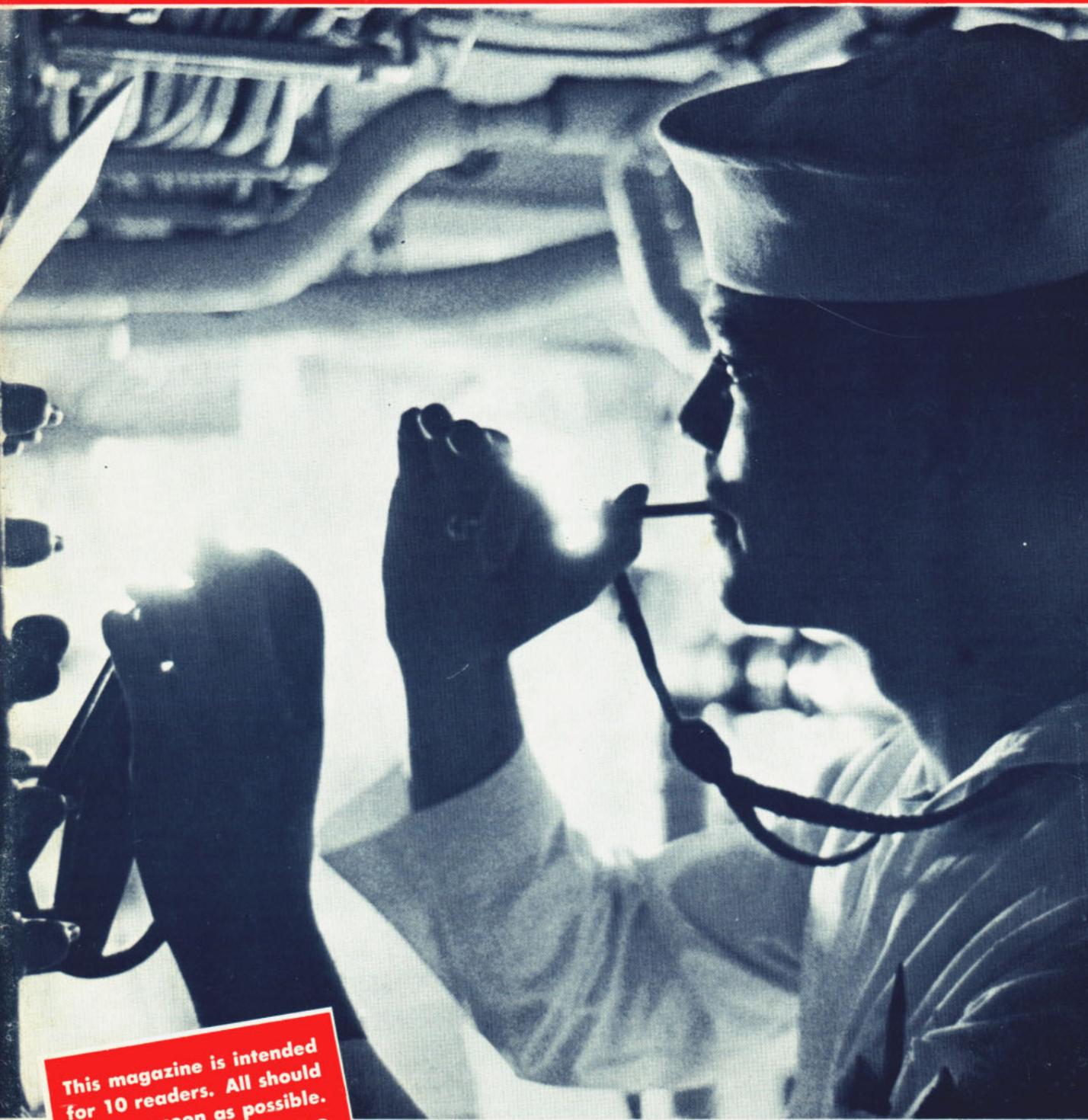


★ ALL HANDS ★

THE BUREAU OF NAVAL PERSONNEL CAREER PUBLICATION



This magazine is intended
for 10 readers. All should
see it as soon as possible.
PASS THIS COPY ALONG

FEBRUARY 1966





ALL HANDS

THE BUREAU OF NAVAL PERSONNEL CAREER PUBLICATION

FEBRUARY 1966

Nav-Pers-O

NUMBER 589

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 JOHN W. HIGGINS, Jr., USN

Assistant Chief for Morale Services

ALL HANDS The Bureau of Naval Personnel Career Publication, is published monthly by the Bureau of Naval Personnel for the information and interest of the naval service as a whole. Issuance of this publication approved in accordance with Department of the Navy Publications and Printing Regulations, NAVEXOS P-35. Opinions expressed are not necessarily those of the Navy Department. Reference to regulations, orders and directives is for information only and does not by publication herein constitute authority for action. All original material may be reprinted as desired if proper credit is given ALL HANDS. Original articles of general interest may be forwarded to the Editor. DISTRIBUTION: By Section B-3203 of the Bureau of Naval Personnel Manual, the Bureau directs that appropriate steps be taken to insure that all hands have quick and convenient access to this magazine, and indicates that distribution should be effected on the basis of one copy for each 10 officers and enlisted personnel to accomplish the purpose of the magazine.

The Bureau invites requests for additional copies as necessary to comply with the basic directives. This magazine is intended for all hands and commanding officers should take necessary steps to make it available accordingly.

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

The Bureau should also be advised if the full number of copies is not received regularly.

Normally copies for Navy activities are distributed only to those on the Standard Navy Distribution List in the expectation that such activities will make further distribution as necessary; where special circumstances warrant sending direct to sub-activities the Bureau should be informed.

Distribution to Marine Corps personnel is effected by the Commandant U.S. Marine Corps. Requests from Marine Activities should be addressed to the Commandant. PERSONAL COPIES: This magazine is for sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The rate for ALL HANDS is 25 cents per copy (except for the December 1963 Rights and Benefits issue, which is 50 cents per copy); subscription price \$2.50 a year, domestic (including FPO and APO address for overseas mail); \$3.50 foreign. Remittances should be made to the Superintendent of Documents. Subscriptions are accepted for one, two or three years.

TABLE OF CONTENTS

Features

Sailing with the Sixth Fleet in the Med	2
ACT: Anti-Corrosion Team	7
Ship and Station Newspapers: Passing the Word	8
Naval Aerospace Recovery Facility—Looking for an Outside Job?	10
They've Both Come a Long Way	13
Duty in Navy's Oldest Ship: USS Constitution	14
It Flies Like a Rock	17
VR-8: Serving with the Air Force	18
Sailor Honored by Vietnamese	21
Fire-fighting Copter	27

Special Report: the Aquanauts

Home Is Where the Fish Are	22
----------------------------	----

Departments

Four-Star Forum: CNO for Sixty Minutes	28
Today's Navy	32
Servicscope: News of Other Services	40
Letters to the Editor	56

Bulletin Board

Setting the Record Straight on Tour Completion Dates	42
Navy Credit Unions and How They Operate	44
Seavey Shore Duty Commencement Dates	48
Living on the Riviera	50
Report on Service Numbers	54

Taffrail Talk	64
---------------	----

John A. Oudine, Editor

Associate Editors

G. Vern Blasdel, News

Jerry Wolff, Research

Don Addor, Layout & Art

French Crawford Smith, Reserve

● **FRONT COVER:** NOW HEAR THIS—Boatswain's Mate Third Class Patrick J. O'Connell, USN, pipes the crew's attention to an announcement over the public address system of USS Franklin D. Roosevelt (CVA 42). Photo by J. D. Goss, PH2, USN.

● **AT LEFT:** A WHEEL MAN—Coxswain at the wheel of an Atlantic Fleet landing craft is symbolic of Navy men throughout the Fleet, well trained in their specialty and dedicated to the preservation of freedom on the seas.

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





Sailing with the Sixth

The Sixth Fleet today is a force which can operate indefinitely at sea without shore bases in the Mediterranean. As such, it is an instrument of national policy whose goals are peace, stability and goodwill gained by maintaining operational readiness and earning respect for the United States.

Its exercises and maneuvers are designed for training, improvement of its wartime potential and for protection of working relationships with our friends and allies. Its aims are entirely friendly, but it is always battle ready—capable of waging any kind of warfare, limited or general, nuclear or conventional.

Thousands of words have been written about this huge organization but few, we think, have been reported so well as those prepared by the editorial staff of USS Franklin D. Roosevelt's (CVA 42) publication "Presidential." The report is quoted in part below.

Composition of the Fleet

THE FLEET normally consists of approximately 50 ships, 25,000 men and 200 aircraft. It is made up of three main task forces.

First of these is the *Attack Carrier Striking Force* (Task Force 60), which normally consists of two large

carriers, two cruisers equipped with surface-to-air missiles, and about 16 destroyers. Varying numbers of these destroyers are equipped with surface-to-air missiles, rocket launched antisubmarine weapons, and drone antisubmarine helicopters. Task Force 60 is the main striking arm of the Sixth Fleet. Its aircraft have a striking radius in excess of 1000 miles. The carriers are capable of operating their aircraft both day and night in all kinds of weather.

Second is the *Amphibious Task Force* (Task Force 61 and 62). Task Force 61 consists of a squadron of amphibious shipping—attack transport and cargo ships, minesweepers and a variety of amphibious assault types. Task Force 62 is a combat-ready battalion landing team of approximately 2000 U. S. Marines. A battalion landing team is an infantry battalion which has been reinforced with additional armor and artillery. The Sixth Fleet Marine Force also has its own helicopters which are carried aboard ship and are used to carry men and equipment in an airborne assault or "vertical envelopment" of enemy positions.

Third is the *Service Force* (Task Force 63). This force, forming the floating base which enables the Fleet to stay at sea for indefinite periods

of time, is a collection of mobile logistic support ships including oilers, ammunition ships, and a variety of supply, provision and repair ships. This task force, in effect, is a mobile grocery store, repair shop, hardware store and fuel station.

The Fleet receives additional support from land-based aircraft used for scouting and antisubmarine operations, and also includes approximately four submarines used chiefly to provide training services to surface units.

Periodically, and in times of crisis, the Fleet is augmented by a special force known as the *Antisubmarine Force* (Task Force 66). This hunter-killer force consists of a carrier with a specialized air group of antisubmarine aircraft including helicopters, accompanied by destroyers, carrying the most modern detection equipment and antisubmarine weapons. In wartime, Task Force 66 would seek out and destroy enemy submarines.

The composition of the Fleet changes completely every four to six months with ships from the U. S. Atlantic Fleet replacing those in the Med. The only exception to the rotation policy among combat ships is the cruiser which serves as the permanent flagship of the Fleet com-

mander and makes Villefranche-sur-mer, France (near Nice), its home port. About 200 families of the men assigned to the Fleet commander's staff and the flagship live there. Naples is the home port of two auxiliary ships in the Service Force.

Missions of the Fleet

The United States has four numbered fleets. The First Fleet and Second Fleet are based on the West and East coasts of the U. S., respectively, and operate in the Atlantic and Pacific Ocean areas. The other two, the Seventh Fleet in the western Pacific and the Sixth Fleet in the Mediterranean, are continuously deployed overseas. The mission of the Sixth Fleet may be stated as follows:

- To protect United States citizens, shipping and interests in the Mediterranean.
- To meet our NATO commitments and to support the other



SUPPLY A GO GO—TF 63 resupplies PhibRon Six on cruise in Mediterranean.

the same size, that is, about 35 to 40 officers each.

The Sixth Fleet has no shore bases in the Mediterranean. It is completely mobile and self-sustaining. About 50 per cent of the time, the Fleet is engaged in training exercises at sea. These include U. S. and NATO exercises with the armed forces of allied nations.

When not busy training, the Fleet visits approximately 100 ports bordering the Mediterranean. In a normal year the Fleet will make two complete swings around its operating area, visiting the eastern Mediterranean in the spring and fall and western Mediterranean in the summer and winter. Periods both at sea

and in port range from about seven to 10 days.

The Fleet is able to sustain itself continuously at sea several thousand miles away from its home bases in the United States through underway fueling and replenishment. In wartime and periods of international tension, warships could not retire from their operating areas at will to refuel and replenish. At such times many ports might be unavailable for a combat force. So the Sixth Fleet always replenishes at sea, perfecting in peacetime a technique that would be essential in time of war.

Combat ships rendezvous with fleet oilers whenever necessary and steam side by side while the oiler

HIGH CLASS—A visit to the port of Monaco is something to write home about.



Fleet

armed forces of the United States and our allies, either bilaterally or within the framework of the NATO command structure.

- To deter aggression against the Western World by being prepared, as either a national or a NATO force, to conduct offensive striking force operations with nuclear or conventional weapons.

- To conduct national, bilateral, and NATO training exercises in order to enhance the Fleet's ability to carry out its wartime missions and to perfect procedures for joint, combined, and NATO operations.

- To enhance the prestige of the United States and create goodwill toward the United States within the countries bordering the Fleet's area of operations.

The Sixth Fleet has not only national responsibilities but responsibilities under the North Atlantic Treaty Organization (NATO) as well. To carry out his NATO planning responsibilities, Commander Sixth Fleet has a second staff based at Naples which is administered by his NATO deputy. The commander of the Sixth Fleet himself is always afloat. His sea-based U. S. Sixth Fleet staff and his shore-based NATO planning staff are of about



SIGHT SEAING—Sixth Fleet duty includes visits to many historic ports. Before liberty, men are briefed on what to see and do. Here, sailors visit Greek ruins.

pumps fuel through heavy-duty hoses into the combatants' tanks. Carriers and cruisers also fuel accompanying destroyers when the need arises.

Other ships of the mobile logistic support force carry ammunition, provisions, and other supplies for the Fleet. Once a month, each task force rendezvouses with the underway replenishment group.

Highlines are rigged between the cargo booms of the ammunition, refrigerator and stores ships and receiving stations on the combat ships. Like the oilers, each ship of the underway replenishment group can

serve two combat ships at one time. By day or night, cargo net after cargo net is passed across the open sea separating the supply ships from their customers. In daylight hours, underway replenishment is speeded up by vertical replenishment, in which supplies simultaneously are moved from ship to ship in cargo nets slung beneath helicopters.

The Fleet is part of a team, supplementing the individual capabilities of the other services and bringing to the team the capabilities which only a sea-based force possesses. Among its important attributes are mobility, flexibility, and readiness.

Mobility

Mobility of the Fleet permits it to apply force where it is needed and when it is needed, without reliance on bases close to the objective area or advance parties of logistic and support personnel. The carrier task force is, in fact, a mobile tactical air base system, complete with aircraft, weapons, runways, maintenance shops, and ability to defend itself against attack.

Sixth Fleet's carrier task force normally consists of two carrier task groups, each built around an attack carrier. Each carrier supports a carrier wing which consists of three or four squadrons with offensive power equivalent to that of a land-based tactical air wing. The two carrier task groups are capable of operating independently, and in practice they normally are separated. Each is capable of moving more than 800 miles in a period of 24 hours.

Aircraft from one carrier can be refueled in the air by tanker aircraft from the other. This makes it possible for one carrier air wing to augment the firepower of the other wing while the Fleet is disposed in a position to apply force at either end of an axis several hundred miles long. Thus the Fleet can respond quickly to requirements in an area where land-based forces might require several permanent installations.

Further, the Fleet can anticipate the requirements for force or for precautionary moves. During a period of increasing tension, forces can be moved into position near the

BIG ARM of Sixth Fleet is Attack Carrier Striking Force. *USS Franklin D. Roosevelt* (CVA 42) launches planes in Med.



likely area of operations, without such moves becoming obvious.

Flexibility

Air power of the Sixth Fleet carrier task force has many potential uses. Its primary usefulness lies in the field of limited and conventional warfare but carrier aircraft are also capable of carrying nuclear weapons. The uses of Sixth Fleet carrier air wings in limited or conventional war situations include:

- Ocean surveillance.
- Show of force.
- Covering the evacuation of noncombatants or friendly forces.
- Defense of our own or friendly shipping.
- Support of airborne and amphibious assaults.
- Support for the development of mobile units of the Army and Air Force from the time of their arrival in an objective area until such time as these units are capable of supporting themselves.

A sea-based force can lie offshore and out of sight for long periods of time, or make a more obvious show of flag if necessary, without violating any nation's sovereignty. It then can retire or it can apply whatever the situation requires with minimum intrusion into the civilian domain of other nations.

Ability to Survive

Sea-based systems, such as the carrier task force and amphibious force, have at least as great an ability to survive in a hostile environment as any other systems. Their air defense systems provide exceptionally concentrated firepower over the ships being protected.

They must defend themselves against submarines, but the Sixth Fleet is equipped with the most modern antisubmarine warfare weapons in the world, and it operates in an area where geography and oceanography favor the surface ship against a submerged attacker. The entrances to the Mediterranean can be monitored, and there are many shallow areas where an attacking submarine is at a great disadvantage.

The Fleet's mobility provides one of its strongest defenses. Dispersed over a vast area of the ocean and constantly on the move, the ships of a Navy task force are extremely difficult to locate and distinguish from the approximately 1000 merchant ships which normally ply the Mediterranean.

Once located, they are unprof-



BRIGHT SPOT—Sixth Fleet ships light up Villefranche, home port of flagship.

itable targets for long-range weapons such as ballistic missiles because of the wide dispersion of the Fleet and because the ships would change their positions unpredictably while ballistic missiles were being targeted to land in their supposed locations.

The Fleet's air defenses consist of airborne early warning aircraft several hundred miles from the heart of the carrier task force, radar picket destroyers, missile ships, and the world's best fighter aircraft. Its air defense in depth and the high ratio of antiair firepower to the size of the targets being defended make it a formidable target for manned bombers, including those carrying air-to-

ground missiles. Even in nuclear war its likelihood of survival is great.

Readiness

The Sixth Fleet is a deployed fleet, made up of units which have been sent to the Mediterranean in a high state of training and readiness. Except for the flagship and the commander's staff, where a longer degree of permanence is required, its personnel are assigned normally for no more than six months at a time. Their families are in the United States. They live in their ships, spend much of their time at sea training under realistic conditions, and are always ready to carry out whatever missions

SIXTH FLEET Amphibious Force includes combat ready landing team of Marines.





CARRIERMEN stand formation as their ship enters Piraeus, Greece.

may be assigned them.

At sea the job of the Fleet is to achieve and maintain a peak of combat readiness. In port the mission of the Fleet is to promote goodwill, understanding, respect and acceptance, both through official contacts and through simple people-to-people relationships. Each man in uniform is an ambassador of goodwill and is expected to act like one.

Mindful that one thoughtless individual, through irresponsible behavior, can undo the work of thousands, a great deal of continuing command attention is given to maintaining the high standards of conduct ashore. Before entering a port, all are informed on the port's place in history, its landmarks and the customs and traditions of its people.

A NATURAL—Orphans from Naples head for party in *Franklin D. Roosevelt*.



The Fleet has been so active for so long in promoting good international relationships that many of its activities have become institutions.

In a normal year as many as 1000 individual shipboard parties may be given for children in ports around the Mediterranean. Sports contests between shipboard teams and local teams are a common feature of port visits. Sailors and Marines frequently contribute to local blood banks, and volunteer working parties offer their time and efforts to assist worthy causes ashore. Exchanges of official calls and entertainment are a fixed part of all visits. Ships of the Fleet are open for visiting in all Mediterranean ports. Ship bands play public concerts before enormous crowds. Navymen and Marines of the Fleet can be found on tour in all of the great, historical and interesting cities of Europe.

Although the motto of the Sixth Fleet is "Power For Peace," activities such as those mentioned above, along with the traditional alacrity of the Fleet in responding to disasters such as earthquakes and floods, and the legendary generosity of the U. S. Navyman in helping those in need, have won for the Sixth Fleet a reputation as "The Friendly Fleet."

Historical Background

Warships of the United States Navy have cruised the Mediterranean Sea since the early 19th century. Beginning with the war with Tripoli in 1801, and almost continuously since 1886, American sea power has operated in this area of more than one million square miles

which the ancients called "the center of the earth."

In the unsettled years immediately following World War I, ships of the United States Mediterranean Squadron helped to establish peace among the countries of the Balkans and the Middle East.

In World War II, the Mediterranean again played an important part in U. S. plans. U. S. naval forces supported the November 1942 landing in North Africa; the Sicilian landings of July and August 1943; and the Anzio landings of January 1944. On 15 Aug 1944, U. S. naval sea and air forces landed in Southern France as a sequel to Allied landings in Normandy.

In the spring of 1945, over-all U. S. naval strength in the Mediterranean was reduced, but small detachments were maintained in Italy to support the U. S. Army, to assist U. S. merchant shipping and to continue representation on the Allied Commission for Italy.

The summer of 1945 saw U. S. naval activities in the Mediterranean further reduced. Liberated ports were rapidly returned to national authorities and some ships of the Mediterranean Fleet were deployed to the Pacific.

But the end of World War II found the U. S. Navy continuing to maintain a few ships in the strategic Mediterranean to protect American interests and to support United States policies in the area.

On 7 Aug 1947, the cruiser *USS Dayton* (CL 105) relieved the tender *USS Shenandoah* (AD 26), and became the first postwar Mediterranean Fleet flagship actually to operate at sea. A cruiser has been used as the Fleet flagship since that time.

The Sixth Fleet has played a significant role during many recent periods of tension in the Mediterranean. Most noteworthy were the evacuation of U. S. citizens and other foreign nationals from Israel and Egypt during the Suez crisis of October 1956, and the landing of Sixth Fleet Marines in Lebanon in July 1958 at the request of the government of that nation. Both operations, of course, were conducted with air cover from Sixth Fleet carriers. In many lesser crises, the Fleet has made precautionary moves.

Chances are you'll have an opportunity to serve, sometime in your naval career, with the Sixth Fleet. It's a rewarding experience.



TOW JOB—Marlin is taken in tow at NAS, North Island. Below: The big bird is given a fresh-water washdown.

ACT: Anti-Corrosion Team

AS IT DOES almost everywhere else, corrosion is waging a relentless war against the Navy's seaplanes in San Diego. The war costs the Navy over a million dollars a year.

Patrol Squadrons 31, 40, 48 and 50, based at NAS North Island, have 44 of the SP-5B *Marlins*. The craft fly ASW and surveillance missions over the Pacific.

Corrosion control is a serious business in the four patrol squadrons. It has to be—many lives are at stake, as is the dependability of an important link in PacFleet's ASW defenses.

Salt water is the main culprit, although engine exhaust gas deposits also contribute a share of grief to maintenance crews.

The result is a never-ending battle. Anticorrosion teams check the aircraft at regular intervals for traces of metal deterioration.

After each flight, the *Marlins* receive a high pressure water washdown and the bilges are pumped dry. Corroded spots, which appear around rivets or as paint bubbles, are circled with a crayon.

These areas are blasted with tiny glass beads, and further cleaned with acid. Scrapers cannot be used because of the danger of gouging or scratching the metal.

A sealer is applied, a paint base, then corrosion-resistant paint. Wing top surfaces are coated with a black

rubber-like substance which resists engine heat.

When corrosion is extensive, the aircraft's entire outer skin is stripped to bare metal and corrosion-proofed, in a process that takes over two weeks.

All this is in addition to the regular maintenance necessary to keep the *Marlins* on almost constant patrol duty. And despite the long hours and hard work involved, the enemy—corrosion—can never be destroyed, but it is arrested.

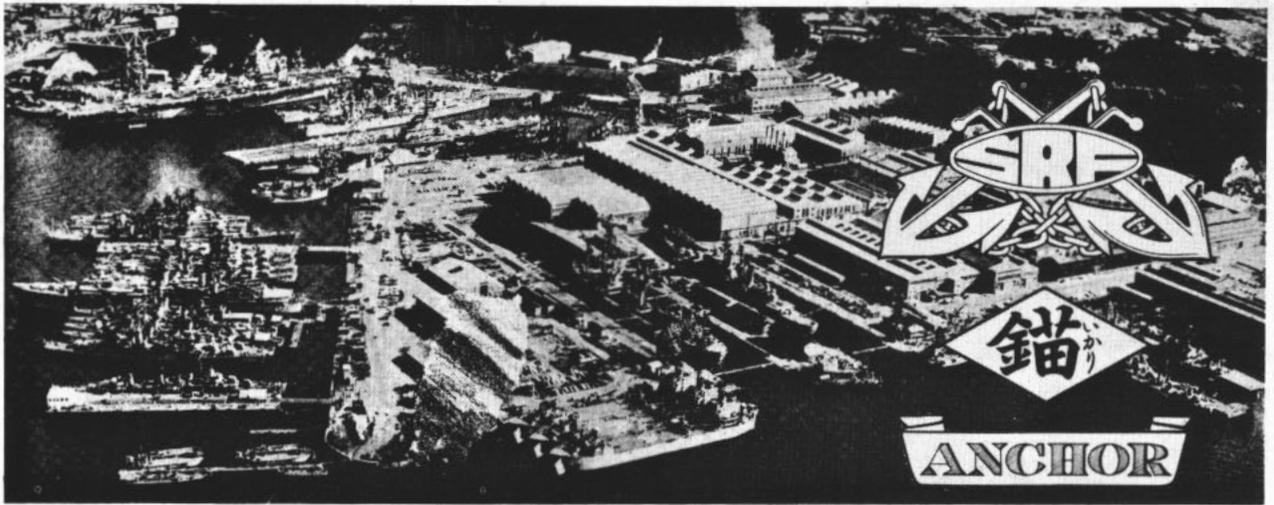
—William Polk, JOC, USN

Photos by Daniel Reed, PH2, USN



SHOP WORK—David Croft, AMS/AN, prepares surface for sealer and (Rt.) Berton Woodworth, AMS/AN, vacuum blasts corrosion spots on seaplane.





SHIP AND STATION NEWSPAPERS

Passing the Word

THROUGHOUT THE WORLD, presses roar and mimeograph machines clank, turning out volumes of ship and station newspapers to be read by Navymen and civilians working at U. S. Navy installations. These publications baffle description, for many appear on rough mimeograph paper while others are printed on slick paper. Some convey a minimum of information while others carry high quality news stories and excellent illustrations.

Regardless of their appearance or content, U. S. Navy ship and station newspapers have one prime motivation—to keep local personnel (both civilian and military) informed of newsworthy events within their particular part of the Navy.

At the present time, there are approximately 500 such newspapers. Frequently they are staffed by Navymen, some of whom may not have had experience in publishing even a high school paper. Therefore, if some are less than gems of journalistic skill, they can be forgiven, for most keep their readers abreast of interesting local items which might not merit the attention of more sophisticated news services.

Some ship and station newspapers are not only interesting from a standpoint of their content; they are fun just to look at. The "SRF Anchor," which is partially reproduced and translated on these pages, is a case in point.

The "Anchor" is published by and

for the U.S. Naval Ship Repair Facility at Yokosuka, Japan. For years it has arrived regularly at ALL HANDS where it is pleasurably perused without the perusers having much more than an inkling of what the fascinating squiggles might convey to someone more versed in the Japanese language.

The "Anchor" is only one of several newspapers printed wholly or partially in Japanese for the benefit of local personnel employed at U. S. Navy installations in Japan. It also has its counterpart in other languages at other U. S. naval installations throughout the world.

Regardless of the language in which they appear or the form they take, U. S. Navy ship and station newspapers will continue to fill what would otherwise be an information gap in the lives of Navymen and civilian employees of the Navy and occasionally even tell the world something it should know.

Here is a translation of an article (written some months ago) that appears at the right. For the benefit of those who want to do things right, when you read Japanese you start from the right-hand side of the page and read to the left; however, the lines of ideographs run from top to bottom, rather than horizontally. The columns ran across the page.

The type appearing in the box is the title, and our Japanese experts say it translates approximately as "The Seventh Fleet and SRF." SRF stands for Ship Repair Facility. Now you're on your own.





DROPOUT—Test parachutist M. S. Bentivegna, PRAN, jumps from plane. Bag below parachute adds weight for test.

Looking for an Outside Job?

THE U. S. NAVY offers many exciting jobs for men who desire adventure. Some of the jobs, such as submarine and Antarctic duty, are well known throughout the Fleet. There are more, of course.

One of the most exciting is to be found at the Naval Aerospace Recovery Facility, El Centro, Calif. This is the home of the Navy's test parachutists.

The official mission of the Naval Aerospace Recovery Facility is:

"To conduct development, test and evaluation of parachute and related assemblies; human escape methods; retardation and recovery systems for lay-down type weapons, aircraft, missile and capsule assemblies; special logistics aerial delivery methods, techniques and equipment."

In carrying out this mission, the facility has tested the recovery system for the Mercury space capsule, fabricated and tested the special parachute and harness used by the

first American astronauts and designed a vehicle to test the operational capabilities of the drogue chute system for the lunar landing training vehicle.

The facility also researches problems encountered by the Fleet regarding aviation survival equipment.

Since engineers can obtain only a limited amount of information from laboratory experiments, mechanical tests and dummy drops, the final evaluation must involve human performers who can duplicate, as nearly as is prudently possible, the survival situation in which the experimental item is to be used.

THE HUMAN PERFORMERS in this case are the test parachutists.

The Naval Aerospace Recovery Facility has billets for 18 Navy parachutists. These men must be volunteers and are taken from the aircrew survival equipmentman (ex-parachute rigger) rating, though the billets have not always been limited to

that rating. In the past, airmen, photographer's mates, machinist's mates, aviation structural mechanics, damage controlmen, and hospital corpsmen have test jumped for the facility.

This was due to a shortage of PRs, and it is not likely that other ratings will be used again. A possible exception may be made for the photographer's mate rating, as a trained photographer would be valuable to the test parachutists and their work in jumper-to-jumper photography.

Such photography has been used successfully to record the practicality of a new method of stowing the suspension lines of the standard Navy back parachute. The effects of air resistance on test items, as well as the opening characteristics of an experimental parachute have also been documented by this method.

THE MAN RESPONSIBLE for the training and safety of the test parachutists is the Senior Jumpmaster, Lieutenant R. H. Bisbing, former

jumpmaster and training officer for the parachute rigger's school at Lakehurst, N. J. He has made 134 jumps.

Assisting the Senior Jumpmaster is J. D. Shafer, PRCS, who schedules the live jump project tests and the training and proficiency jumps. Chief Shafer also coordinates the activities of the packing loft, fabrication, and drop test divisions—which make up the parachute department. A veteran of over 870 jumps, Chief Shafer is passing on some of his skills to the commanding officer, Commander W. H. Koenig, who recently completed the rigorous test parachutist training program and now wears the gold parachutist wings in addition to his aviator wings.

The *packing loft division*, supervised by C. A. Featherston, PR2, is responsible for:

- The inspection and packing of all parachutes and related aviation survival equipment during all phases of research, test and development.

- The inspection of all parachutes which have been used for emergency bailouts or ejections by Navy or Marine aviators or crewmen.

Featherston has quite a talent for making "standup landings" following his parachute descents. The Oklahoman qualified as a test parachutist on 11 Apr 1963, and has made almost 250 jumps for the Navy.

The *fabrication division*, headed by B. W. Knight, PR2:

- Performs repairs to or completes construction of all parachutes and related aviation survival equipment during all phases of research, test and development.

- Furnishes technical recommendations relating to construction designing as required.

- Maintains the parachute department supply cage.

Knight, a Texan, has made over



DUSTY DRAG—Test chutist Ron Miller, HM2, is dragged at 15 mph behind truck during testing of canopy release devices. Tests were also made in the water.

500 Navy jumps since he qualified as a test parachutist on 8 Dec 1957. Unlike Featherston, who steps quietly from the aircraft when making his jump, Knight gives a deafening rebel yell as he goes out the open door.

In charge of the *drop test division* is P. E. Dennis, PR1. His division is responsible for:

- Recovering the jumpers and performing the rigging, loading, dropping and recovering of all parachute test vehicles.

- Training ground controllers for the operations department.

Dennis, from Illinois, has over 700 Navy jumps. He qualified as a test parachutist on 14 Jan 1955. Well liked among the jumpers, Dennis is noted for his preference of the "rocking chair" position during freefall.

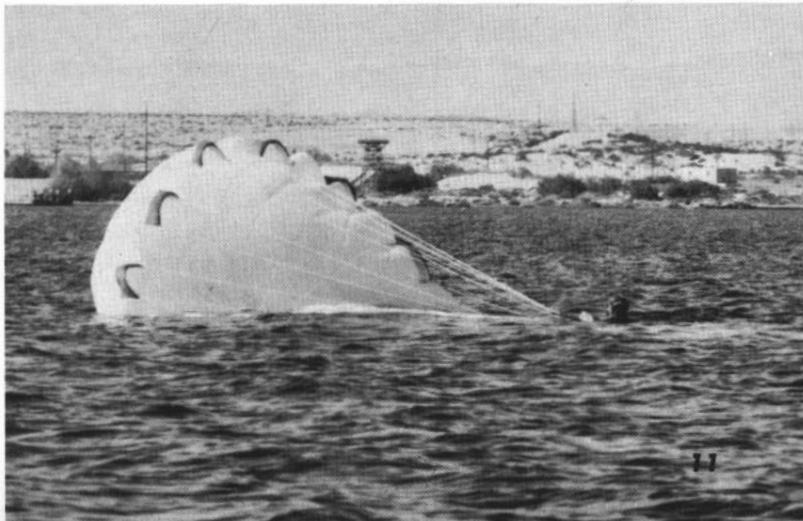
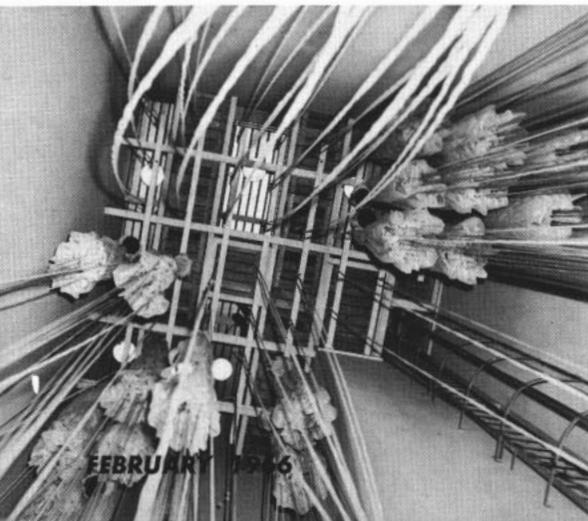
AN INTERESTING PROJECT recently completed by the jumpers was the testing of a parachute canopy deflation device that would collapse a canopy on contact with water.

Records at the Naval Aviation Safety Center showed about 150 men had been lost at sea because they couldn't collapse or release the parachute canopy following an otherwise successful parachute descent; thus, the need for a life-saving survival item was clearly indicated.

Tested first with dummy drops, the standard Navy canopies were modified by the addition of the experimental deflation pockets, then used by the test jumpers at the Salton Sea Water Drop Range.

Normally, live jumps are cancelled

PARACHUTES HANG in drying room before repacking. *Right:* Parachutist tests canopy deflation pockets after jump.





SAY 'CHEESE'—Navy parachutist takes pictures of jumpmate's freefall descent. NARF uses photography during tests so minute details can be evaluated later.

whenever the surface winds exceed 12 knots; however, for this project live jumps were scheduled only if the expected surface winds at Salton were more than 15 knots, since the greater wind velocity gave a closer approximation to the actual survival situation.

Eighty water jumps and 120 land jumps proved the value of the canopy deflation pockets. They have since been adopted throughout the Navy.

The canopy deflation problem on the water was alleviated, but the canopy release bugaboo remained. The canopy release must permit the user to rid himself of the harness quickly, easily and efficiently to escape being dragged by a high wind after landing.

THE FACILITY'S project engineers evaluated four different types of canopy releases. In conjunction with the evaluations, test parachutists were subjected to land and water drags. On these tests the jumper was dragged behind a truck, or through the water, at 15 miles per hour while he attempted to operate the canopy releases.

The jumpers, dressed in standard flight gear, were dragged ten times—five times in a prone position and five times in faceup position. From the beginning of the drag until the jumper released himself, he was timed by the engineers and the elapsed time was noted for later comparison. A total of 120 land and water drags were completed before a decision was made.

Other tests (mechanical, metallurgical and live jumps) followed

before the release was finally approved for use by the Bureau of Naval Weapons.

Another fast action project was the evaluation of the oxygen system for emergency bailouts—the bailout bottle. The jumper was required to actuate his bailout bottle, get out of an A-3 jet bomber flying 250 knots indicated air speed at 30,000 feet and freefall to 4000 feet before opening his parachute. The information gathered from this project has been of considerable value in researching the positioning of the emergency oxygen system in the parachute container and the rigid seat survival kit.

A CURRENT LIVE JUMP PROJECT is the manual operation of a 24-foot parachute packed in fiberglass horseshoe and wedge containers.

HITTING SILK—Two testers jump from NARF plane during training.



Leaping from the ramp of a C-130 flying at 10,000 feet, the jumper freefalls to 6000 feet before pulling the ripcord of this parachute. If for any reason the jumper has difficulty, he has time to jettison the parachute and pull out his reserve chute.

The entire episode is documented by another freefall jumper wearing a helmet-mounted motion picture camera in addition to his regular jump gear.

Probably the most colorful project at the facility is the testing of the maneuverable parachutes—commercial models which come in a variety of multicolored designs. Sport parachutes, and the standard parachutes with various canopy modifications, are being investigated for possible military value. This current project is being conducted by the technical department to study possible military applications of the performance characteristics of the maneuverable parachutes.

CHARACTERISTICS OF THE DIFFERENT chutes are determined by recording the rate of descent, horizontal speed and degree of oscillation with cinetheodolite cameras. The film record is later translated into graphs and figures, and a running evaluation of these facts is made. The data is then filed until completion of the test program, when a detailed over-all evaluation is made.

Nothing is overlooked. Information such as the rate of a 180-degree turn is recorded by the jumper and long-range cameras. The personal experiences of the test parachutists are especially valuable, and the jumpers are asked for their ideas and opinions about the parachutes being tested.

This is part of the exciting work done every day by the Navy's test parachutists. They do the work not so much for the extra money—as \$55.00 more each month is slight compensation for the bruises, discomfort and ever-present risk of serious injury—but rather for the interest and pride they take in their work.

To date, the Naval Aerospace Recovery Facility's test jumpers, past and present, have made over 26,450 live parachute jumps with only two fatalities, in nearly 18 years. The work of the test parachutists will continue, as new ideas and inventions are developed to provide better safety, more reliability and additional comfort for the Navy's airmen.

Ron Miller, HM2(PJ), USN



BEFORE—Forrest Royal and radarman Martin are shown near Korea in 1951.



They've Both Come a Long Way

LIUTENANT (jg) James Martin, USN, has gone a long way in the destroyer *uss Forrest Royal* (DD 872)—and not just in miles.

He first reported aboard the destroyer on 27 Mar 1947, 10 months after it was commissioned. As a seaman second class, he was assigned to the deck force.

Since that time he has spent about seven years in *Forrest Royal*, including a stint as combat information officer. He capped it all off by conning the ship into Mayport, Fla., on his last voyage.

LT Martin's story epitomizes the advancement opportunities available to conscientious Navymen. Before he completed his first tour aboard DD 872, he had advanced to radarman 2nd class. That was in 1951.

After initial duty in the Atlantic, *Royal* headed for Korea via the Panama Canal in September 1950. Martin played his part in the ship's minesweeping and gunfire support operations.

In December the ship was off

Hungnam for emergency evacuation of troops. The following February saw *Royal* off Wonsan, firing at the enemy ashore. On one instance Martin detected the location of a shore battery firing at his ship, and helped direct the return fire which neutralized the enemy position.

It was during the return voyage from Korea that Martin was advanced to second class petty officer—twice. The day after his advancement the ship crossed the International Date Line, which resulted in the previous plan of the day being repeated. So advancements were presented a second time.

Leaving the *Royal* in 1951, Martin served as an enlisted man aboard *uss Willet* (DE 354); *Louis Hancock* (DD 675); *Damato* (DD 871) and *Wren* (DD 568). He also attended Class B Radarman school.

Then on 1 Jul 1963, while stationed at the Naval Administrative Unit, Sandia Base, N. M., Martin was commissioned an ensign under the limited duty officer program.

He completed the officer indoctrination course at Newport, R. I., then received his second set of orders to *Forrest Royal*—where he had begun his career. He was promoted to lieutenant (junior grade) on 1 Jan 1965.

The big circle trip covered many miles, many years and saw many promotions. Now LT Martin is again leaving the *Royal*. But who knows—he may come home again some day.



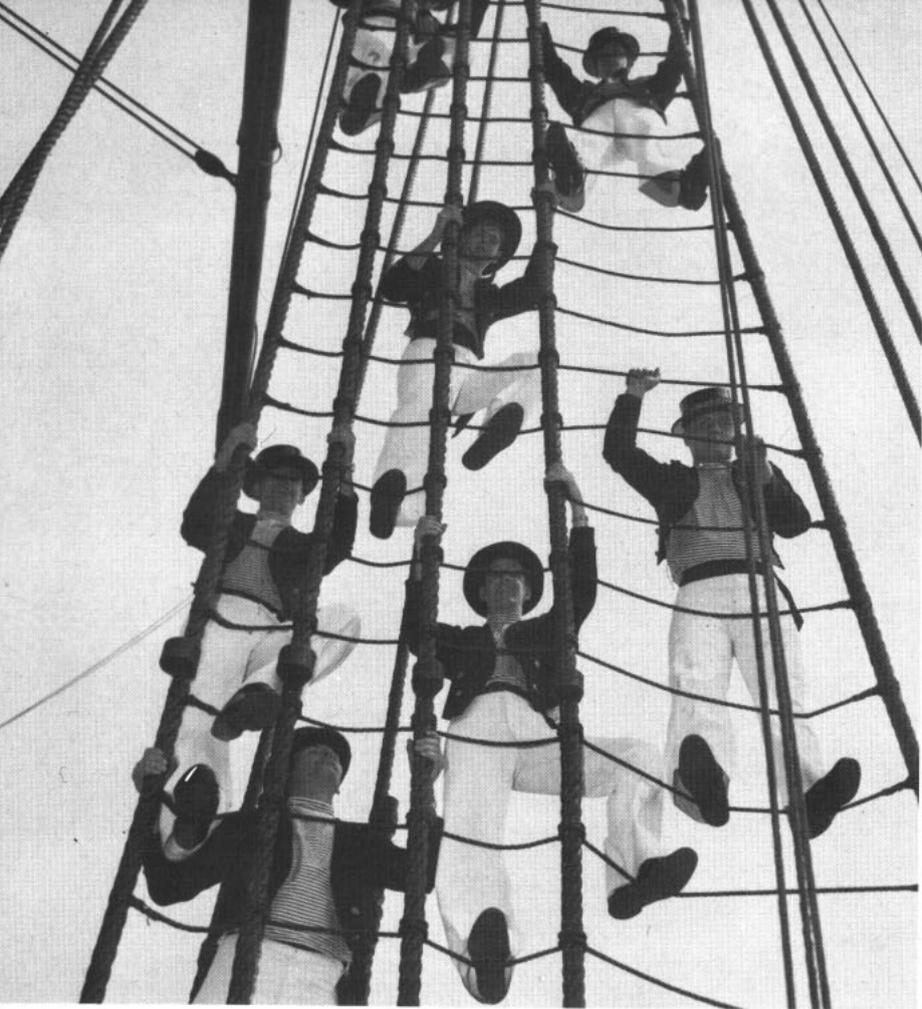
MODIFICATIONS—*Forrest Royal* is shown after FRAM. Rt and above: LTJG Martin conns destroyer into Mayport, Fla.



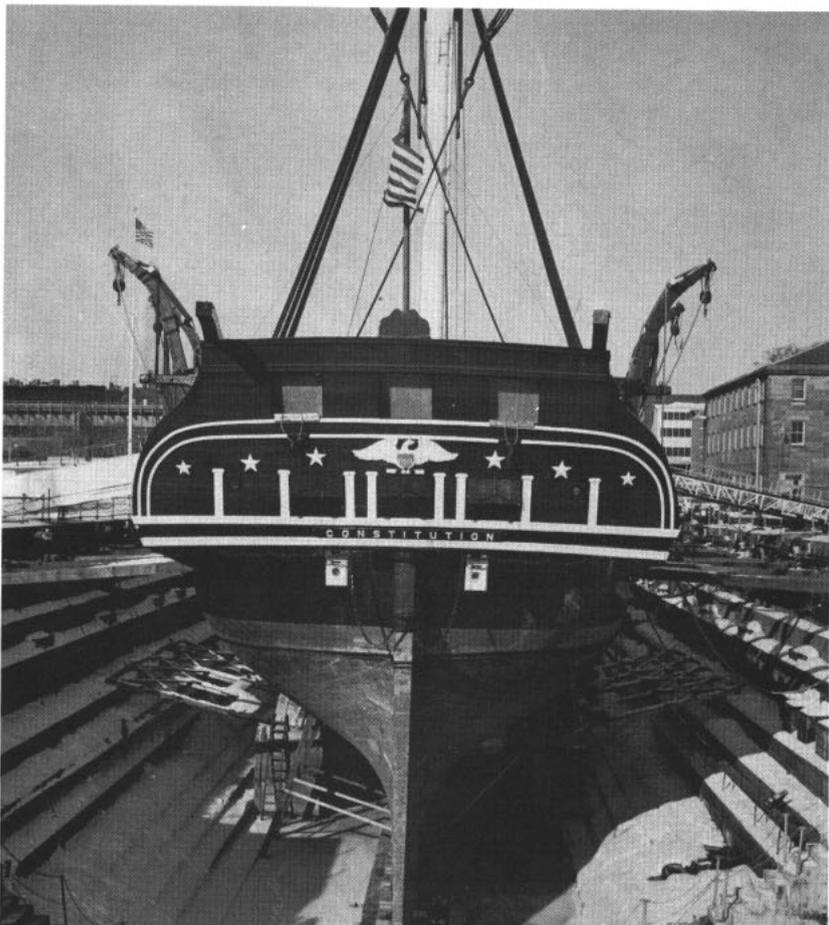
FEBRUARY 1966



13



CONSTITUTION crewmen on rigging. Below: Frigate was overhauled in 1963.



Duty in

THE OLDEST SHIP in the Navy is USS *Constitution* (IX 21). She now has a permanent berth at Boston Naval Shipyard, where thousands of visitors board her each year for a look at the Navy as it was in the early days of our country's history. The following article is a firsthand report of duty aboard *Old Ironsides*.

Constitution is the embodiment of the finest naval traditions, and we are proud to serve in this old warrior.

All non-rated men are picked for this duty out of boot camp for a one-year tour. They start in the deck department and, besides giving the daily tours, they are responsible for keeping the ship presentable at all times.

There are an unusual amount of bright work and numerous displays which need constant attention. A great deal of time is spent on cleaning and maintenance. With a daily average of 1500 people coming

BOS'N in 1812 uniform pipes call to USS *Constitution* crew members.



ALL HANDS

The Navy's Oldest Ship

aboard, things do not stay clean for very long.

The men also have the usual duties of mess cooking and compartment cleaning. Leading seamen get a chance to assume the responsibilities of quarterdeck watch and master-at-arms.

Our supply department, headed by a storekeeper second class, controls all supply procedures for the command. We do not have much of a problem with spare parts, but there is plenty to do.

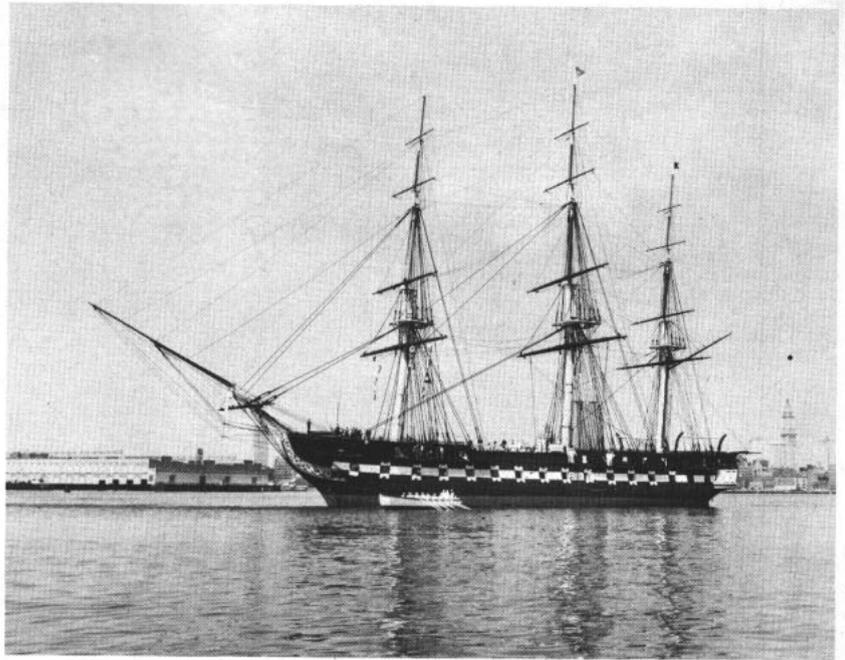
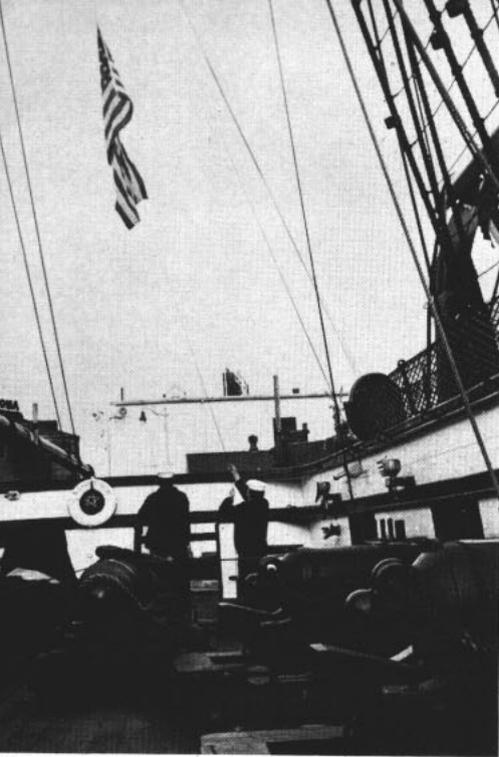
The storekeepers operate a souvenir business, which grossed about \$50,000 last year. The proceeds from souvenir sales are donated to the Navy Relief Society. This is certainly a rewarding aspect of the job.

A damage controlman first class currently heads the engineering department. He works closely with shipyard personnel and receives training in shipyard administration methods and coordination.

In addition, a great deal of em-

SEA CHANTER singer takes turn at helm. Rt.: Crew climb the rigging.





MORNING COLORS go up aboard *Old Ironsides*. Right: *USS Constitution* takes turnaround cruise annually in Boston.

phasis is placed on fire prevention, for the ship is actually a floating museum and historical shrine which is obviously invaluable.

Each member of the crew is able to give an individual or group tour. Upon reporting aboard, he is taught all parts of the ship, from the rigging to the keel. He also learns the history of the frigate.

The sea detail is still set once a year for our turn-around cruise. The purpose of the cruise is to turn the ship end for end at her berth to keep the sun from warping the masts and spars. It is a gala event for *Old Ironsides* and her crew, for many high-

ranking Navy officers and state and federal dignitaries are aboard.

And it is a thrilling experience to see this ship underway.

As flagship for the Commandant, First Naval District, the ship is constantly involved with honors and ceremonies. We get many officials on board each year, including presidents, kings and ambassadors. Other famous faces are not unusual.

We are in the public eye so much that personnel inspections tend to be rough. One is constantly aware of the image we must present to the general public.

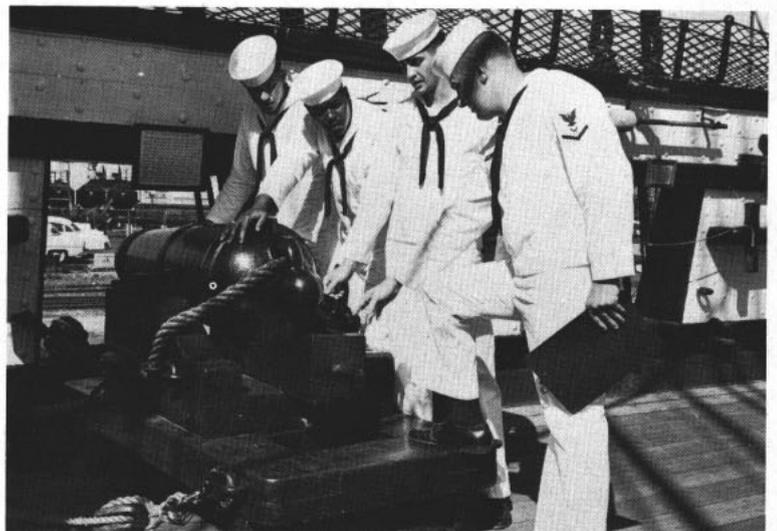
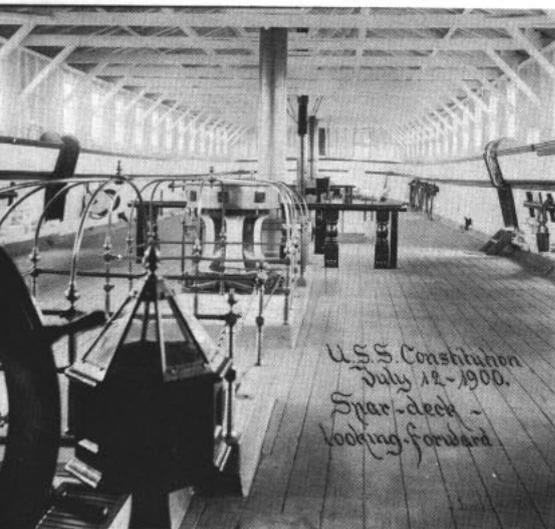
Yet it is not necessarily the im-

portant people who add excitement to this job. It is, instead, the thousands of school children who visit us each year from all over our country.

To quote the late President John F. Kennedy, "My earliest memories of the United States Navy go back to the days when, as a small boy, I used to be taken to the *USS Constitution* in Charlestown, Mass. The sight of that historic frigate, with its tall spars and black guns, stirred my imagination and made American history come alive for me."

—A. J. LeBlanc, Jr., BM1, USN
Executive Officer
USS Constitution (IX 21)

SPAR DECK of frigate looked like this in 1900. Rt: New crewmembers are given information on all parts of ship.





It Flies Like a Rock

A DEADLOAD MAY NOT look like an aircraft nor does it fly very well, but when it comes to testing a carrier's catapult launching system, it works fine.

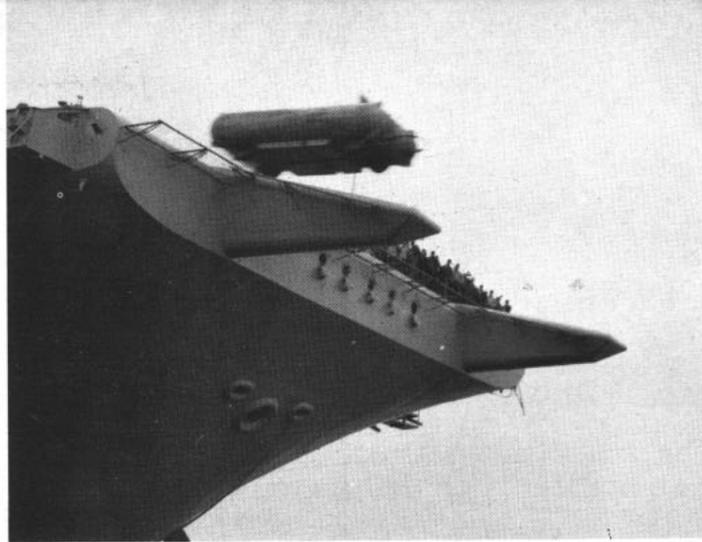
Actually, a deadload is nothing more than a wheeled cart whose weight can be adjusted to simulate any carrier-type aircraft. It is hooked to the carrier's catapult and shot off the bow.

All this, of course, is designed to eliminate the possibility of a misfiring while launching aircraft. Whether the catapults have just been installed in a new carrier or they have received a repair job, they must be tested and certified before they can be used to launch planes.

Aboard the attack carrier *uss Constellation* (CVA 64), for example, deadloads weighing from 14,000 to 86,000 pounds have been flying off the bow and landing more than 100 yards in front of the carrier. Each weight was tested at various pressures to check and double check every part of the launching system.

Constellation has just completed an eight-month overhaul at the Puget Sound Naval Shipyard in Bremerton, and has returned to her home port of San Diego.

Clockwise, from upper left: Steam engulfs deadload (1) as it begins catapult launch. Deadload goes into air from edge of flight deck (2 and 3), glides toward water (4) and hits with a splash (5). Shipyard rigger (6) hooks crane hoist onto deadload for lift to flight deck.





PLUGGIN' AWAY—Tank shop men go to plane to check integral tanks for leaks. *Rt:* Cargo door pump is repaired.

Serving with the Air

THE C130E HERCULES has earned a reputation for moving anything, anywhere, anytime. This is one of the credits it has chalked up among crew members of NATWING, who fly it throughout the Pacific area. They should know because, as Navy men who are a part of the MATS team, they are participating in the current upsurge of transportation of supplies, men of all the services and their dependents to the Far East.

The two Naval Air Transport Squadrons, VR-7 and VR-8, based at NAS Moffett Field, Calif., are sep-

arate units operating under one Wing Command—COMNAVTRANSWINGPAC.

VR-7 personnel fly the line from Moffett Field to New Delhi, India. They're the ones that are in the spotlight.

VR-8 personnel are responsible for the maintenance of the *Hercules*, a job that requires many hours of work—most of it on the ground.

This is the story of VR-8 and the job it does. Every Navy man and member of his family who has flown in a *Hercules* owe the squadron a vote of thanks.

AIRTRANSRON Eight (VR-8), as a single unit, could be compared to a large super-contained garage and service station. The squadron has custody of 23 airplanes, custody of most of the yellow support equipment seen in and about the hangar and flight line, materials and shops. It prepares the planes for flight, fuels them, checks them, repairs them, test flies them if necessary and then turns them over to its customers—VR-7 crew members. To do this job, the squadron has 1000 enlisted men and 28 officers, aided by a "do-it-yourself-kit" book of instructions.

This instruction book is AFM 66-1, the *Air Force Maintenance Management Manual*. It outlines in detail the instructions for operating a large organization which maintains complex and critical machines on a round-the-clock basis, seven days a week.

All MATS aircraft, whether flown by Air Force or Navy crews, carry the name of U. S. Air Force along their sides. This literally means that the 1000 Navy officers and enlisted men that comprise VR-8 are working with and for the Air Force.

At first, it would seem like a somewhat difficult situation for veteran Navy men to accept. "We're in the Navy, not the Air Force!" is the standard exclamation of new men checking into the squadron. But, when the Air Force's maintenance system is checked out, old and young salts are surprised to find that they are familiar with this system. It is,

BIG FLAT—Five-foot, 482-pound transport tire is changed by VR-8 crewman.





WORKMAN checks out propeller.



NEW PROPELLER is installed on a transport by VR-8 power plants division.

Force

they discover, a system similar to that used by the Navy in World War II.

VR-8's present maintenance organization is a big one. The main divisions of this vast and complex system are: Maintenance Control, Flight Line Maintenance, Periodic Maintenance, Field Maintenance and Quality Control.

A Hercules coming in for routine maintenance work or a major overhaul is first logged in. A complete historical report is kept on all work performed on each plane from the time it is assigned to maintenance until it is accepted again by VR-7. This report is as thorough as one would expect to find in a hospital

that is charting a patient's medical history.

THE WORKLOAD CONTROL section is primarily concerned with the planning, scheduling, coordinating and controlling center for all aircraft awaiting maintenance work.

Next comes Flight Line Maintenance. "Flight line" is responsible for the preflight, thruflight and post-flight inspections, servicing and unscheduled maintenance of aircraft. Close liaison and coordination maintained between the flight line function and maintenance control system is a contributing factor to the quality and efficiency of work accomplished by these men. Flight

Line personnel are continually performing routine and preventive maintenance work on all planes parked on the ramp adjacent to Hangar Three.

One of the most important sections of this activity is commonly referred to as the inspection and maintenance dock area. This dock is assigned to provide a compact working area for personnel and equipment out on the flight line.

Under the heading of Field Maintenance, which provides skilled technical assistants, are the Power Plants and Air Frames divisions.

Avionics, which is made up of electrical and radio/radar crews, supplies and maintains all the elec-

TIGHT FIT is maneuvered by technician while repairing Hercules transceiver. Rt: Mileage computer is checked.





C-130E HERCULES transports, trademark of Naval Air Transport Wing, Pacific, have MATS and Air Force markings.

tronic gear issued to the Flight Line and Periodic departments. All the navigation gear, communications equipment, weather radar and spare parts come within the scope of their responsibility.

These technicians are thoroughly checked out on all electrical/electronic gear used in the *Hercules*.

A special Dispatch Service Desk also operates out of the Avionics shop. This desk acts as the central control agency for dispatching trouble-shooters to Flight Line and Periodic Maintenance to lend a help-

ing hand in case of a sudden large workload or some unforeseen problem which might possibly delay the delivery time of an aircraft.

Power Plants Division is primarily concerned with the depreservation and buildup of engines. Also located within this structure is the Prop Shop. Here the 13-foot, four-bladed propellers are inspected, repaired, overhauled and tested.

A FLYAWAY STAND is maintained where engines are kept in readiness for delivery to Hickam, Midway,

Tachi, or wherever else they may be needed along the Pacific MATS route. The stands, along with their connecting components, allow maintenance personnel to test the engine either at a dead stand-still or under actual conditions, just as if it were mounted in its rightful place on the wing of a *Hercules*.

Approximately 240 metalsmiths make up the Air Frames division. They are responsible for all metal work done on the C-130E. This includes the welding, sheet metal layout, manufacturing of parts, complete machine shop operations and aircraft painting. These men are as busy as the proverbial one-armed paperhanger—they can be seen in, about and all over the aircraft measuring, fitting and pounding nuts, bolts and huge sheets of metal in place.

The Tank and Tire Shop is also a segment of the Air Frames division. This unit is basically small in number but mighty important when one measures the scope of its job—plugging leaks. Keeping leaks at a minimum is a big job because of the integral tanks on the *Hercules*. The shop also tears down and builds up all tires and wheels, and disassembles, repairs and tests all brake assemblies for the squadron.

Also a part of this division is the Survival Shop, which handles all survival equipment—parachutes, life rafts, life vests and oxygen and CO₂ systems.

This is, in part, an outline of the work and responsibility of VR-8. As you can see, even though we have just hit the high spots, VR-8 has a lot to do. —L. E. Heck, JO1, USN

Wave with the Air Force, Too

“When I joined the Navy, I didn’t dream I’d be joining the Air Force, too.”

Although that isn’t exactly the case, this observation by Christine Miller, YNSN, does have an element

of truth. Christine is the only Wave in the Military Air Transport Service, the Air Force command.

This situation is the result of her assignment to the staff of Naval Air Transport Wing, Pacific, at Moffett Field, Calif. The command is MATS’ only West Coast-based Navy wing, and the largest Navy organization in MATS. Christine is secretary to a Navy captain.

She finds her job challenging. “It gives me an opportunity to learn about the Navy. And the Air Force, too.”

Christine hopes to get to Hawaii and Japan while she’s with the command.

How long she continues to be MATS’ only Wave depends on the Navy Department. Although she expects to be assigned to NATWP for her entire enlistment, other Waves could be ordered to the Pacific or Atlantic Navy MATS Wings.





Sailor Decorated by Vietnam

IN A HOT DUSTY COURTYARD at the headquarters of the provincial capital town of Hoc Mon, near Saigon, a Vietnamese Army honor guard stood rigidly at attention as Captain Nouyen Van An, Provincial Chief, presented the Republic of Vietnam's "Medal of Honor" to a U. S. Navyman.

The sailor, Dental Technician Third Class Thomas L. Brown, USN, serving with Headquarters Support Activity, Saigon, Dental Facility, received the award for "unselfish devotion to bring better health and understanding to the Vietnamese people."

During his off-duty hours Brown is a volunteer member of the dental facility's team which gives its services to help the Vietnamese people improve their dental health.

"This is just my way of helping the Vietnamese government care for its people and to gain their support in the fight against communism," the Navy dental technician declared.

It is not an easy task, working with the meager facilities in large villages like Hoc Mon, but the job becomes even more demanding in the hamlets and outposts where there are no facilities at all. In these areas the dental team must work in the streets and market places, occasionally moving their location to accommodate the large throngs of people that gather.

One of the major problems confronting the dental team is to convince the often suspicious people that the Navymen are there to help them and not to harm them. While the dentist demonstrates the treatment of teeth an interpreter explains the procedure and assures the people that there is no (or little) pain involved in their treatment.

The Viet Cong present still another constant threat to the Navy dental teams that journey to the outlying hamlets. American service personnel are always good targets for the enemy—hence, caution must be taken in choosing routes to and from their destination. In addition, an armed guard is provided by the Republic of Vietnam's Army.

Thomas Brown's story is not a unique one with the Headquarters Support Activity, Saigon, Dental Facility. There are many more Navy-men like him who feel an obligation to give the Vietnamese people not only freedom, but better health and an understanding of a free society as well.

Top: Vietnamese Army honor guard salutes Thomas L. Brown, DT3, USN, during award ceremony. Top Right: Vietnamese Medal of Honor, Second Class, is pinned on Navy dental technician. Right: Brown works with Navy dentist in Hoc Mon. Bottom Right: Vietnamese mother holds apprehensive child waiting for dental check. Bottom: Native lad gives his country's traditional gesture of thanks after receiving dental treatment.

—G. David Whittaker, JO3, USN





SPECIAL DELIVERY—Navy diver John Reaves of Sealab II gives Tuffy a reward for delivering a tool. Below: Sealab II stands ready for service under the sea.



LOOKING IN—Aquanaut checks port.

Home Is

FOR YEARS, small boys have been reading comics describing life in space and under the seas, firmly believing that the wonders pictured there will someday become commonplace events.

Whether or not the Navy's Commander Scott Carpenter had his imagination stirred by such science-fiction is not a matter of our record. It is well known, however, that during the past August, September and October, 28 men comprising three teams descended into the Pacific Ocean to live and work in the Navy's Sealab II for a total of 45 days and that the leader of the first and second teams was CDR Scott Carpenter.

The expedition earned for the already famous astronaut commander the additional title of aquanaut and made him the first man to orbit the earth and to live for a month in the depths of the ocean.

The astronaut-aquanaut found little in either outer space or under the sea which might have reminded him of scenes pictured in any paperbacked thrillers he may have read in his early youth. His three orbits of the earth—so spectacular when he made them—have, as the children's books predicted, become almost commonplace, but his residence and that of his fellow aquanauts under the sea is a different matter.



AT HOME—Chief Steelworker Howard Buckner enters Sealab II which will be his home under the sea for 14 days.

Where the Fish Are

ALTHOUGH MAN has used the oceans since he first learned there were such things, he has never been able to learn, until comparatively recently, what went on beneath the surface. The reason was simple—he had no way of staying down there for any length of time and remaining alive in the process.

In comparatively recent years, however, there has been a continuing interest in the subject of remaining under the ocean's surface for long periods of time. However, a dive of two hundred feet lasting less than 15 minutes requires more than one hour of decompression.

Even today, the best dive that can be made under normal U.S. naval operational conditions is 380 feet. At this depth, a diver remaining under the surface for only 30 minutes must take several hours for decompression.

This is hardly practical from a Navy standpoint. Its impracticality was made clear as early as 1939 when *uss Squalus* (SS192) sank in 240 feet of water with the life of every Navyman on board at stake.

The rescue and salvage job that brought *Squalus* and 33 survivors to the surface required 640 dives with an average working time at the submarine's depth of only 10 minutes for each dive.

In 1957, a Navy surgeon, Captain George Bond who, incidentally, was

the principal investigator for the Sealab II project, came up with a new idea: During a prolonged exposure at a specific depth, a diver's tissues become completely saturated with breathing gases within about 24 hours. After this saturation occurs, the time required for decompression remains the same regardless of the length of time the diver remains submerged. Such a dive was, quite naturally, called a saturation dive.

Logically then, if a diver were to live in the depths in which he

worked without returning to the surface until the job was done, he could conceivably remain submerged indefinitely, thereby enabling him to do work in a matter of hours which would otherwise be done in days of short duration dives and hours of decompression.

THE IDEA DEVELOPED by the United States Navy surgeon was pioneered in open sea by a Frenchman, Captain Jacques-Yves Cousteau, who conducted several life-in-the-sea

They Hung Their Flippers in Sealab II

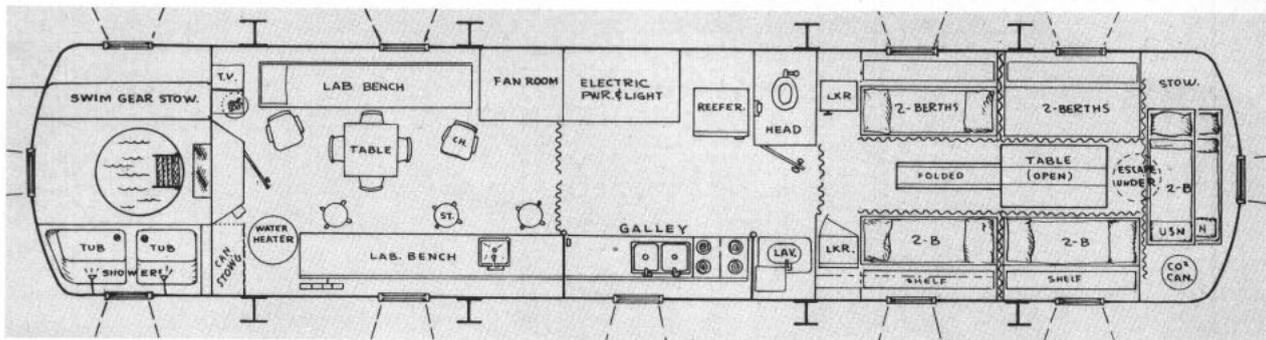
Here is a roster of the aquanauts who occupied the Sealab. It is divided into the three teams who lived in the lab from 28 August to 10 October.

First team of aquanauts (28 Aug to 12 Sep): M. Scott Carpenter, CDR, USN, team leader; Robert Eric Sonnenburg, LT (MC), USN, medical officer; Berry L. Cannon, diver; Thomas A. Clark, diver; William L. Coffman, TM1, USN, diver; Wilbur H. Eaton, GM1, USN, diver; Frederick J. Johler, ENCS, USN, diver; Earl Murray, diver; J. D. Skidmore, PHC, USN, diver; Cyril Tuckfield, ENC, USN, diver.

Second team of aquanauts (12 Sep to 26 Sep): M. Scott Carpenter, CDR, USN, team leader;

Glen Iley, HMC, USN, diver; Robert Barth, QMC, USN, diver; Howard Buckner, SWC, USN, diver; Kenneth J. Conda, TM1, USN, diver; George Dowling, diver; Arthur O. Flechsing, diver; Wallace Jenkins, diver; John Reaves, PH1, diver; William H. Tolbert, diver-oceanographer.

Third team of aquanauts (26 Sep to 10 Oct): Robert A. Sheats, TCM, USN, diver, team leader; Robert E. Sonnenburg, LT (MC), USN, medical officer; William Burton, diver-photographer; Richard Grigg, diver; Charles Coggshall, GMC, USN, diver; John J. Lyons, EN1, diver; William Meeks, BM1, USN, diver; Lavern R. Meisky, SFC, USN, diver; John M. Wells, diver; Paul A. Wells, MNC, USN, diver.



Sealab II Interior Arrangement Looking Down

experiments in the Mediterranean during 1962 and 1963. These were followed by other experiments by Captain Bond.

It was the result of Bond's work which led to the Navy's Sealab I experiment conducted in the summer of 1964 off the coast of Bermuda, where four men lived and worked on the bottom of the ocean 193 feet below the surface for 11 days, without ill effects. After these first successes, the man-in-the-sea program, if you'll pardon the expression, really got its feet wet.

The Navy's immediate goal in the program, was to devise ways for men to perform salvage and rescue operations at depths up to 600 feet. After that, it plans to push on to depths of 1000 or more feet which scientists believe may be possible.

A major step toward this goal was Sealab II which began in late August off the coast of La Jolla, Calif. Twenty-eight men, both Navy and civilian, lived 205 feet below the ocean's surface for two-week periods. CDR Carpenter, who led both the

first and second teams, remained underwater for 30 days. Lieutenant Robert Sonnenberg, MC, USN, also lived in the high pressure atmosphere for 30 days. He was a member of teams 1 & 3.

Sealab II differed from the Sealab I experiment off Bermuda in that the water off La Jolla was more turbid and cold than the water off Bermuda. The number and complexity of the tasks performed by the aquanauts were greater and, of course, the depth was deeper and the time longer.

AS YOU CAN well imagine, putting men in the sea involved much more than building a place for them to live, equipping it with the comforts of home and pumping air into it from the surface.

Even such a commonplace item as air for breathing, for example, becomes a complicated matter.

On land, of course, we depend largely upon oxygen to sustain our lives but oxygen in its pure form was not practical at Sealab's depth.

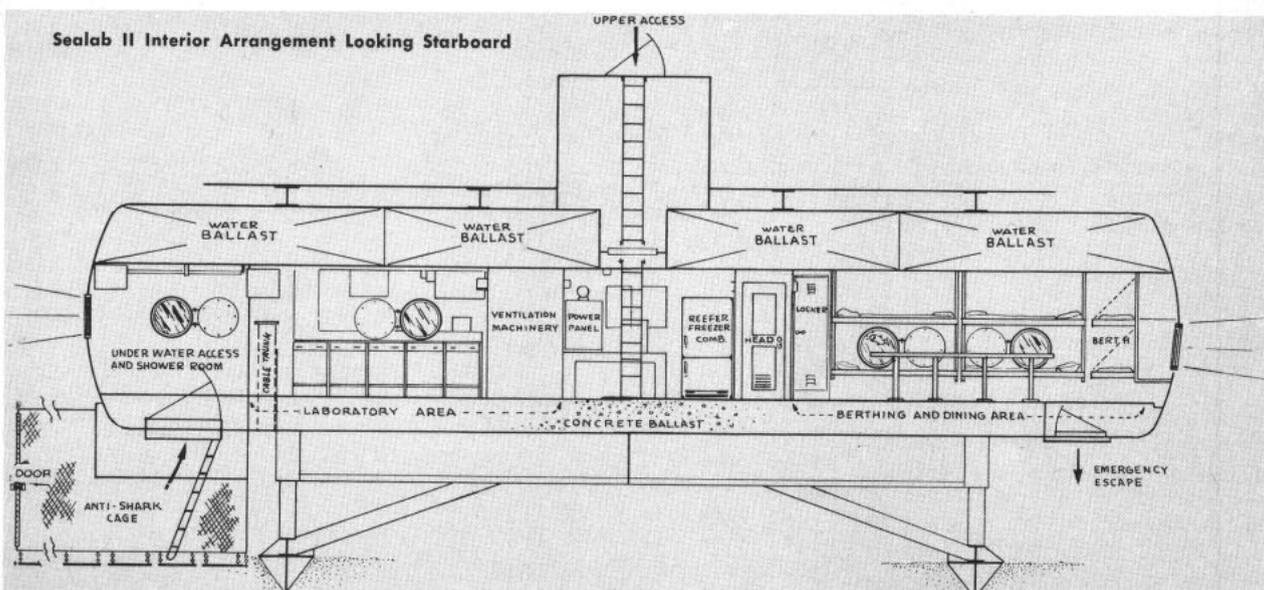
Pure oxygen breathed under deep-sea pressure causes convulsions and even death.

Another underwater peril found in the everyday atmosphere we breathe is the narcotic effect of inert gases breathed under pressure. Nitrogen, for instance, causes the intoxicating condition known to skindivers as *rapture of the deep*.

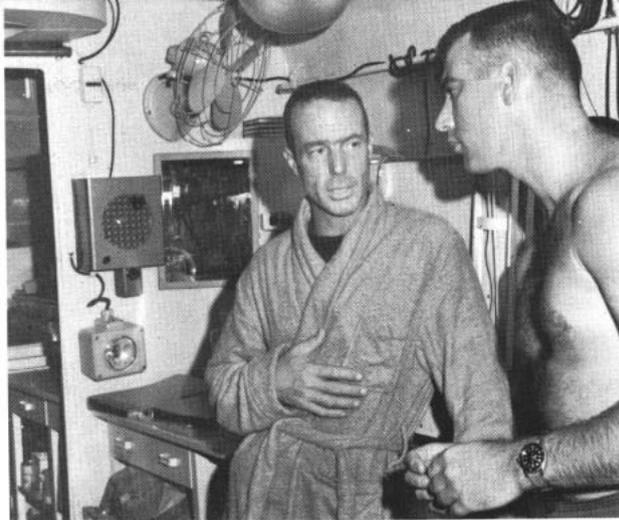
For Sealab II, the aquanauts used helium as a major component of their breathing gas mixture. It was considered to be about one-seventh as narcotic as nitrogen.

Although less narcotic, there are disadvantages in the use of helium. Helium distorts the voice to a point at which a man sounds like Donald Duck. Helium also conducts heat from the body so rapidly that it is more difficult for anyone living in such an atmosphere to maintain proper body temperature.

WHEN THE AQUANAUTS entered the Sealab, neither they nor anyone else knew whether a mixture of helium and oxygen would become



Sealab II Interior Arrangement Looking Starboard



INSIDE—Aquanaut checks gear. *Rt.*: Team commander CDR Scott Carpenter, USN, (NASA) talks with Sealab doctor.

narcotic after a long-term submergence for nobody had lived under such conditions for more than two weeks.

One idea, straight from the pages of science-fiction, is under study—that of breathing fluid which had been enriched with oxygen. Experiments of this kind, using a special water solution saturated with oxygen, have been successfully conducted using mice and dogs. Such a drastic departure for men, however, is not considered practical at this time.

One of the dangers to aquanauts in a saturation dive lies in decompression sickness. The sickness can hit any diver regardless of whether he is ascending or has already reached the surface. This condition is commonly called the bends. It can cause excruciating pain, nausea, dizziness, tingling numbness and/or paralysis. It sometimes is fatal!

When man learns all there is to know about living under water, decompression sickness will probably not exist. Before that day, however, he must learn how gas permeates or saturates a living tissue, through trial and error and by indirect means.

For human denizens of the deep, there is also the danger of carbon dioxide being retained in their lungs and tissues as a result of poor mixing of gases in the lungs.

WITH SUCH DANGERS and others with which to cope, the Sealab, as it is plain to see, had to be a somewhat unusual place in which to live and it was. In shape, it was not unlike a submarine—cylindrical, 12 feet in diameter and 57 feet long. Since the pressure within the lab was comparable to the pressure of the sea outside (100 pounds per square

inch) there was no danger from the weight of the water around it.

The aquanauts can reach the Lab by means of a personnel transport capsule (PTC) which might be called an aquatic elevator. However, the major advantage of the PTC was its ability to return the aquanauts to the surface quickly, so they could be decompressed in a deck decompression chamber (DDC) aboard the surface support ship.

The aquanauts entered the Sealab through an anti-shark cage and access hatch on the underside.

Once inside the anti-shark cage, the aquanauts ascended into a small entry area where they removed their diving gear. They then could warm

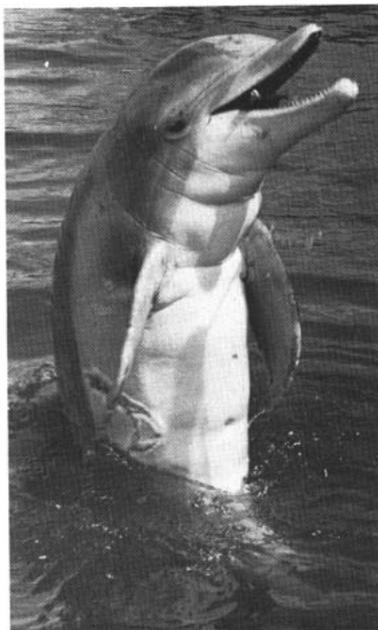
up after their swim in the cold ocean by taking a hot fresh water shower.

The living compartment itself was divided into a laboratory, galley and bunkroom. There were 11 viewing ports for watching the underwater scenery.

The Lab's deck was made of solid concrete with radiant heating cables imbedded in it to maintain an inside temperature of around 88 degrees.

WHILE THE AQUANAUTS were living inside the Lab, they were expected to make a number of tests both inside and outside their shelter. Their strength was measured when exerting pressure against a tool handle, and so was their ability to

Tuffy — A Diving Man's Best Friend



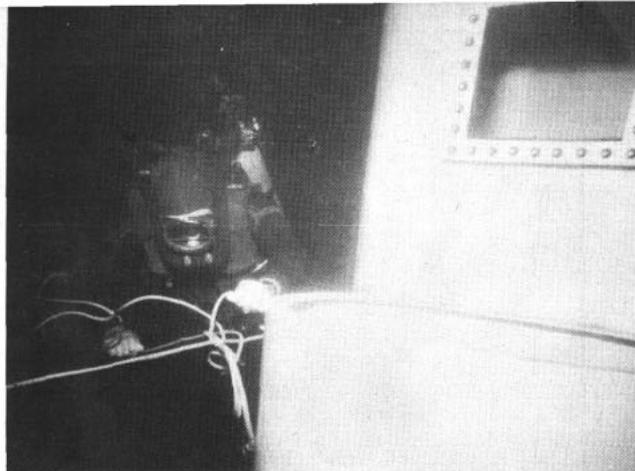
Tuffy, Sealab II Messenger

The Sealab II project employed its share of the technological wonders of the 20th century, but one of its experiments concerned Tuffy, a bottle-nose porpoise who would have been as familiar to the ancient mariner as he was 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's sensitive sonar system and send him rocketing with his lifeline toward the lost diver.

Tuffy also acted as the Sealab mailman, carrying bags of letters from the surface base to the aquanauts below.



WORKING—Aquanaut pumps foam into plane during salvage experiment. *Rt:* Anchor line is attached to way station.

manipulate, coordinate and touch. These, and other experiments, were designed to test the aquanauts' ability to see, hear, feel and work in their undersea environment.

But research on the ocean's floor was not confined to the aquanauts' ability to perform. Ocean currents and temperatures were also studied. Marine life from the largest fish to the smallest organism crawling upon or burrowing into the ocean floor was observed.

A plankton net was spread over a submarine canyon near the Lab to observe the migration of plankton from the canyon's depths during different hours of the day and night.

The tasks performed by the aquanauts and their observations of the ocean and its native life will have a far-reaching effect on man's development in the deep ocean.

It was, for example, a giant step

forward in research which may reveal new sources of food as well as petroleum, minerals, antibiotics and even fresh water.

IT IS ALSO quite possible that subsequent research on the ocean's floor will uncover other riches now undreamed of.

The feasibility of men working over long periods of time at such depths was firmly established by Sealab II. Every day, the aquanauts donned their wet suits (some of which were heated experimental models) and went out to explore depths down to 300 feet.

Much was learned concerning the reaction of the human body to the deep ocean by means of a biotelemetry system similar to that used in monitoring the condition of astronauts but with a character of its own to accommodate the dense medium

in which it had to operate.

Experiments using polyurethane foam to float various objects (including a submerged fighter plane fuselage) were informative as were data collected on the ability of the aquanauts to perform their various tasks.

After Sealab II had ended, it was difficult to believe that only two years ago, the feasibility of such an experiment was hotly debated.

Because Sealab II was such a success, Aquanaut Carpenter looked forward to the day when an underwater home would be built for a family residence.

Captain Bond, the project's chief medical investigator, whose theory of the saturation dive started the whole experiment, breathed a sigh of relief and said, "We sent 28 men down and got 28 men back. For that alone I utter a prayer of thankfulness."
—Robert Neil

Hours Are Good, Work Interesting, But the Climate Is All Wet

While the aquanauts were living in their Sealab, they also were expected to perform a number of tests so that an over-all estimate of man's capabilities at that depth of the ocean could be made.

During his two-week sojourn, each man was expected to perform these tests:

- **Strength**—This measured the amount of force a diver could exert against a tool handle. It was performed outside the Sealab (as were most of the other tests) using several different body positions and hand grip combinations.

- **Manipulation**—This consisted of assembling three lengths of rods into a triangle fastened at the corners by nuts, bolts and washers. The triangle could be assembled in only one way, so the test involved

trial and error before completion.

- **Two-hand coordination**—This consisted of moving a stylus within a track cut in a template by means of two hand wheels.

- **Touch**—This measured fingertip sensitivity in cold water by requiring the subject to move one of his fingers down a V-shaped groove and record the point at which the aquanaut felt both sides of the V.

- **Group assembly**—Four divers assembled a three-dimensional structure made of pipes and joints.

- **Multiplication**—This involved multiplying a series of two-digit numbers by one-digit numbers. This test was performed inside the Sealab.

The aquanauts also underwent a number of tests designed to measure underwater visibility.

- **Underwater light visibility study**—Determined the distance at which a standard underwater light source could be seen at different times during the day and night.

- **Color/form visibility**—Measured color and form visibility underwater.

Special optical instruments were used to measure underwater light transmission. These measurements were particularly valuable because they were made at the same time the human visual measurements were made.

While they were in the Sealab, the aquanauts' actions were monitored by television cameras. This observation provided useful information which will prove valuable in the selection and training of future aquanauts.



OUT IN 16 SECONDS—Photo sequence shows first rescue copter and men moving in on a 200-gallon avgas fire.

Fire-fighting Copter

THE USE OF A HELICOPTER as a complete rescue vehicle was recently demonstrated when a UH-2B *Seasprite* approached a fiercely burning wreckage in a simulated crash-fire, and completely extinguished the fire in 16 seconds. A dummy pilot was rescued seven seconds after the 'copter arrived at the crash scene.

This major break-through in fire fighting was made possible by using the extinguishing agent called "light water" and it culminated a 15-year search to perfect the helicopter as a complete crash-fire rescue vehicle. The new fire fighter was developed by a team of scientists at the Naval Research Laboratory under the sponsorship of the Bureau of Naval Weapons.

In the past, helicopters have been used to assist rescue teams by transporting the team and a heavy, externally carried protein foam or dry chemical unit to the crash scene. Rotor wash was also used to help retard the flames.

With regular protein foam, the rotor wash blows the foam off the extinguished fuel, allowing back-flash or reignition. This is not the case with "light water." Amazingly this water soluble proves six to 12 times more powerful in putting out fuel fires than any other known agent with the reassuring fact that, once extinguished, the fuel will not reignite.

By fitting the copter with a foam nozzle at the end of a retractable eight-foot boom, the pilot can maneuver to open up a rescue path to the plane in a matter of seconds. The approach to the wreck is made downwind at a height of approximately 20 feet. The rotor wash contributes by suppressing the fire and pushing the flames and smoke away. Also, the "light water" is forced directly down on the fire by the rotor wash of the helicopter.

Rescue men lowered on a quick-descent device followed the 'copter as the pilot opened a path to the fuselage. Although they wore protective clothing, extinguish-



ment was so complete that ordinary clothing could be used.

With little relative cost, a helicopter adapted with this gear would enable airfields, both military and commercial, to have the advantage of this new fire fighting and rescue vehicle.





Suppose You Were CNO for Sixty Minutes



Enlisted Evaluation

The present system of enlisted evaluation not only produces inequities, but is responsible for an unnecessary and harmful semiannual writing contest throughout the Navy. It is unfair to Navy enlisted personnel. Consider these factors:

- The division officer skilled in writing will produce better evaluation comments than the officer who is not so adept.
- Comments in item eight of NavPers 792 must be made to justify a 4.0 mark. I wonder how many 4.0 sailors have been marked 3.8 because the division officer or leading chief would not take the time or trouble to think of justifying words or phrases for item eight.
- There are a few commands who conscientiously mark the average good sailors in the middle block, thus giving them a 3.2 or 3.0. The men of these commands are penalized in computation of their advancement in rating multiple and looked upon with some suspicion when transferred to a command with a more liberal marking policy. On the other hand, when men are transferred from a liberal to a tightfisted command, they find their marks lowered for no apparent reason. A far-reaching effect is the adverse impact on selection boards for E-8/E-9 and officer programs.

I suggest the following steps be taken:

- Use a special form for personnel being considered for E-8/E-9 and officer programs.
- Eliminate the evaluation sheet as a factor for advancement in rating. There is no fair and practical way to relate the two.
- Do away with numerical scores. Too many marks are assigned with the numerical equivalents in mind rather than the actual performance description.
- Retain the present trait items, but expand them to include a wider range of characteristics, somewhat similar to the officers' fitness report. Each trait would be graded by a simple Outstanding, Excellent, Good, Satisfactory or Unsatisfactory.
- Do not use narrative comments except for unsatisfactory marks or unusual traits not earlier covered.
- Indicate on each man's form the total number of people in the same pay grade being marked by the command. For each trait, indicate the number of people of the same pay grade given each mark within the trait. This would give a truer comparison of an individual with his contemporaries and negate the false picture created by different command policies.
- Everyone would be required to

sign their evaluation sheets after the marks have been assigned. This would ensure that all hands were aware of where they stand in their evaluation.

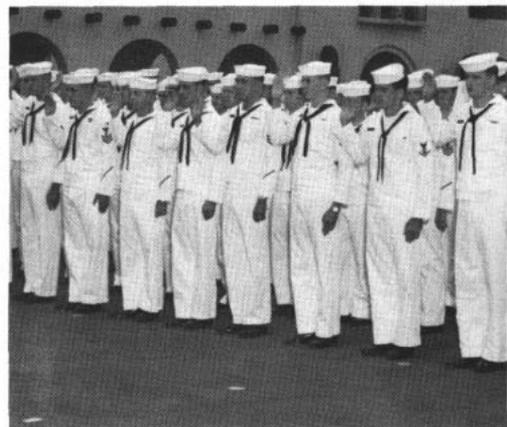
W. E. Boley, LT, USN
Winter Harbor, Maine

Chain of Command—Up and Down

I refer to the following statement by a junior officer in a recent FOUR-STAR FORUM: "I act as division officer and immediate supervisor to approximately 60 enlisted men, E-2 through E-9."

If this is true, the lieutenant and others of his kind are what's wrong with the Navy.

This officer has the job of immedi-



ate supervisor of the E-9s. Their job is to supervise the others. Recognition of this fact by many junior officers throughout the Navy would considerably decrease CNO's retention problem.

W. E. Cooper, PHC, USN
Groton, Conn.

The Walking Navyman

I wish to suggest the return to the black shoe Navy for officers and chief petty officers.

At present, a minimum of seven pairs of shoes is required—two black, two brown and one white for inspections, liberty and everyday wear, plus a pair each of brown and black for "steamers."

I suggest that the brown and white shoes be eliminated and black shoes be worn with blues, khakis

and whites. This would be a financial help as well as a space-saver (important on board the smaller ships). In my opinion, black shoes with khakis look as well as brown, and black shoes with the white uniform make a pleasant contrast.

**Harry B. Minium, RMCS, USN
Norfolk, Va.**

Civilians as Mess Cooks

Much has been said about the expense and time involved in training new men for the Navy. Much also has been written concerning the war on poverty and the difficulty of employing the untrained high school dropout. It occurred to me that there might be a connection.

One of the biggest drags on morale and on the training for new Fleet men is the tours of mess cooking and compartment cleaning that we are forced to give these new men just as

thought of having several of them tied up at training centers to be used in training men in various practical applications of their rate. The only cost would be that of de-mothballing them and transporting them to the training centers. If these ships result in more efficient training, as I'm sure they would, the expense would be more than justified.

**Charles L. Stephenson, RDC, USN
Great Lakes, Ill.**

On-the-Job Higher Education

The senior petty officers, E-6 through E-9, are skilled enough in their ratings, but through lack of education before entering the Navy have had to devote most of their time to professional and military duties. They may want a higher education but often don't know how or where to get it.

I believe commanding officers should require, on a collateral duty basis, their officers to schedule and conduct educational training sessions in such subjects as mathematics, English, physics and history, as the mission of the command permits. Many petty officers who need that little bit of further education will go on up the ladder.

**Carl D. Jay, SK1, USN
USS Tecumseh (SSBN 628) (Blue)**

Unused Leave

An officer remaining on active duty cannot be compensated for earned, but unused, leave. It is doubtful that many officers ever take

their 30 days of earned leave each year, particularly on sea duty where one officer's leave tends to work a hardship on the rest of the wardroom.

Thus, many officers carry 60 days' leave in their records and surrender excess leave every year. They are penalized because of their dedication to duty and consideration for others.

Not long ago, the Secretary of the Navy indicated his desire that officers take at least 15 days of leave a year. To effect this policy, it is recommended that:

- Officers be allowed compensation for unused leave in excess of the 15-day recommended minimum.
- This payment be made at the conclusion of each two years of service since at this time a recomputation of pay must be made for longevity. This would ease the burden on disbursing activities.

Since enlisted personnel on six-year enlistments who take only 15 days of leave each year similarly are penalized by losing 30 days of leave for which they cannot be compensated, it is further recommended that they be permitted to turn in leave in excess of 15 days a year also at two-year intervals. They would retain their present option of surrendering up to 60 days of unused leave at time of reenlistment.

C. R. F.

Fleet-Wide Tests and Distribution

Fleet-wide examinations are not

we have them all primed for on-the-job training and preparation for advancement. Most of the interest that we have generated is lost after a normal three-month tour on one of these details.

These non-military type jobs could easily be handled by untrained and unemployed civilians at shore stations. This would free our young trainees for the on-the-job training they should be getting ashore for the bigger job at sea.

**H. W. Pinkerton, AVCM, USN
NAS Cecil Field, Fla.**

Reserve Ships for Training

There are many ships in the Reserve Fleet that are serving no useful purpose except as a standby in case of national emergency.

I wonder if anyone has ever



sufficient to prove a man's worth in his rate. All too often men taking exams either cram up, or just simply aren't skilled in taking tests. That's one reason why we have too many first and second class petty officers with 16 and 17 years in the Navy. Other branches of the service have specialty ratings in which a man is promoted meritoriously, and with the ever-increasing number of men entering the Navy, I don't see why CNO could not adopt a policy to advance men who are not well equipped to take exams, but who, by virtue of their leadership qualities and proficiency in rate, are qualified for advancement.

My second comment concerns distribution of enlisted personnel. A young man who enlists in the Navy has reason to assume that he is going aboard a naval vessel when, in reality, he may very well end up in a Seabee unit or with the FMF. Granted, a YN, PN, CS or an ET may definitely be needed in support of the Seabees, but there should be Seabee rates such as CBCS, CBYN or CBET within the Group Eight ratings. This situation also applies to

HMs assigned to duty with the Fleet Marine Force.

Don't get me wrong. There's nothing wrong with either of these outfits but these billets should either be on a voluntary basis or initial placement from boot camp. The group ratings other than Group Eight have no business being assigned such duty when Seabees and Marines operate on a completely different basis from that of the Fleet Navy.

**William F. Cote, ETN3, USN
Danang, Vietnam**

Sea Duty for Dropouts

If I were CNO, I'd do something about the rate of dropouts from some of the Navy's critical rate schools. I believe that sending all SAs from boot camp directly to sea instead of school for six to eight months before sea duty would lower the rate.

Since there's always a need for men to work on the deck force, I believe sending the new "sailors" to sea for this time would have a beneficial effect on their school effort, if they knew that dropping out of school would result in going back to sea as an SA or SN.

I think sending them to sea first would let them know what sea duty is about and also indoctrinate them in Navy policy and routine.

**E. H. Richardson, PN3, USN
Pensacola, Fla.**

Surveys and Suggestion Boxes

If I were CNO, I'd completely revise the current method of making Navy-wide surveys on such matters as retention and uniforms.

Instead of questioning a few thousand men and then making a decision, I would instruct the commanding officer of every ship and station to conduct an informal survey of each command.

The CO could then take steps to correct many of the local problems, such as liberty policy and living conditions, and then forward the large scale problems to Washington for consideration.

Possibly another solution for local level problems would be something along the line of suggestion boxes—if someone would pay attention to the suggestions.

In other words, it would help if someone would pay attention to the enlisted man and give him a chance to speak up. The FOUR-STAR FORUM is a big step in the right direction, but let's get the other foot out of the mud and keep walking.

**J. A. Nowell, JO2, USN
USS Bennington (CVS 20)**

Penalties and Rewards in Exams

If a man passes the advancement examination and is not advanced due to quota limitations, add five points to his multiple for the next exam. If he fails the exam, subtract five points from his next multiple.

In this way, a man who really tries to advance in rate is given some credit for his efforts—he is permitted to take one more step toward his next rate. Conversely, one who does nothing but rely on his time in grade and time in service to be advanced is penalized for his lack of initiative.

**Kenneth R. Hisle, CT1, USN
Rochester, N. Y.**

More News for Recruiters

I wish to propose that Home Town News releases be sent direct to the recruiting station nearest the man's home town instead of the Fleet Home Town News Center. There are good reasons for such a suggestion:

You Take the Con

Do you have a pet project you want to get off the ground? Do you have the solution to a problem that has been bothering you? The Navy is interested in hearing about it.

Now is your chance. The invitation comes directly from the Secretary of the Navy and the Chief of Naval Operations. The ideas of enlisted and officer personnel alike are solicited with the aim of improving efficiency, organization, operations, morale and esprit de corps.

What would happen, for instance, if through some small miracle, you were suddenly appointed CNO for an hour? What would you do? What steps would you take to make the Navy more effective? What policies would you initiate? What problems do you think are the most pressing? How would you, as a four-star admiral, solve them?

With the blessings of the Chief of Naval Personnel, CNO and SecNav, ALL HANDS is making available a portion of its space to a discussion of the problems—big and little—of the Navy today. What are they, and what would you do about them if you had the authority to act?

The rules are simple: Officers and enlisted, men and women, are invited to contribute. Your suggestions need not be sent through the chain of command; they may be forwarded directly to ALL HANDS Magazine, Room 1809 Navy Annex, Bureau of Naval Personnel, Washington, D. C. 20370. The best letters will be published and forwarded to the cognizant activity in the Naval Establishment for consideration and action. Sorry we cannot reply directly to your letters. (If you prefer that you be identified by initials only, please so indicate.)

This is a golden opportunity to provide a forum for your ideas.

The prize is substantial—the knowledge that you have made a contribution to the betterment of the Navy.

Here is another installment. Keep your ideas coming.

- The articles will be received earlier and will still be news.

- The recruiter (if he's worth his salt) will be able to place the article for maximum coverage in newspapers, radio, TV, and local business papers.

- More of the stories will actually be published because of the personal contact between the recruiter and the news media.

- Recruiters can and do get a lot of mileage out of material which is not up to the standards set by FHTNC. In this connection, photographs especially are often not readily produced on board small ships, but the recruiter can get them from the family.

- A saving of men, material and money could be realized by disestablishing FHTNC.

All that would be needed to make this suggestion work would be the distribution to all commands of a large scale U. S. map with the recruiting stations, including substations, located and areas delineated, along with the mailing addresses.

As a recruiter, I would have welcomed such material, particularly from the Fleet, as it was always a struggle to find newsworthy items concerning local men. It was my impression that releases from FHTNC were usually published once a week by most newspapers under a general heading such as "News from the Services," and were mixed with releases from all branches of the armed forces.

This impersonal treatment killed most of the impact of an otherwise good news story.

**M. A. Harrell, LCDR, USN
CO, USS Petrel (ASR 14)**

Turn to the Tried and True

If I were CNO for 60 minutes I would try (but probably fail) to initiate these changes:

Eliminate the word "technician" from all ratings. No matter what we do, we are all sailors.

Eliminate the ratings of E-8 and E-9. A chief is still a chief, no matter whether he's an E-7, E-8 or E-9.

Eliminate the so-called propay. It hasn't worked because we are sailors because we want to be, not because of propay.

Reestablish right- and left-arm ratings on the uniform.

Insist upon "Rank Having Its Privileges." They've earned it.

Turn the Ship's Store over to sailors, to be manned by sailors, run by sailors, for sailors. Insist on Navy haircuts.

Restore the flat hat to its rightful place as part of the winter uniform.

Put the name of the man's ship on the ribbon of his flat hat and get rid of that silly ribbon on his shoulder.

Restore the jumper to what it was: Instead of the sewn hem at the bottom as it now is, make the jumper much longer and insert draw string to be tied in a manner so that when the jumper is tied and folded, the top three buttons (no zipper) of the trousers would be covered. Restore cuffs. Eliminate the diagonal seaman stripes as now displayed on the



jumper. Return to the one, two or three stripes on the cuff of the jumper. Restore the watch mark; make it a badge of honor. Put specialty marks including striker badges, halfway between the wrist and elbow; restore the marks of pointers, rangefinder operators and gun captains. Make a dress white jumper as it used to be, with blue collar and cuffs.

Everyone who writes about the Navy tells about the sailor and his mythical bell-bottom trousers. Give back the Navyman his bell-bottom trousers.

I think these changes would help solve the Navy's problem of morale.

K. P., (Senior Chief), USN

Two Subjects:

Advancement, Indebtedness

Although many steps have been taken to promote more rapid advancement in rate there still appear to be too many people on the quota list. This is understandable.

However, I believe that once a man has passed the service-wide

exam, he should be put on a waiting list and be advanced as the rate becomes available. Why should a man have to prove himself time and time again? It is even possible for a man to pass the exam one time and fail the next. At least, by putting him on the waiting list he feels assured that the rate will come and he can prepare for advancement to the next higher grade.

The question of indebtedness causes a great deal of embarrassment for the individual sailor and for the Navy. The individual sailor is responsible for his debts, and this is quite understandable.

However, we should bear in mind that too many of the younger sailors have had little or no training in the handling of money or the problems

connected with finance. To help alleviate this problem, I feel sure that if a good, firmly adhered-to program were established to guide these men on the use and handling of money, the question of indebtedness could be considerably reduced.

As a general policy I don't believe that a non-rated man should contract any debts, but I don't know how such a policy could be enforced. Good career counseling would help.

**Earl H. Aldridge, YN1, USN
USS Amphion (AR 13)**

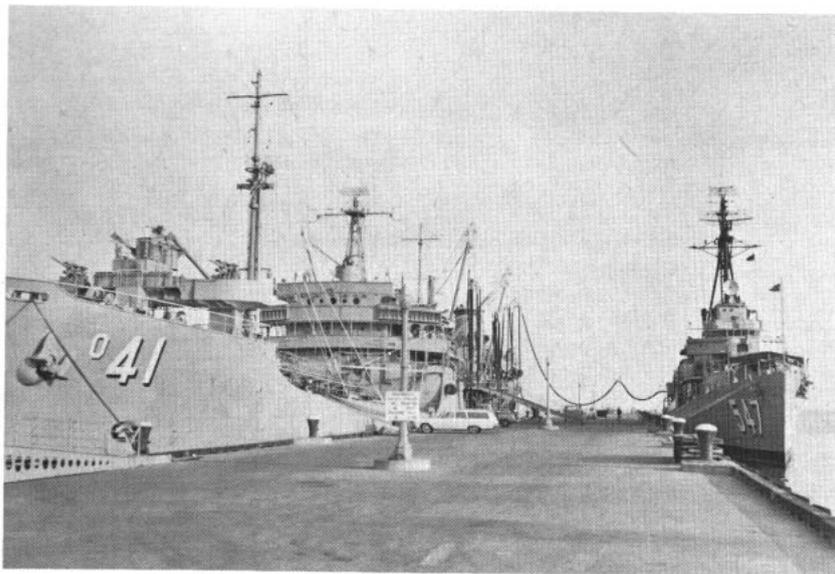
West Coast Fitness Report Office

I would establish a Fitness Report Review Office at some convenient location on the West Coast. This office would permit officers who either are never, or seldom, in the Washington area to review their past fitness reports.

With the present day use of microfilm techniques, such an office would require a minimum staff and a comparatively small amount of space.

**R. H. Kerr, LT, USN
San Diego, Calif.**

TODAY'S NAVY



NO TRADING STAMPS?—Pier at San Francisco Naval Shipyard takes on service station atmosphere as *Mattaponi* (AO 41) refuels *Cowell* (DD 547).

Match Maker II

Ships from four NATO nations began operations under NATO's flag last month for an extended period. The exercise, known as Match Maker II, was scheduled by the Supreme Allied Commander, Atlantic. It is being conducted by the Commander in Chief Eastern Atlantic, from his headquarters in Northwood, England.

The first Match Maker squadron operated for five months in an exercise held early last year. Canada, the Netherlands, the United Kingdom and the United States participated. These same countries have assigned ships for Match Maker II.

Participating in Match Maker II will be the radar picket ship, *HMS Agincourt* and the destroyer escorts,

HMCS Annapolis, *HNLMS Drenthe*, *USS Garcia* (DE 1040), *HMCS Restigouche* and *HMCS Skeena*.

Match Maker II is basically designed as an antisubmarine warfare exercise, but will include gunnery, communications, fueling and other operations. Many of these maneuvers will be carried out while the Match Maker ships are integrated into previously scheduled exercises under NATO and the U. S. Atlantic Command.

As with Match Maker I, this second international squadron will visit ports of many NATO countries. During these stops, the efficiency of supply and logistics under standardized NATO procedures will be evaluated, and the crews will have the opportunity for recreation visits.

ASW Fact Sheet

THE ANTISUBMARINE WARFARE Program Office has been in existence since May 1964. Recently a fact sheet was released which serves as a progress report of interest to men in the Fleet.

Here are some for-instances of projects which have been initiated or furthered, under the Director of ASW Programs:

- *MK 46 Torpedo*—the Mark 46 lightweight, self-guided torpedo is capable of greater speeds and depths than its predecessors. Large scale delivery of the Mark 46 to the Fleet was scheduled to begin in November.

- *MK 48 Torpedo*—The Mark 48, still under development, is an advance design torpedo for use against both high and low speed targets. It will travel faster, dive deeper and has longer range than its predecessors.

- *Asroc/Subroc*—*Asroc* and *Subroc* are antisubmarine rocket-torpedo combinations. *Asroc*, a surface-to-subsurface rocket-torpedo is the primary and most modern ASW weapon for surface ships. It is now operational in more than 130 ships and will be on board 20 additional ships by June of next year.

Subroc, for use in engagements between submarines, is launched underwater, has an airborne mid-flight stage, and reenters the water for its final phase.

Subroc is designed to operate at ranges greater than any other ASW weapon except aircraft. Technical and operational evaluation of *Subroc* has been completed and Fleet production is underway.

- *SQS-26/BQQ-2* — The *SQS-26* sonar, which represents a positive advance in detection capability for surface ASW ships, is now being installed in all new construction escorts. A sonar with similar capabilities, the *BQQ-2*, is being installed in all new construction submarines.

- *ANEW*—The development of an integrated avionics tactical display and control system, designated *ANEW*, promises increased effectiveness for ASW aircraft. *ANEW* features a digital computer to coordinate inputs from all sensing equipment

BUILDERS OF THE NAVY



Stephen B. Luce organized the Navy's apprentice training system shortly after the Civil War while in command of the Naval Academy Practice Squadron. The purpose of the system was to train youths for the Fleet as seamen and petty officers. Luce also maintained that wartime always found the Navy with a shortage of good admirals and became a leader in establishing the Naval War College at Newport to train senior officers in the art of war. Throughout his career, Rear Admiral Luce insisted that the Navy should be an educational institution for all, with advancement going to trained men.

and the presentation of an integrated display and control system for the airborne tactical coordination officer. Initial testing of the ANEW concept has demonstrated significant improvement in ASW aircraft effectiveness. Its development continues.

- *Seahawk*—The *Seahawk* program, initiated in 1962 as an advanced design surface ASW ship, has taken a new direction after intensive study and review. The reoriented program is designed to ensure that, as individual components of the *Seahawk* concept are developed, they are applied to new construction ASW escorts. New concepts thereby improve current ASW capabilities while still contributing to the final design of *Seahawk*.

- *Postgraduate Training*—A curriculum in antisubmarine weapons systems engineering has been established at the U. S. Naval Postgraduate School, Monterey, Calif. About 20 officers will be enrolled each year. Upon completion of the course, they will be assigned to sonar systems engineering and weapons engineering billets associated with antisubmarine warfare.

- *FADAP*—The Fleet Antisubmarine Warfare Data Analysis Program is designed to provide more effective ASW data collection, analysis, and processing throughout the Navy. Its purpose is to assist Navy command and operations analysis groups in making more rapid and accurate decisions regarding numbers and types of forces to employ in meeting an anticipated submarine threat.

- *ASW Officer Utilization*—The Navy is currently conducting Fleet evaluation of a change in the departmental organization of surface ASW ships in order better to align functionally the responsibilities of the ASW officer. The evaluation was scheduled to be completed in September and decisions will be made on whether or not to apply the changes to all ASW ships.

The Director, Antisubmarine Warfare Programs, has direct authority over all aspects of ASW, including research and development and strategy and doctrine. Working closely with the suppliers of ASW equipment and the Office of Naval Material, the ASW Programs office determines ASW requirements and priorities and reviews all ASW programs to assure their continued value. The Director, Vice Admiral C. B. Martell, USN, reports directly to SecNav and the Chief of Naval Operations.



NATIVE JUNK is searched by patrol craft crew as senior naval advisor LT Zap watches.

Naval Advisor with Junk Division 32

To the Vietnamese, the name of Lieutenant Leo V. Zayauskas was unpronounceable so they solved their difficulty by rechristening him LT Zak.

The lieutenant is a seagoing sailor, but the ships he sails are not found in the *Dictionary of American Fighting Ships*. They are, in fact, junks and other small craft which patrol the Republic of Vietnam's coast, searching for boats bringing supplies and arms to the Viet Cong.

LT Zayauskas is Senior Naval Advisor to Junk Division 32, operating out of Rauch Dua on the east coast of the republic, south of Saigon.

The junk forces were once an independent operation but, since 1

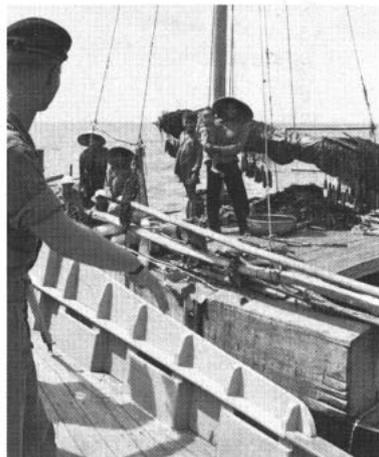
July of last year, they have been a part of the regular Navy of the Republic of Vietnam. This has increased both the pride and the salaries of the *junkies*, as the Junk Force sailors call themselves.

Support for the Junk Force is handled by the Republic of Vietnam, but LT Zayauskas allows as how many of their supplies are cumshawed from ships of the U.S. Seventh Fleet which pass through the patrol area.

Although the Junk Force could not be considered powerful in appearance, its strength lies in men like LT Zak and his sailors who are determined that no Viet Cong supplies will reach Vietnam by the sea.

—Story and Photos by Ken Bumpus, PHC, USN

JUNK PATROL boat comes alongside fishing vessel to check for smuggling.



LT ZAYAUSKAS and crew member of junk study coastal charts while on patrol.





RECEPTION COMMITTEE greets crew of VX-6 aircraft at McMurdo Station, Antarctica. Plane was one of two to make 12,000-mile, 50-day trip from States.

VX Six Does it Again

Those magnificent men and their flying machines; they go up, they go down (to the bottom of the world).

It wasn't exactly a race against time. If it were a race at all, the competitors were two "Gooney Birds," determined to beat their own shadows.

The two VX-Six twin-engine C-47s departed their home base at NAS Quonset Point, R. I., late in September. Fifty days later they touched down on the McMurdo Station ice runway in Antarctica, one-half hour apart.

Needless to say, no speed records were set in this flight halfway around the world. It was just another routine haul similar to those VX-Six has been making since the first days of Operation Deep Freeze in 1955.

The 12,000-mile hop from the East Coast of the United States to the bottom of the world can sap the strength of the Navy's finest aircraft and airdales.

Beset with maintenance problems and poor weather conditions, the two

planes battled their way to the white continent with what one pilot described as "plenty of guts and a multitude of prayers."

Almost every conceivable difficulty—mechanical and meteorological—harassed and delayed the planes on their way from Rhode Island to Antarctica. Engines failed, radios quit, radar equipment went on the blink, JATO rockets misfired, tail winds made sudden switches to head winds, and icing conditions were heavy, especially on the last leg of the journey.

One incident occurred between California and Hawaii. An instrument panel light in one of the planes began to flicker, indicating that one of the engines was about to fail because of metal chips in the oil. With the equal time point already reached, precluding the possibility of returning to California, the plane plodded on toward Hawaii with the crew ready to ditch at any moment.

Luckily, nothing happened. After a while, the pilot became so annoyed by the blinking light that he

unscrewed the bulb. After that the crew just sat back and relaxed.

At another point, the planes exceeded their rated capability. According to the book, heavily loaded C-47s have an altitude ceiling of 10,500 feet. But while flying over a mountain range in New Zealand, thick clouds closed in and obliterated the pilots' view.

With considerable skill, the pilots pushed their craft to 12,000 feet, barely clearing some of the jagged mountain peaks. It was "touch and go," as one pilot later described it.

Normally the last portion of the flight from New Zealand to Antarctica is the more dangerous and unpredictable stretch. But both planes experienced the "easiest" 14 hours of the total 106 hours actually spent in the air.

When the crewmembers spotted Cape Adair on the northwestern tip of the white continent, they took coffee mugs in hand and made a toast to acknowledge the successful journey.

The trip also had its light moments, when crewmembers could relax and enjoy themselves. High on the list of unforgettable incidents were stopovers at Hawaii, Nandi in the Fiji Islands, and Invercargill, New Zealand, where the townspeople welcomed the Navymen into their homes for meals and lodging.

As the aviators entered their Antarctic phase of Operation Deep Freeze, their planes were outfitted for ice and snow operations. Their adventure is added to the colorful history of Air Development Squadron Six, but there are undoubtedly many more adventures in store for these men. —Lee Quinn, JOC, USN

Lenawee Comes Home

When the attack transport *USS Lenawee* (APA 195) returned to her home port of San Diego, she had a well-earned rest coming. Since leaving that city a year ago, the ship has deployed twice to the Far East and been in her home port only 37 days. During that time, she steamed over 65,000 miles and delivered more than 6300 Marines, 460 vehicles and 4600 tons of combat supplies.

Her crew believes she was the first ship to transport Marines non-stop from Long Beach to Da Nang. In addition, she participated in three of the first four assault landings in

Vietnam—Da Nang, Chu Lai and Hue. And she delivered 2001 tons of ammunition to Chu Lai—the largest single load carried by an attack transport.

In addition to helping the surveillance operations along the South Vietnam coast, *Lenawee* made calls at Hong Kong, Bangkok, Republic of the Philippines, Japan, Okinawa and Hawaii.

As she left the South China Sea, *Lenawee* was caught by Typhoon Trix off Okinawa. For 12 hours she battled 100-mile-per-hour winds and 50-foot seas before the storm finally passed.

For her participation in operations off the coast of Vietnam during the long cruise, the ship and her crew were awarded the Armed Forces Expeditionary Medal.

Base Loading at Oceana

East Coast fighter squadrons from Carrier Air Wing Three and Carrier Air Wing One have begun their scheduled transfers to NAS Oceana at Virginia Beach, Va. The home base changes are results of the Navy's base loading program.

The base loading program is a plan for fighter squadrons to be stationed at one NAS and attack squadrons at another. In the past, aviation units were assigned by air wing, which resulted in most air stations being responsible for both VA and VF aircraft. As a result, the bases were forced to maintain support equipment for both types.

West Coast air wings have been dividing their squadrons for several years. Air wings in southern California, for instance, base their fighter

units at NAS Miramar, near San Diego, and send attack squadrons farther north, to NAS Lemoore.

The present arrangement is less expensive and more efficient than the integrated system.

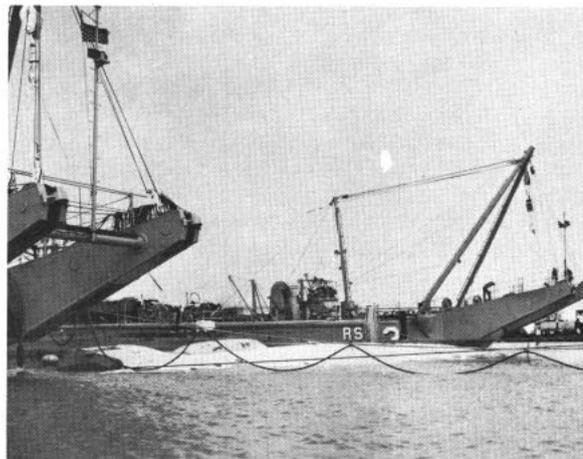
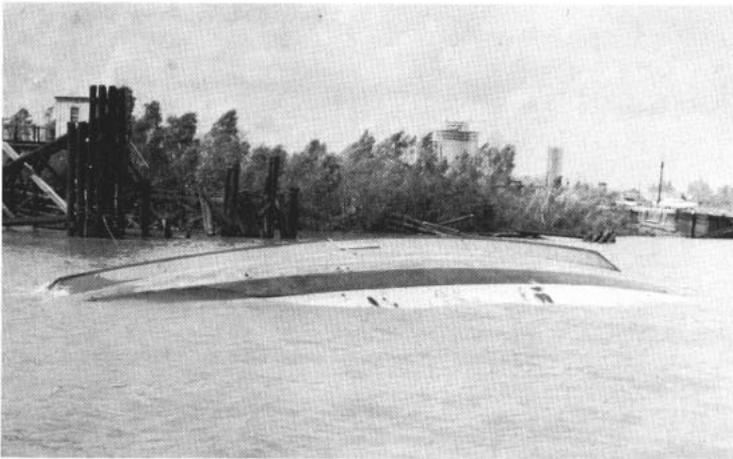
NAS Oceana will specialize in fighter squadrons and fighter support equipment. The first fighter squadron to arrive was Fitron 3, formerly based at NAS Cecil Field, Fla. Fitrons 32 and 14 will soon follow, as will Attack Squadron 35 (which is training to fly the new A-6 *Intruder*).

When the transfers are complete, Oceana squadrons will fly only two types of aircraft: the F-4 *Phantom* and the A-6 *Intruder*.

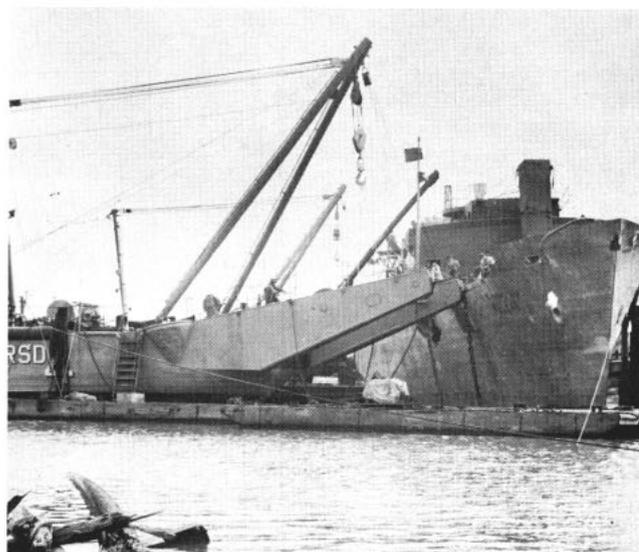
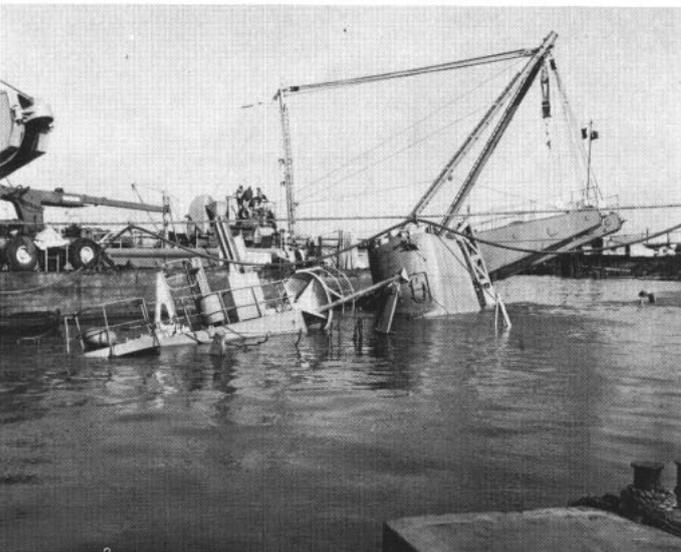
Denison Is Fast Mover

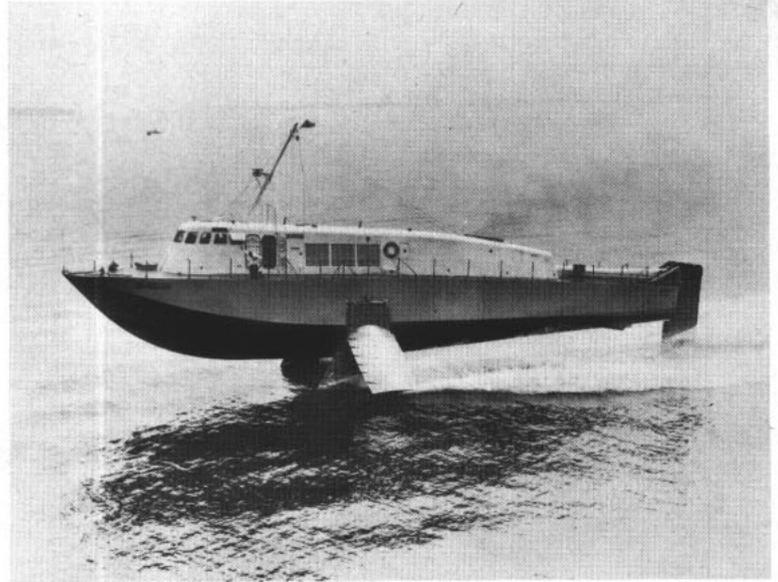
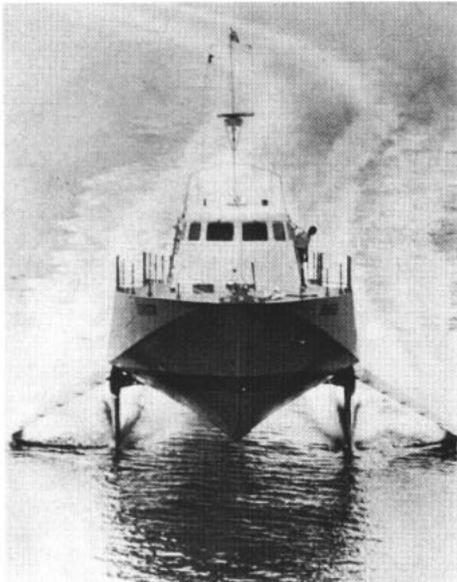
Denison, the 117-foot, 90-ton hydrofoil boat recently acquired by

MORNING AFTER Hurricane Betsy Navy oceanographic ship *Kellar* was on her side. **Right:** Salvage vessels *USS Windlass* (ARSD 4) and *USS Salvager* (ARSD 3) began raising operations by using cables to right the sunken vessel.



RIGHT YOU ARE—Salvage vessels righted *Kellar* after seven weeks of work. **Rt:** Ship rises as water is pumped out.





BOW OUT—Hydrofoil *Denison* to be used at Pt. Mugu stands clear of water while making 62-knot speed.

the Navy, is going to California. The high speed, ocean hydrofoil is capable of speeds up to 62 knots.

Denison was built for the Maritime Administration in 1962 as a test vehicle. It has an aluminum hull and a light-weight, 14,000-hp gas turbine engine.

After extensive testing by government and industry, the craft was given to the Navy. It will be used to transport personnel and supplies between the California coast and naval installations on offshore islands, and

serve as a rescue vessel.

"Maneuverable" and "economical" describe *Denison*. The craft can make sharp turns at high speeds while traveling on foils which extend beneath the hull, and can go further, faster on a given amount of fuel than a conventional craft.

NAS Point Mugu, Calif., will train the crew and operate the craft.

Mail Box in China Sea

From his observation window at the rear of the big P-2 *Neptune*,

James R. Young, AO2, USN, focuses on the Mekong Delta country several thousand feet below. Over the intercom the pilot warns: "Coastline coming up; is everything ready back there?"

"Affirmative," replies Young, as he reaches for a four-foot long cylinder. He checks it over, then shifts his attention to the South China Sea.

A few minutes later the pilot reports: "Spotted one of the ships. I'll bank so you can get a fix."

"I see her," says Young, as the *Neptune* ends a steep banking turn.

"We'll go down and make the usual approach," reports the pilot. "If it looks good, drop the cylinder."

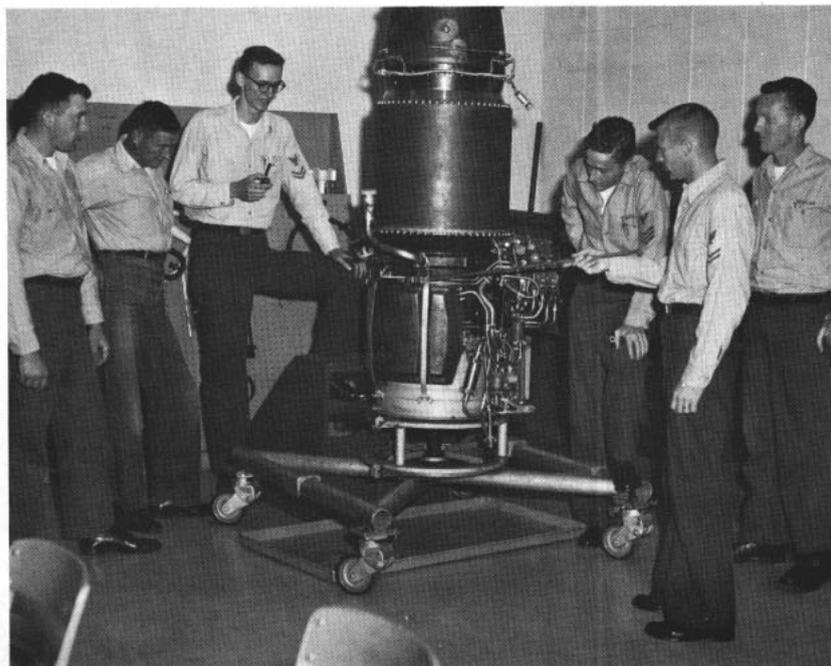
The approach usually looks good, so Young usually drops the cylinder. He drops it as close to the Navy patrol vessel as he can. "Cylinder away," he reports to the pilot.

As it hits the water, multi-colored streamers pinpoint the cylinder's position. The Navy destroyer edges up to it, and crewmen pull it from the sea. They are happy to have recovered their news buoy, which contains the current Saigon English-language newspapers, the previous day's *Stars and Stripes*, current magazines and a small library of paperback books.

Meanwhile, the *Neptune* is approaching another patrol vessel, to make its sixth and last news buoy drop for the day.

News buoys are kind of like a dream come true for Navymen assigned to Market Time anti-infiltration patrols off the coast of South Vietnam. Patrols average four to six

MAINTENANCE of J-60 engine is explained to students at NAAS Meridian.



weeks at sea, during which the crew receives little news of what's happening in the world.

News buoys have thus become very welcome additions to the day's operations.

The idea came from Lieutenant Jerry Burns, USN, of Patrol Squadron 17, after he flew several air surveillance missions in support of Market Time ships. He figured rightly that the cylindrical waterproof containers in which sonobuoys are shipped would make excellent news buoys.

The reading matter is furnished by the naval commands in Saigon. The cylinders are stuffed full and placed on PatRon 17 planes. Some deliveries are even made at night, with the aid of smoke lights.

So popular has the news service become that Navy supply ships and Coast Guard vessels operating in the area have asked to be placed on the distribution list.

Navy's Green Turtle Crop

United States Navy planes from Roosevelt Roads, Puerto Rico, recently made their annual run to points around the Caribbean loaded with thousands of green sea turtles.

The turtle run, which has been made annually by the Navy since 1961, is part of a program involving the Office of Naval Research, the Caribbean Conservation Corporation, the National Science Founda-



NEWS BUOY—Patron 17 crewman prepares to drop sonobuoy container to Navy men operating in Vietnam. Container is filled with books and magazines.

tion and the University of Florida. The program has two purposes—to spread the green sea turtle population around a bit and save the species from extinction while, at the same time, giving zoologists an opportunity to probe their remarkable navigational abilities.

The turtles which, when full grown, weigh around 250 pounds each, were well on the way to becoming extinct when a move was finally made to save them.

During the days of sailing vessels,

they were kept alive on deck to provide a source of fresh meat during sea voyages. Because of their gastronomic popularity both at sea and ashore, turtle hunting became a major occupation and it was open season 365 days of the year. The result: Many places where the turtles were abundant in early colonial days became completely devoid of green sea turtles.

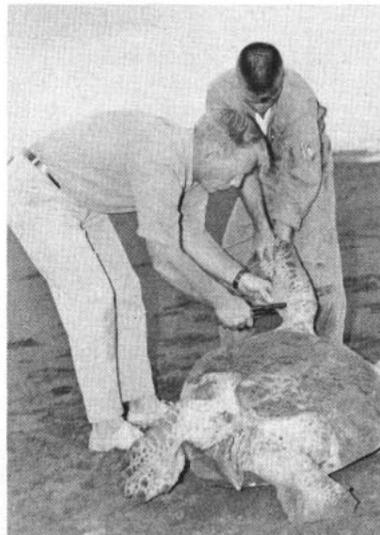
Since 1961, the Navy has been carrying newly hatched sea turtles throughout the Caribbean to see if

TURTLE TIME—Navy planes recently made their annual run to spread vanishing sea turtles throughout the Caribbean.

Baby turtles are packed in boxes for delivery by Navy planes.



Turtle is tagged to study migration habits during Op Sea Turtle 1965.



After laying eggs and being tagged mother turtle returns to the sea.



FROM THE SIDELINES

SPORTS STATISTICS are the by-product of what happens on the field. But they are more than just marks on paper that the next man tries to beat. They tell the story of the game—just how good or bad an individual or team is.

A fine example of statistics that crossed our path recently was a report on softball pitcher Del Epperson, EM3, of *uss Epping Forest* (MCS 7).

Epperson pitched 96 innings this year. He was credited with 187 strikeouts for an average of 14.4 men per game, pitched 10 shutouts (five of them were no-hitters) and had an earned run average of .03.

As a result of Epperson's pitching, *Epping Forest* won



its second straight MinFlot-One league championship, with a 13-0 record. Then, after the league title was won, he pitched a 3-0 shutout against the flotilla All-Star team.

From these statistics, a logical conclusion may be drawn: Epperson is a good pitcher.

★ ★ ★

Another good pitcher is Stanley W. "Stan" Pointek, ADCS, of NAAS Ream Field, Calif., who started pitching before many of us could roll a ball on the floor.

Pointek recently hung up his glove after compiling a lifetime record of 740 wins and 170 losses, for an .813 average. Among his feats were approximately 25 no-hitters, five of which were perfect games.

His glove must be well worn.

★ ★ ★

Since we published a short

bit about *uss Markab's* slot car track nearly a year ago, we've been deluged with news releases and ship and station newspaper articles announcing the openings of many more Navy slot car tracks around the world.

But the small car buffs on the slot tracks are now being outdone by a group of sailors from NAAS Chase Field, Texas. The track is bigger there, and their cars have more horsepower.

The Chase Field men drive go-karts in their off-duty time. Their karts are in the 7-horsepower range, with top speeds of over 60 miles per hour.

Several members of the Chase Field Go-Kart Club own

karts, and the club is planning to purchase more vehicles.

Now the club is really beginning to roll.

★ ★ ★

Weightlifting is a sport you hear very little about, but Fred Cerullo, AE3, of NAS Oceana, Va., is doing his part to make it better known.

Cerullo went to the Virginia State Lifting Championships at Newport News late in 1965. He returned to his base with four trophies, a medal and a state champion's patch.

He lifted in—and won—the 143-lb class in both Teenage and Senior Divisions. In addition, Cerullo was selected as Best Teenage Lifter and Best Senior Lifter in the tournament.

His medal and patch are worn only by the state champions.

—Kelly Gilbert, J02, USN

they will return to lay their eggs at the place where they were transplanted rather than to the place they were hatched. If this happens, the places to which the turtles are transplanted will have an abundant supply of meat and science will have an important clue to turtle navigation.

Since it takes several years for the turtles to mature, it is a little too early to see what the reproductive habits of the transplants will be, although zoologists said it was possible that a few precocious females might lumber ashore this year to deposit their eggs in the sand.

The signs are encouraging, however, and everyone involved hopes for a bumper crop of green sea turtles in the next year or so because nearly mature adults have been seen swimming off shore in places where none have been sighted for more than 100 years.

This year, as in the past, the Navy transplanted 22,000 baby turtles which had been tagged for identification, at 16 locations in Mexico, South America, the West Indies and Florida.

It would seem from the number of transplants that Caribbean beaches might be awash with green sea turtles within a few years. Zoologists, however, say this is extremely unlikely.

Although the adult female may live to the ripe old age of 200 years, and lay as many as 600 eggs each year, very few of her offspring ever reach mating age. The great majority live only a few minutes for they are easy prey for predatory birds and other animals as they leave their eggs and instinctively stumble across the beaches toward the sea. Once at sea they are stalked by sharks and other hungry fish on the prowl.

Man, too, has been an enemy of the turtles. Until comparatively recently, there have been no conservation laws designed to keep the huge reptiles out of the soup kettle.

The conservation laws which now exist, however, are difficult to enforce on the usually remote beaches frequented by the turtles. It is, therefore, largely up to man's forbearance and to the success of Operation Turtle as to whether or not the green sea turtle continues as a living species or just an entry in the encyclopedia under "T".

Navy Inventor

A MinPac engineman may be money ahead. Other enginemen will have an easier go of it. Uncle Sam is likely to save as much as \$250,000 each year. And all because Cecil Davis had a brainstorm.

Cecil Davis is a senior chief engineman serving with MinRon Seven. He invented a relatively simple (to an engineman) modification for minesweeper diesel engines.

It all began with a problem: Occasionally, water seeps into the cylinders of Mine Force diesel engines. When the engine is started under power the liquid fails to compress in the cylinder, creating extreme pressures which break the block. Each time this happens the Navy spends between \$20,000 and \$27,000 and approximately 400 man-hours to repair the damage.

Since 1960 it has happened an expensive 23 times to Long Beach minesweepers. Thanks to Senior Chief Davis, it probably won't happen again.

Chief Davis' invention is basically a cranking mechanism which allows enginemen to turn the diesels over by hand before applying power. If there is water present the engine won't crank and hand pressure is not sufficient to break the block.

The cost of Chief Davis' invention is a paltry \$60 per engine, and it requires an average of only 30 minutes to install.

IDEA MAN—Cecil Davis, ENCS, made cranking mechanism for Navy diesel engines which will save government thousands of dollars in repairs.



SPRINGFIELD crew restore historic U.S.-British burial grounds on Spanish island.

As a result, the senior chief was nominated for a government cash award and was recommended for a SecNav Commendation. He has also earned the gratitude of his fellow enginemen, who might otherwise spend liberty time doctoring sick diesel engines.

Journey Into the Past

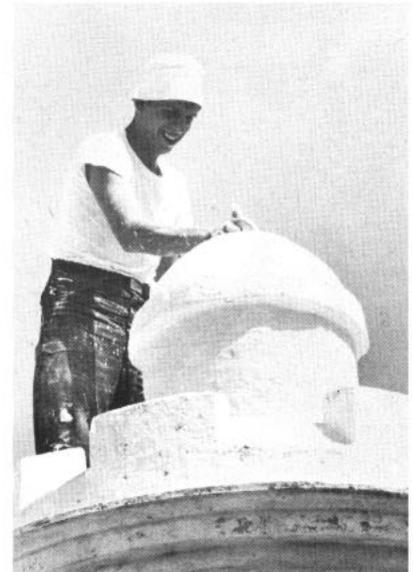
At first glance they could have easily been a party of treasure hunters for the men of the sea lowered a small boat loaded with gear and quietly pulled away from the ship heading for nearby wooded slopes of a Spanish island.

Actually they were crew members of guided missile cruiser *USS Springfield* (CLG 7) headed on an unusual volunteer project. This job consisted of cleaning up and brightening up a timeworn British-American cemetery at Port Mahon.

The cemetery dates back to 1825 when Port Mahon was a naval training ground for cadets before the founding of the Naval Academy at Annapolis, Md. In 1826 this natural harbor in the Balearic Islands served as a base for the U.S. Navy's Mediterranean Squadron. Although the cemetery is known as the British-American Cemetery the predominant number buried in the white walled grave yard are Americans.

The cruisemen set to work clearing out vines and weeds and painting walls. Although the job was hot and dusty, the old cemetery shed a new light on Navy tradition and history in the Mediterranean and the men

returned to *Springfield* with the satisfaction of a job well done.

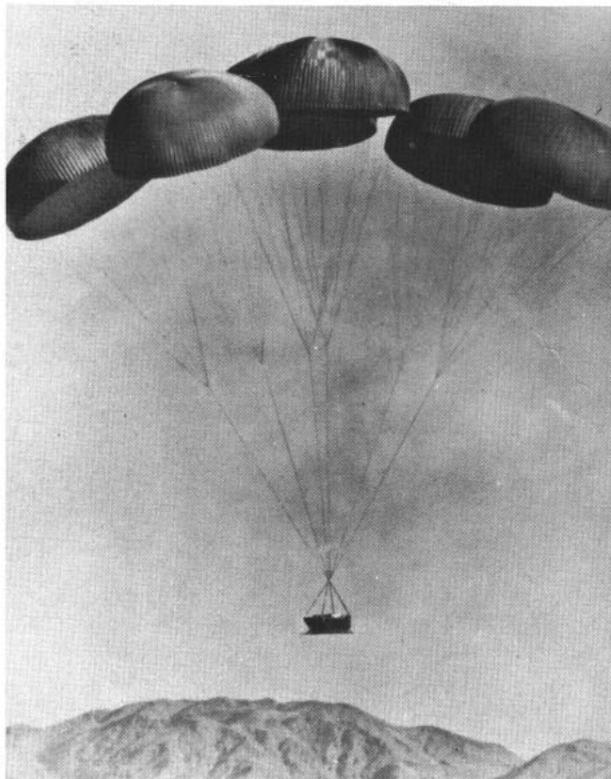


IN SPAIN — Navymen paint walls while others clean up historic grounds.



SERVICSCOPE

Brief news items about other branches of the armed services.



ARMY LANCE missile system drops on six parachutes to ground troops during versatility tests at Yuma, Arizona.



AF CENTURION—Air Force Captain Ronald Williams gets a handshake after 100th landing aboard USS Midway (CVA 41). Williams is an exchange pilot with VAH-8.

IT'S A STRANGE aircraft with the rotor blades of a helicopter and the jet engine and fixed wing of a conventional plane.

It makes vertical takeoffs and landings in small sites, but flies as a fixed wing plane—and faster than any helicopter.

Aeronautical engineers call the agile aircraft a “compound” because of its combination of rotor, fixed wing, and forward thrust propulsion.

Less than a half-dozen are in the air today in the U. S. But engineers and pilots associated with the compound believe it to be one of the most promising developments in aviation in the last quarter-century.

As an “airbus” the compound vehicle could perform an important role in transportation between city centers on high-density routes.

With a range up to 500 miles, these airbuses could operate efficiently on heavy traffic commercial runs.

Their helicopter-type rotor systems could even enable these 60-passenger aircraft to land on and take off from business and industrial building rooftops in the heart of the city.

Military applications are also being considered. The jet-powered Army XH-51A has reached 272 miles per hour, world's fastest rotorcraft speed.

The compound craft has a rigid-rotor system which gives the vehicle the “hands off” stability that makes it as easy to handle as a fixed wing plane, according to pilots who have flown the XH-51A.

The plane's engineers believe its speed can be increased to 500 miles per hour by folding back and stowing the rotor blades in forward flight.

★ ★ ★

BUIC, THE FIRST BACKUP INTERCEPTOR CONTROL facility, was turned over to the Air Defense Command recently. The facility's computerized control center is located at North Truro, Mass., and will furnish up-to-the-minute information on any airborne threat to the Boston air defense sector.

BUIC monitors the SAGE (Semi-Automatic Ground Environment) system and will take over if a SAGE direction center becomes inoperative.

As an aircraft enters the air defense sector, its flight track is checked against filed flight plans which are stored in the computer's memory. The aircraft is identified either as being hostile or friendly. If the aircraft is hostile, the track is assigned to an intercept director who scrambles manned interceptors or activates *Bomarc* missiles.

★ ★ ★

IT RUNS ON ANYTHING (almost). No need for “no-knock,” TCP or any other of the miracle fuels advertised by major oil companies today.

That is, if development and tests of a new engine live up to the Army's expectations.

The “multi-fuel” engine is being built by the Army to operate on any of the military fuels, such as gasoline; aviation gasoline; jet, CITE (Compression Ignition and Turbine Engine) and diesel fuel.

Such an engine, with a long-term operational life, would greatly reduce the fuel logistics problem the Army must constantly cope with.

Experimental multi-fuel combustion systems for the 10 and 20 hp military standard spark ignition engines are being developed under contract by industry. Further development of a prototype engine will proceed after an evaluation of the experimental systems.

★ ★ ★

A NEW ARMY experimental helicopter has flown 263 mph at 12,000 feet altitude, a height at which most rotary wing vehicles are severely limited in performance. During a recent test, the experimental craft's rotor blades reached speeds of 715 mph as they whirled around above the plane.

The 4500-pound XH-51A has fixed wings and an auxiliary forward thrust jet engine in addition to its helicopter rotor blades. On the high altitude speed run, information was gathered which is being applied to a proposed design for the Advanced Aerial Fire Support System (AAFSS), a flying weapons platform design now under evaluation by the Army. AAFSS is designed for escort of troop-carrying helicopters and for aerial fire suppression missions.

The experimental helicopter is capable of performing steep dives, fast climbs and sharp turns—similar to maneuvers performed by a fixed wing plane but unusual for a helicopter.

With fixed wings, the hazard of a helicopter's blade stalling has been minimized, by relieving virtually all of the aircraft's weight from the rotor blades during flight.

★ ★ ★

A CONTRACT HAS BEEN negotiated which will guarantee completion of development work on the new Main Battle Tank. The project is an international material development effort in which the United States and the Federal Republic of Germany are working together. The new contract provides for a high horsepower engine and a new suspension system.

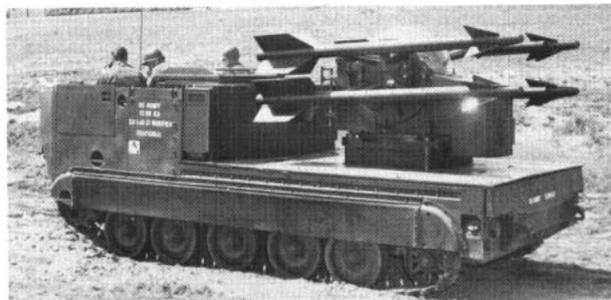
The United States portion of the Main Battle Tank Program is headed by Major General W. G. Dolvin who is with the U. S. Army Materiel Command in Washington. General Dolvin directs technical efforts in the United States and maintains contact with his German counterparts through a liaison office in Bonn, Germany.



TRI-SERVICE XC-142A vertical takeoff/landing plane is one of five built for testing by Army, Navy, Air Force.



TACTICAL AIRCRAFT such as F-5 Air Force fighter are painted in camouflage design to reduce visual detection.



CHAPARRAL surface-to-air missile system is mounted on modified Army XM-548 self-propelled tracked vehicle.



GROUND crewman prepares to load bombs on Air Force B-52. Right: Bomber takes off with full load for air strike.

THE BULLETIN BOARD

Setting the Record Straight on Tour Completion Dates

LAST FALL ALL HANDS received a letter from a personnelman requesting clarification of the procedures for setting shore tour completion dates. Specifically, he asked if a Navyman reporting for shore duty with insufficient obligated service could extend long enough for a full tour without further obligating himself for sea duty.

The question seemed innocuous enough. The answer, straight from Seavey/Shorvey, was affirmative. A Navyman is allowed to extend—in increments of months, if need be—to make his enlistment and his shore duty expire at the same time. (In this regard, however, *BuPers Manual*, article C-1407 (2) (b) prohibits more than one short extension on an enlistment—other than to complete a cruise or deployment—without prior approval by BuPers.) In other words, the ALL HANDS said Navyman do not have to obligate to go to sea just to receive their fair share of shore duty.

The letter was printed in the October issue and (it was assumed) the subject was closed.

Several weeks after the October issue appeared in the Fleet, the letters began to arrive. They are still coming. They are signed by officers, enlisted men, civilian employees . . . you name them. And all agree on one point: that there is, in fact, an *Enlisted Transfer Manual*. Other than that it's every man for himself. Suffice it to say there is no consensus.

As a result, the Bureau of Naval Personnel has decided to clarify the *Enlisted Transfer Manual* in respect to tour completion dates. In the meantime, ALL HANDS is attempting to set the record straight, beginning by quoting the offending passage from the *Enlisted Transfer Manual*.

Article 7.41a (3) (e) says in part (the operative phrase is in italics): "The tour completion date will exceed the ACDUOBLI (expiration of enlistment—Ed) date. Reduce the tour length and establish a tour completion date coincident with the ACDUOBLI. Explain to the individual that he may sign an agreement to extend his enlistment in order to have sufficient obligated service to

complete his maximum shore tour . . . this may be done at any time between date of reporting and four months thereafter. Any such extension of enlistment must provide a minimum of 12 months obligated service from the first date of month the recomputed tour will expire, *unless the obligated service and the shore tour completion date coincide . . .*"

It would appear that the italicized portion was sometimes interpreted to apply only before the man reporting agreed to extend—when the dates coincided by accident, in other words. Such an interpretation is incorrect.

What the Bureau intended to explain was that if two dates coincided at the time the TCD was established, the man would be allowed a full tour of duty. Tour completion dates are assigned four months after the man reports for shore duty. Consequently, the Navyman has four months after reporting to *make* those two dates coincide—by extending his enlistment, in increments of years or months, or both.

He does not—repeat, not—have to obligate to go back to sea merely to serve a full tour ashore.

When you report to shore duty you will find yourself in one of three categories: Your EAOS (expiration of active obligated service) will coincide with the end of your shore tour for a man of your rate and rating; your EAOS will fall short of your normal shore tour, giving you insuffi-

cient obligated service for a full shore tour; your EAOS will exceed your TCD, giving you more than enough time to complete a full tour.

In the first case, when EAOS and TCD coincide naturally, there is no problem. If you find yourself in this situation you would not be obligated to return to sea nor would you have your shore tour shortened. You would also be very much in the minority.

Case number two poses an entirely different problem. In this instance your separation date does not provide you with enough time to serve a full shore tour for a man of your rate and rating. You have three choices and four months to mull it over.

As an example, you report ashore in January 1966. The normal shore tour for a man in your rate and rating is 36 months. Your active service expires in October 1967, so you need an additional 14 months of obligated service if you are to receive a full tour ashore. Here are your options:

- You may agree to extend for 14 months. (A word of caution here. Current regulations require a man reporting to sea to serve at least one year. This means you may not extend 15 months instead of 14 because your EAOS would exceed your shore tour by only one month. If you extend for more than 14 months you must extend for at least 26 months, allowing for a year at sea.)

- You may do nothing. When four months have expired, your normal shore tour will be shortened by 14 months and your tour completion date will be established to coincide with your expiration of enlistment. The TCD, once set, is final—even though you may later decide to extend or reenlist.

- You may extend for enough time to serve a full tour ashore plus time enough to serve an additional one year in a sea billet.

For the career Navyman this third option may well be the wisest choice. The operations of Shorvey are such that it would be distinctly advantageous for you to have extended for rotation to sea at least nine months

All-Navy Cartoon Contest
Gary A. Kunz, ADJ2, USN



to one year before your tour expires. Your name and choices of duty would be available to your detailer at the beginning of the Shorvey cycle, when he has a wide choice of open billets.

Should you wait until your shore tour and enlistment are about to expire before obligating for sea duty, you may jeopardize your chances of receiving your Shorvey choice. The detailer will have already filled many of his open billets—those remaining may not include on you prefer.

In the third and last instance, you report to shore duty with your obligated service exceeding the normal tour for a man of your rate and rating. Your choice in this case would depend upon precisely how long the one date exceeds the other.

If the excess is six months or less, through no fault of your own, the Bureau will automatically extend your shore tour to match your EAOS.

Don't overlook that phrase, "through no fault of your own." If you extend after you have received your shore duty orders with the idea of receiving a shore tour a little longer than most, it won't work out that way. When the situation is not entirely accidental you must go to sea, and the 12-month rule mentioned before will apply.

If you do report with one to six months of extra obligated service, your extended TCD will be established four months after you arrive. Once this TCD is set it will not be changed, even if you later choose to extend or reenlist. If, on the other hand, you extend *before* the TCD is set you will fall into an entirely different category—that of men who have enough time to complete a full shore tour plus an extra seven months or more.

In this instance, you would be rotated to sea. When and for how long would be up to you. The 12-month rule applies, so if you have enough service to complete your full tour ashore plus a year at sea, you're in good shape. If not, you must either extend for a total of a year at sea or accept a shortened shore tour. And, as always, you must do so within the four-month period.

The controversy over TCDs and subsequent clarification of Bureau policy brings up one further question, one which was obviously in the minds of many Navymen who have written to ALL HANDS on the subject. What happens to the Navyman who

All-Navy Cartoon Contest Peter E. Puig, SFM2, USN



made a decision based on erroneous information?

If you did not extend within the four-month period because you were informed you would eventually have

to go to sea, or, if on the other hand, you *did* extend for a shore tour plus a year at sea because of the same information, the Bureau of Naval Personnel agrees you may have a point.

For obvious reasons, however, requests must be handled individually, allowing BuPers to consider the relative merits of each case. Navymen who feel they should be allowed to extend for a full tour even though the four months have elapsed and men who desire to cancel obligations for a year beyond their TCD agreed to because of misinformation should address their requests to the Bureau of Naval Personnel, via the appropriate EPDO. Such letters must be accompanied by the recommendations of your commanding officer.

TOP SEA DOGS . . .

Cook Has Winning Recipe

One of the highest awards which may go to a Navy command, the Arleigh Burke Fleet Trophy, has been won by USS Cook (APD 130), a PacFlt high speed transport. The Burke Trophy is given each year to a LANTFLT and a PACFLT unit which shows the greatest improvement in battle efficiency competition.

In addition to unit improvement, other factors considered are administrative inspections, personnel performance, morale, operating performance, supply readiness, engineering reliability, and the results of special exercises and inspections.

Cook, designed to carry underwater demolition teams in raids on enemy beaches, has spent much of the past year operating in Vietnamese waters. She acted as primary control ship and reconnaissance support vessel for the first two Danang landings and the first Chu Lai landing.

During the rescue of a Marine reconnaissance team, two Cook crewmembers were killed by the Viet Cong.

Her recent experience in the South China sea

was not her first. In 1955 the ship participated in "Passage to Freedom," an operation in which over 300,000 North Vietnamese, fleeing from the communists, were evacuated.

Meanwhile, at Moffet Field in California 110 men from Patrol Squadron Nine were awarded the Air Medal. These citations read: "For meritorious service while participating in missions in support of combat operations in Southeast Asia against the insurgent communist guerrilla forces from 1 February to 31 May 1965."

Also in the airdale Navy, NAS Whiting Field in Florida won the Admiral's Cup and Efficiency Pennant for the second consecutive year while squadrons of Air Group 54 at Quonset Point, R. I., received the Navy League "Red Rooster" award, the battle efficiency E award, the CNO Aviation Safety Award and the Isbell Award—all four for the second consecutive year.

Battle efficiency Es are still coming in. (The original, partial listing was included in the October issue of ALL HANDS.) If your unit won the E and has not yet been included, contact your PIO or write direct to Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Department, Washington, D. C. 20370.

Recently announced Battle Efficiency E winners are:

Howard W. Gilmore (AS 16)—SubLant.
Cutlass (SS 478)—SubLant.
Dogfish (SS 350)—SubLant.
Atule (SS 403)—SubLant.
Quillback (SS 424)—SubLant.
Dace (SS(N) 607)—SubLant.
Detector (MSO 429)—MinLant.
Hornet (CVS 12)—AirPac.

In addition two Mine Force ships, listed as E winners in October, have won the 1965 Marjorie Sterrett Battleship Fund Award. They are USS Meadowlark (MSC 196) of the Atlantic Fleet and Persistent (MSO 491) of the Pacific Fleet.

The Burke Trophy



**USS COOK
APD 130**

Here's a Report on Navy Credit Unions and How They Operate

THE PERCEPTIVE READER of "How to Stay Fiscally Fit," to be found in the November issue of ALL HANDS may have noted the words of caution when it came to discussing credit and its uses.

Such caution is justified. Buying on time can be dangerous as well as expensive.

However, limitations of space and time then precluded an adequate discussion of one source of credit—the Navy credit union—which has received the wholehearted approval of the Department of Defense. (It offers a good way to save money, too).

All over the world, Navy credit unions have been formed by people whose common bond is employment by the U. S. Navy or assignment to a particular naval activity. Credit unions cooperate with the Naval Establishment to protect Navymen and their families from illegal lending practices.

Although Navy credit unions are not controlled in any way by the Navy, the Secretary of the Navy encourages Navymen (as well as civilian employees of the Navy) to use credit union services.

Navy credit unions are no fly-by-nights. The majority of the more than 100 credit unions serving Navy personnel are chartered under the authority of the Federal Credit Union Act. They are supervised and regulated by the Bureau of Federal Credit Unions. Most others are chartered under state law.

All those credit unions which are composed exclusively of Federal employees (civilian and military) and their families are authorized to use space in Federal buildings. Because of this, SecNav has authorized commanding officers of shore installations to provide office space for credit unions.

THERE'S A BASIC DIFFERENCE between credit unions and other financial institutions. A credit union, for example, is *not* owned by stockholders who are interested in making a profit. It is owned by its members—those people, like you, who join the association to take advantage of its nonprofit lending and saving services.

This makes quite a difference. By and large, interest charges on loans are considerably less; your savings accounts draw as much, or greater,

interest (called dividends in a credit union). There are also other advantages, which will be discussed below.

Loans—The Federal Credit Union Act authorizes Federal credit unions to make loans for numerous helpful purposes such as automobile purchases, home improvements, tuition bills and debt consolidation. Credit unions in some cases may be able to lend more than other lending institutions for the purchase of automobiles and mobile homes. For example, the Navy Federal Credit Union lends up to 75 per cent of the purchase price of a new car, or up to 75 per cent of the current NADA book value on a used car.

Personal (signature) loans from any Federal credit unit are limited to a maximum of \$750. Your credit union savings are acceptable as collateral on loans greater than \$750. Other forms of collateral may include the signature of a co-maker, or the lien-free title to a late model car, boat or trailer.

Some credit unions charge different interest rates for different purposes, but no Federal credit union may charge more than one per cent per month on the unpaid balance, regardless of the purpose of the loan. This one charge includes all costs involved in making the loan.

Interest rates charged by most Federal credit unions range from 7/10 of one per cent per month up to the legal maximum.

One fifth of those credit unions which charge the maximum rate of one per cent pay each borrower an annual or semiannual interest re-

bate, ranging from five per cent to 20 per cent of his yearly interest charges—a feature not to be found in most commercial lending institutions.

All loans must be repaid within five years. You are entitled to repay your loan before maturity if you wish to do so. This also helps to save interest charges.

Loan Protection Insurance—This is insurance on your life, based on the amount of your unpaid balance. Offered by nearly all credit unions at no direct cost to you as a borrower, loan protection insurance provides for payment of your loan in the event of your death or disability. Generally, the amount is limited to \$5000 or \$10,000, depending on local insurance laws.

Commercial annual premium rates for credit life insurance range from \$.50 to \$1.00 per \$100. If you borrowed \$1000 from a credit union which offered loan protection insurance this service would save you \$5 on a 12-month note; \$15 on a 30-month note; or \$20 on a 48-month note.

Savings—Saving money at a credit union is called "purchasing shares." Don't let the euphemism bother you. You still save money.

You "purchase" shares in increments of \$5. Each \$5 share you buy is a unit of savings which earns dividends and makes you a partial owner of your credit union.

The bylaws of Federal credit unions provide the right of the board of directors to require members to give written notice of not more than 60 days of their intent to withdraw shares. In practice, however, very few credit unions have found such notice to be necessary. To retain your credit union membership, you must remain within the authorized field of membership, maintain a minimum balance of \$5 or build it back up to \$5 within a certain time limit specified by the bylaws.

Every member of a credit union who attends its annual meeting is entitled to one vote in the election of his board of directors and credit committee. All members have equal voting rights, regardless of the number of shares they own.

Dividends—In addition to extending membership, ownership and voting privileges, shares earn dividends. Dividends are a division and distri-

All-Navy Cartoon Contest
Lorenze B. Tate, Jr., SN, USN



"Do you ever get the idea that you aren't appreciated?"

bution of earnings to each share owner. They are calculated on the number of shares you own and the length of time your shares have been in your account.

Your Board of Directors is empowered to declare an annual or semiannual dividend to be paid to the members out of net earnings remaining after regular or special reserves have been set aside. The majority of credit unions pay between four per cent and 4.9 per cent each year.

Shares pledged as collateral on a loan earn regular dividends. For income tax purposes dividends earned by all credit union shares are reported by the individual members as interest income on their income tax returns. This is because shares are considered units of savings, not capital stock.

Life Savings Insurance—Your credit union shares entitle you to still another benefit: An extra dividend in the form of life savings insurance. This is automatic insurance on your life, determined in amount by your share balance, age, health, and contractual dollar limits.

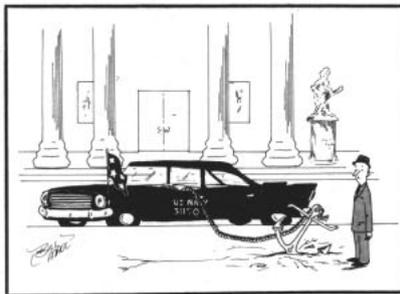
If you are insurable, every dollar of your share balance normally earns another dollar of insurance on your life, up to an established maximum. This maximum, usually \$2000, is determined by the contract of the individual credit union with its insurance carrier.

Assuming that your credit union provides dollar for dollar coverage, the person you have named as your beneficiary will receive an amount equal to your share balance in the event of your death. You designate your beneficiary on a special form furnished by your credit union.

The cost for this type of insurance is paid by your credit union out of operating income. If you were to buy commercial coverage on \$2000 at the age of 20, your annual premium rate would be approximately \$7.64. As you grow older, commercial rates for group term insurance rise. For example, at the age of 60 you might pay an annual premium of \$69.40 for \$2000 worth of group term insurance.

This type of insurance offered by your credit union increases the effective annual dividend rate declared by the board of directors. Assuming the board declared an annual dividend of 4.6 per cent, the actual div-

All-Navy Cartoon Contest William R. Maul, CTCA, USN



idend rate for \$2000 in shares owned by a 20-year-old would be 4.98 per cent per annum. The additional .38 per cent represents the \$7.64 worth of life savings insurance earned at no direct cost.

Joint and Family Accounts—All Federal credit unions are authorized to establish joint share accounts. This means that you may designate your wife, or

anyone else, as joint owner of your account.

This is particularly helpful when you are on foreign shore or sea duty. In such a situation, your wife may withdraw shares on her signature, purchase additional shares, and obtain information concerning the transactions and balances of the account.

Joint ownership does not bestow voting or borrowing privileges. Joint owners do not earn life savings insurance on their own lives; however, in the event of the death of the basic owner (you), the joint owner (your wife, for example) can withdraw whatever shares may be in the account. (This should not be confused with the payment of the life savings insurance proceeds to the beneficiary of the account).

A wife can become a member in her own right and either have her

NOW HERE'S THIS

Historical Shipyard Relics

As the closing date of the New York Naval Shipyard in Brooklyn approaches, a historical committee and, indeed, almost everyone at the Yard is busily searching out relics which will give future generations a clue to its importance in American history during more than 160 years of shipbuilding.

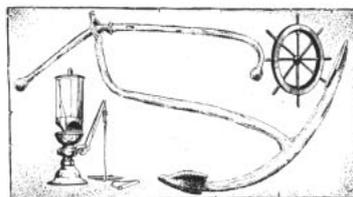
To insure that the role played by the Yard throughout most of our Navy's history is properly placed before the public and to assure the proper preservation of this material, all historical items have been reported to the Curator for the Department of the Navy who has added them to the Department's permanent "accession files."

When the search began, interest in the Yard's memorabilia spread, and historical items began turning up in somewhat unlikely places.

A carpenter, for example, discovered the mahogany block on which he had hung his hat for 20 years, had once been a plaque on the captain's gig of USS New York (BB 34).

Men in the Yard's Supply Department looked with a new point of view at a ship's wheel which had been hanging on the wall for as long as anyone could remember.

One antique item was particularly graphic



in depicting the Yard's past activities. It was a mural, painted on a large wooden panel, showing every ship constructed in the shipyard.

The panel, begun by an unknown artist, probably dates back to about 1800. Since that time, other anonymous painters have added each new ship as she was commissioned. A picture of Duluth, a 16,000-ton amphibious transport dock now being built, has not yet been added.

Another item of unusual interest in the collection is a rusted and bent anchor thought to have come from the British prison ship *Jersey*, which was anchored in Wallabout Bay during the Revolution.

Among the relics symbolic of the Yard's past is a highly polished brass ship's whistle which was taken from a scrapped World War I battleship. The whistle has signaled every launching at the Yard since 1920.

A model of a drydock which has been in service for well over a century was also found. The drydock was built of granite blocks supported by oak logs driven into the ground by one of the first steam-driven pile drivers in operation.

A number of these historical items, long an integral part of the Yard, will be retained in the New York area; a few will be placed with other nearby commands.

The remainder will be sent to the Navy's Curator for exhibition in the Naval Historical Display Center in the Washington Navy Yard, where they will be memorialized along with such well known names as Jones, Farragut, Dewey, Nimitz and today's astronauts.

Leonard J. Johnson, JO2, USN

own individual account or a joint account with her husband. By becoming a member, the wife can continue to enjoy all of the credit union privileges, even after the death of her husband.

In addition to naming joint owners to your account, you may open separate accounts for members of your family according to the bylaws of your own credit union. (The rules vary in minor details from one credit union to another.) As owners of their own accounts, your dependents would be provided life savings insurance coverage equal to their share balances, up to the credit union's maximum.

Here again you may, if you wish, make yourself or you and your wife joint owners of the account.

Allotments—You may establish an allotment to your credit union for share purchases or loan payments, or both. The Navy Finance Center has assigned a code number to each credit union serving Navy personnel.

At present, there are 102 Navy credit unions established at naval activities in the continental U. S., Alaska and Hawaii. Most likely there is one at your base which you and members of your family may join. If in doubt, check your base telephone directory.

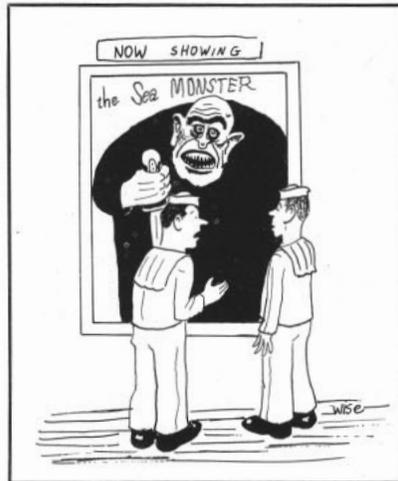
If none exists at your facility, an interested group might want to start the ball rolling in the establishment of one. They should confer with the legal assistance officer and then, if the project has his blessings, contact the Defense Credit Union Council, 20 E. St., NW, Washington, D. C.; or the Bureau of Federal Credit Unions, Department of Health, Education and Welfare, Washington, D. C.

You are eligible for membership in the Navy Federal Credit Union located in Washington, D. C. (one of the 102 mentioned above, and the largest in the world) if you are an officer in the Navy or Marine Corps stationed anywhere in the world, or if you are an enlisted man assigned to a Washington, D. C., activity without its own credit union.

Officers, enlisted personnel and civilian employees are eligible for membership in any of the other Navy credit unions if they are attached to, or employed by, the activity sponsoring the credit union.

Credit unions have been established for your benefit. They offer low

All-Navy Cartoon Contest Charley Wise, HMCS, USN



"Oh, that reminds me . . . we'll be getting a new exec next month."

interest on loans, a good return for your savings, and life insurance at no direct cost. For further information on credit unions at Navy establishments, see your legal assistance officer.

List of New Motion Pictures Available to Ships and Overseas Bases

A list of recently released 16-mm feature movies available from the Navy Motion Picture Service is published here for the convenience of ships and overseas bases.

Movies in color are designated by (C) and those in wide-screen processes by (WS).

Top of the World (3090): Adventure Drama; Dale Robertson, Evelyn Keep (Re-issue).

Man with a Million (3091): Comedy; Gregory Peck, John Bryan (Re-issue).

Harlow (3092) (C) (WS): Drama; Carol Baker.

The Ipcress File (3093) (C) (WS): Melodrama; Michael Caine, Susan Lloyd.

Banana Peel (3094) (WS): Comedy; Jeanne Moreau, Jean Paul Belmondo.

Gunmen of the Rio Grande (3095) (C) (WS): Western; Guy Madison, Madeline Lebeau.

Act of Love (3096): Drama; Kirk Douglas, Davy Robin (Re-issue).

The Racket (3097): Mystery Drama; Robert Mitchum, Elizabeth Scott (Re-issue).

Tall in the Saddle (3098): West-

ern; John Wayne, Ella Raines (Re-issue).

Silver Chalice (3099): Drama; Virginia Mayo, Jack Palance (Re-issue).

In Harm's Way (3100) (WS): Drama; John Wayne, Kirk Douglas.

Dingaka (3101) (C) (WS): Melodrama; Stanley Baker, Juliet Prowse.

The Collector (3102) (C): Drama; Terence Stamp, Samantha Eggar.

Ravishing Idiot (3103): Comedy; Anthony Perkins, Brigitte Bardot.

Trail Street (3104): Western; Randolph Scott, Anne Jeffreys (Re-issue).

Return of the Badman (3105): Western; Randolph Scott, Robert Ryan (Re-issue).

Dangerous Profession (3106): Mystery Drama; George Raft, Ella Raines (Re-issue).

Dishonored (3107): Mystery Drama; Victor McLaglen, Marlene Dietrich (Re-issue).

Seven Slaves against the World (3108) (C) (WS): Melodrama; Roger Browne, Gordon Mitchell.

The Wonderful World of the Brothers Grimm (3109) (C) (WS): Comedy Fantasy; Laurence Harvey, Claire Bloom.

Swingers' Paradise (3110) (C) (WS): Comedy; Cliff Richard, Walter Slezak.

What's New Pussycat? (3111) (C): Comedy; Peter Sellers, Romy Schneider.

Night Song (3112): Drama; Dana Andrews, Merle Oberon (Re-issue).

Las Vegas Story (3113): Drama; Victor Mature, Jane Russell (Re-issue).

A Tree grows in Brooklyn (3114): Drama; Dorothy McGuire, Joan Blondell (Re-issue).

Riffruff (3115): Adventure Drama; Pat O'Brien, Anne Jeffreys (Re-issue).

The Glory Guys (3116) (C) (WS): Western; Tom Tryon, Harve Presnell.

The Great Sioux Massacre (3117) (C) (WS): Action Drama; Joseph Cotton, Darren McGavin.

Revenge of the Gladiators (3118) (C) (WS): Melodrama; Roger Browne, Scilla Gabel.

Harlow (3119): Drama; Carol Lynley, Efreem Zimbalist, Jr.

Invitation to Happiness (3120): Drama; Irene Dunne, Fred MacMurray (Re-issue).

Rulers of the Sea (3121): Drama;

Douglas Fairbanks, Jr., Margaret Lockwood (Re-issue).

Walk Softly Stranger (3122): Drama; Joseph Cotten, Spring Byington (Re-issue).

Not as a Stranger (3123): Drama; Frank Sinatra, Robert Mitchum (Re-issue).

Marriage on the Rocks (3124) (C) (WS): Comedy; Deborah Kerr, Frank Sinatra.

A High Wind in Jamaica (3125) (C) (WS): Drama; Anthony Quinn.

Mozambique (3126) (C) (WS): Suspense Drama; Steve Cochran, Hildegarde Neff.

Sealed Cargo (3127): Adventure Drama; Dana Andrews (Re-issue).

Angel Face (3128): Mystery Drama; Robert Mitchum, Jean Simmons (Re-issue).

Nocturne (3129): Mystery Drama; Virginia Huston, George Raft (Re-issue).

Hawaiian Housing Rates Higher Than Reported

In the Bulletin Board section of the October issue of ALL HANDS, a report on living conditions in Hawaii listed incorrect rental rates for public quarters.

Although the source for the figures used was dated only a few months earlier, the recent raise in rental rates for substandard housing has since changed the picture considerably.

The increase in rates, which was directed by the Department of Defense in accordance with a Bureau of the Budget Circular, became effective 1 Oct 1965. It is being effected in four increments, the last one being 1 Jul 1966. On that date, the following rates will apply for public quarters: one bedroom, \$92.50; two bedrooms, \$108.00; three bedrooms, \$129.25. This is in contrast to the former rates of \$55.50, \$68.00 and \$78.75 respectively, as quoted in ALL HANDS.

However, regardless of the new rates, in no case will the actual rental charge exceed the Navyman's Basic Allowance for Quarters.

Correspondence Courses

One new and nine revised correspondence courses have been issued for the use of Navyman. Three are for the use of officers, six for enlisted men and one is for both officer and enlisted personnel.

The new course is OCC, Appro-

priation and Cost Accounting, NavPers 10984-A.

The revised courses are:

- OCC, Electronics Administration and Supply, NavPers 10926-B; supersedes NavPers 10926-A.

- OCC, Shipboard Electronics Equipments, NavPers 10762-B, supersedes NavPers 10762-A1.

- OCC/ECC, Disaster Control, NavPers 10440, supersedes 10746-1 and NavPers 91212-A.

- ECC, Builder 1 & C, NavPers 91586-2, supersedes NavPers 91586-1B.

- ECC, Seaman, NavPers 91240-1D, supersedes NavPers 91240-1C.

- ECC, Personnelman 3 & 2, NavPers 91420-1C, supersedes NavPers 91420-1B.

- ECC, Molder 3 & 2, NavPers 91554-1B, supersedes NavPers 91554-1A.

- ECC, Parachute Rigger, 1 & C, NavPers 91606-1B, supersedes NavPers 91606-1A.

- ECC, Stewardsman, NavPers 91691-1F, supersedes NavPers 91691-1E.

Own Sales Pitch Sells JO

Nothing can be more convincing to an audience than a salesman demonstrating that he believes his own sales pitch.

There is no doubt in the minds of Armed Forces Network radio listeners that Journalist First Class John Harris, a disk jockey stationed in Taipei, Formosa, believes what he says when he discusses the merits of a Navy career.

Not too long ago, Harris, between such appropriate recordings as "Reenlistment Blues" and "Money Burns a Hole in My Pockets," had a few glowing words to say about the Navy.

Then he introduced his CO, Captain Charles Hollinshead, USN, Commanding Officer of Headquarters Support Activity Taipei. Both raised their right hands and Harris repeated the magic words after Captain Hollinshead. By the time the program was concluded, Harris had shipped over and his career had grown another hashmark.



Reservists in Some Rates May Make Shift to USN

Full-time active duty Reservists (including TARs) who want to remain on active duty or enlist in the Regular Navy may do so provided their change in status will not produce an imbalance in the over-all distribution of naval personnel.

Here are the requirements:

- You must be recommended by your commanding officer.

- You must be serving on active duty. Temporary active duty and active duty for training don't count.

- You cannot be over 40 years of age, and you must be able to complete 20 years of service by the time you reach 51 years of age.

If you have served less than 21 months of active duty at the time you enlist in the Regular Navy, you may enlist only for six years. However, if you have served 21 or more months on active duty, you have the choice of enlisting either for four or six years.

Reservists (except TARs) will be accepted in the Regular Navy at the same pay grade and rating held as when they were Reserves.

For TARs, however, it's a slightly different story. They may enlist in the Regular Navy when they have completed their obligated service only if they are in one of the following open rates:

QM1	QM2	QM3	PMC	PM1	PM2	PM3
		SM2	EAC	EA1	EA2	EA3
		RD2			CE2	CE3
STC	ST1	ST2	EOC	EO1	EO2	EO3
		TM3			CM2	CM3
		MN3	BUC	BU1	BU2	BU3
GMG2	GMG3	GMM3			SW2	SW3
		GMT3			UT2	UT3
FTC	FT1	FT2			ADJ3	
ETC	ET1	ET2			AT2	AT3
DSC	DS1	DS2			AO3	
		DS3			AC3	
	OM2	OM3			AE3	
	RM2	RM3			PR3	
CTC	CT1	CT2			AG3	
		CT3			TD3	
			(Excluding A and O branches at E-7)		ABE2	ABE3
		YN3			AQ1	AQ2
		CYN3			AQ3	
MAC	MA1	MA2			AME3	
		MA3			AMH3	
		SK3			PH2	PH3
		CS3			PTC	PT1
					PT2	PT3
	MM2	MM3			AXC	AX1
EN1	EN2	EN3			AX2	AX3
	BT2	BT3			HMC	HM1
	EM3				HM2	HM3
	IC2	IC3			SN	SA
	SFM2	SFM3			FR	FR
	SFP2	SFP3			CN	CP
	DC1	DC2			AN	AA
		DC3			AR	AR
					TN	TA
					TR	TR

First List of Shore Duty Commencement Dates for '66

WITH THE NEW YEAR comes another round of rotations for many Navymen, who will be abandoning the brine in favor of a lean-to on the beach. Personnel planners in the Bureau of Naval Personnel have devoted many hours of toil to updating the Seavey system, which regulates the sea to shore transfers.

One product of their efforts is the Seavey A-66 sea duty commencement date cutoff list. This list establishes the sea duty commencement dates for shore duty eligibility.

Also, as reported in the January ALL HANDS, the rotation system has been revised. Check the Bulletin Board section of last month's issue for details.

If your continuous tour of sea duty commenced in or before the month and year specified for your rate and rating on the accompanying list, and if you satisfy two other requirements,

you are eligible for shore duty. In addition to satisfying the required time at sea for your rate and rating, you must:

- Be in an "on board for duty" status at your present command, and
- Have an active duty obligation extending to May 1968 or beyond.

All Seavey ratings are listed on the A-66 list. The six ratings omitted (AC, AG, CT, MA, MU and TD) are not controlled by the Seavey system, but come under the direct rotational control of the Chief of Naval Personnel. The AG rating was placed in this category effective with Seavey A-66, as were the two top enlisted pay grades in all ratings. Rotation procedures and tour lengths for E-8/E-9 petty officers will be published separately.

One major change in procedure has been made to the system, effective with Seavey A-66. Although the sea duty commencement date has

long been used to determine an individual's eligibility for shore duty, selections from the Seavey waiting list have been made according to the active duty base date rather than the length of time spent at sea.

This has been changed. Hereafter, assignment priority will be determined on the basis of length of time served at sea. Waiting lists maintained in the Bureau of Naval Personnel will be programmed accordingly. Only in cases where those in the same rate and rating who are being considered for assignment ashore have the same sea duty commencement dates will the active duty base date be used to establish a priority.

One note: Men holding a conversion PNEC (XX99) will be considered as serving in the rating to which they are converting.

Your personnelman can help you with further questions concerning your particular case.

Cutoff Dates For SeaVey A-66

Rate	Date	Rate	Date	Rate	Date	Rate	Date	Rate	Date	Rate	Date
ABEC	May 63	AMSC	May 63	AX2	Apr 63	CET2	Jan 63	DM2	May 64	EOH3	Jun 64
ABFC	Jun 63	AME1	Dec 63	AX3	Jun 63	CEW2	Feb 64	DM3	Jun 64	EON3	Mar 64
ABHC	Mar 63	AMH1	May 63	AXAN	Jun 63	CEP3	Jun 63	DMSN	Jun 64	EOHCN	Jun 64
ABE1	Feb 62	AMS1	Mar 63			CES3	Jan 64			EONCN	Mar 64
ABF1	May 63	AME2	Dec 63	AZC	Jun 64	CET3	Dec 62	DSC	Jan 64		
ABH1	Mar 63	AMH2	Feb 63	AZ1	Jun 64	CEW3	Nov 63	DS1	Jan 64	ETC	Apr 63
ABE2	Oct 62	AMS2	Feb 63	AZ2	Jun 64	CEPCN	Jun 63	DS2	Jun 64	ET1	Apr 63
ABF2	Nov 62	AME3	Jun 64	AZ3	Jun 64	CESCNC	Sep 63	DS3	Jun 64	ETN2	Dec 62
ABH2	Mar 63	AMH3	Oct 63	AZAN	Jun 64	CETCN	Dec 62	DSSN	Jun 64	ETR2	Dec 62
ABE3	Mar 63	AMS3	Jan 64			CEWCN	Nov 63			ETN3	Dec 62
ABF3	Mar 63	AMEAN	Jun 64	BMC	Aug 61			DTC	Jul 63	ETR3	Dec 62
ABH3	May 63	AMHAN	Oct 63	BM1	Jan 59	CMC	Aug 63	DT1	Jul 63	ETNSN	Dec 62
ABEAN	Mar 63	AMSAN	Sep 63	BM2	Aug 58	CM1	Aug 62	DT2	Oct 63	ETRSN	Dec 62
ABFAN	Mar 63			BM3	Jun 58	CMA2	Aug 62	DT3	Oct 63		
ABHAN	May 63	AOA	Feb 63	BMSN	Jun 58	CMH2	Jan 61	DN	Oct 63		
		AO1	Jan 63			CMH3	Mar 64			FTC	Apr 62
ADJC	Sep 63	AO2	Mar 63	BRC	May 59	CMH3	Apr 64	EAC	Sep 63	FTG1	Jan 62
ADRC	Sep 63	AO3	Mar 64	BR1	Apr 59	CMACN	Mar 64	EA1	Nov 62	FTM1	Jun 61
ADJ1	Mar 63	AOAN	Jun 64			CMHCN	Oct 63	EAD2	Nov 62	FTG2	Jun 61
ADR1	Sep 63			BTC	Aug 59			EAD3	Nov 62	FTM2	Jun 61
ADJ2	Mar 63	AQC	Jun 64	BT1	Apr 58	CSC	Aug 62	EAS2	Nov 62	FTG3	Mar 60
ADR2	Mar 63	AQ1	Jun 64	BT2	Apr 58	CS1	Dec 61	EAS3	Jul 63	FTM3	Mar 60
ADJ3	Jun 64	AQB2	Jun 64	BT3	Nov 60	CS2	Nov 61	EADCN	Nov 62	FTGSN	Mar 60
ADR3	Sep 63	AQF2	Jun 64	BTFN	Nov 60	CS3	Jun 64	EASCN	Jul 63	FTMSN	Mar 60
ADJAN	Jun 64	AQB3	Jun 64			CSSN	Jun 64			NEC 1143	Jan 64
ADRAN	Sep 63	AQF3	Apr 64	BUA	Aug 62			EMC	Dec 60	NEC 1144	Jan 64
		AQBAN	Jun 64	BU1	Feb 62	DCC	Nov 61	EM1	Mar 59		
AEC	Jul 63	AQFAN	Apr 64	BUH2	Apr 61	DC1	Feb 59	EM2	Sep 59	GMGC	Aug 61
AE1	Nov 63			BUL2	Aug 60	DC2	Feb 59	EM3	Jun 62	GMG1	Dec 58
AE2	Jun 63	ATC	Nov 63	BUR2	Aug 60	DC3	Sep 62	EMFN	Jun 62	GMG2	Dec 58
AE3	Jun 64	AT1	Dec 63	BUH3	Feb 64	DCFN	Sep 62			GMG3	Dec 59
AEAN	Jun 64	ATN2	Sep 63	BUR3	Oct 62			ENC	Sep 60	GMGSN	Dec 59
		ATR2	Sep 63	BUHCN	Feb 64	DKC	Jan 63	EN1	Jan 59		
AKC	May 64	ATN3	Sep 63	BULCN	Feb 63	DK1	May 62	EN2	Jan 59	GMMC	Jun 61
AK1	Nov 63	ATR3	Sep 63	BURCN	Oct 62	DK2	Nov 61	EN3	Aug 62	GMM1	Jun 61
AK2	May 64	ATNAN	Sep 63			DK3	Jun 64	ENFN	Aug 62	GMM2	Jan 60
AK3	Jun 64	ATRAN	Sep 63			DKSN	Jun 64			GMM3	Mar 60
AKAN	Jun 64			CEC	Jun 64			EOC	Jul 62	GMMSN	Mar 60
				CE1	Jul 63	DMC	May 64	EO1	May 63		
AMEC	Dec 63	AXC	Apr 63	CEP2	May 63	DM1	May 64	EOH2	Sep 63	GMTC	Oct 63
AMHC	Feb 63	AX1	Apr 63	CE52	Mar 63			EON2	Mar 64	GMT1	Oct 63

Rate	Date	Rate	Date	Rate	Date	Rate	Date	Rate	Date	Rate	Date
GMT2	Dec 62	MLC	Jul 61	OMSN	Jan 61	PT2	Jun 63	SFMFN	Feb 61	SWE3	Nov 62
GMT3	Jun 64	ML1	Sep 60			PT3	Sep 63	SFPFN	Nov 60	SWF3	Nov 62
GMTSN	Jun 64	ML2	Mar 58	PCC	Feb 62	PTAN	Sep 63			SWECN	Nov 62
		ML3	Mar 61	PC1	Jan 62			SHC	Jan 64	SWFCN	Nov 62
HMC	Oct 63	MLFN	Mar 61	PC2	Sep 61	QMC	Aug 61	SH1	Feb 59		
HM1	Oct 63			PC3	Nov 62	QM1	Nov 59	SH2	Nov 58	TMC	Nov 61
HM2	Oct 63	MMC	Dec 59	PCSN	Nov 62	QM2	Nov 59	SH3	Nov 58	TM1	Jul 61
HM3	Oct 63	MM1	Jan 58			QM3	Sep 61	SHSN	Nov 58	TM2	Jul 60
HN	Oct 63	MM2	Mar 59	PHC	Jun 64	QMSN	Sep 61			TM3	Oct 60
		MM3	Dec 61	PH1	Jun 64			SKC	Aug 61	TMSN	Oct 60
ICC	Apr 61	MMFN	Dec 61	PH2	Jun 64	RDC	Apr 61	SK1	Sep 61		
IC1	Mar 60			PH3	Jun 64	RD1	Dec 59	SK2	Mar 61	UTC	Mar 62
IC2	Apr 60	MNC	Sep 62	PHAN	Jun 64	RD2	Oct 59	SK3	Apr 63	UT1	Mar 61
IC3	Oct 62	MN1	Sep 62			RD3	Nov 61	SKSN	Apr 63	UTA2	Jul 60
ICFN	Nov 62	MN2	Dec 62	PMC	May 61	RDSN	Nov 61			UTB2	Jul 60
		MN3	Apr 63	PM1	Nov 60			SMC	Feb 62	UTP2	Jul 60
IMC	Sep 61	MNSN	Apr 63	PM2	Nov 60	RMC	Jul 62	SM1	Jul 58	UTW2	Jul 60
IM1	Jan 62			PM3	Nov 60	RM1	Jul 61	SM2	Jun 58	UTA3	Jun 62
IM2	Apr 60	MRC	Apr 62	PMFN	Nov 60	RM2	Jul 62	SM3	Apr 58	UTB3	Oct 62
IM3	Jun 60	MR1	Mar 60			RM3	Dec 62	SMSN	Apr 58	UTP3	Jun 62
IMSN	Jun 60	MR2	Oct 61	PNC	May 64	RMSN	Dec 62			UTW3	Mar 63
		MR3	Dec 61	PN1	May 64			STC	Oct 61	UTACN	Jun 62
JOC	May 64	MRFN	Dec 61	PN2	Jun 64	SDC	Nov 62	ST1	Oct 61	UTBCN	Oct 62
JO1	May 64			PN3	Jun 64	SD1	Aug 60	STG2	Feb 62	UTPCN	Jun 62
JO2	Jun 64	MTC	May 63	PNSN	Jun 64	SD2	Feb 60	ST52	Feb 62	UTWCN	Mar 63
JO3	Jun 64	MT1	Apr 63			SD3	Jun 59	STG3	Jul 61		
JOSN	Jun 64	MT2	Apr 62	PRC	May 63	TN	Jul 62	ST53	Jul 61	YNC	Mar 63
		MT3	Nov 62	PR1	Jan 64			STGSN	Jul 61	YN1	Apr 63
LIC	Aug 62	MTSN	Oct 62	PR2	May 63	SFC	Oct 59	STSSN	Jul 61	YN2	Jul 63
L11	Dec 60			PR3	Sep 63	SF1	Apr 58			YN3	Jun 64
L12	Mar 62	OMC	Dec 61	PRAN	Sep 63	SFM2	Dec 59	SWC	Sep 60	YNSN	Jun 64
L13	Jun 64	OM1	Jan 61			SFP2	Jun 58	SW1	Aug 59		
LISN	Jun 64	OM2	Jan 61	PTC	Oct 63	SFM3	Feb 61	SWE2	Dec 59	CYN3	Jul 63
		OM3	Jan 61	PT1	Jun 63	SFP3	Dec 60	SWF2	Jan 60	CYNSN	Jul 63

Naval Ships and Aircraft

Tracking down photographs and vital statistics on Navy ships and aircraft has kept author James C. Fahey occupied since 1939, when he published his first edition of *The Ships and Aircraft of the U.S. Fleet*.

In 1958 he published the seventh edition of this valuable reference handbook, and now the long-awaited eighth edition is off the

presses and is now available.

Like its predecessors, the eighth edition is a complete listing, by name and type, of every ship used by the U.S. Navy, Coast Guard and Military Sea Transportation Service. Data includes year built, displacement, dimensions, machinery, armament, complement and builder.

Aircraft coverage includes missiles, airplanes and helicopters by

type, Navy designator, popular name, builder and performance.

Illustrated by more than 300 photographs, the 1965 edition of "Fahey's Guide," as it is popularly known, is 64 pages and is paper-bound.

It may be found in most ship or station libraries or, if you prefer your own copy, it may be ordered from the United States Naval Institute, Annapolis, Md.



THERE'S A GOLDMINE of information in ALL HANDS magazine—please see that each issue is seen by ten men.

If You're Moving to the Riviera, You'll Enjoy This

IF YOU ARE ASSIGNED to duty in the Sixth Fleet flagship, count your blessings for its home port is Villefranche, France—one of the most picturesque villages of the Riviera.

You will not only have it good in your home port but you will find that one of the collateral functions of the Sixth Fleet is to provide an opportunity for officers and men in the U. S. Atlantic Fleet to visit various Mediterranean countries and become familiar with their national customs, social habits, traditions and histories and to make friends with their citizens.

It so happens that the countries whose customs you are urged to study are the same countries that thousands of tourists spend millions of dollars each year to visit.

The village of Villefranche dates from the 12th and 13th centuries and has retained much of the medieval appearance. It is only a few miles from Nice and around 12 miles west of Monaco. Its climate is typically Mediterranean. Summer temperatures are frequently above 100 but the winter temperatures, although occasionally dropping to the freezing point, rarely bring snow.

You can take your choice of summer or winter sports in Villefranche for the Mediterranean is at your front doorstep and the hills behind the town rise to the main ridge of the Alps.

As a member of the United States armed forces, you do not need a passport to enter France. If you want to travel elsewhere in Europe while on leave, however, you should have one, for some countries require them.

Your dependents will need a passport to enter France and must have a valid passport with them at all times while they are in Europe.

You can obtain information regarding passports by writing the Bureau of Naval Personnel, Passport Section, Wing 8, Arlington Annex, Washington, D. C. 20370. This section will provide you and your dependents with application forms and process the completed forms through the State Department.

If you or your dependents have never before been issued a United States passport, a certified birth certificate must accompany the application. This should be obtained as soon as you reasonably expect to go

to France. If you have held a passport from some other foreign tour or travel, you must surrender it when an application is made for a new one. If it has already been surrendered, include the number of the passport in the new application.

It usually takes at least three weeks to process passport applications, so start the ball rolling as quickly as possible.

Minor children may be included on their mother's passport. If a mother has occasion to travel without the children, however, this can lead to complications. (Under such conditions, separate passports for the children might be necessary.)

Check your nearest medical facility to find out what immunizations are necessary and start getting them as soon as you can in order to have the full series. While you are at it, have your shot record brought up to date. Information on this subject can be found in BuMed Inst. 6230.1 series and from any field office of the Public Health or from BuPers.

If your wife is pregnant or if there's a baby in the family, check the travel limitations for pregnant women and the minimum age for infant travel.

SHIPMENT OF HOUSEHOLD AND PERSONAL EFFECTS

Some useful tips concerning household effects and their transfer can be found in NAVSANDA Publication 380 (*It's Your Move*). This booklet can be obtained from the nearest supply activity that handles shipment of household goods—the same activity that will arrange to pack, ship and

store your household goods and personal effects.

Household goods and personal effects are usually shipped via commercial means from Bayonne, N. J., to Marseille, France and shipment requires about two months. Those who have tried it say this is about the same length of time to receive items they have sent by express. Some, however, consider express a safer method of shipping valuables such as silverware.

AUTOMOBILE SHIPMENT

Permission to bring a privately owned automobile to Villefranche must be obtained by writing to either Commander Sixth Fleet or the commanding officer of the Fleet flagship.

If you receive permission to bring your car, your further action will depend upon whether you fly or sail to France. Pertinent information may be obtained from the nearest household goods transportation office concerning the shipment of your car.

You must carry a minimum of \$102,000 third party liability insurance per accident in France. If you are insured by an American company, be certain the policy is actually issued before you leave and that the necessary international insurance card (green card) is in your possession. If an American policy is not issued before your departure and you do not have the green card with you, you will have to insure with a local company after your arrival.

This would be no great calamity for officers, for the rates are about the same as those which apply to cars operated on the eastern seaboard of the United States. For enlisted men, however, the rate is roughly double (a word to the wise), due to the high accident rate of enlisted men in Europe.

Cars brought to the Villefranche area must be registered according to Combined Forces regulations within 10 days after the car arrives. The Naval Support Activity is responsible for registering cars and the process involves a safety inspection and purchase of an AMEXCO Customs Document which will cost three dollars and be valid for one year. This document will authorize passage of your car across all foreign borders listed on the international insurance card.

A Combined Forces license plate

All-Navy Cartoon Contest Charley Wise, HMCS, USN



"We're out of acid in the battery shop. Can we have some of your coffee?"

will also be issued and is valid during your tour in France and for 30 days after your return to the United States.

Combined Forces drivers' licenses are issued to servicemen and their dependents who hold valid stateside licenses. The Combined Forces license is also valid for 30 days after you return to the States.

If you buy gasoline at French gasoline stations without the benefit of military gasoline coupons, it will cost you about 80 cents. The coupons, which are issued monthly in amounts corresponding to the size of your auto, will bring the cost down to about 18 cents per gallon at certain stations throughout France. This allowance is generous and can be increased when you take leave.

Before you drive in France, acquaint yourself with the local regulations. They are not much different from those in most of the United States, but you will find very few stop streets—cars approaching from the right usually have the right of way. Watch out for bikes, motorcycles and motor scooters. They are numerous and have the same rights as automobiles on the road.

TRAVEL TO FRANCE

Most Navymen travel with their families to France by commercial facilities, either sea or air. Sea passengers usually land at Cannes while air passengers land at Nice. Passengers arriving at Cannes are met by representatives of NSA Villefranche and, usually, by a member of the Navy Wives' Club. The representative will see you through customs and to a hotel. If for some reason, you are not met, telephone NSA. The number is 80, 78, 62 or 63.

Steamship companies permit a reasonable amount of cabin luggage. Three suitcases per person are standard. Hold baggage is also permitted with 25 cubic feet for an adult and half that for a child being the usual amount. In terms of Navy footlockers, 25 cubic feet equals four.

Hotel accommodations in New York should be made in advance if you expect to use them. If you let NSA Villefranche know your space requirements, they will be glad to handle the European arrangements.

U. S. NAVAL SUPPORT ACTIVITY

The U. S. Naval Support Activity at Villefranche performs administrative functions and operates a supply office, commissary store, post office,

All-Navy Cartoon Contest Charley Wise, HMCS, USN



"Set the watch? Where will I find it?"

dispensary and an elementary school. All the activities are in Villefranche except the dispensary which is about halfway between Nice and Villefranche and the school which is in the neighboring village of Beaulieu.

The administrative office is ready to provide communication facilities and transportation for dependents and transients, as well as domestic and public relations assistance. It also includes a housing office which maintains liaison with local landlords who have property for rent and advises Navy families concerning the local rental practices.

The supply office arranges the shipment of household goods and privately owned vehicles and operates a check cashing and money exchange. The commissary is stocked with staple items such as dry provisions, canned goods, baby food and a few exchange items such as toiletries. There is also a special order service which can be used to purchase appliances and other catalog items.

The dispensary provides outpatient care to dependents and a limited amount of inpatient care, mostly on an emergency or short-term basis. It does not have facilities for obstetrical cases although prenatal care can be given there. Actual delivery must be left to local French doctors or military air transportation will be furnished expectant mothers to the U. S. Army hospital at Landstuhl, Germany, or the U. S. Naval Hospital at Naples if they wish to go there. Travel must be done at least three

weeks before the expected delivery and cannot be undertaken again for three weeks after delivery.

The elementary school at Beaulieu (about two miles from Villefranche) includes grades one through eight and takes children who are six years old before 31 December of the year in which the school year commences.

High school students may attend the American High School at Dreux Air Force Base about 20 miles from Paris. Boarding costs (about 50 dollars per month) must be borne by the child's sponsor. Those who don't want to travel to the vicinity of Paris for their high school have the alternative of taking correspondence courses at home and being tested at the Navy elementary school.

There are wives' clubs at Villefranche and scout activities as well as church-connected activities. There are no service clubs or service theaters at Villefranche, however. Movies are shown for dependents at the USO in Nice.

Entertainment is plentiful throughout the year, however. During the tourist season there are numerous festivals. Probably the most famous is the pre-Lenten Mardi Gras at Nice. Within a few hours' drive from Nice there are numerous mountain villages still unfrequented by tourists, where breathtaking Alpine scenery is commonplace. During the winter, ski enthusiasts will find several well-known resorts within easy driving distance from Nice.

The flagship is away from home port about 75 per cent of the time and many Navy wives follow it from port to port seeing Europe in the process. This, of course, can run into money, but it doesn't take the ladies long to learn where they can find accommodations for much less than is charged in the tourist traps.

HOUSING AND WHAT TO BRING

You can rent a house—or "villa"—around Villefranche either furnished or unfurnished. If it is furnished, you can have almost any degree of furnishings. Villas and apartments are, generally speaking, smaller than they are in the States and are usually short of storage and closet space. An efficiency apartment usually costs about \$100. Apartments with two or three bedrooms usually cost from 150 dollars to 250 dollars. Villas begin at 150 dollars and up depending upon how luxuriously you want to live. Oddly enough, there is not a great

deal of difference in price between furnished and unfurnished villas.

To protect themselves in the summer rental rise, most families in Villefranche lease their living quarters for a year. A system of passing villas and apartments along to newly arrived Americans has helped, but be prepared for a long search and less than U. S. standards.

If you bring your furniture and find a furnished apartment or villa you like, some landlords will store part of your furniture for you. They will also occasionally furnish items for an unfurnished house, if desired.

An American-made refrigerator/freezer will be useful since French refrigerators are small and have very small freezing compartments.

Think twice before you bring electric clocks, electric stoves, dryers and TV sets. They are expensive to convert and electric stoves are expensive to operate. Most families bring non-automatic washing machines because of cycle difference in French and U. S. current. Also avoid anything heavy that hangs on the wall such as pictures and mirrors. Excessive weight suspended from the wall could well result in wall damage for which you would be charged. French landlords check their property carefully for damage at the expiration of the lease.

You should bring curtains, linens, dishes, silver and glassware. Floors are frequently of marble or tile which makes rugs useful, particularly to people with small children still in the falling stage.

CLOTHING

The uniform of the day for officers and CPOs is service dress blue from October until May. During the remainder of the year it is tropical white long. Service dress khaki is used only as a traveling uniform. You will probably need four or five sets of whites because dry cleaning facilities are poor in many Mediterranean ports. Dry cleaning, laundry and pressing facilities are, of course, available on board ship for military personnel.

You may want to leave your measurements back home so you can order uniforms if they are needed while overseas. Although you can have them made by local tailors, the results may not be satisfactory.

Civilian clothes are worn on shore leave. Bring those you have. The liberty uniform for enlisted men is

service blue bravo with white hat during most of the year. Both service dress white and tropical white long are worn during the summer months. You will need about 10 suits of whites. Civilian clothes may not be stored aboard ship.

USEFUL INFORMATION

The standard electrical current at Villefranche is 220 volts. Some older buildings, however, still have 110-volt circuits and, in rare cases, 230 or 240 volts. American household appliances can be used in conjunction with a step-down transformer. Transformers can be purchased at commissary stores or from local merchants.

American appliances are made to work on 60-cycle current and French current is 50-cycle. Clocks, phonographs, and the like have to be adapted to make them run properly. In the case of clocks, it is easier simply not to use American-made electric clocks. In the case of phonographs, adaptation is a fairly simple process. Electricity is expensive so electric stoves and clothes dryers may send you to the poor house. Most people use gas.

The local currency is the franc. Its current rate of exchange is in the neighborhood of 4.85 francs to the dollar.

If your wife needs help around the house, she can hire a full-time maid. She can even find domestic help to live in and do routine household duties, including the care of children. (The wage scale for domestic help at Villefranche is increasing but it is still within the realm of possibility

for many Navy families.)

Employers of domestic help are required to comply with French Social Security laws and you can find out all about this from NSA where you can also find a help listing.

Tattooing Can Be Painful Path to Hospital Visit

"Some years back," a Navy reader writes, "I recall reading an article on the subject of tattoos. Is it true that tattoos can be a menace to health?"

The inquiry sponsored a check into the records and a visit to the Bureau of Medicine and Surgery. This is what ALL HANDS learned.

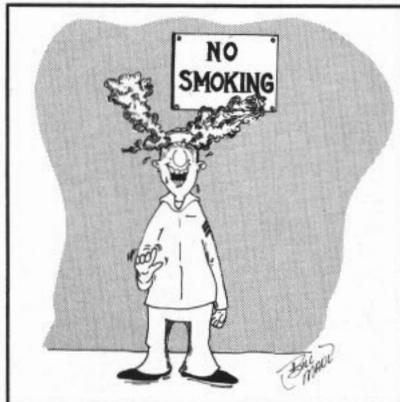
Although tattooing dates back at least as far as 2000 BC when the Egyptians employed the art, it is today considered a potential health menace. It is not at all uncommon for Navymen on liberty to drop in at a tattoo studio with the idea of receiving what they consider an identification of a true salt. But often this may begin a chain of events causing a debilitating or permanent disease. Perhaps one of the most common complications is a long-lasting and annoying skin disease which develops due to the mercury in the red dye.

Several years ago some well attested outbreaks of a liver disease, characterized by jaundice, were traced to tattooing establishments. It was noted that this disease, a form of hepatitis, was only one of several found transmitted through tattooing. In addition, syphilis, blood poisoning, skin tuberculosis, malaria and even leprosy have been identified with the ancient art. Here is how it can happen.

Proper tattooing requires that the skin be penetrated deep enough to draw blood. And this, of course, enables any disease organisms on the needle to enter directly into the blood stream. Too frequently, however tattooists are either ignorant of, or indifferent to, sterilization methods and other health precautions. Therefore, infected blood may be transferred from one customer to others by the needles.

As an example, one tattoo studio was found in a shabby building located directly over a shooting gallery. Aside from the dye contain-

All-Navy Cartoon Contest
William R. Maul, CTCA, USN



"Oh, Uh . . . Hi there, Boats . . . How's
. . . Uh . . . How's tricks?"

ers, which were found open and covered with dust, the vibrator—the instrument used for tattooing—was rusted, corroded and covered with dried human skin from persons tattooed in previous months. The proprietor admitted to using only one type of antiseptic during the entire process—witch hazel.

There are, of course, control measures presently in effect to enforce cleanliness and sterilization—generally only in the larger cities. But this doesn't necessarily mean that the tattoo establishment will be hospital clean. Therefore, your chances of picking up a disease, though somewhat less than several years ago, are still quite high.

Doctors agree that instruments exposed to the hepatitis virus can be sterilized only by a thorough cleansing followed by 15 minutes or more of boiling. If the tattoo artists do take pains to sterilize their instruments, the extent of their efforts usually is limited to inserting the needles in, or cleaning them with, alcohol or some other mild antiseptic.

Not everyone infected with hepatitis virus in unsanitary studios will be affected physically. Some will be carriers—transmitters of the disease. Should they again be tattooed, however, they may contaminate the equipment and subject other people to infection.

Oftentimes the sailor who is tattooed in his youth has afterthoughts about the tattoo as he grows older. Since the dye is imbedded into the deep skin layers, the only effective means of removing the tattoo is by plastic surgery which can involve a great deal of time and expense.

Check Rules on Mobile Homes Before Making a Move

Navymen who plan to sell their mobile homes in the foreseeable future would do well to investigate whether or not the state in which they live or to which they may be transferred has restrictions governing mobile homes offered for sale within that state's jurisdiction.

California, for example, does have such restrictions. Its regulations include travel trailers, camp cars and other vehicles used for human habitation which were manufactured after 1 Sep 1958 and which contain plumbing, heat producing or electri-

All-Navy Cartoon Contest Charley Wise, HMCS, USN



"It's all Greek to me."

cal equipment.

The state is interested primarily in seeing that trailers sold within its jurisdiction meet commonsense standards for safe and sanitary housing with regard to wiring, plumbing and

heating.

In the past, there have been a number of Navymen and other military people who have arrived in California, mobile home in tow, with the expectation of selling it before leaving the state. In a number of cases, the trailers failed to comply with California's standards.

Thus, if you plan to take a trailer to California with the expectation of selling it while there, you would do well to check with your prospective base family housing office, base personnel office or other local organization which might be expected to furnish a summary of state requirements for mobile homes.

If information is not available from any of these sources, the State of California Department of Industrial Relations, Division of Housing, at 455 Golden Gate Ave., San Francisco, Calif. 94102, has a publication on the subject entitled *Rules and Regulations for Plumbing, Heating and Electrical Equipment in Mobile-homes*.

WAY BACK WHEN

Godfrey Chevalier

The Naval Aviation Museum of NAS Pensacola not long ago received some aviator's wings, an officer's sword and a few other items to add to its collection. At one time, these had belonged to Naval Aviator number seven, Lieutenant Commander Godfrey de Courcelles Chevalier.

As naval aviation history buffs know, LCDR Chevalier helped develop the arresting gear which made possible one of our strongest weapons of offense and defense—the aircraft carrier.

For example on 26 Oct 1922, he became the

first person in the U. S. Navy to land on any ship while it was underway. This event took place on the Navy's first aircraft carrier USS Langley (CV 1).

Those days of flying were a time of learning, a time of trial and error and considerable risk. And to say it was demanding is an understatement.

But LCDR Chevalier liked flying, and he had many a duty assignment which involved just that. When the U. S. entered World War I, he landed in France with the first U. S. Armed Forces detachment in the country, Naval Aeronautic Detachment One. For this, the French Government conferred knighthood upon him by awarding him the Legion of Honor. He also received the Croix de Guerre with Palm.

Upon his return to the U. S., he was assigned several other flying billets. For example, Chevalier had command of a group of naval aviators assigned to train in landplanes under Army direction at Langley Field, Va. Later he was assigned more flying duty at Mineola, N. Y., and still later at Carlstrom Field, Fla. All this training was necessary in order to fly planes on and off a carrier. And during this period, he worked with this same group of Naval Aviators in developing and testing the arresting gear.

Then he was assigned to Norfolk, Va., for the fitting out of the carrier Langley. That October, he made the historic first landing on the carrier's deck. And in less than a month, he was killed in a crash near Norfolk.



Service Numbers Have a New Look, But Job Remains the Same

ENLISTED service numbers have a new look as of 1 December.

Since 1918, when the service number system was adopted, you could not judge a Navyman's longevity by his service number. A recruit might have a lower number than a chief with many years' service.

No one lost sleep over this fact because low service numbers—unlike low license plate numbers—have no prestige value. The number itself, and what it does for a man, is the important thing.

Service numbers assigned to recruits entering the Navy after 1 Dec 1965, however, are telltale indicators of their owners' neophyte status. Instead of seven digits, they are six digits preceded by a letter.

No discrimination between boot and salt is intended. The new numbering system has been adopted simply because the Navy has run out of numbers to use under the old system.

A service number might be considered personal property—the same one is never used twice. Once a number has been assigned to an individual, it remains the primary identification for his service record even after death or separation from the Navy.

When the Navy started using numbers to identify service records during the World War I buildup of military forces, the system helped cure many shortcomings of the existing alphabetized system.

At the time, permanent service record files were arranged alphabetically by component, such as "Regulars," "Reserves" and "National Naval Volunteers." The files contained jackets of every man who had served in the Navy since 1885.

The big increase resulting from the draft act required more paperwork than the Bureau of Navigation—as BuPers was then known—could handle under existing methods. In addition, separate files for each component resulted in frequent duplication of records as men changed from one component to another during the war.

The successful solution to the problem was found in a BuNav recommendation, subsequently approved, that the several alphabetical files be combined into a single alphabetical system, and that a seven-digit

number be assigned to each jacket, never to be duplicated or reassigned to another individual in the naval service.

After a few kinks were ironed out, today's system was evolved, whereby blocks of numbers are assigned to recruiting stations and naval district headquarters. Recruiters assign a number to each person accepted for service. When a recruiter's block of numbers is used up, he is assigned another block.

If a recruiting activity is deactivated, the unused numbers are recalled by BuPers and held for eventual reassignment to other stations. Because of this, a low number does not necessarily mean an early enlistment.

The service number system has proved its value in three ways:

- It serves as an excellent means of identification. The Bureau receives numerous letters, telegrams and reports with names either illegible or misspelled. Yet, in every instance where the service number is given, the correct name can be determined readily and the proper action taken.

- The use of service numbers has enabled the Bureau to consolidate more than a million record jackets into one large file, resulting in untold savings of time, labor and money. Filing, recording information and correspondence can be handled more

efficiently, since little time is now needed to locate a desired record or to determine its existence.

- By being able to represent a man's name by a number, it is possible to take full advantage of new electronic data processing techniques for personnel control and administration.

The Navy has been using the nine-million block of the seven-digit number series for the past 10 years (plus lower numbers returned from the field and reassigned to recruiting activities). During this time, the Enlisted Services and Records Division of BuPers has been considering what series to use when the seven-digit group became exhausted.

Several proposals for extending the system were studied. One suggestion was to use the Social Security number. This idea had certain merit, but the advantages were outweighed by the administrative problems it would impose when converting all records to the new system.

Another possibility was to assign numbers in the 10-million series, but this idea was also discarded because the increase of digits from seven to eight would also present problems.

Consequently, the new service number for enlisted personnel is still composed of seven characters, consisting of a letter from the alphabet followed by a six-digit number. The number will continue to be arranged in the standard Navy format of three/two/two; for example, B10 00 00, D23 06 57 or F31 00 65.

Not all letters of the alphabet will be used, because of possible confusion between such letters as E and F or U and V, or with other identification numbers such as Veterans Administration claim numbers or NROTC student numbers.

The first series being assigned is in the B10 00 00 to B99 99 99 series.

The new service numbers will identify the Navy recruiting area from which the member entered the Navy. The eight Navy recruiting areas will assign numbers whose first digit following the letter corresponds with the recruiting area.

For example, the first recruiting area will assign numbers in the B10 00 01 series; the second recruiting area in the B20 00 01 series. The exception will be numbers in the

A New Film: *Why Vietnam*

A new film titled *Why Vietnam* has been released by the Department of Defense. The 32-minute black and white production concerns U. S. policy in Vietnam.

The motion picture opens with the President's address to the nation and the world on 25 Jul 1965, and then elaborates on the basic points. The explanations are illustrated by scenes showing the struggle in Southeast Asia.

The film concentrates on four basic points. They concern U. S. reasons for being in Vietnam, the strength of the U. S. commitment there, the policy on negotiations and the rejection of appeasement policies.

Prints (16 mm) may be obtained from armed forces film libraries.

B90 00 01 series. These will be assigned to members recruited outside the U. S. and to members acquiring enlisted status from a limited number of BuPers-controlled programs.

Although the service number is slightly altered, it will continue to perform the same valuable service to its holder as in the past. The jokes about being "nothing more than a number in the Navy" and "just another prisoner with a number" will probably continue, but only as jokes.

The lack of mistakes on service records and pay records resulting from the service number system is ample consolation for anyone who grudges having his name translated to a number.

• **GOVERNMENT HOUSING** — Almost any Navyman whose wife is also in the service, knows that neither he nor his wife is entitled to BAQ if he is on sea duty, and single quarters are available for his wife.

Many Navy men and their spouses, however, apparently overlook the fact that if they are otherwise qualified they may be assigned family quarters, when available.

If you are married to a service member, it would probably be to your advantage to check with your local base housing office concerning assignment to government quarters.

• **TUITION AID** — Recently it has been necessary to disapprove a number of officers' requests for retirement, because the officers had not completed their active duty obligation incurred by written agreement through participation in the Navy's Tuition Aid Program.

The annual DOD Appropriation Act requires that officers who partici-

pate in the Navy's Tuition Aid Program are obligated to remain on active duty for two years after completion of a course of instruction. Reimbursement to the government for tuition does not relieve officers of the active duty obligation to which they agreed in writing.

• **VIETNAM VOLUNTEERS**—Additional volunteers in certain ratings are needed for duty in Vietnam.

Those volunteers who are qualified for duty overseas, as specified in the *Transfer Manual*, Art. 6.21, and who are recommended by their CO, will be ordered to new billets or be scheduled as reliefs for men presently serving in Vietnam.

In addition to qualifying by rating, volunteers must:

- Be E-3 or above (includes strikers)
- Be 18 years or older
- Have a minimum of six months on active duty

The tour in Vietnam is 12 months, unaccompanied. Upon reassignment, all men departing Vietnam are given preference for choice of assignment for which eligible.

Volunteers should submit requests by letter, via their CO, to the Chief of Naval Personnel (Attn: Pers-B2125), referencing NavOp 19. Men in the following ratings are needed: BM, BU, CE, CM, CS, DC, EA, EN, EO, GMG, HM, QM, SH, SK, SW and UT.

• **NEC CHANGES**—The need for greater skill identification in some fields has produced changes in several NECs and new authorizations of career incentive (proficiency) pay.

On 1 January NEC RM 2342 was split into RM-2342, RM-2343 and RM-2344. Proficiency (specialty) pay was authorized for these NECs at the P-1-50 level.

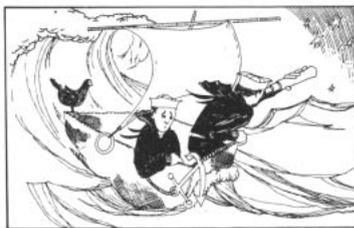
Last November, NEC ST-0494 was split into ST-0494 and ST-0496 while NEC ST-0495 was split into ST-0495 and ST-0497. Pro pay was authorized for NECs ST-0496 and ST-0497 beginning 1 Nov 1965.

On the first day of January, everyone having NEC FT-1169 was automatically changed to NEC FT-1139. This action was taken so that all NECs for search radar equipment could be brought into a single series. Proficiency pay at the P-2 level was authorized for this NEC.

QUIZ AWEIGH

Stars are a sailor's friends at sea. They have been used as navigational aids since as early as 600 B.C., when the Phoenicians were guided by the North Star while carrying on trade with Cornwall. On a clear night, while reflecting on the beauty of the stars, you may wish you knew more about them. Sample your star knowledge on this quiz and see if some reading up is in order.

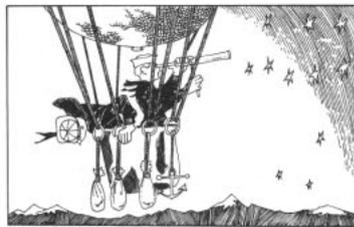
1. The light we actually see from a star is (a) given off by the star, (b) reflected from the sun, (c) an optical illusion.



2. The sun is approximately 93 million miles from Earth, and is (a) the closest star to Earth, (b) a burning planet, (c) the largest star in the Universe.

3. Sirius, a star in the southern constellation *Canis Major*, is unique because (a) it is multicolored, (b) the song "Twinkle, Twinkle, Little Star" was written about it, (c) it is of greatest absolute brightness of those stars seen from Earth.

4. A constellation familiar to you will always appear in the same spot in the evening sky. True or false?

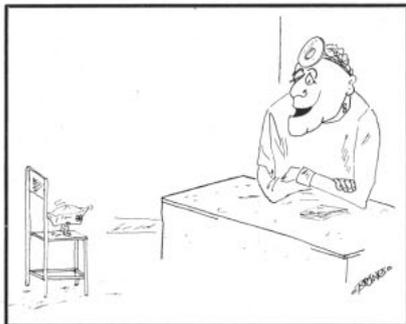


5. *Ursa Major*, a northern constellation, is more familiarly known as (a) the little dipper, (b) the big dipper, (c) Sagittarius.

6. Two of the above constellation's stars point to (a) Polaris, (b) Orion, (c) Gemini.

Answers to Quiz Aweigh may be found on page 64.

All-Navy Cartoon Contest George P. Brines, HN, USN



"Other than the reaction to those new pills, how's the cold?"

LETTERS TO THE EDITOR

Blue Bullnose

SIR: We need help. During the deployment of our ship as a unit of Operation Deepfreeze '65, we crossed the Antarctic Circle. A ceremony was promptly held to paint the ship's bullnose blue.

Now there seems to be some question about our authority to have a blue bullnose.

The general impression aboard—before the fact—was that the ship's bullnose can be painted blue upon crossing either polar circle, to signify the event. Furthermore, we understand that the custom is to leave it painted blue for six months.

Our search for written authorization, however, has proved fruitless. Have we been spoofed? Or is there something in writing on this subject?

We would appreciate any information you can pass on.—D. M. T., ENS, USN.

• No one we've contacted has heard of such a practice. Neither have we.

Included in our contacts was the chief of the history and research division at Operation Deepfreeze headquarters. He advises that he is not aware of any precedent, either in the United States or foreign navies, for painting a ship's bullnose blue on crossing the Arctic circle.

However, the Argentine navy—and

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington, D.C. 20370.

perhaps some others—conducts a ceremony, attended by Neptune and a suitable court, to initiate and properly indoctrinate those crossing the Antarctic circle.

A similar ceremony was considered by the U. S. Navy in the early days of Deep Freeze operations. But since U. S. vessels approaching Antarctica must cross the equator en route, resulting in the traditional initiation of pollywoogs, it was decided that one such ordeal per voyage was sufficient.

Based on the lack of information in local Navy Department circles, we suggest the possibility that someone has confused the term bluenose with bullnose. As you know, bluenose certificates are awarded to crewmembers of a ship crossing the Arctic circle.

If such is not the case, some of our more experienced Fleet bluenoses might

recollect some details of other polar traditions and offer their comments. —ED.

Equity Depends on Your Viewpoint

SIR: What was the rationale used when BuPers set eligibility dates for advancement to E-8 and E-9? I can't understand why it was necessary to use a system that is unfair to many CPOs. As an example, take my case:

I was advanced to E-7 on 16 May 1962, as a result of the February 1962 examination.

To be eligible for advancement to E-8, I must serve four years in rate. That means I should be eligible for E-8 on 16 May 1966, right?

The only trouble is, BuPers came out with an instruction which set 16 Jan 1966 as the cutoff date for competing in the 1965 E-8 exam. The January cutoff missed me by four months, since, as I say, I will not satisfy the required four years in rate until 16 May 1966. This means I must now wait another year to take the exam, and should I be successful, it would mean that I would have 54 months in rate as an E-7 before being advanced to E-8.

On the other hand, an individual who was advanced to E-7 a mere four months before me—that is, on 16 Jan 1962—was eligible for E-8 in 1965. He took the exam in August 1965. Let's say he was successful; since E-8 advancements were made on 16 November, this fellow will have served only 46 months as an E-7 before making E-8.

To further emphasize the disparity that exists here, I would like to point out that the individual who made E-7 only four months before me can serve a whole year as an E-8 before I have an opportunity to sew on the star.

I thought the Navy was an equal opportunity employer. Where's the equity in this?—R. P. G., YNC, USN.

• This is not the first time we've heard this argument. Unfortunately, those who support it are forgetting a few basic items that the people in BuPers' Advancement Section could not—in all fairness—forget.

First, consider this point: You were advanced from the February 1962 E-7 exam. Your running-mate-plus-four-months who was advanced on 16 January made it from the February 1961 exam—a full year before you earned your promotion.

True, he was not actually advanced to E-7 until four months before you. But was this his fault? No.

Although he had earned his promotion, the Navy could not, because of

REAL SAILOR—LT Art Murphy gets First Annual Atlantic Fleet Sailing Championship trophy. His five-man crew won two of five races, finished second twice and third once. Sailboat used was Mobjack Class fiberglass sloop.



budgetary considerations, make it effective for several months.

Furthermore, inasmuch as exams for E-7 and E-8|E-9 are not given on a common date (the workload at the Exam Center would not allow it), this factor and the increment advancement factor combined would make it very difficult to have everyone participate in the exam with minimum time in pay grade. It is obvious that some people will serve more than the minimum time.

With this in mind, BuPers has established a terminal eligibility date. This was done considering candidates in a "year group" fashion. As an example, BuPers is saying that an individual who successfully participated in the February 1961 exam should be eligible to attempt advancement to E-8 four years later, or in 1965.

Since advancements from the February 1961 exam were made in five increments (16 May, 16 July, 16 September and 16 Nov 1961, and 16 Jan 1962), it was necessary to establish the terminal eligibility date for "year group 1961" as 16 Jan 1966, or four years from the last advancement increment.

Let's suppose that the terminal eligibility date was stretched to 16 May 1966, as it appears you feel it should be. Where would that put you?

Seems it would have permitted you to take the E-8 exam in August 1965 (nine months before you had satisfied the required four years in pay grade), and had you been successful, it would have meant that you were advanced to E-8 after serving only 42 months as E-7, instead of the required 48. To quote an appropriate question we heard recently, where's the equity in this?

The fact that a terminal eligibility date for promotion in 1965 runs into 1966 may appear confusing. But, as explained, this is brought about by the old increment advancement system.

When CPOs who were rated from the February 1964 and subsequent exams become eligible for E-8, this point of confusion will be cleared. Since that date, all advancements are considered effective on the date of the first increment of a cycle when computing eligibility for future advancement. Thus, those advanced from the February 1964 exam will have an effective date of 16 May 1964 when computing time in pay grade for advancement eligibility, even if they were advanced on other than the first increment.

After this review, it is perhaps clear that the current system is designed to provide advancement opportunity to the maximum number of qualified individuals, while sticking as closely as possible to the ground rules.—ED.

Springfield in Venice

SIR: Last August, ALL HANDS carried an article on *uss Springfield's* visit to Venice which stated that CLG 7 was making her first visit to that city.

I believe, if you will check *Springfield's* deck log, you will find she visited Venice during the latter part of June 1962.—R. S. B., QMC, USN.

• *We didn't even have to look up a deck log, we just checked the August 1963 issue of ALL HANDS to find an account of the end of Springfield's 30-month tour of duty as COMSIXTHFLT's flagship, including Venice.*

Sorry about that.—ED.

Uncover and Cover

SIR: In the opinion of many, the biggest eyesore of a Navy inspection is the uncover/cover evolution in ranks. In my capacity as adjutant at this air facility I have attempted, in the last 18 months, to become an authority on military formations, but have never been able to find the procedures or commands for the uncover/cover evolution written anywhere. Consequently, we do not practice it. Nevertheless, at military inspections, the admirals ask us to perform this exercise.

I would like to know where this started and if it is an established or desired practice. If it is desired, why hasn't the Navy put it in writing?—S. E. A., LT, USN.

• *It has. The procedures and commands for the uncover/cover evolution are described on page 56 of "Basic Military Requirements" (NavPers 10054-A). As far as the desirability of the evolution is concerned, you mentioned that the admirals "ask" you to perform the exercise. This, we believe, (and we think most Navymen would concur) makes the practice exceedingly desired.*

The evolution is not, as you seem inclined to believe, merely an admiral's whim. You undoubtedly know that an

McMURDO STATION is site for statue of **RADM Richard E. Byrd**. Bust of bronze is set atop marble pedestal.



HANDSHAKE—Benjamin F. Jones, RM2, gets congratulations for selection as 3ND Sailor of Year for 1965.

inspecting officer is responsible for seeing that the requirements of "U.S. Navy Uniform Regulations" are met by the men in his command.

Included in "Uniform Regs" are articles concerning haircuts and cleanliness and proper ownership markings of hats. About the only way inspection could be made concerning these requirements would be to order the men to remove their hats.

According to BMR, here's how the evolution should be performed: "The commands are, 'Uncover, TWO.' At the command 'Uncover,' raise your right hand and arm as in the hand salute but grasp the brim of the hat with your fingers instead of touching your forehead. Hold this position until the command 'TWO' is given. Then return your hand and your hat to your side in the most direct manner. You may lift your hat slightly in order not to disturb your hair, but don't remove it with an exaggerated or sweeping motion. On the command 'Cover,' grasp the hat in both hands and place it squarely on your head. Drop the left hand to your side, keeping the right hand holding the hat brim. On the command 'TWO,' drop the right hand to your side."

Needless to say, the uncover/cover evolution is performed by unarmed men in formation. Men under arms would not normally do this because of the awkwardness involved. If the inspecting officer wanted to inspect hats and haircuts of armed men, he would probably request the formation commander to have his formation stack arms first.

If the evolution is an eyesore at your command, it may be because the men performing it haven't been sufficiently drilled in its execution. Since it is safe to assume the inspecting officer has a valid reason for making his request, it might be a good idea to brush up.—ED.



DESTROYER OR CARRIER? USS *Halford* (DD 480) was one of five DDs which carried seaplanes during World War II.

When Kingfishers Rode Greyhounds of the Sea

SIR: Sorry to contradict you, but I couldn't pass this one up. Your answer to H. J. S., YN1, on page 63 of the October issue, is wrong. There were aircraft catapults on three DDs during World War II. One of the DDs was *uss Halford* (DD 480). What say you?—Bill Dawson, YN1, USN.

SIR: Whoa! Don't be so quick to say there ain't no such animal as a destroyer with an aircraft catapult. It just ain't so. Such an installation was planned for five ships of the DD, 445 (*Fletcher*) class—specifically, *uss Hutchins* (DD 476), *Pringle* (DD 477), *Stanly* (DD 478), *Stevens* (DD 479) and *Halford* (DD 480).

BuShips drawing number 305055, approved 12 Sep 1940, shows the modi-

fications necessary to suit airplane launching and handling in these ships. Essentially, the installation consisted of removing the after set of torpedo tubes, five-inch mount number 53 and the small deckhouse on the 01 level between mounts 53 and 54. The catapult was installed there.

Other modifications were necessary in the ship to provide spaces for aircraft magazines and fuel.

I have no idea if the installation was ever completed in all five ships. It was in at least one, for a photograph of *Halford* with the catapult appears in *Recognition—Pictorial Manual of Naval Vessels*, NavAer 00-80V-57, dated 15 Sep 1943. The photo is dated April 1943.

A note in *Jane's Fighting Ships*, 1946-

47, indicates that the idea was experimental and temporary.

There you have what light I can shed on the subject. Surely among ALL HANDS' readers there are some who served in or worked aboard these ships and can supply more information.—W. I. Milwee, Jr., LT, USN.

• *There are. Read on.*—ED.

SIR: In your October issue you quote sources as stating that they had no record of aircraft catapults having been installed on destroyers. Your informants are ill informed.

The first destroyer to be fitted with a catapult was apparently *uss Pringle* (DD 477). Her sister ships, *Stevens* (DD 479) and *Halford* (DD 480) also had them installed.

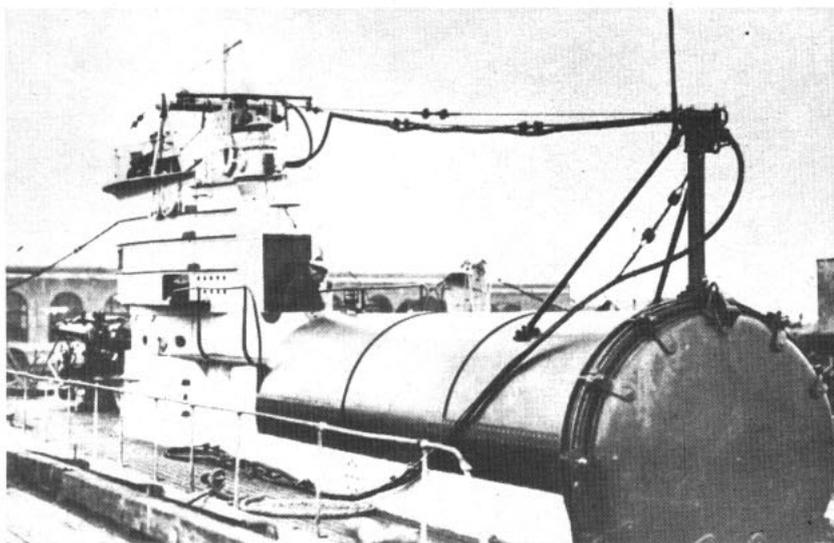
The following note is quoted from the *Dictionary of American Naval Fighting Ships*, Vol. 1, p. 304: "DDs 476-481 were planned with single rotating plane catapults with subsequent loss of one 5"/38 and one 21" quadruple torpedo tube mount."

It is my understanding that the plane carried was an OS2U. Photos exist of DD 479 showing the catapult. I believe DD 481 was fitted with a crane instead of the catapult. The aircraft were removed by a CNO planning directive in 1943.

In 1940, the four-piper *uss Noa* (DD 343) operated an XSOC-1 seaplane, using a crane or boom just forward of the after deckhouse. This installation is described and a photograph printed in the monograph *Flush Decks and Four Pipes*, published recently by the U. S. Naval Institute.

Even earlier, in 1923, *uss Charles Ausburn* (DD 294) mounted a seaplane on a rack forward of the bridge as a

STORAGE TANK for seaplane on S-1 was abaft the sub's superstructure.



sort of seakeeping experiment. I could find no evidence that the plane was ever flown. In fact, the commanding officer recommended that future seaplane installations not be made in that location.

You can tell H. J. S., YN1, that his memory is correct.—John D. Alden, CDR, USN.

• *Note: Commander Alden is the author of Flush Decks and Four Pipes, and has apparently done a good deal of research on the subject. But so have we this time around.—Ed.*

SIR: In 1943, six Fletcher class destroyers were modified to carry an aircraft and catapult. This replaced the after bank of torpedo tubes, the number 3 and number 4 five-inch mounts and the 40mm gun in between.

The modification was temporary, as problems in recovering the aircraft were too great.—Cliff Burnstein.

SIR: I offer the following information: *Fahey's Ships and Aircraft of the U. S. Fleet, Victory Edition*, says that a rotating catapult replaced the after bank of torpedo tubes and number three gun mount on six of the Fletcher class DDs. A plane handling crane was fitted to port athwart their second stack.

After a series of tests they were refitted as standard five-gun *Fletchers*.

I have pictures of these ships in my collection, so I know they did exist.—Danny L. Rider, GMTC, USN.

SIR: In regard to the question of aircraft catapults on destroyers, the four-stack destroyer *uss Noa* (DD 343) was fitted to carry a scout plane in 1939. No catapult was provided; the float plane was launched and recovered with a boom fitted to replace the mainmast.

As a result of tests conducted with *Noa*, aircraft and catapults were authorized on 27 May 1940 for six ships of the Fletcher class, but the program was unsuccessful as a combat technique and was cancelled in 1943.—H. N. Wallin, Jr., LCDR, USN.

• *It seems that we have created a monster, but an interesting one. The above letters are a sample of the bucketful we've received on this one subject since the October issue was distributed.*

Bit by bit, we've been able to piece together the puzzle, and we have come up with the following:

Noa was the first destroyer with equipment similar to the later catapults, and was probably the direct forerunner of the catapult idea.

On 15 May 1940, during preliminary operations while Noa was at anchor in Harbor of Refuge, Del., the XSOC-1 aircraft she carried made an emergency flight. Lieutenant G. L. Heap, the pilot, flew a stricken crewman to the Philadelphia Naval Hospital.

Five days later, successful operations with the plane took place off the Delaware Capes. The plane was hoisted off the ship into the water for takeoff and recovered while the ship was underway.

The Secretary of the Navy, on 27 May 1940, directed that six destroyers of the Fletcher class be equipped with catapults, planes and other related equipment. Those ultimately chosen were Hutchins, Pringle, Stanly, Stevens Halford and Leutze.

uss Leutze (DD 481) was named in the planning, but never had the equipment aboard.

The other five destroyers were planned with single rotating plane catapults, similar to those used aboard cruisers and battleships. The plane used was the OS2U-3 Kingfisher, a seaplane used for Navy scout observation flights. The plane would be launched from the destroyer deck and be taken aboard at the end of its flight by a special crane, as on the cruisers.

However, the experiment was short-lived. Hutchins, Pringle and Stanly, all commissioned in late 1942, had the equipment aboard, Pringle, commissioned 15 Sep 1942, was the first to have it. But during testing a design malfunction was found in the hoisting gear, and the equipment was removed by order of CNO.

Stevens was commissioned 1 Feb 1943, a short time after the first three ships had their aircraft gear removed. The destroyer took a shakedown cruise off the Atlantic Coast, then reported for duty in the South Pacific that summer.

Between her commissioning and 15

July, the seaplane was successfully launched and recovered 48 times, making Stevens the first DD to have a fully operational plane and catapult.

Halford, the last of the group, was commissioned 10 Apr 1943, with a plane and catapult aboard. She also went to the South Pacific.

We were fortunate in locating Rear Admiral G. N. Johansen, USN (ret.), who, as a Lieutenant Commander, was CO of Halford from her commissioning to March 1944. He had quite a story to tell.

According to Admiral Johansen, the following armament was removed to make room for the catapult: one 5"/38 mount (mount 53); one quintuple torpedo tube mount; two twin 40mm guns and their directors; and three 20mm guns.

The magazine normally used for the five-inch gun was used to store the bombs and depth charges carried by the plane. The ship still carried the gun mount base and ammunition hoist after the conversion.

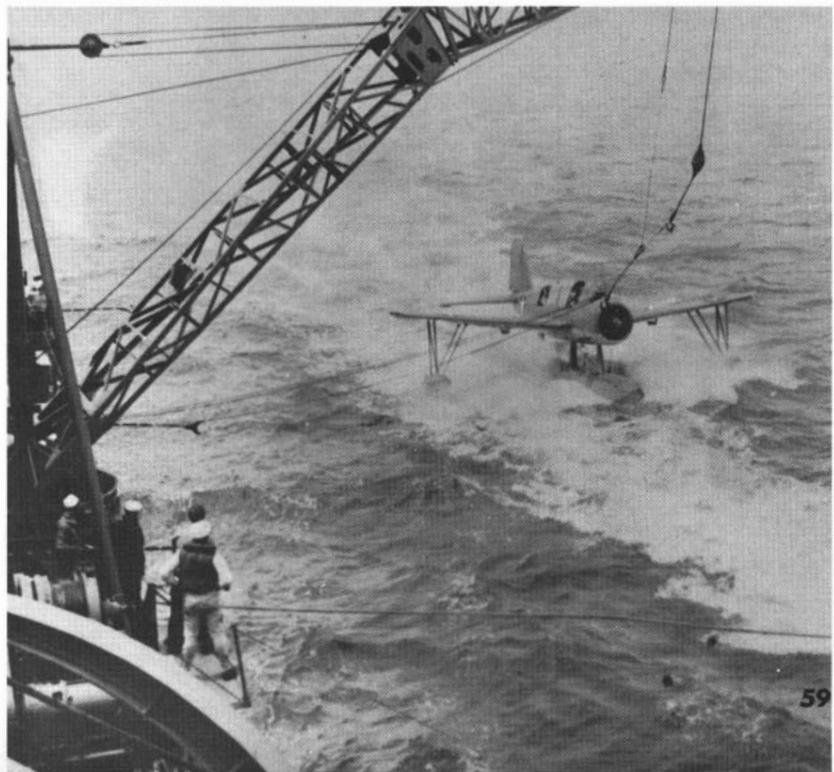
A tank for aviation fuel was built on the main deck, aft of the superstructure. It held 1780 gallons of aviation gas, and was surrounded by a cofferdam filled with CO2 for safety purposes.

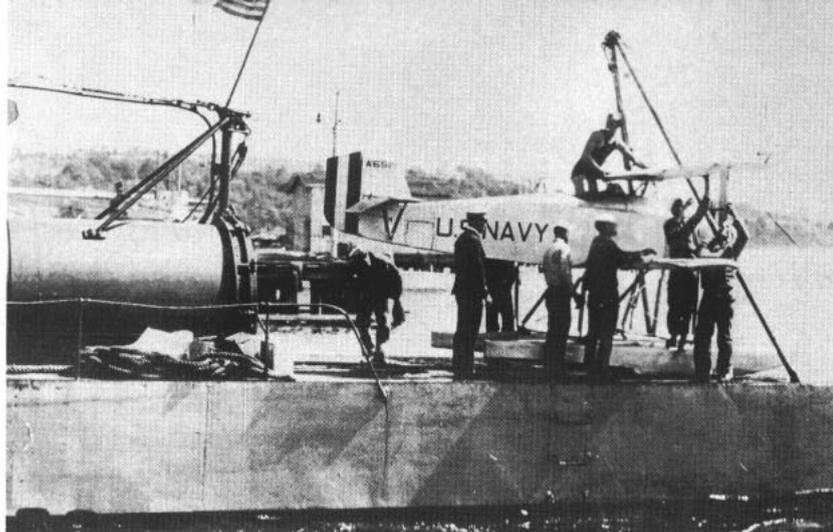
A fuel line ran along the port side of the ship from the tank to the O1 level, where the fuel could be hosed into the plane.

The destroyer carried an aviation ordnanceman, an aviation mechanic and the pilot in addition to her regular crew. They had a compartment for tools and some spare parts.

Admiral Johansen told us the plane's

USS STEVENS (DD 479) tows seaplane after 1943 flight. Plane had to approach ship from port side, where special crane was mounted near after stack.





CREWMEN of S-7 assemble XS-2 seaplane for flight in 1926. Planes could be quickly assembled or taken apart and stored in tank (left) when not in use.

missions were threefold—scouting, spotting and antisubmarine warfare.

In his role as a scout, the pilot would fly missions out of view of the destroyer in search of enemy shipping.

As a spotting plane for shore bombardment, the pilot would fly into position between the ships and the shoreline. He would radio information about targets and correctness of fire to the ships.

The plane carried depth charges and bombs for ASW, but only as an incidental armament, according to the admiral. If the pilot spotted an enemy periscope, or a submarine running on the surface, he had the necessary equipment for an attack. But the plane lacked the tracking gear present in other planes.

Aboard Halford, the OS2U was nearly always operational until its removal. Seven successful launchings and recoveries were logged between 10 Apr and 2 July 1943. Several more were later made in the South Pacific.

When Stevens and Halford first went west, they participated in the Marcus Island strikes. Halford also logged time near Wake Island. Stevens participated in the Tarawa strikes in September.

However, the two ships operated near Pearl Harbor on escort duty during most of their stay, presumably due to the presence of the seaplanes.

The aircraft aroused the curiosity of all who saw them. On one occasion, Halford was assigned to escort the British carrier HMS *Illustrious* to Pearl Harbor. During that trip the plane was used for ASW patrol flights.

On the way back to Pearl from the Marcus Island strike, their carrier task group watched the Stevens and Halford aircraft perform.

Admiral Johansen also used the plane for mail runs when the ship was at sea for extended periods of time.

However, the planes had several drawbacks. They were slow, with a top speed of "about 125 knots with a good

tailwind," and were sitting ducks for Japanese fighter pilots.

The actual retrieval of the plane also endangered the ship and her crew. During hoisting the ship had to be almost at a standstill, making her a good target for enemy submarines.

The ships could launch the plane in any weather—and did, except in heavy seas or when visibility was at a minimum, but retrieving it posed many problems.

Unlike the cruisers and battlewagons, the small 2100-ton DDs were unable to make large "slicks" for the plane to land on. (This is done by coming about. When the stern swings around, it makes a smooth area suitable for landing small planes of the OS2U type.)

Another problem involving the DD's size was heavy seas. If the ship was rolling while the crane was lifting the plane aboard, there was usually some damage to the plane—from hitting the after stack.

In many instances the parts kept aboard the destroyer were enough to fix any damage incurred, but Admiral Johansen recalls a few times when the ship had to return to Pearl Harbor for repairs on the craft before it could be used again.

And while the planes were versatile enough, the launch equipment wasn't. The planes had to be launched to starboard and recovered to port.

Still another danger was the highly volatile aviation gas. As Admiral Johansen put it, "I would have been awfully worried if we took a hit aft."

As a result, Stevens and Halford were ordered back to the States for removal of the aircraft gear and conversion to standard Fletcher class DDs. The increased firepower was needed more than the planes.

The two ships left Mare Island on 6 Dec 1943 for the South Pacific, thus ending that short era of seaplanes on destroyers.

But the story of planes aboard small ships does not end here. Going back further than most of us can recall, Cap'n Mossbottom notwithstanding, we found that a destroyer and a submarine were equipped with planes in 1923.

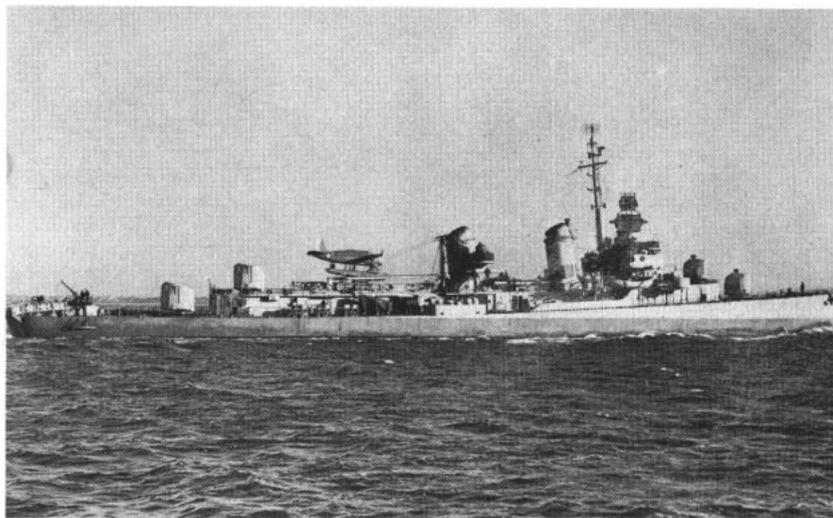
As CDR Alden has stated, *uss Charles Ausburn* (DD 294) was equipped with a seaplane in 1923. The mounting took place at Hampton Roads, Va., on 29 August. Two days later a crew from the Naval Air Station and the carrier *Langley* came aboard the destroyer to make some changes in the cradle which held the plane.

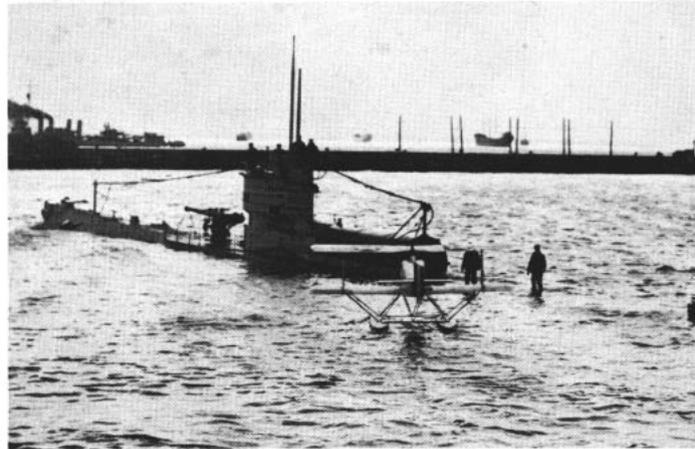
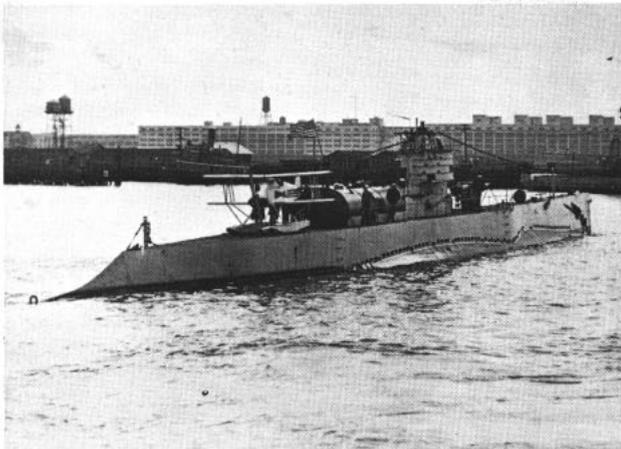
On 1 Sep 1923, *Ausburn* went to sea for experimental operations and battle practice with the Scouting Fleet.

No mention is made of the plane ever operating from the destroyer.

After World War I, the Navy considered the possibility of basing float aircraft on submarines, to be used as scout observation planes. The S-1 (SS

PRINGLE'S PLANE was removed after short time due to hoisting gear trouble.





FLIGHT QUARTERS aboard submarine finds plane ready to go. Rt: Plane approaches S-1 after flight on 24 Oct 1923.

105), an 854-ton boat, was chosen for that experiment, and a plane was put aboard her in 1923.

No date for the mounting is available, so we don't know who was first with an aircraft aboard.

The plane used was an MS-1, a small (1007-lb) aircraft which could be quickly assembled and disassembled as needed. When it was not in use, the plane was taken apart and stored in a special cylindrical pod on the submarine's main deck, abaft the conning tower (see pictures).

During testing of the MS-1, the plane was launched by submerging the submarines leaving the plane to take off from the water. Tests of the MS-1 were completed on 5 Nov 1923.

On 28 Jul 1926, another test was made by S-1, involving an XS-2 seaplane, flown by Lieutenant D. C. Allen. The submarine surfaced and launched the plane. It later recovered the aircraft and submerged, completing the cycle.

Fifteen months later, in September 1927, experimentation with aircraft aboard submarines was abandoned, as the Secretary of the Navy approved a general board opinion "that the disadvantages of carrying an airplane aboard submarines . . . outweigh the advantages."

Our sources indicate that a few later experiments were made with planes aboard submarines, but no written record of them can be found. If there is more to tell, we're certain the Fleet will let us know.—Ed.

Cowpens One of the Vanished Great

SIR: I served on board USS Cowpens (CVL 25) for 21 months in the South Pacific during World War II. I have never seen her name mentioned in ALL HANDS or any other Navy publication since I left her in February, 1946 and have often wondered what happened to her.

Perhaps you can give me a rundown on her operations since my departure. You might say I am a plankowner since

I helped put her in commission in the Philadelphia Navy Yard in 1943.—L. L. V., SW1, USNR.

• If you helped put Cowpens in commission and served in her until February 1946, you were present for most of the excitement during the carrier's lifetime. Cowpens was placed in commission in reserve at Mare Island on 3 Dec 1946 and was decommissioned 13 Jan 1947. She was stricken from the Navy Register in November 1959.

For those who may wonder why a CVL would be called Cowpens, it might be well to point out here that she bore the name of a battle fought during the American Revolution.

The ship was frequently called the "Mighty Moo" by members of her crew. Anyone else calling her by that name, however, usually found it advisable to smile while doing so.

After she was commissioned in 1943, Cowpens went into action in the Pacific and her itinerary reads like a history of the war against Japan.

During the period from late September to November 1943, she participated in softening up the defense of Wake Island and Tarawa. Late in December, when Cowpens was approaching the Marianas with a task force, a Japanese plane sighted the force while still 420 miles from its objective, and the force was attacked by wave after wave of torpedo planes.

Cowpens and the other U. S. carriers launched their first planes while under enemy attack. Even with this handicap, the United States ships scored heavily against the enemy, destroying 168 air-

craft, two freighters and small craft.

On another foray into the Marianas during the summer of 1944, Cowpens took part in the Marianas Turkey Shoot when swarms of Japanese planes attacked the U. S. ships. For the Japanese, the attack meant certain death for they had only enough fuel for a one-way trip. The enemy pilots were out to do the most possible damage. U. S. fighters, however, met the kamikazes head on and 402 enemy planes were lost in the ensuing battle.

Amazingly enough, not a single U. S. ship was seriously damaged. Seventeen U. S. planes were shot down.

It is ironic that the greatest damage done to Cowpens during the war was not inflicted by the Japanese but by mother nature. On 17 December 1944, a typhoon hit the carrier off the Philippines with winds up to 100 miles an hour.

The big ship rolled as much as 45 degrees. Topside gear tore loose and bombs in the forward magazine broke away and rolled crazily about. Men who attempted to secure the bombs had to jump up and hang from the overhead at times to avoid being crushed.

Tractors and planes broke loose from their lashings and careened wildly about the flight deck. A fighter belly tank caught fire from friction and the fire fighters had to lash themselves to the deck to avoid being washed overboard.

Cowpens survived the typhoon, however, and later was attached to a show of force group sent into Sagami Bay on 27 Aug 1945. The next day her planes flew passengers ashore to Atsugi which may have made the Cowpens' planes the first to land on Japanese soil after the war had ended.

When the Mighty Moo (we're smiling) retired, she had to her credit 22 and one-half months of fighting. She was awarded the Navy Unit Commendation for outstanding heroism in action against Japanese forces during the Pacific war and wore 11 battle stars on her Asiatic-Pacific area service ribbon.—Ed.

Travel Via MSTs

SIR: What are the prospects for obtaining space available travel on an MSTs vessel from the East to West Coast via the Panama Canal? —W. W. E., LCDR, USNR.

• Nought. MSTs vessels do not operate between the East and West Coast of the U. S.—Ed.

LETTERS TO THE EDITOR (Cont.)

This Bos'n Has the Final, Real Answer

SIR: Occasionally ALL HANDS has printed letters concerning men who have advanced to a certain rate—especially chief—at a very young age or in a very short time. Each time, my entire deck crew becomes embroiled in a discussion as to the shortest time in which a man can possibly make rate, going through all the pay grades under the present rules.

Though the question may sound unimportant to some, I assure you it is not a dull subject. The initiated put great stock in the matter. Our discussion periods are monitored by two Corpsmen, who later carry the loser away in a Stokes stretcher.

Unfortunately, despite all the time and effort spent contemplating the problem, no one (so far as I know) has ever determined just what the shortest time is.

This is an appalling vacancy in the sum of human knowledge. Fortunately, I am prepared to fill it.

Herein find the last and absolute final word on how to make chief in the shortest possible time. I have made one concession to lucidity. I did not count hours or minutes.

To begin: According to present regulations a Navyman spends a minimum of three years as a PO1 before donning the hat. Plus two years as a second class and one year as PO3. Automatic advancements of certain "A" school graduates do not change the situation, as such advancements only become effective after the time in rate requirement has been met.

So a man must spend six years as a petty officer, plus the time he must spend in the nonrated grades.

Now, keep this principle in mind: If you are to make chief in minimum time you can't afford to spend any more time in each grade than absolutely necessary. Consequently, you must be advanced on the day you become eligible for advancement. All computations for time in rate for E-3 and below hinge on this one important fact.

Technically speaking, a Navyman must serve as E-3 for six months before becoming eligible for advancement to PO3. In practice, however, the regulations are more lenient. If a young sailor has less than six months in pay grade E-3 NavPers P-1430.7D allows him to compute his time by days, crediting him with one month for each 30 days served. A remainder of 16 days or more is also counted as one month.

In simple English, it is possible to spend only 166 days as an E-3. Thus, to spend the least possible time as a seaman, you must be advanced to E-3 on either 3 June or 17 December (18 December if your advancement to E-4 will come in June of a leap year). You will then be eligible for advancement to E-4 after serving the rock bottom

minimum time as an E-3. So much for that. Simple.

Time in grade for an E-2 before advancement to E-3 is six months; no ifs, ands, or buts. Consequently, to keep the advancement schedule meshing perfectly you must be promoted to E-2 on 3 December or 17 June. Unless, of course, you are to be advanced to PO3 on 16 May of a leap year, in which case you must make E-2 on 18 June. Still simple?

Not really, for it is precisely at this point—advancement to E-2—when complications set in. The following details are for the real CPO ladder-climbing expert. They probably won't make sense to anyone else.

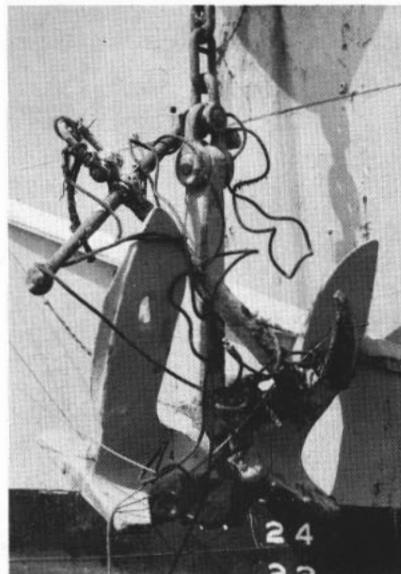
Normally, Regular Navy advancements to E-2 result from satisfactory completion of recruit training, and the promotion is effective upon graduation. At this point, one important factor must be taken into consideration: Recruit graduation ceremonies are almost invariably held on Friday.

Consequently, a Navyman may advance with minimum time in service *only* if (for a starter) his year of enlistment had a Friday, 17 June, or Friday, 3 December or (if the year preceded a leap year) a Friday, 18 June.

Incidentally, if you enlisted in the Navy before 1957 you didn't have the option of graduating from recruit training in June or December—not, at least, if you expected to make chief in minimum time. It had to be June. Otherwise, since CPO examinations were given only in the spring until 1964, your eventual promotion to chief would be thrown six months off schedule.

To continue: Recruit training normally lasts 10 weeks, less one weekend.

ALL FOULED UP—USS *Estes* (AGC 12) inadvertently went fishing in Subic Bay and caught extra anchor.



Or, to simplify the math, 68 days if all goes well. Break out the slide rule, and you'll find (if you are to graduate on the proper Friday) you must begin your formal boot training either on Monday, 11 April or Monday, 27 September. That'll be Monday, 12 April if the following year is a leap year.

Recently the duration of boot camp was shortened from 10 weeks to seven weeks. This being the case, men just now signing up for the first time must subtract three weeks from the dates in the preceding paragraph.

Furthermore, if you are to keep time to a minimum you must report to Receiving and Outfitting (R and O) the Friday before your first day of boot training. Friday morning, as a matter of fact. Minimum outfitting time is two days and Sunday is a holiday even for a recruit.

If all goes well, you can plan to leave recruit training ten weeks and one day after reporting. Keep in mind however, that recruit training is not planned for the convenience of the boot sailor and all may *not* go well.

If you intend to make chief in record time you can't afford to waste time sightseeing enroute from your place of enlistment to recruit training. You must enlist on the proper Friday morning in the vicinity of Great Lakes or San Diego and reports posthaste for training.

All in all, the minimum time (going through all pay grades) from civilian to CPO comes out to six years and six months, plus another 237 days. You can break down those days however you like, depending upon whether you prefer months of 30 days or 31 days in duration. Either way the final figure is close to seven years and 55 days.

If you were *really* out for a record, you might follow the same schedule with an eye to making CPO at the youngest possible age. All you need do—in addition to following the simple rules listed above—is have your 17th birthday fall on the day you must report to boot camp and, of course enlist and report early that day.

The youngest chief going up all the steps of the ladder would put on the hat at the age of 24 years and 55 days, give or take an hour or so.

And that settles that.—J. D. F., BM1, USN.

● *Sure it does. You're a brave man.*
—ED.

Five Brothers, USN

SIR: A recent issue of ALL HANDS contained an article about families which had several members serving together in the Navy. I believe you have something to add.

My family includes five brothers on active duty. Furthermore, all are in the communications field. Besides myself, they are: Franklin Johnston, RM1; Wesley Johnston, ETN1; Orman C. Johnston, RM2; and Jerry Johnston,

ETNSR. Combined total service? About 28 years. So far.

I'd send you a photo, but two of us are on the west coast, two are east, and one is at NTC Great Lakes.—Edward Johnston, RM1, USN.

● *A pat on the back to the Johnston family. Can anyone top this—ED.*

Key West to Miami Again

SIR: As a native of the Florida Keys, I wish to correct a statement made on page 47 of the August edition of ALL HANDS.

My wife and I have often made the trip from our home in St. Petersburg to Marathon Key (54 miles above Key West) and all concerned can rest assured it is only 158 miles from Miami to Key West and not the 449 reported in ALL HANDS.

The highway is not a freeway but it is wide enough for safe driving. The average speed is 35 miles per hour because it is necessary to pass from one community into another. This speed allows time to enjoy the beautiful scenery of the keys.—A. H. M., RM1, USN.

● *The 449 miles alluded to in the second paragraph of the August letter was more a sin against syntax than the result of a faulty odometer.*

In the third paragraph, the distance between Key West and Miami was correctly estimated at about 150 miles. The letter said this twolane highway was heavily traveled by tourist cars.

Your letter gave the average speed on this highway as 35 miles per hour, which would make about four hours' driving time to Miami from Key West. R.O.S. apparently had to drive even slower because it sometimes took him as much as five hours to make the trip.

We'll assume, however, that R.O.S.

Ship Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying the Editor, ALL HANDS Magazine, Room 1809, Bureau of Naval Personnel, Navy Department, Washington, D. C. 20370, four months in advance.

● *USS Lexington (CV 2) and Air Groups*—The 13th annual reunion will be held 22-25 June at the Hilton Inn, San Diego, Calif. For details, write to LCDR Walter D. Reed, USN (Ret.), 5608 Ocean View Drive, Oakland, Calif. 94618.

● *USS LST 864*—A reunion is planned for 15 March. Write to Richard B. Wathen, Citizens Trust Building, Jeffersonville, Ind. 47130.

● *Commander Landing Ship Flo-tilla One*—A reunion is planned for those on board in 1952 and 1953. For details, write to Henry Lyndel Stroud, 806 McGuire, Monroe, La.

was able to speed along at slightly more than 35 miles per hour and arrive in Miami four hours after leaving Key West. According to his letter, he would have to travel an additional 299 miles after reaching Miami because the recent mileage change doesn't authorize travel time for increments of less than 150 miles.

This, according to our round figure calculations, would make it necessary to reach a point 299 miles distant within the remaining four hours.—ED.

WO1 Raises Edged Question

SIR: According to U. S. Navy Regulations, all commissioned officers and

commissioned warrant officers are required to possess swords. Neither specifically mentions WO1 warrants in this connection.

As first-step warrants are not commissioned, I assume they are not required to have a sword. True? If so, are WO1s authorized to carry a sword as an optional item?—J. H. C., STC (SS), USN.

● *Yes, it is true and no, they are not. Noncommissioned warrant officers are neither authorized nor required to wear swords.*

If the sword—or any other item—were optional, "Uniform Regs" would say so.—ED.

Collar Devices for CPO

SIR: I would like to test the Fleet's reaction to an idea for collar devices. My suggestion is that the present anchor grade insignia be used on one collar, but that the other have a device similar to the man's rating badge. Chiefs could then be readily identifiable—as warrants are now—by specialty as well as rate.

I would also like to see the suggestion brought to the attention of the Uniform Board.—E. E. G., DCC, USN.

● *We're more than happy to print your letter, and will be interested to see what the mail brings. But we rather doubt you'll have much luck. The Permanent Naval Uniform Board has already considered—and rejected—the idea.*

The subject arose when the board was in the process of adopting the present CPO devices. The board considered the concept desirable, but decided it was outweighed by the cost and other associated problems involved in supplying the large number of specialty devices (there would be 65). Those considerations still apply.—ED.

WHEREVER YOU ARE SEND ALL HANDS TO THE FOLKS AT HOME

Superintendent of Documents
Government Printing Office
Washington 25, D.C.

ENCLOSED find \$2.50 for a subscription to ALL HANDS Magazine, to be mailed to the following address for 1 year. Subscriptions are also accepted for 2 years for \$5.00 and 3 years for \$7.50.

NAME _____

ADDRESS _____

(For prompt filling of order, please mail this blank and remittance direct to the Government Printing Office, Washington 25, D.C. Make check or money order payable to the Superintendent of Documents.)

Subscription for mailing to a foreign country without an FPO or APO is \$3.50 per year.

Check one: One year Two years Three years

TAFFRAIL TALK

AN ALL HANDS reader, Robert Sickler, sent us an excerpt from a book he was reading entitled "Gems for the Fireside," which was published in 1885 by A. W. Mills in Tecumseh, Mich. It serves to illustrate as well as anything we have seen how a man's profession affects the way he sees things.

The piece concerns a sea captain who was asked by his wife to make a purchase while he was in the city. We pass it on to you with the thought that your wife (if you have one) might like to clip it out and secure it to the *bulkhead* approximately *admidships* between the *overhead* and the *deck*.

Can you figure what the captain's wife wanted him to buy?

Here is the captain's letter to his wife: "I saw one that I thought would suit you, black walnut hull, strong bulkheads, strengthened fore and aft with iron frame, ceiled with white wood and maple. Rigging, steel-wire-double on the rat line, and whipped wire on the lower stays and heavier cordage. Belaying pins of steel and well driven home.

"Length of taffrail over all, six foot two inches. Breadth of beam thirty-eight inches, depth of hold fourteen inches. This light draft makes the craft equally serviceable in high seas or low flats.

"It has two martingales, one for the light airs and zephyr winds and one for strong gusts and sudden squalls. Both are worked with foot rests, near the keelson, handy for the quartermaster and out o'sight of the passengers.

"The running gear from the hand rail to the cordage is made of white-wood and holly; works free and clear; strong enough for the requirements of a musical tornado and gentle enough for the requiem of a departing class.

"Hatches, black walnut; can be battened down; proof against ten-year-old boys and commercial drummers, or can be clewed up on occasion and sheeted home for a first-class instrumental cyclone.

"I sailed the craft a little and thought she had a list to starboard. Anyhow, I like the starboard side better than the port but the ship-keeper told me the owner had other craft of like tonnage awaiting sail or charter which were on an even keel."

Recognize the item the captain's wife had her heart set on? If you didn't fathom the description, here's the answer: a piano. Now reread the letter and you'll really appreciate the musical clues.

ALL HANDS thanks to Sickler and publisher Mills.

★ ★ ★

Speaking of salty speech, the genuine variety is much closer than a book published in 1885. *Trade Winds*, we're happy to learn, is again in circulation. This quarterly newsletter is edited by Richard W. Konter, an 83-year-old ex-chief radioman who retired on 30 in 1927. It goes out to all members of the U. S. Naval Ex-Apprentices Association—a group whose membership is comprised of Navy veterans of square-rigged, wooden frigate days.

Sample item from one of the readers: "For a long time I have been intending to send in some financial aid, but being a pensioner I'm usually close hauled on the port tack, and have to watch my chances to splice the main brace. So, enclosed find my \$3.00 dues to steady your helm."

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.

Here are a few suggestions for preparing and submitting material:

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.

• **AT RIGHT: IN THE SWIM**—Aquanaut Jay D. Skidmore, PHC, USN, dressed in wet suit, makes his way to diving platform for a swim down to Sealab II, 205 feet below the surface. Photo by Gerald R. Boling, JO1, USN.

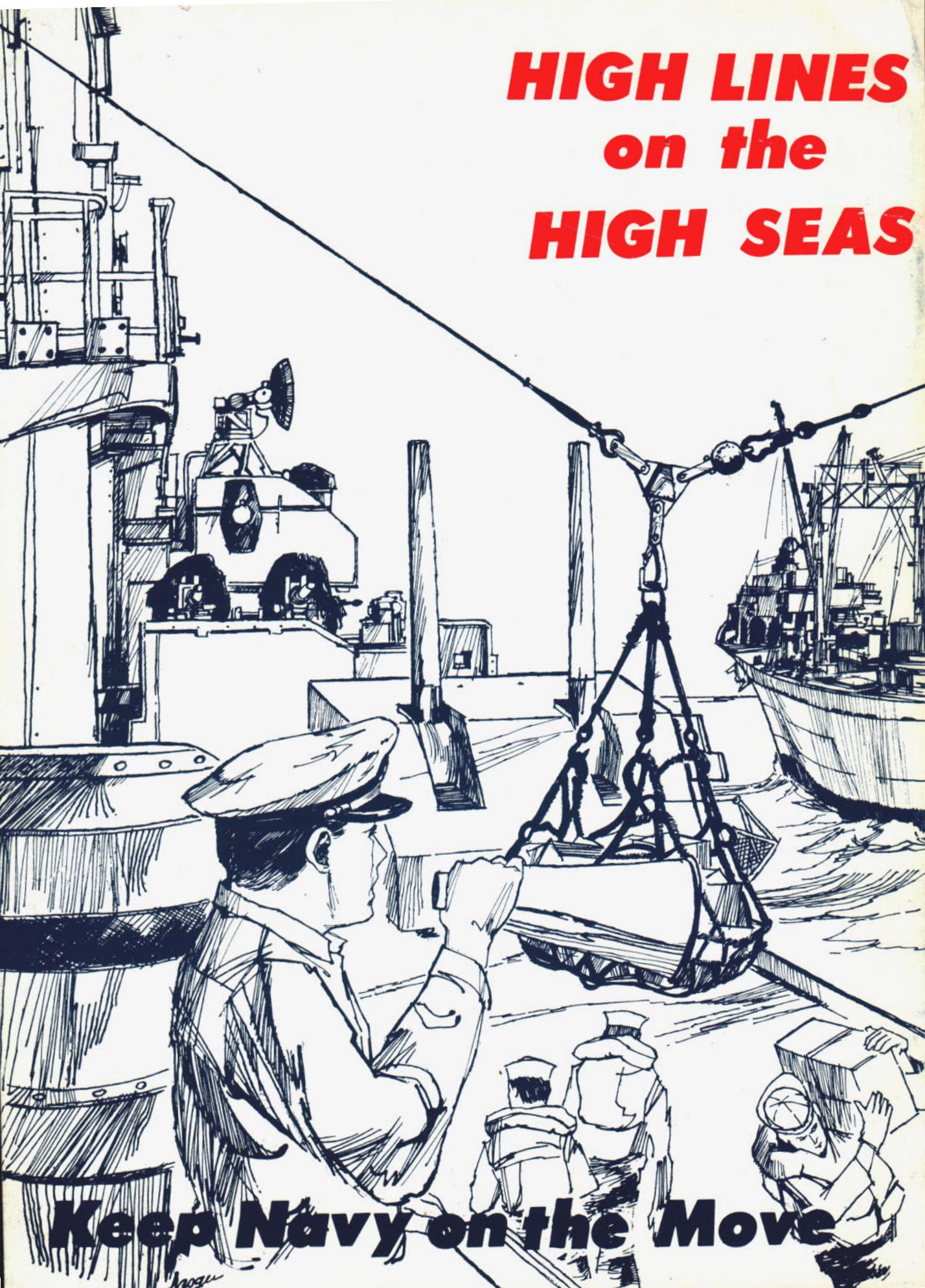
QUIZ AWEIGH ANSWERS

(Quiz Aweigh may be found on page 55.)

1. (a) Given off by the star.
2. (a) The closest star to Earth.
3. (c) It is of greatest absolute brightness of those stars seen from Earth.
4. False.
5. (b) The Big Dipper.
6. (a) Polaris.



HIGH LINES **on the** **HIGH SEAS**



Keep Navy on the Move