lightning because they are closer to them than we are."

"The salary pilots make is another thing I like. They make more money than they can spend. This is because most people think flying is dangerous except pilots because they know how easy it is."

"There isn't much I don't like, except girls like pilots and all the stewardesses want to marry them so they always have to chase them away so they won't bother them."

"I hope I don't get airsick because if I get airsick, I could not be a pilot and I'd have to go to work."

So jet jockeys please note. The secret is out. You don't have to kid us any more.

We now know how easy it is to be jolted from a standing stop to 100 miles an hour in three seconds. We know it's a piece of cake flying into the enemy's flak while you check your targets on those bridges in North Vietnam.

And how easy it is fighting off those SAMs while you make your way back to the coast. Don't put us on.

The "letter" was sent to us by Journalist Second Class Bob Hince, of Naval Auxiliary Air Station Chase Field. He says it appeared on his desk one day, scrawled in crayon on thick-lined paper. He sees no reason to doubt its origin.

Actually, it is more likely that somewhere in the Fleet there is a *Phantom* flyer (we'll go to any lengths to use a pun) with a gleam in his eye and a crayon behind his ear.

★ ★ ★

A recent letter to our editor pointed out that we had called the destroyer *uss Nicholas* (DD 445) the "Road Runner," while everybody knows that *uss W. R. Rush* (DD 714) is nicknamed the "Road Runner." Will the real road runner step forward.

The All Hands Staff

The United States Navy Guardian of our Country

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

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

We Serve with Honor

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

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

The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keystones of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past.

Never have our opportunities and our responsibilities been greater.

ALL HANDS The Bureau of Naval Personnel Career Publication, solicits interesting story material and photographs from individuals, ships, stations, squadrons and other sources. All material received is carefully considered for publication.

There's a good story in every job that's being performed, whether it's on a nuclear carrier, a tugboat, in the submarine service or in the Seabees. The man on the scene is best qualified to tell what's going on in his outfit. Stories about routine day-to-day jobs are probably most interesting to the rest of the Fleet. This is the only way everyone can get a look at all the different parts of the Navy.

Research helps make a good story better. By talking with people who are closely related to the subject material a writer is able to collect many additional details which add interest and understanding to a story.

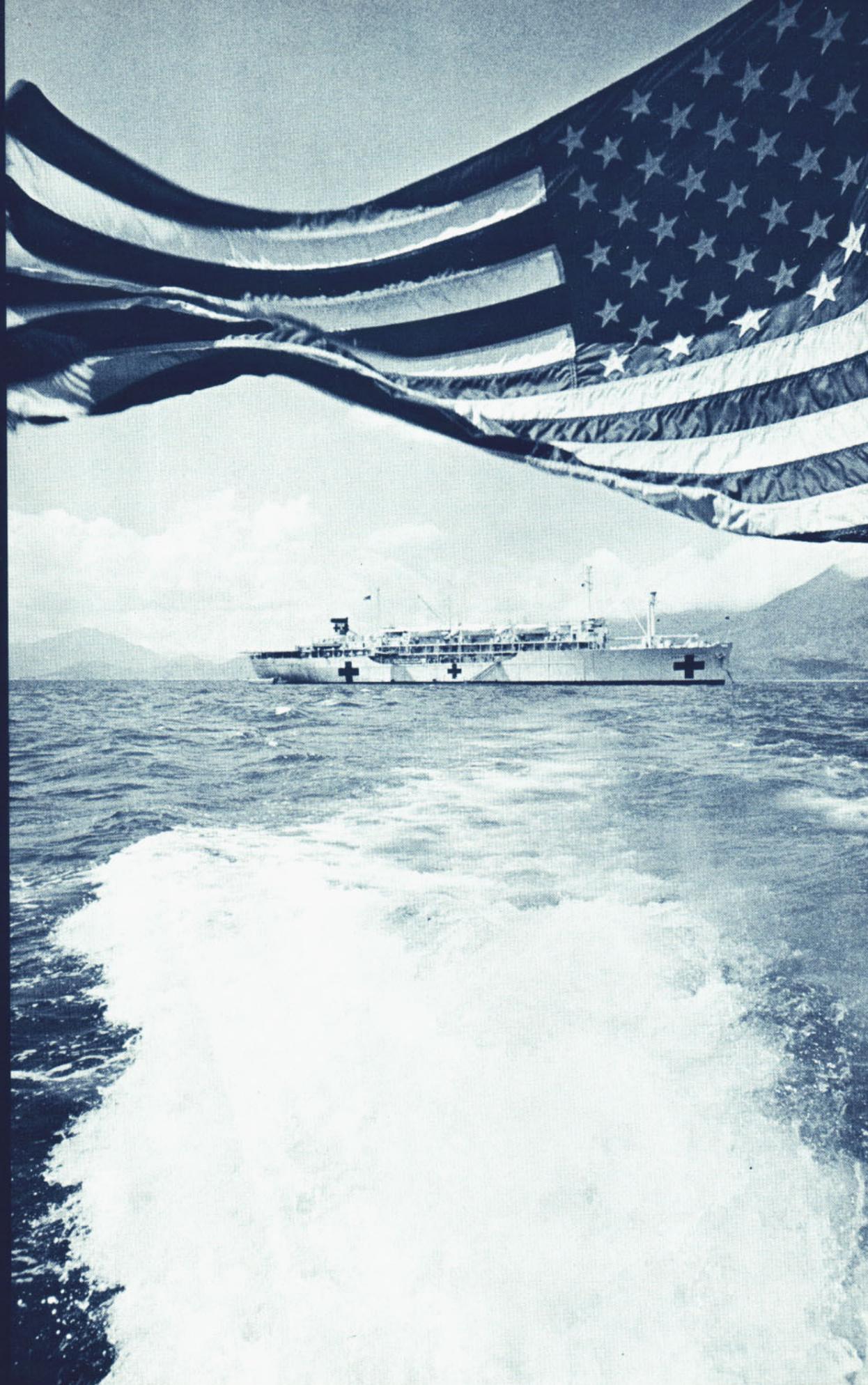
Articles about new types of unclassified equipment, research projects, all types of Navy assignments and duties, academic and historical subjects, personnel on liberty or during leisure hours, and humorous and interesting feature subjects are all of interest.

Photographs are very important, and should accompany the articles if possible. However, a good story should never be held back for lack of photographs. ALL HANDS prefers clear, well-identified, 8-by-10 glossy prints, but is not restricted to use of this type. All persons in the photographs should be dressed smartly and correctly when in uniform, and be identified by full name and rate or rank when possible. Location and general descriptive information and the name of the photographer should also be given. Photographers should strive for originality, and take action pictures rather than group shots.

ALL HANDS does not use poems (except New Year's day logs), songs, stories on change of command, or editorial type articles. The writer's name and rate or rank should be included on an article. Material timed for a certain date or event should be received preferably eight weeks before the first day of the month preceding the month of intended publication.

Address material to Editor, ALL HANDS, Pers G15, Navy Department, Washington, D.C. 20370.

• **AT RIGHT: BEST OF CARE**—Framed by flag and wake, hospital ship USS Sanctuary (AH 17) takes care of war wounded while anchored in Da Nang harbor. The floating hospital contains 750 beds and 20 wards.—Photo by Donald F. Grantham, PH1, USN.



LOOKING *into* HIS FUTURE



**TRAVEL...
ADVENTURE...
ADVANCEMENT...**