

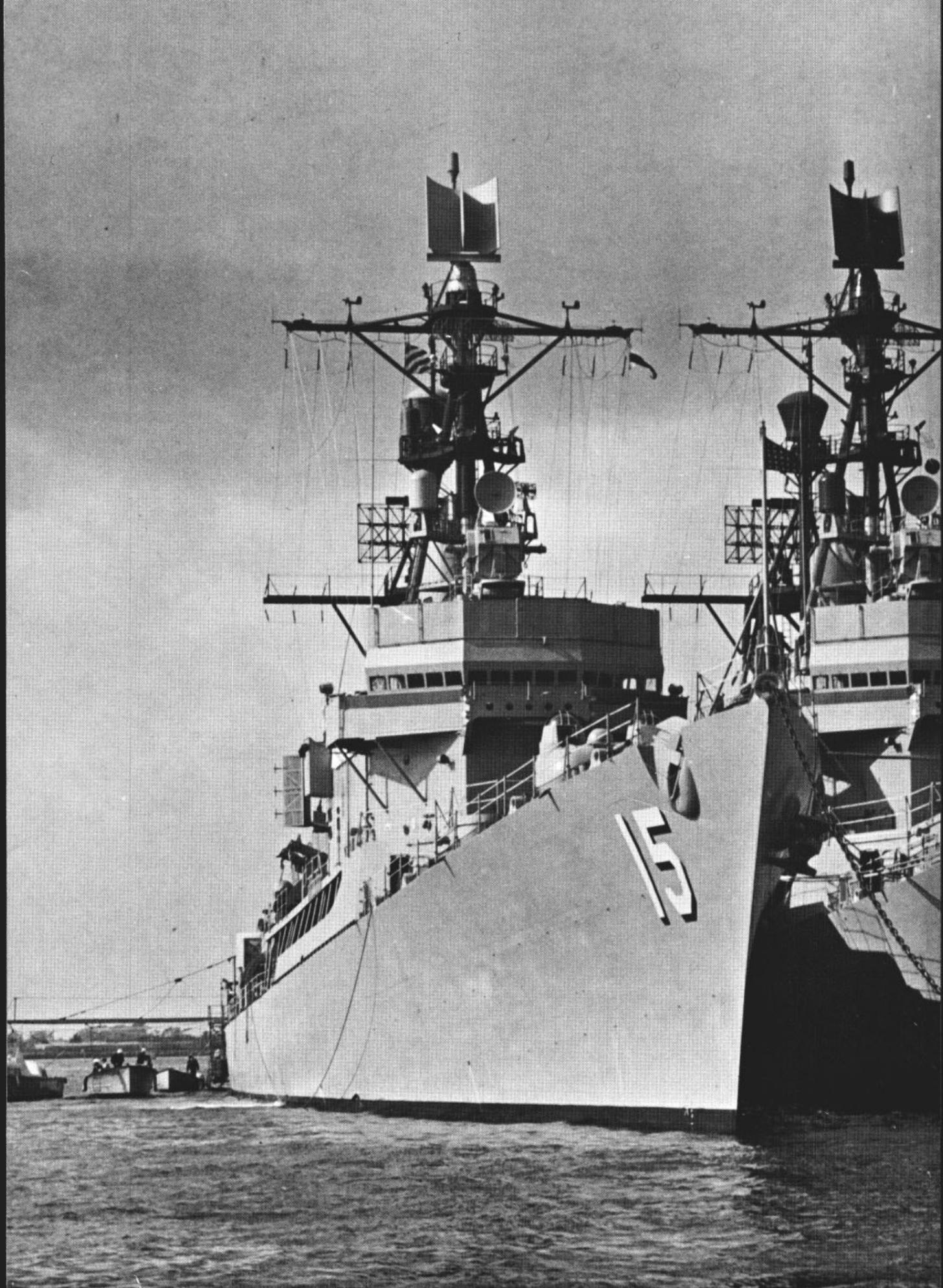
# ALL HANDS

THE NAVAL RESERVIST SECTION  
PERS G151



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JULY 1961



# ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

JULY 1961

Nav-Pers-O

NUMBER 534

VICE ADMIRAL W. R. SMEDBERG III, USN

The Chief of Naval Personnel

REAR ADMIRAL A. S. HEYWARD, Jr., USN

The Deputy Chief of Naval Personnel

CAPTAIN F. R. WHITBY, Jr., USN

Assistant Chief for Morale Services

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CDR F. C. Huntley, USNR, Editor  
John A. Oudine, Managing Editor

### Associate Editors

G. Vern Blasdell, News  
Jerry Wolff, Research  
Don Addor, Layout & Art  
French Crawford Smith, Reserve

• AT LEFT: GUIDED MISSILE frigates, USS *Preble* (DLG 15) and USS *Coontz* (DLG 9) rest side by side in San Diego harbor while on duty with the Pacific Fleet.

• FRONT COVER: WALL-EYED—The sheer walls of Greece's Corinth Canal tower above Sixth Fleet ocean minesweeper USS *Alacrity* (MSO 520) as she makes her way from the Ionian Sea to Athens with other ships of Mine Division 45.

• CREDITS: All photographs published in ALL HANDS are official Department of Defense photos unless otherwise designated.

# Planning a New Type

**G**UIDED MISSILE CRUISER... combat store ship... Fleet Ballistic Missile submarine... guided missile cruiser (nuclear). New ships appear on the scene as others fade away.

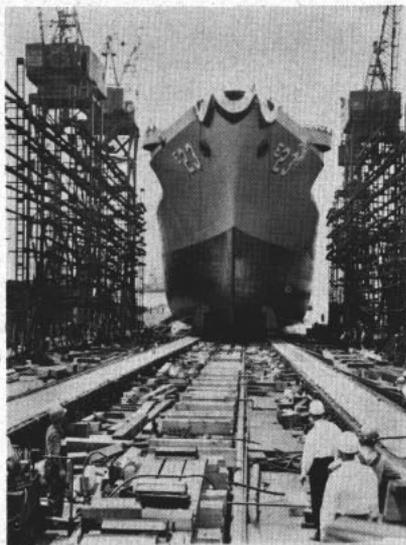
One day you may report for duty to a new type ship. There you will see an array of missile launchers, radar masts, engines, guns, under-way transfer rigs, galleys and what-not, neatly packaged together in a hull which might, in itself, be of a new design.

There are pattern and method behind the development of new ship types in the Navy. Development begins with one word—*need*.

The need for a new type ship—or for an extensive modification of a present type ship—almost always starts in one of three ways.

It may arise from an inadequacy in an existing ship. The present larger attack aircraft carriers, for example, evolved from the need for carriers to handle the heavier and faster jet aircraft of the late 1950s as well as 1960s and 1970s.

Again, a new ship type may arise from a recent concept in warfare, a development in tactics. The amphibious assault ship (LPH) developed from the Marine Corps' need for a ship to support its vertical-envelopment assault landings. The fast combat support ship (AOE) and the combat store ship (AFS)—both were designed for a more rapid multi-ship replenishment underway—are also of this group.



Third, a new type may arise from the need to apply technological advances in ships, aircraft, weapons, propulsion-machinery, or general ships' hardware design. Our nuclear-powered warships and guided missile warships are of this group.

**T**HE GUIDED MISSILE DESTROYER is a good example of this category. It would be theoretically possible to simply strip the guns from a standard type destroyer and put some missile launchers in their place. However, other general advances in destroyer types, sonar, radar, communications, hull form and ship propulsion have been coming along rapidly. Because of this array of changes, it has been found wiser to

develop a new type of ship (the guided missile destroyer) than merely to patch and re-rig the current type of destroyer and consider it as an improvement.

The *need*, then, is the first item in developing a new type of ship. This is usually first seen by Fleet commanders or at the Office of the Chief of Naval Operations. At its earliest stages, it is a rather general thing and can be expressed as: "The Fleet needs a ship especially designed for transferring fuel and ammunition at sea," which might well have been the need behind the development of the fast combat support ship.

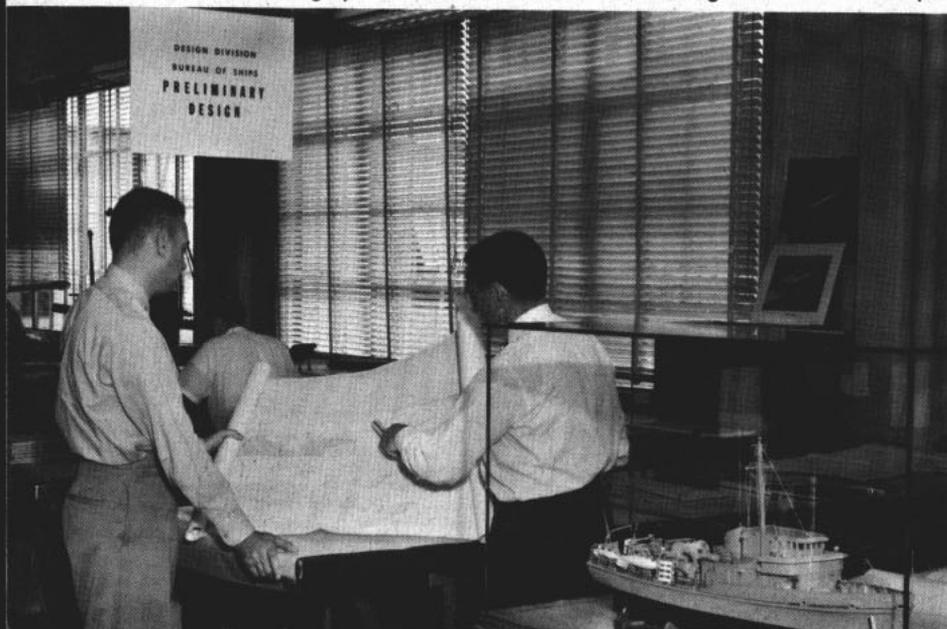
Converting the need into a matter of *missions and tasks* is the next step. The new type ship will be developed to do a job.

The main sources of recommendations are the Fleet commanders and the Deputy Chiefs of Naval Operations. Their recommendations are channeled to the Deputy CNO for Fleet Operations and Readiness, who develops them further and submits them to CNO for approval.

When approved, and we will assume that each of the various steps gets approved along the way, the recommendations are sent to a group of senior officers of the Office of the Chief of Naval Operations (OpNav). Known as the Standing Committee for Shipbuilding and Conversion, this group develops the Shipbuilding Program for the annual budget submission and would consider including the ships either under the Current Annual List or the Five-Year Planning List of Ships. At this point, budget matters become a consideration.

**W**HEN A SHIP is included in the Standing Committee's list, the Ship Characteristics Board—and a permanent staff that supports the work of the Board—then proceeds to develop the complete characteristics of the new type ship. The characteristics will reflect the principal military features of the ship, its approximate size, speed, cruising range and armament or other main functional equipment—plus requirements in design to establish the proposed ship's distinguishing features to accomplish the mission and tasks.

PRELIMINARY design plans for CAG are checked in Design Division of BuShips.



# of Ship

As with many other phases of the new ship type's development, the Board's permanent staff is up to its ears in the progress of the work at this stage. Stationed at the Pentagon, each of the members of this group is an expert in his specialized field. All categories of ship types are divided among them. Electronics matters and aviation projects matters are also handled as special items by individual experts on the staff. In the main, the officers who deal with a given ship type have had recent Fleet experience with ships of the same type.

**T**HE SHIP CHARACTERISTICS BOARD is an especially high-powered one, with its members of flag officer rank. Its chairman is the head of OpNav's Ship Characteristics Division. There are five categories of representatives.

First is *Requirements*. There are four officers in this group, representing the following:

- Deputy CNO for Fleet Operations and Readiness. He deals with requirements for numbers and types of ships, weapons, distinguishing characteristics and with performance. The comments from the Fleet are reflected by this officer.

- Deputy CNO for Air, who deals with the aviation features of the new ship.

- Director of Naval Communications, who deals with communications matters.

- Director Long Range Planning Group, for conformance with long-range plans.

Second is *Developments*.

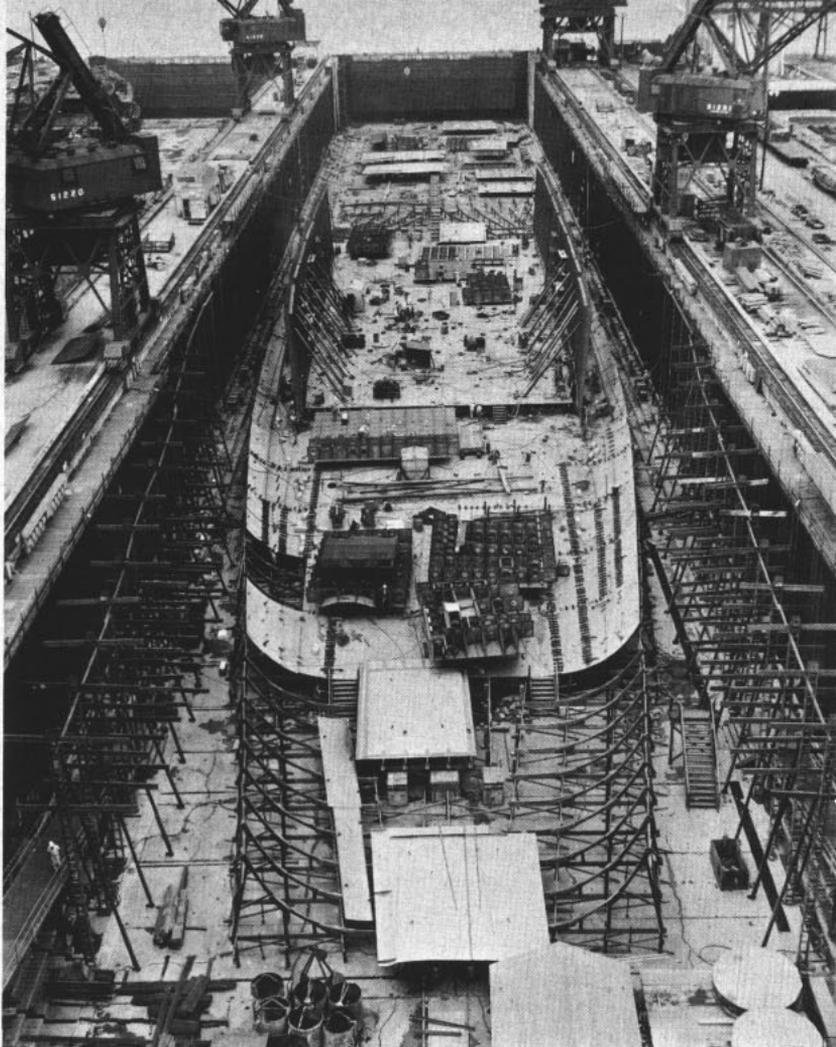
- The Deputy CNO for Developments deals with the systems and the equipment that will be available during the construction period of the ship.

Third is *Maintenance*.

- The representative here is the Director of the Ships Material Readiness Division.

Fourth is *Personnel*.

- The Chief of Naval Personnel is concerned with the number of officers and men for the proposed ship—for this determines the number of accommodations needed. He is also concerned with the ship's habitability conditions, consisting of the living, berthing and messing facilities.



**BOTTOM UP**—Work begins on A-powered carrier USS Enterprise, CVA(N) 65.

The fifth category is *Material Bureau*.

- Representatives from the Bureau of Naval Weapons are on hand for matters dealing with weapons systems, ammunition and shipborne aviation.

- Bureau of Ships representatives deal with the construction and design of the ship itself, the size, propulsion systems, hull forms, and all facets of naval architecture. They also deal with certain "hardware" such as search radars, sonars, rigging, ground tackle and communications equipment.

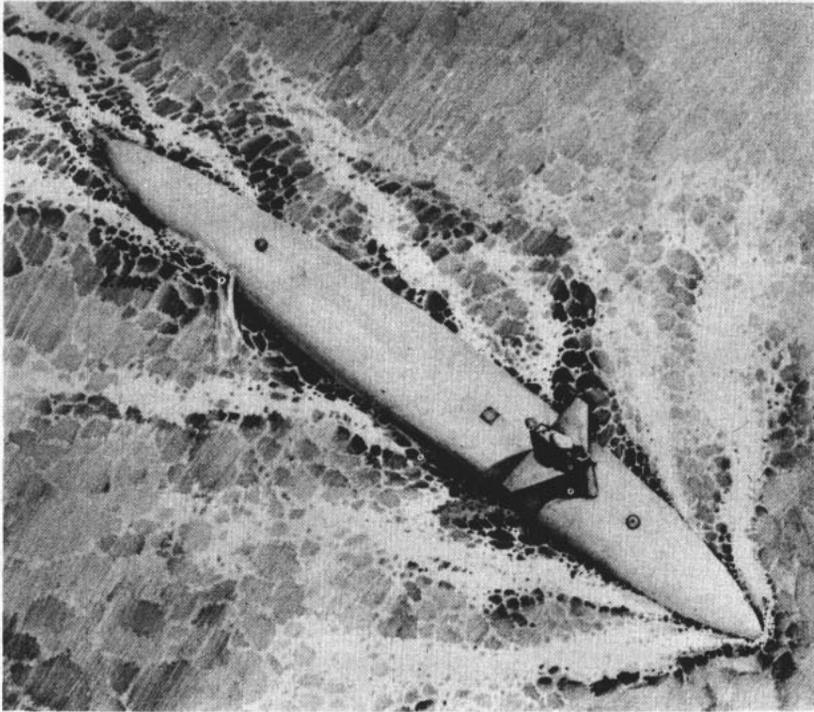
The Commandant of the Marine Corps' representative is on hand for matters concerning the troops carried by amphibious ships.

That rounds out the Board's regular membership. Associate members of the Ship Characteristics Board are senior officers from the Board of Inspection and Survey; the Bureaus of Medicine and Surgery and Supplies and Accounts and the Military Sea Transportation Service.

Senior officers from the fleet, type (or force) commands are often on hand to offer current Fleet reaction and experience.

**B**EFORE THESE ELDER STATESMEN OF the Navy meet, however, numerous meetings between junior representatives will have taken place. In working-level meetings about four times a week, these officers explore the various alternate solutions from the viewpoint of effectiveness, weight, space and cost.

The Board itself meets many times during the development of a set of ship characteristics. Each member considers all features of the proposed new type ship in relation to the areas of cognizance of his own bureau or office. As a naval officer, he must also consider the ship as a completed, versatile, and dependable unit of the Fleet. In short, he has to present the views of his own office or bureau and, at the same time, work toward a solution that will result in the best possible ship. The



HERE'S HOW—Artist's conception shows how new nuclear sub will look after completion. Needs of the Fleet help determine new work on the ways.

members like to regard their work on the Board as an example of "the art of the possible."

All this boils down to a great deal of hard work, exploration, consideration, and difficult decisions. Members must come well prepared, which means a lot of homework.

The purpose of all this work is to produce a set of ship characteristics that, when completed, will appear as a paper of eight to 12 pages containing 15 paragraphs. The paragraphs comprehensively describe the military functions of the ship.

A quick glance at these paragraphs will give you a pretty good idea of what the Board is aiming for in the new ship in which you may serve.

The first three paragraphs deal with the ship's mission and its tasks, as furnished by the DCNO for Fleet Operations and Readiness. Paragraph four, the first written by the Board, is a brief discussion of the ship.

With paragraph five comes the first of the specific characteristics. The various characteristics are set down in approximate terms although they have been developed over an extended period of study. They are usually reasonably close to the final design since the budget estimates are based upon these terms. Paragraph

five itself includes the ship's length, beam, draft—along with key features of seaworthiness, maneuverability and damage control.

Paragraph six is called "special features," and deals with characteristics peculiar or unique to the proposed ship. The next paragraph is devoted to armament. Paragraph eight deals with communications and electronics.

Propulsion is covered in paragraph nine. Here are set down the type of power plant, the trial speed and sustained speed together with the endurance (range) at the speed indicated. Paragraph 10 discusses protection; armor; chemical, biological, radiological, and blast-effects matters.

Paragraph 11 deals with aviation features. Paragraph 12 describes the ship-control spaces—such as the pilot house, and the auxiliary ship-control spaces, combat information center, weapons direction spaces, and sonar control spaces. If the proposed ship is to be a flagship, the necessary facilities are included here.

Berthing, messing, sanitation, habitability, and living accommodations are covered in paragraph 13. The next paragraph concerns the food storage, spare parts, stores, etc.

The final paragraph, the 15th,

covers items that are essential but do not in themselves require a paragraph of their own: Number of ship's boats; underway fueling and replenishment matters; medical and dental facilities; air conditioning matters and so on.

Certain of these paragraphs deal with matters close to home. The 13th, for instance, pretty much considers the ship in its hotel-like aspects—a place where people eat, sleep and live. Accommodations for each man in the future ship's company represent a sizable portion of the ship's total cost. It runs from about \$5,000 to \$10,000 for each man on the newer ships.

**P**ROGRESS IS A GREAT THING but it raises problems. For paragraph 13, for example, which considers the results of developments in ship's weapons, fire control systems, radar and sonar systems, propulsion and communications systems, progress always brings another personnel factor into the picture. The greater the complexity of the system, the larger the number of men needed to maintain and repair the system.

This is a serious problem. Each new type ship that has entered the Fleet in the last half-dozen years has needed additional men in its complement. To add new accommodations for the additional men is an expensive matter.

The evaluation and decisions that go into the development of the overall characteristics cause, at times, spirited debate. Personnel matters again offer a good for-instance here.

BuWeps tends to think of the proposed ship pretty much as a platform and base for air, surface, and underseas weapons systems. (They should—for that is BuWeps major responsibility.) BuShips considers the nature of ship's hull and ship's hardware. BuSandA and BuMed ponder its supply and medical aspects. The various officers of OpNav have their strongest concern in the areas of their own responsibility—Fleet operations, air, development, naval communications. The Fleet representatives think of it as a future member of a fitted-out and manned ship in a task group operating at sea. And so it goes.

**N**O MATTER WHICH PHASE of the ship's development is of major concern to you, you're going to need men to operate it—a lot of men.

Let's consider the fast combat support ship (AOE) mentioned earlier. This ship is to be an underway replenishment vessel, supplying other ships of the task group with fuel oil, aviation fuel, diesel oil, ammunition, missiles, underwater weapons, and limited amounts of food and Fleet freight.

That's a lot of supplies to be humped across the waves to ships steaming alongside at high speed. To strike it below at pierside, to prepare it for an underway replenishment, to keep the actual replenishment in operation, calls for manpower.

Add to this the regular duties required by any Navy ship: Main engineering, auxiliary machinery, navigation, communications, medical, deck and gunnery, operations. More ship's functions mean more people. This means more space.

There comes a point where a halt has to be called. Otherwise the ship will tend to become as big as four city blocks and take 6000 men to man it.

Sonar? Sonar is a fine thing to have for antisubmarine protection. Some of the planners will have argued its use; others will have opposed it. Say a crew of 400 has been decided on and billets determined for each. If sonar is to be used, it means at least four men to operate and maintain it. The sonar gear itself

will need additional space—at the expense of space allocated to other ship's departments. And the price tag on the ship will take another jump.

Dental facilities? Perhaps during its period with the task group the AOE would be in a good position to give dental treatment to tooth-aching crew members of small ships. But again, some department would have to give up billets and space. It may be that ultimately Engineering, Communications, and Gunnery each take a loss of one man and Supply gives us some space in a machinery spare parts storage compartment.

You may be sure that the officers whose interests lie chiefly in matters of engineering, communications, gunnery, and supply do not yield up billets and space without strong debate and, sometimes, strong words.

The above pattern holds true for item after item in the proposed ship.

**T**HE SHIP CHARACTERISTICS paper represents at this point a set of specifications that will support the mission and tasks of the proposed new ship type in sufficient detail to guide the preparation of an actual ship design. It is a design that is feasible, uses the most modern equipment that will be available during the construction period, and that can be built at a price within given cost estimates.

CNO's approval takes the form of a published OpNav Instruction in the 09010 series. It will be received with keen interest by the offices, bureaus, and Fleet commands comprising the Navy's top echelons. Keen, because it is a milestone in the development of a new type of ship. BuShips will be deeply interested in it.

BuShips will have been in the picture almost from the very first. Item after item in the characteristics will have been the subject of extended discussion and compromise between Ship Characteristics Board representatives and BuShips officials. This is only natural, for BuShips has the job of designing the ship outlined in the characteristics and of supervising the actual construction of the ship. The discussions chiefly concern the matter of what the ship's hull will look like, what can be designed into the hull, and what the ship's dimensions will be.

**T**HE PRELIMINARY DESIGN of the proposed ship breaks down into two main stages: Pre-characteristics and post-characteristics. The former is largely devoted to a feasibility study—a study that guides the Ship Characteristics Board in its work.

A typical design is an infinitely complex work involving the balancing of many factors. The work is done in the form of a series of de-

**BIG DAY**—Ship's launching (*USS Enterprise*) marks nearing end of complex trail in planning and designing new ship.





**TAKING SHAPE**—Naval architect prepares hull form lines for future ship.

sign studies, each of which is a complete preliminary design and which differs from the others in the type of compromise made among the various requirements. Sometimes as many as 20 of these studies are made before one is finally selected as the design from which the ship will be built.

The post-characteristics stage gets underway after the characteristics are approved. This stage will take about three to eight months and goes into details on stability, propulsion, endurance, structure and weight, and general ship arrange-

ments. It will result in six to 10 preliminary design plans (in a typical case), a design history and 30 to 40 pages of weight calculations, volumetric studies, and endurance studies. For aircraft carriers there will be studies on special problems in handling aircraft. Replenishment ships will have studies on cargo and fuel-transfer arrangements made for them.

Within BuShips the outfit with the most vital interest in the new ship's characteristics is the Ship Design Division. Four branches of this division will have an especially

strong interest: Preliminary Design, Machinery Design, Hull Design, and Electronics-Electrical Design.

Generally speaking, Preliminary Design is concerned mainly with the new type ship in the earlier stages of its development. Then the other branches come more and more into the picture as ship design progresses.

**T**HREE OTHER MAIN STAGES in the ship design process then follow.

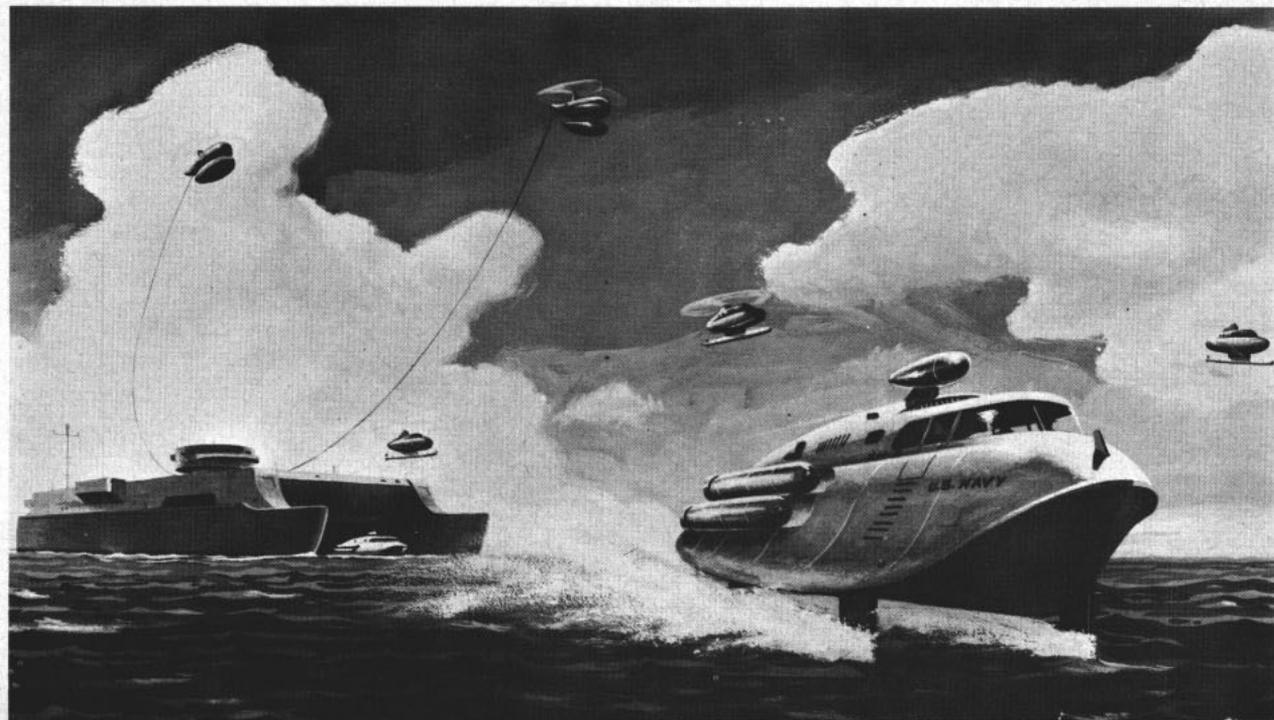
First is the Contract Design stage, which may run from four to 12 months. The fruits of labor will include some 40 separate plans, a specifications book of about 800 pages, a hull design report and a machinery design report.

The result is an accumulation of facts, drawings and figures that can be supplied to shipbuilders (both government and private yards) in sufficient detail for the shipyard experts to develop the contract bids.

The bids by the shipyards plus the contract awards take another two to five months. This is the Bidding and Award period.

Next comes a Detailed Working Plans stage. Here the plans, specifications book, hull design report and machinery design report are developed into plans of far greater detail. The 50 plans of the Contract Design step may evolve into 1800 or more plans. Some 400 different instruction books may also come forth. Shipyard officials have the load in this final step, but a degree of supervision continues to come from BuShips. This

**AN IDEA** to fill a need in ASW is shown in drawing of hydrofoils and robot copters leaving mother ship after subs.



period may extend to four or five years, overlapping the construction of the ship.

**U**P TO THIS POINT very little has been said about paying for the ship. An important matter, too, for no money, no ship. It's also an expensive item in the Navy's over-all budget. The total shipbuilding and ship conversion price tag is a large one, running about \$1.5 billion per year.

Budgetary matters come on the scene very early in the game—when the Standing Committee puts the proposed ship on its list. The time sequence here is about two years ahead of the signing of the Navy's annual appropriations bill. The Standing Committee is the key agency at this early point.

The proposed ship, considered as an item in a budget, will most likely appear in a program entitled "Fiscal Year X Program."

Although the results of the program are presented each year to the President, the program itself is worked up on a two-year basis. That is, two years' detailed planning and programming go into each Fiscal Year X Program.

As with the characteristics themselves, there is much interaction, recycling and feed-back among the Navy Department bureaus, the Standing Committee and the Ship Characteristics Board. Others concerned with the budget are the Director, General Planning Group (OpNav), CNO's Advisory Board and, of course, CNO and the Secretary of the Navy. The Navy Comptroller is very much in the picture, too, adapting the shipbuilding and conversion budget to the Navy's over-all budget.

After leaving SecNav, about nine months before the July of the given year, the shipbuilding and conversion budget—which is now incorporated into the Navy's over-all budget—goes on to the Secretary of Defense. He reviews it and prepares it for submission to the U.S. Bureau of the Budget. The latter also reviews it and sends it to the President, who makes use of it in his budget message to Congress.

**I**N THE NEXT STAGE, the budget is the subject of hearings in the Senate and House of Representatives. After various legislative processes, it then becomes a bill ready



**MODEL ON THE JOB**—Navy supervisor of a shipbuilding staff checks over model of aircraft carrier being constructed in shipways at the right.

to be signed by the President.

In these matters the time point aimed for is July of a given fiscal year. Presumably about this time the President signs the appropriations bill, and also signs a letter of authorization to proceed with the construction and conversion of ships and craft for which funds have been provided.

At last there comes a point where the actual construction of the ship may be said to start. The first step is the drawing of the working plans, generally drawn to a scale of one-quarter inch or one-half inch to the foot. From these a full-scale set of hull lines are outlined on the deck of the shipyard's mold loft.

Thin wooden or hard paper templates (patterns) are then cut for each of the ship's metal plates and structural members. The templates are taken to the prefabricating shop where the steel plates and structural shapes are cut and numbered for later identification.

**A** KEY STEP OCCURS about this time—the new ship's keel is laid. You have followed the develop-

ment of a new type ship from the time of the first significant expression of a need for a new type up to the laying of the keel. This step may take from three to six years. Add to this the period from the keel-laying to the ship's commissioning and the total will, in the longer cases, push eight or 10 years.

In the main, new type ships now being commissioned were merely ideas under hot discussion by various Navy Department boards, bureaus and committees back in 1953-54. And the new ship types now in their planning stage will get their commissioning crews in 1967-68.

Not all new ship types are developed from the keel up. Instead, some are conversion jobs and use the hull, engineering plants, and structural members of existing ship types. Radar picket destroyers, radar picket submarines, guided missile light cruisers and ASW support aircraft are in this category. Their transition followed pretty much the same pattern, with modifications, as that for new ship types developed over the longer route.

—Wm. J. Miller, JOCM, USN.



# Know How

**I**F YOU SHOULD ASK the men of the Pacific Fleet's Destroyer Flotilla Three the best place to get equipment, spare parts, or have repairs made, there is a good chance they'll say from the destroyer tender *USS Hamul* (AD 20).

Homeported at Long Beach, Calif., *Hamul* is one of three destroyer tenders attached to Destroyer Flotilla Three.

During the first 10 months of fiscal year 1961, her crew completed more than 6600 jobs.

Evidence of *Hamul's* reliability and efficiency is contained in letters from commanding officers of the many destroyers serviced by her. These letters praise the enthusiastic and capable manner displayed by the tender's personnel while com-

pleting jobs ranging from replacing a bolt to completely overhauling the most complex machinery.

Deep within *Hamul's* hull, shops and offices are constantly alive with activity. The jigsaw complex of compartments which form her working spaces is filled with men and equipment to provide practically any repair or service required by destroyers or their crewmen, or by almost any type ship in the vicinity.

If you were to take a tour of *Hamul* at night, you would find more than one shop burning the midnight oil. Tools and equipment are available to any ship moored alongside which needs a job done during the night hours. There are always men on duty to operate a lathe, run a grinder, repair an elec-



**ALL HANDS**

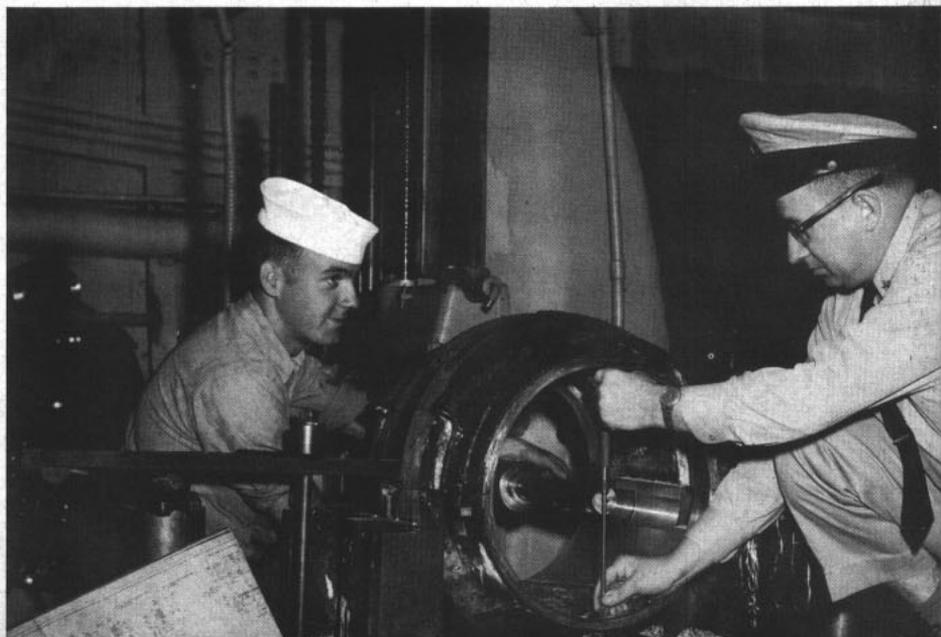
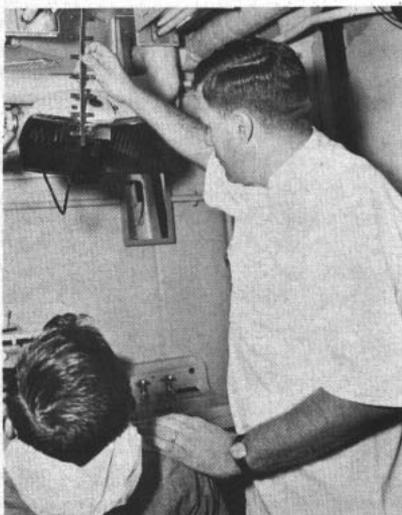


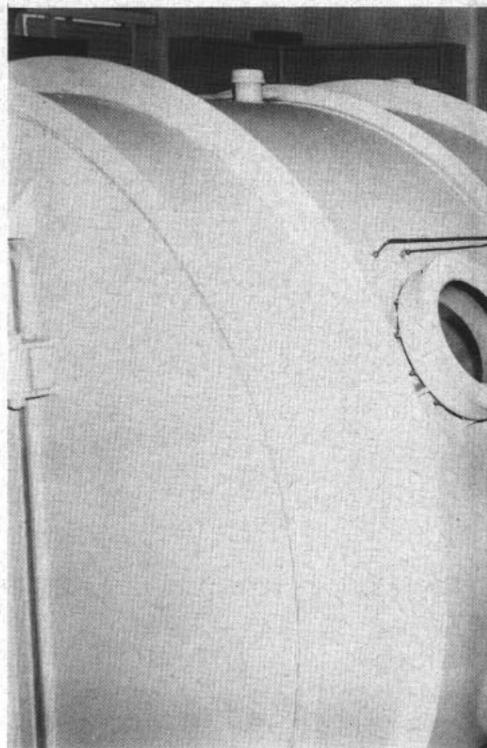
# and Can Do

trical motor, or do whatever else is needed. Their motto is "Service to the Service" and they live up to it.

Clockwise from upper left: (1) F. E. Holmes, DC2, of the carpenter shop, sands area where he will replace part of sternpost on a 26-foot motor whaleboat from *uss L. K. Swenson* (DD 729). (2) In the optical shop, C. S. Parker, OM3, overhauls a pair of MK32 binoculars. (3) The destroyer tender *uss Hamul* (AD 20), moored to Pier 15 at the Long Beach Naval Station, is flanked by some of the destroyers she services. (4) In the outside repair shop, C. E. Shirk, MMFA, works on a salt water reducer from a destroyer. (5) B. G. Asuncion, EM3, of the electrical shop, rewinds a fireroom ventilation motor from *uss Benner*

(DDR 807). (6) A teletypewriter from *uss Picking* (DD 685) is repaired in the radio shop by J. S. Deason, RMC. (7) In the heavy machine shop, G. G. Ross, MR3, and D. F. Boltz, MRC, add final touch to the machining of a spring bearing for *uss McDermut* (DD 677). (8) LT J. W. Schnoor (DC), views x-ray film before working on a dental patient. (9) A stainless steel sink for *uss Picking* is sanded by G. W. Jackson, SFM3, of the sheet metal shop. (10) T. D. Linnenkamp, OM3, and J. W. Funkhouser, OM3, of the optical shop, collimate a MK 61 gun sight. (11) In the shipfitter's shop, E. S. Murphy, SF1, and G. O. Kerns, SFM3, brake quarter-inch, aluminum deck plating to be installed in *uss Fechteler* (DDR 870).





TESTING—Physiological training devices at NAS Quonset Point include ejection seat and (Rt.) pressure chamber.

# Working Under Lots of

**H**AVE YOU EVER HAD the pressure put on you, or been under pressure? Each of us in this day and age can answer yes to that question.

The everyday kind of pressure, however, is not the type of pressure we'd like to discuss here. This is about the physiological and atmospheric variety, experienced by certain individuals at the Quonset Point Naval Air Station.

The physiological training devices at Quonset in which this type of pressure is applied include a low-pressure chamber, a night-vision trainer, an ejection seat trainer and a Dilbert Dunker.

Perhaps the most widely used of these training devices is the low-pressure chamber. It is located in an inconspicuous place near the station hospital and is operated and staffed by an officer-in-charge, CWO Richard H. Weaver, and two low-pressure chamber technicians, William M. Spahr, HM2, and Leo W. McGroty Jr., HM3.

This is just one of 20 such U.S. Navy low-pressure chambers in the world. There are 19 in the states and

one in London, England.

The chamber is a training device to provide physiological indoctrination and survival training for pilots, observers and air crewmen.

Men and women from Maine to Norfolk use the Quonset Point chamber. Air Force, Army, Coast Guard, Navy, Marines, Middies, Waves, Nurses, Naval War College personnel and certain civilian researchers and contractors have been processed. Last year 4686 persons went through the chamber.

**P**ERHAPS THE BEST WAY to get an insight to the indoctrination provided by the low-pressure chamber would be to go through it yourself.

You meet with your group at the chamber to fill out your medical papers at 0800. Then some 15 minutes later you all sit down and watch three films: "Oxygen Requirements in Flight," "Oxygen in Flight Equipment," and "Night Vision for Airmen." This takes about an hour and a half.

At about 0930 Chief Warrant Officer Weaver comes in and explains

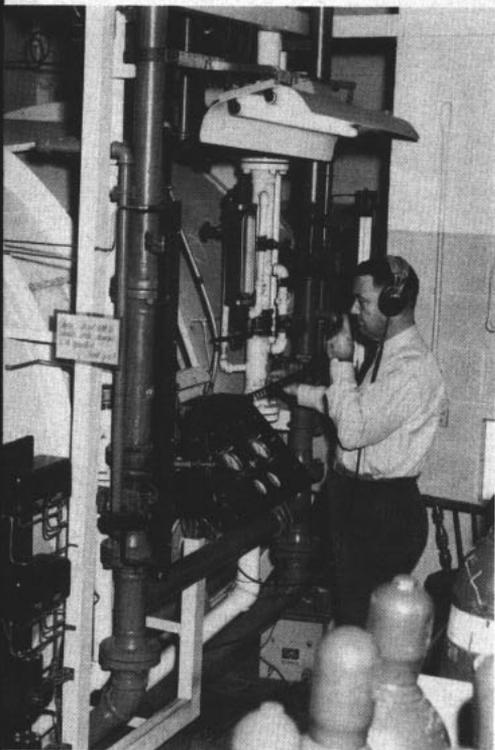
how to cope with atmospheric pressure changes that will occur when soaring into the stratosphere (either in the chamber or in real flight), and discusses how to equalize the pressures both while climbing to the higher altitudes and while returning to earth.

During this discussion he points out the four major problems which you may encounter in high altitude flying. These are:

- Gas expansion in the lower intestinal tract because of too much nitrogen in the body. (For this reason, anyone who plans to go into the chamber is forbidden to consume any carbonated drink.)

- Hyper-ventilation or over-breathing—This takes too much carbon dioxide from the respiratory system and you would probably black out. You would revive quickly, however, after the carbon dioxide again builds up in your body.

- Hypoxia—An insufficient amount of oxygen is taken into the body. You would pass out completely unless 100 per cent oxygen were used to revive you.



CHAMBER simulates flight pressures.

# Pressure

• **Bends**—This is caused by reduced atmospheric pressure (usually above 35,000 feet). Here, nitrogen is released from body fluids in the form of bubbles which accumulate around active joints such as the arms or legs. They may also accumulate in the lungs and cause the chokes or in the brain and cause a staggering effect, or at least slow down your thinking.

**N**OW YOU ARE READY to go inside the chamber. Before the Corpsman fits a mask to your face, however, your nasal passages are sprayed, clearing the sinuses. Next the mask is fitted and the air hose attached to the oxygen regulator.

The hospital corpsman who fits your mask will also go along with you on the simulated flight while CWO Weaver operates the controls from outside. When you are all ready, the flight begins. As you start to gain altitude, your ears pop as they do when you take off in an airplane. You experience every sensation of flight in the chamber that you would in actual flight except the acceleration and jolt of take-offs and landings, and



ON HIGH—Trainees take mock flight at 43,000 feet in chamber. Below: Model for night vision training shows how things look in the moonlight.

the roar of engines. Before you return to earth, you are taken to a simulated 43,000 feet.

After you are slowly brought back to sea level, you remove your flight gear and climb out of the chamber, perhaps feeling rather surprised that

the trip was not as difficult as you anticipated.

While you have been flying high, at another part of the Quonset Point base, students are seated in a dark room for night-vision training. The only light is projected "starlight"





**ALLEZ OOP!** — Ejection seat blasts prospective birdmen out under 'real' emergency conditions while in flight.



**SPLISH, SPLASH**—Dilbert Dunker gets ready to take a crash dive into pool.

which silhouettes various-sized buildings. During the first 20 to 40 minutes, while students get used to the darkness, a corpsman instructor explains the structure of the eye, the dark adaption with or without the use of red lenses, off-center vision, scanning patterns and the inability to distinguish colors below levels of half moonlight.

Before increasing the amount of light on the screen, the instructor also discusses briefly how bright lights, vitamins, drinking and smoking can affect night vision.

**D**URING THE LAST HALF of the session, an instructor explains such phenomena as auto-hypnosis, auto-kinetic movement, and road hypnosis.

The road hypnosis was recently added to help stimulate safer driving habits. For this part of the course, the instructor uses a three-dimensional map of a small city. He has lights which represent moons on each side and above the map to show objects as they would appear when the moon shines at different angles. Such objects as buildings, trees, ships in a cove, a river and a bridge are used as examples.

To add a little more light to the subject and to complete the lecture, the instructor turns on and discusses searchlights and flares. The entire procedure lasts about 90 minutes.

Perhaps the most realistic physiological training device at Quonset Point is the ejection seat training. Live ammunition is used in the actual firing of this trainer just as it would be during a real emergency ejection from a plane.

**B**EFORE YOU ARE FIRED in the ejection seat trainer, however, you must first review a film which shows how the device is constructed, its safety features, hazardous factors involved, the physiological involvements in free fall, and the use of the emergency equipment.

A nine-G impact is felt for 0.1 of one second when the ejection seat is fired.

Running a close second (so we have been told) to the ejection seat for realism is the Dilbert Dunker. The idea here, of course, is to train personnel to get out of a ditched plane safely after it hits the water.

Before any Dilbert is actually allowed to ride the Dunker, however, he must demonstrate his ability to swim a given distance and he is also briefed and lectured on correct procedures to be followed while he escapes.

During the actual operation of the Dilbert Dunker, a man is strapped into a cockpit-like device and sent speeding down a track and tipped bottomsides-up in a deep pool.

The man inside the Dunker must then unstrap himself and escape from the trainer safely. If he does all this right he is given a thumbs-up, which means he has escaped properly.

If he does not escape properly, however, he is given a thumbs-down and must go through the procedure all over again. (See pages 16-17 of the June 1959 issue of ALL HANDS for details.)

These are Quonset's physiological training devices. Care for a little ride?

—C. E. McKinney, JO3, USN



KEEPING READY—Copter picks up 'victim' during practice rescue. Rt: Crash crew rescues 'pilot' during drill.

## 'May Day' Is No Picnic

WHILE MOST of us recognize the aircraft distress call of "Mayday, Mayday," not so many realize what takes place when a call is received.

At the Iwakuni (Japan) Marine Corps Air Facility operations tower the activity sparked by such a call follows a typical pattern. First, the operations personnel on duty in the tower grab "hot lines" and radio to put the facility's emergency crash plan into action.

The crash crew stationed adjacent to the landing strip moves into action, and fire-fighting trucks are dispatched to assigned positions to await landing. Crash crew members stand by, equipped with various types of fire-fighting gear to aid in retrieving pas-

sengers from the plane.

The crash crew receives assistance, when needed, from members of the facility's fire department, who are detached to the emergency area. Also, upon notification of a crash or emergency, the hospital sends an ambulance crew, flight surgeon and/or medical officer to the scene.

The search and rescue helicopter and crash boat units are alerted to stand by for further instructions. For off-base emergencies the copter search and rescue area covers a 75-mile radius of the base while that of the crash boat is 20 miles. In event of an off-base accident, the SAR unit launches a helicopter with crash crew personnel and fire-fighting equipment

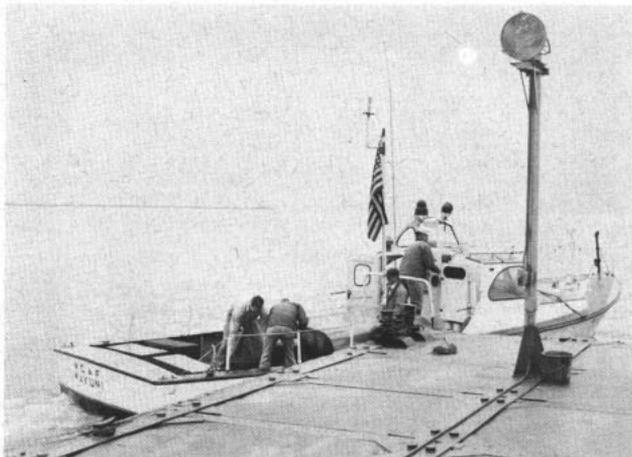


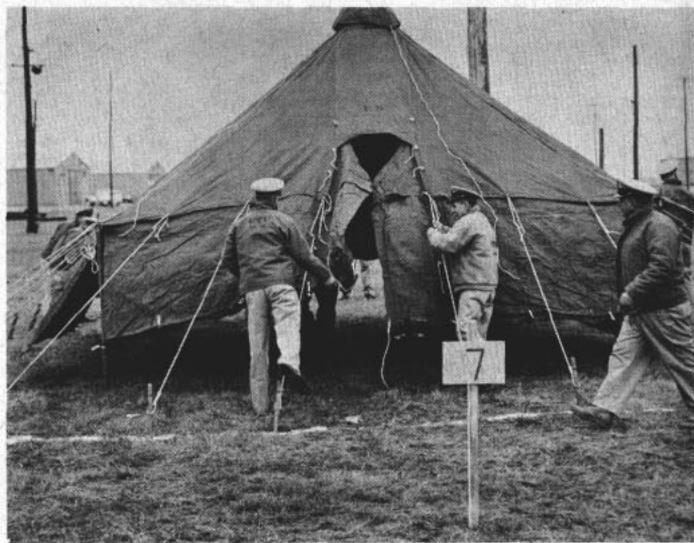
FIRE department moves out.

aboard. When needed, the copter guides crash trucks and assistance convoys to the accident.

Following a water crash the SAR helicopter departs immediately for the scene, as does a crash boat from the boathouse. Seaplane assistance from Fleet Air Wing Six is also available.

TEAM WORK—Crash boat readies for rescue. Rt: Pilot is flanked by men who figure in station crash plan.





HERE'S HOW—Heavy equipment operator mounts up for some practical training. Rt: Seabees get lesson in tenting.

# Summer Seabees

**E**LEVEN PIONEERING Naval Reserve Seabee divisions moved into action at the U.S. Naval Construction Battalion Center, Davisville, R. I., a few months ago.

These Reservists — members of Seabee divisions located in five New England states — were formed into Mobile Construction Battalion 12, the first of 14 MCBs to take part in a new training cycle for Reserve Seabees.

This summer, six more battalions will report in at Davisville at two-week intervals for the first phase of their cycle training program. These Seabees will come from the Third,

Fourth, Fifth and Sixth naval districts.

The training program will closely follow that of MCB 12. Emphasis will be directed toward battalion organization, performed under actual field conditions.

Seabees will be assigned both to construction and combat billets, thus fulfilling the Seabee motto: *Construimus—batuimus* (we build—we fight).

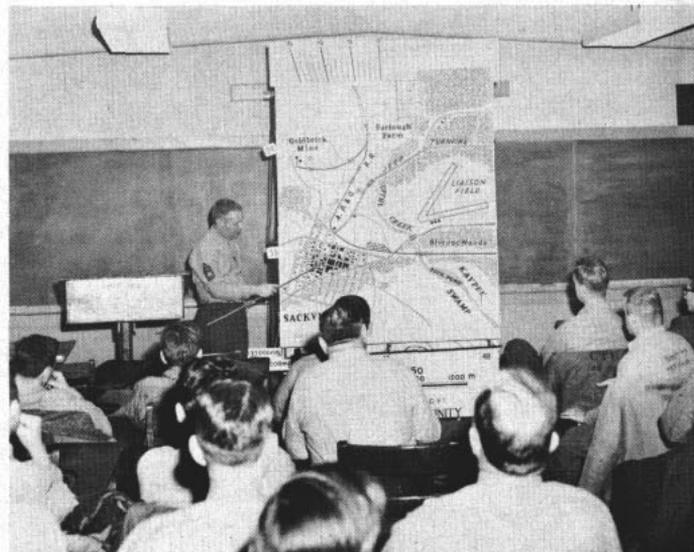
**H**ERE'S HOW the MCB 12 operation checked out: The Reservists reported in on a Sunday, were assigned bunk numbers, duty sections and billets. Before long, a battalion for-

mation was held in the drill hall. There, each man met his squad chief and the other men of his company—the men he would be working and living with for the next two weeks. The CO and all the officers were introduced to the Reserve battalion.

On Monday, the battalion formed for its first personnel inspection, and was reviewed by ComFltAirQuonset and the CO of the CB Center at Davisville.

Formalities were kept short and sweet, however, and the training period began in short order. Companies H and C started their military training under instructors from the

FIGHTING FITNESS—MCB-12 Navymen get workout on obstacle course and (Rt.) receive training in map reading.





TECHNICAL TRAINING—CBs tour supply center at Davisville, R.I. Rf: Steelworkers put together a quonset hut.

Center's military training unit and nearby Marine Corps activities. Companies A and B began practical factor check-outs in their various construction skills. During the second week of training, the schedule was reversed.

Training received by the MCB-12 Reservists was broken down into class periods, with full days used for practical factors. Teaching was done by a three-point system—visual aids, lectures and on-the-job training. Each man received one week of military training and one week of on-the-job training.

**M**ILITARY TRAINING consisted of such subjects as orientation and squad organization, Code of Conduct, M-1 rifle and general small arms practice, obstacle course, combat signals and formations, rifle range drills, compass and map reading, scouting and patrolling, squad and platoon tactics, interior guard duty, atomic, biological and chemical warfare and ABC protective measures.

Technical training covered just as broad a field. The Reservists learned battalion organization and administration, MCB operations, the Navy supply system, safety and first aid, camp construction and field sanitation, the military pack, military justice and fire fighting—and underwent practical factor check-outs.

Each Seabee was given an opportunity to demonstrate his proficiency in skills according to his rating. As Naval Reservists, most peacetime Seabees work in construction and

constantly improve their ability to perform their wartime construction mission. They do not, however, often have sufficient opportunity to advance their military readiness. This cycle training program is expected to provide the necessary balance of construction and military skills.

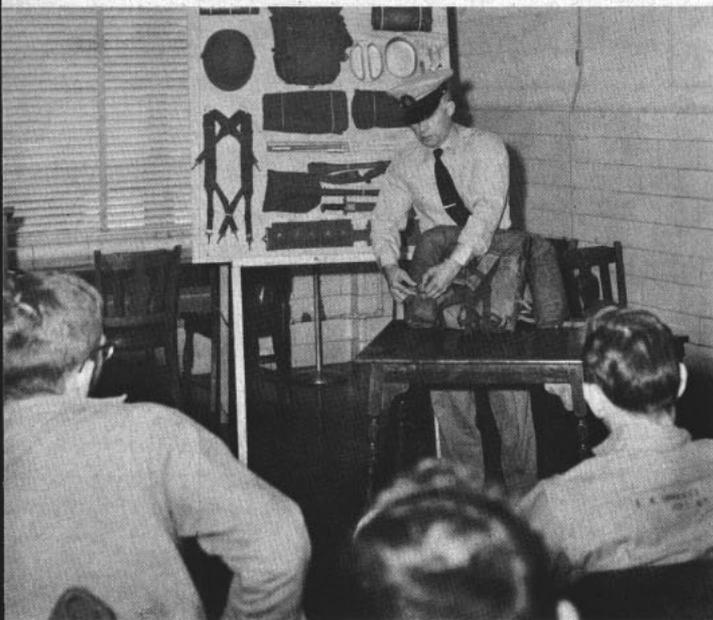
Throughout the pilot training program, a special evaluation team of officers—unfamiliar to the men undergoing the training—roamed the training areas, asking questions of the men on their jobs and their duty.

**A**S IN WORLD WAR II, the Seabees must be ready to build shore facilities overseas for use by the other operating forces. Also, as in World War II, they must be able



ON TARGET—Reserve Seabees of MCB-12 sharpen their aim on rifle range during new training. Above: Reservist learns the ropes of descending net.





CLASSROOM TIME—CBs are shown how to make a combat pack. Rt: Field stripping an M-1 is demonstrated.

to defend their construction sites against enemy attacks and harassment. Seabees of past years often fought alongside regular infantry units of the Army and Marines.

In future years, however, wide dispersal of forces will be necessitated by the threat of nuclear weapons. Therefore, construction battalions will have to be virtually self-reliant in defending themselves. And they must have a third capability: They must be able to offer passive defense against nuclear attack and to recover bases and facilities damaged by nuclear attack. Reserve and

Regular Seabee units are already undergoing Base Recovery Team training.

As you read these lines, Seabees from various parts of the country will be undergoing the first phase of their new preparedness campaign, following in the footsteps of MCB-12.

Phase II of the cycle will get underway in 1962 and 1963. At that time, these same Seabee Reserve battalions will be reporting in at Camp Lejeune, N.C., for rugged military training under the Marines.

Phase III will take the battalions

back to Davisville, but this time they will be undergoing project-type training. As an example, they will be training to build runways at advanced bases.

No doubt some of the wittier Seabee Reservists are cracking wise with modified mottos such as "This summer we build, next summer we fight." That is, if there's enough time left in their 24-hour day for joking.

But when the training is over, they'll know both sides of their Latin motto, and they'll be better able to live up to their well-known and well-earned "Can Do" slogan.

THE END—Seabees stand in review during ceremonies that marked the end of their pilot training program.





**TARGET TIME**—Navy men ready 30-caliber machine gun.

## CB Gunfighters

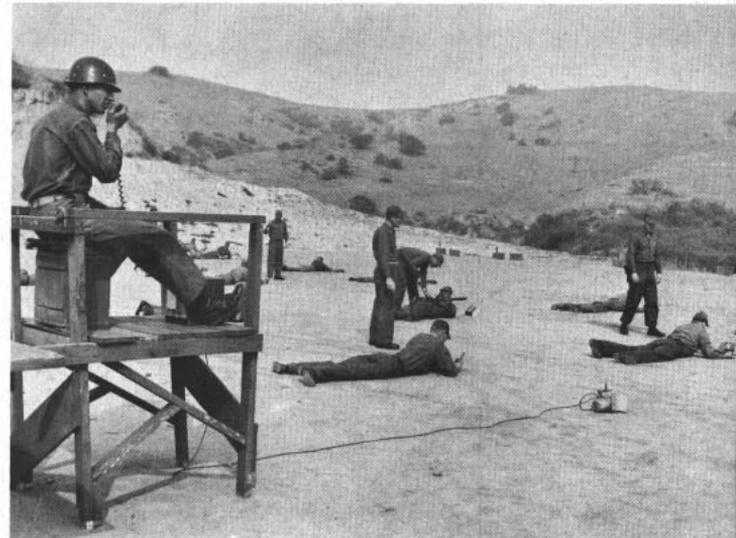
**W**HILE EXCHANGING white hats for steel helmets and construction gear for machine guns, rifles and the latest in combat equipment, the Navy men of Mobile Construction Battalion Nine proved that they could fight as well as they could build.

Combat readiness and knowledge are nothing new for the Seabees who built quite a reputation as tough fighters during World War II. To make sure they can uphold this reputation, Navy men of MCB-9 left their usual base for technical training at Port Hueneme, Calif., and joined the Marines at Camp Pendleton. Here, under the guidance of Leatherneck instructors, the Seabees spent two weeks in combat training. Instruction included combat tactics, rifle and machine gun practice, hand-to-hand combat, mortar and recoilless 106mm rifle firing. During marches the Seabees also found out how the infantryman travels around. In order to test the skills and knowledge acquired from the Marine teachers on the ranges and in the classrooms the Navy men engaged in mock battle, with Marine units playing the part of the enemy.

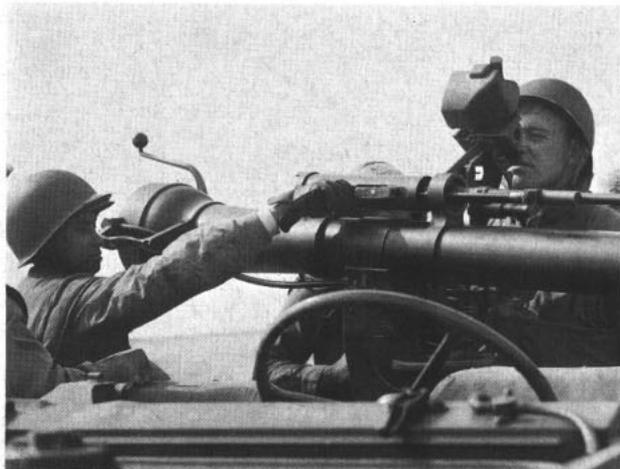
When the two weeks at Pendleton were over and the Seabees headed back to Port Hueneme they had proven once again that the men of MCB-9 "Can Do."

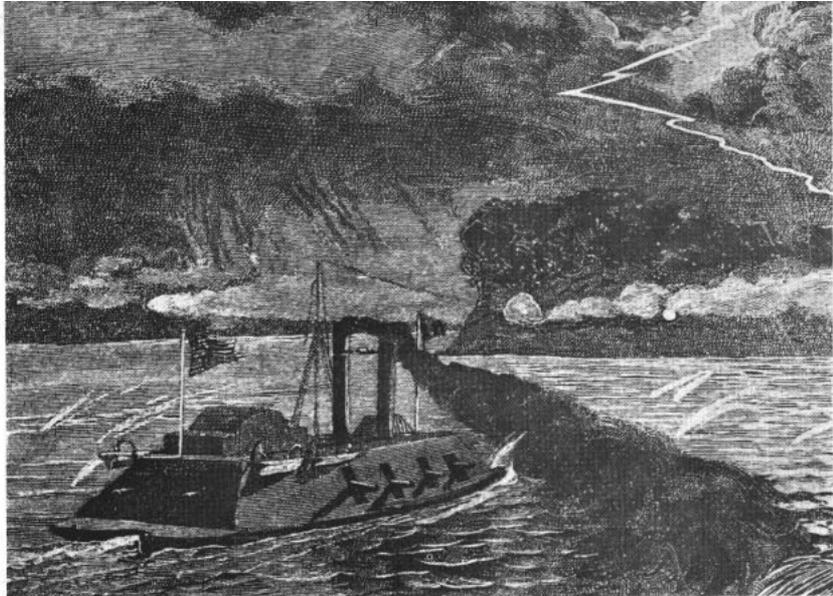


**FIRE ONE**—Seabees show skill at firing the mortar.  
Below: Marines pass word during machine gun drill.



**BIG GUN**—Men of MCB-9 learn how to sight-in and fire 106mm recoilless rifle at Camp Pendleton, Calif.





*She Rises Again*

# Civil War Gunboat

**A** FEDERAL GUNBOAT, USS *Cairo*, believed to have been the first warship sunk by a submerged mine in the Civil War, and the only known Civil War ironclad remaining in a preserved condition, is being raised from her long-time watery grave, just in time to take part in centennial observances of the War Between the States.

More than 98 years after she settled to the bottom of Mississippi's Yazoo River, *Cairo* has been declared officially abandoned by the U.S. Navy. This action by SecNav has removed any possible legal obstacles for a group of Mississippians which

has already salvaged portions of the historical craft.

*Cairo* began her short but violent career on 25 Jan 1862, when she was commissioned as an Army ship. She operated with the Army's Western Gunboat Fleet, commanded by Flag Officer Andrew H. Foote, on the Mississippi and Ohio rivers and their tributaries for the next nine months. It was not until 1 Oct 1862, some two and a half months before her sudden demise, that she and the other river gunboats were transferred to the Navy.

*Cairo* was a wooden, ironclad gunboat, whose hull, divided into 15

CAIRO-TYPE river fighter revs up its stern paddle while running past Confederate shore batteries.

watertight compartments, enclosed a single paddlewheel in the stern. Iron, two and a half inches thick, covered the sloping bow casemate and the inclined sides abreast her engines, leaving more than half the topside unarmored. She mounted 13 guns in the casemate.

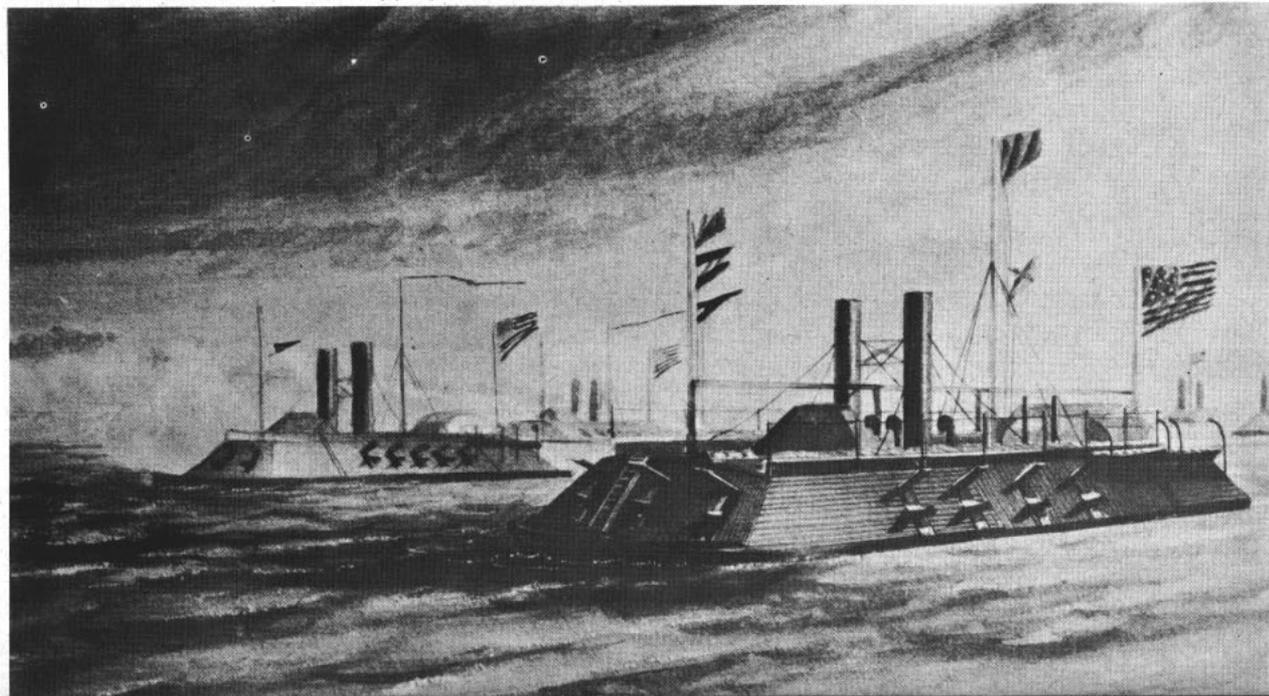
She was a paddlewheel steamer, as were all the river gunboats of that era. They were the only type of craft which could maneuver with any degree of safety and success in the comparatively restricted river channels.

As a result of the narrow confines,

most engagements involving river gunboats were fought head-to-head—thus, the classic concept of heavy broadside armament gave way to a design which placed as many guns as possible pointing forward.

To provide as much room as possible for guns bearing directly ahead, *Cairo* and her sister gunboats were fat—nearly oval—in design, almost a third as wide as they were long. *Cairo* herself was a 512-tonner, 175 feet long, and 51-plus feet wide. She had a maximum speed of about seven knots, and carried four rifled 42-pounders, six 32-pounders, three 8-inchers, and one 12-pounder.

CRUISING UP THE RIVER—Mississippi gunboats led by flagship *USS Benton* move out ready for action with enemy.

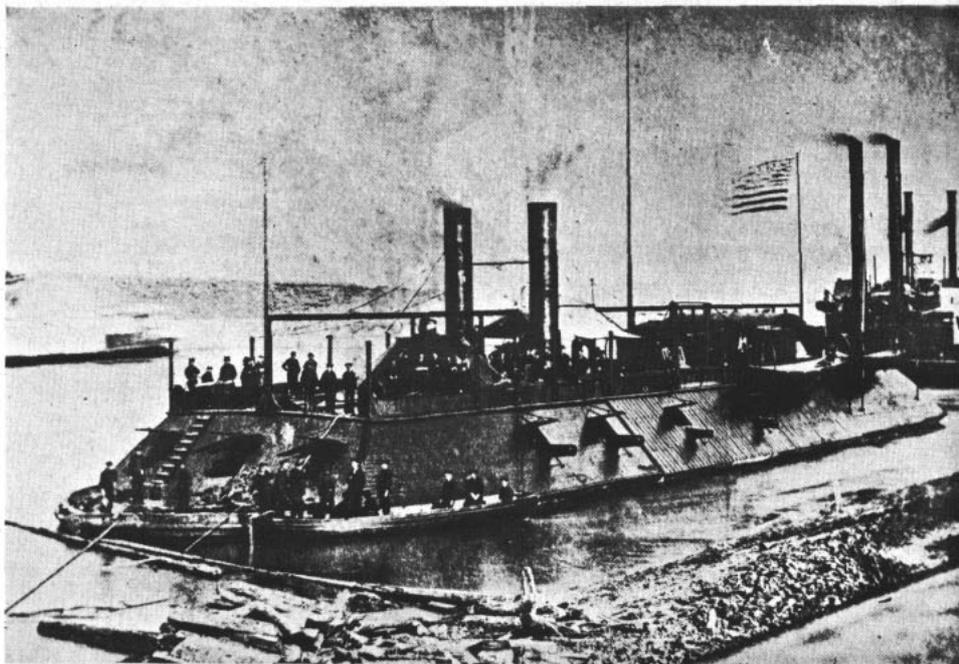


Her first post-commissioning activity involved taking part in the occupation of Clarksville, Tenn., on 17 Feb 1862, and of Nashville, Tenn., eight days later. Then, in early April, she escorted a group of mortar boats down the river, where she joined other Federal forces in blockading and bombardment operations against Fort Pillow, Tenn. A lengthy siege, punctuated by a sharp engagement between Union and Confederate gunboats at Plum Point Bend on 11 May, finally culminated in the abandonment of the fort by its defenders on 4 June.

Two days later, *Cairo* was a participant in one of the most spirited, and decisive, battles to occur on the Mississippi during the entire Civil War. The prize was the city of Memphis, and the arena for the big fight was the stretch of river fronting that city.

Union forces, in addition to *Cairo*, were the gunboats *Benton*, *Carondelet*, *Louisville* and *St. Louis*, plus the rams *Queen of the West* and *Monarch*. Opposing them were eight Confederate gunboats—the flagship *Little Rebel*, along with the *General Beauregard*, *General Bragg*, *Jeff Thompson*, *General Lovell*, *General Price*, *Sumter*, and *General Van Dorn*.

This clash ended in complete and overwhelming victory for the Union fleet. Five of the rebel craft were sunk or run aground, two were badly damaged, and only one, the *General Van Dorn*, managed to escape down-river. None of the Union boats suf-



PICTURE THIS—Federal gunboat USS *Cairo* has photograph taken between actions on the big river. Paddle-wheeler was 175 feet long by 51 feet wide.

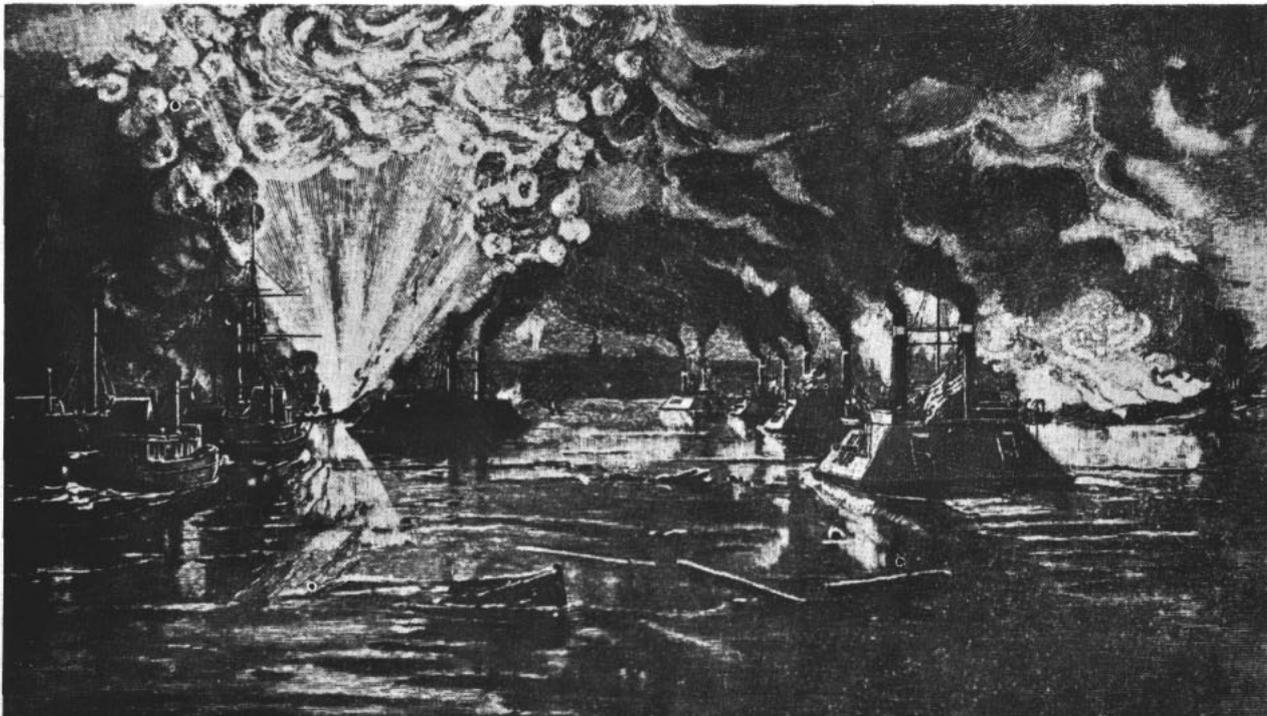
fered more than superficial damage, and, as a result of their victory, Federal troops occupied Memphis that night.

*Cairo* returned to patrol duties on the Mississippi until late November, when she was assigned to the Yazoo expedition. On 12 Dec 1862, while clearing mines (called torpedoes at that time) from the river preparatory to a projected Union assault on Haines Bluff, Miss., she struck one of the submerged canisters, and sank quickly. Her crew removed her

smokestacks and flagstaff from above the water, to prevent possible detection, and salvage, by the Confederates.

Once the war was over, *Cairo* became just another forgotten casualty of that conflict. In December 1956, however, officials of the National Park Service announced that her wreckage had been discovered, and that she appeared to be in a fairly good state of preservation. It was then that local interest in salvaging the relic first became aroused.

BIG BATTLE—*Cairo* (rt.) and ships of Mississippi fleet are shown in action near end of the battle for Memphis.



# Assignment in Sicily

PLANES OF ATTACK SQUADRON 75 (The Sunday Punchers) have flown more than 15,000 hours over the past two years without a single accident. A record like that is no accident, either. VA-75 pilots are among the loudest in giving the credit where credit's due—to the talented squadron "plane doctors" who keep 'em flying.

Problems can arise, however, in even the most well-regulated and accident-free of squadrons. They're usually nothing that Navy aircraft repair and maintenance experts can't handle. Take the recent far-from-routine repair job which tried the skill and ingenuity of four of VA-75's finest, as a for-instance.

The four—Chief Aviation Machinist's Mate Andy Lundberg; Aviation Electrician's Mate Second Class Glen Duncan; Aviation Machinist's Mate Second Class Ken Anthony; and Aviation Metalsmith Second Class Earl Savage—faced the bleak prospect of performing a complete engine change—no small task, even at a well-equipped State-side Naval Air Station—at a small Sicilian airfield with no servicing facilities whatsoever.

There were other complications aplenty, too.

First of all, of course, they had to obtain a new engine, plus a crane large enough to handle it. They had none of the numerous special tools normally required. They were in the midst of an area where not a living soul spoke, or understood, any English—and they were in the same boat themselves when it came to Sicilian.

Furthermore, this lack of command of the English language, and an equally complete lack of knowledge concerning airplane engines,

didn't prevent swarms of kibitzing Sicilians from forming one of the most vocal and energetic groups of



sidewalk superintendents ever seen. In the end, however, the four Navy-men surmounted every obstacle, and came through like champs — and there is the suspicion that in the process they accomplished more than just an engine change.

Our little saga of frustration and eventual triumph in sunny Sicily begins, naturally, in the Mediterranean, where Attack Squadron 75 is currently deployed aboard the Sixth Fleet's heavy attack carrier *uss Independence* (CVA 62).



One of the squadron pilots was peacefully tooling his *Skyraider* along on a routine-type mission when, almost directly over Sicily, his plane's engine suddenly began running rough. Not one to take unnecessary chances, the pilot took none. He immediately headed in for a precautionary, and uneventful, emergency landing at the nearest available field—not far from Palermo.

Some 150 miles away in the Tyrrhenian Sea, *Independence* received a radio message from her missing

pilot, informing her of the engine trouble and unscheduled landing. Two VA-75 repair aces, Chief Lundberg and EM2 Duncan, immediately got some orders. "Have a pilot fly you up there," they were told. "Check it out and see what needs to be done."

It didn't require much checking out. Alone on the scene, Lundberg and Duncan soon confirmed their worst fears. The plane would need a new engine, and that was that. While the two Navy-men scratched their heads and pondered what to do next, the first wave of local populace descended upon them. There were four men, who turned out to be the Brigadier of Police and aides, plus 10 or 12 wide-eyed children.

There ensued a lengthy palaver not unlike many of the powwows immortalized in innumerable movie epics. There was no interpreter available for this one, however, and it was only after a good deal of arm and hand waving, eyebrow-lifting, shoulder-shrugging, eye-rolling and finger-pointing that the two Americans eventually found themselves ensconced inside the local version of a *Black Maria*, and speeding toward Palermo.

At this point Lundberg and Duncan weren't at all sure they'd made themselves understood, and prepared for the worst. They needn't have worried. Their hosts were admittedly a voluble and excitable crew, but they were also friendly, and determined to be helpful.

In fairly short order (just a little more arm-waving, eye-rolling, etc.) they had fixed the two Sunday Punchers up with a place to stay, and, even more importantly, driven them to the local telegraph office.



From there they were able to contact a Navy detachment temporarily based at Sigonella, on the other side of the island, and request an engine and crane, plus some tools. They also dispatched *Independence*, advised the squadron repair officer



of the situation, and were assured that more help would be sent.

A return message from Sigonella informed them that the engine, crane and tools had been put aboard a truck and were underway—but it also revealed that there were some 250 miles of tough, shoulder-wrenching mountain road between them, and that it would be some time before the gear could reach Palermo. This turned out to be one of the understatements of the year. Lundberg and Duncan put the intervening time, plus the pliers, screwdriver and sundry sprocket wrenches they had brought with them, to good use in preparing the damaged engine for extraction.

They continued to have plenty of company, too. Some of the children warmed the hearts, as well as the innards, of their temporary guests with an especially thoughtful and appropriate gift—a coffee pot. There were ever-increasing crowds of curious adults.

Crane and engine finally arrived, and at about the same time, the *Independence* reinforcements—AD2 Anthony and AM2 Savage—reached the scene. Now another delay cropped up. The crane had been sent, all right—completely disassembled and neatly packed in a huge crate. A set of instructions for

assembling it had been thoughtfully included.

It took some doing to put that crane together. The four sailors contributed most of the sweat and elbow grease. The children sang and cheered. Shouting, gesticulating throngs of city officials, local police, and just plain rubbernecks helped some with the pushing and hauling, and donated mountains of free advice—all in flawless Sicilian.

Finally, the great day arrived—the day the new engine was to be installed. It turned out to be, coincidentally, Italian Independence Day, which meant open house throughout the area—a development the four crowd-plagued Navymen, needed like a hole in the head.

Crowds grew even larger. A carnival-like atmosphere prevailed. Acres of children plied the sweating airmen with sandwiches and other goodies cadged from their Mama Mias. Snatches of song, gay laughter, more of the inevitable advice filled the air. The crowd as you've no doubt gathered by now, was not

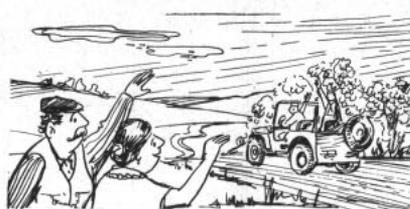


constitutionally adapted to silent watching. While an American can watch a construction job for hours without uttering a sound, these straw-bosses felt the need to point and explain continually, and in detail. They would, moreover, at the drop of a nut or bolt, take hold of a job and show how it should be done.

The spectators' hearts were in the right place, however. They just wanted desperately to be of assistance to their new-found friends. And the VA-75ers even began to

learn a little of the language as time went by.

It was a struggle, but Chief Lundberg and his crew eventually got the new engine fitted into place, and commenced the long and painstaking task of sealing and checking each



mechanical, electrical and hydraulic fitting.

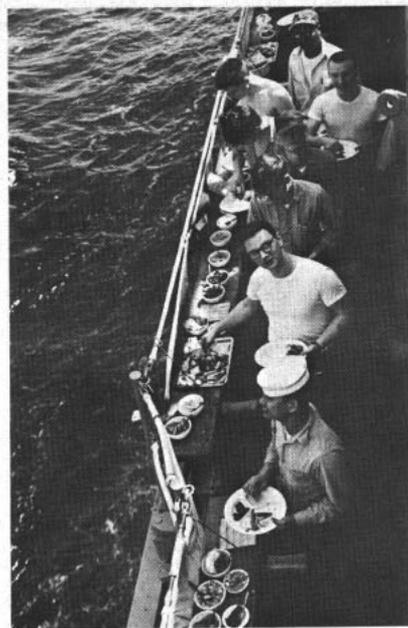
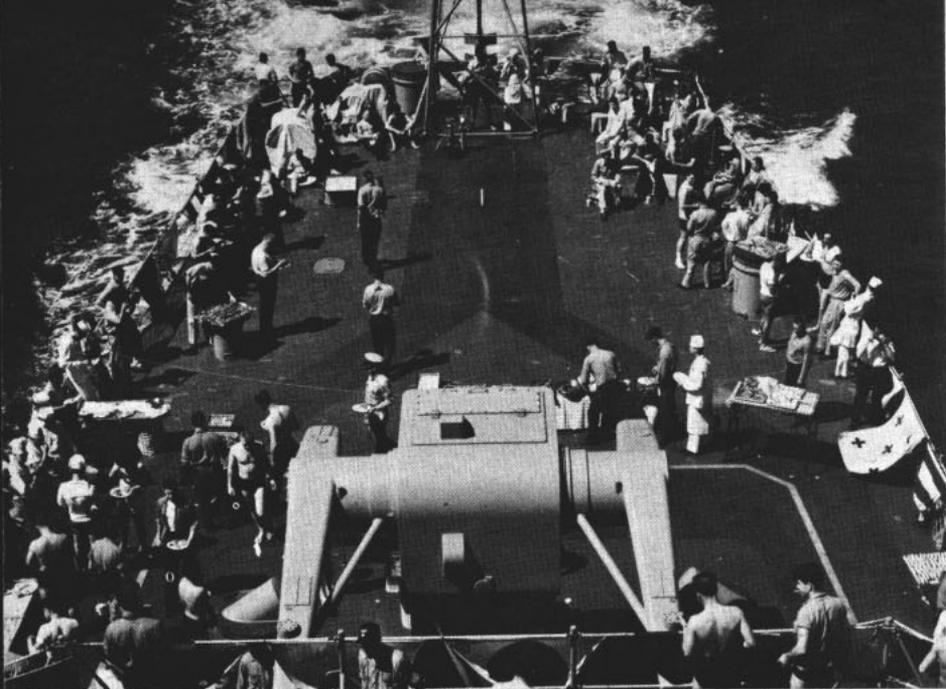
At long last, all was in readiness—and VA-75's LTJG Bob Carlson arrived at the field to fly the plane back to *Independence*. The *Sky-raider* taxied down the short strip, then lifted easily into the air as LTJG Carlson poured on the coal.

Spontaneous cheers rent the air. Proud grins wreathed the sun-tanned faces of Navyman Lundberg and associates. Equally proud and happy smiles creased the countenances of their Sicilian simpatico. Then Sunday Punchers Lundberg, Duncan, Anthony and Savage gathered up their tools, gravely shook hands all around, and headed back to their ship.

They had, as we've said, done more than change an airplane engine. They had established a deep bond of friendship, welded by a sense of mutual accomplishment, which will last a long, long time.

There should be a comforting thought for the future in all of this for other Med-based Navy pilots, too. Should any of them be forced to make an emergency landing anywhere in the vicinity of Palermo's sunlit slopes, he'll be dropping into one of the world's largest concentration of unofficial aircraft engine experts—and friends. Just ask them.





SELF-SERVICE—A picnic at sea is enjoyed by crew of *USS Dewey* (DLG 14) while en route to San Juan operating area.



## Smorgasbord at Sea

**T**HE CREW OF THE WORLD'S first guided missile frigate, *USS Dewey* (DLG 14), was treated to a smorgasbord and barbecue in the Calypso manner while en route to operations in the Caribbean.

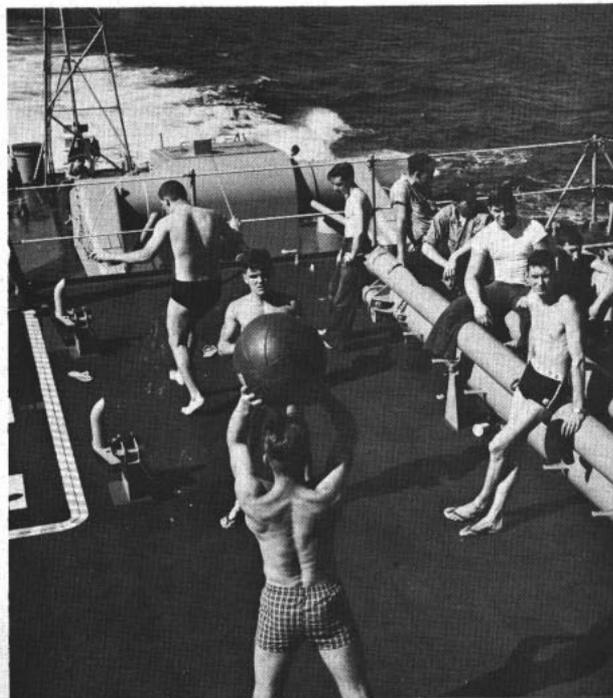
*Dewey* was on her way to the Caribbean operating area for a period of missile firing prior to deployment to Europe in the late spring.

More than 70 different food items were featured on the menu. Highlights of the meal were lobster tails

and teriyaki steak. It is believed that the smorgasbord, which extended along 400 feet of the port side of the main deck, was the largest ever attempted aboard ship. Charcoal fires on the fantail were used in preparing the steak and lobster, as well as tacos, barbecued beef and pork, shishkabob, veal birds and tamales.

The ship's Calypso band provided entertainment as the crew ate, sunbathed and otherwise enjoyed themselves in the tropical weather.

DEWEY SAILORS relax and dine in tropical weather. Above: 'Chef' stands behind custom-made charcoal broiler.



# LETTERS TO THE EDITOR

## Computation of Leave

SIR: In reading over ALL HANDS magazine of December 1960, I came across the article on page 28 concerning the computation of leave credit for fractional months of service.

I am in complete agreement with the YNC who submitted the question. As this is obviously the correct method of computing leave from any given date in a fiscal year until 30 June of that fiscal year, I have come across what I believe to be a major discrepancy in the Yeoman 3 & 2 Navy Training Course (NavPers 10240-C).

On page 157, figure 11-12 (Leave Accumulation Chart), all months of the year in which there are 31 days appear to be computed in error.

Can you clarify this? S. L., PN1, usn.

• The correct basis for computation and verification of leave to the end of a fiscal year is to be found in the "BuPers Manual," Part C, Article 6308. Figure 11-12, entitled "Chart for computing Officer's leave from duty base to end of fiscal year," has been checked by the authors of NavPers 10240-C and by the Service and Records Division, Bureau of Naval Personnel, and this chart is correct according to Article C-6308 of the "BuPers Manual."

The query and answer in the December issue of ALL HANDS concerned a single month and it is answerable by Article C-6301. However, if you were to carry this calculation over to the end of the fiscal year, the procedure in Article C-6308 would govern. By this procedure, the leave should be computed for the entire period from 7 Jan 1960 through 30 Jun 1960, which totals five months and 24 days. Thus for five months, the earned leave equals 12 and one-half days, and for 24 days an additional two days is earned, as

## Points on Stars

SIR: Please explain why an officer of the line wears the star on the sleeve with two points up. Why does this not concur with the display of the stars on the union jack and the ensign?—G.E.D., SM2, usn.

• The line officer's star is positioned with one ray down to distinguish it from insignia of rank.

In general, the stars for naval insignia, when representing rank as in the case of flag officer insignia, are positioned with one ray up. Other stars, such as those representing corps or employed as a part of a rate device, have one ray down.

There are exceptions, but this is the rule.—Ed.

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

shown in the table appearing in Article C-6301 of the "BuPers Manual." The total leave thus earned is 14 and one-half days.—Ed.

## Expiration of Leave

SIR: Locally there has been some question as to the hour when leave officially expired in the past. Art. C-6305 of the BuPers Manual (Rev. 1959) states that leave will be counted as a day of duty if return is made at or before 0900. The query at hand is: Did the BuPers Manual (say from 1956 to 1959) ever state that leave expired at 0800?—F.R., YN3, usn.

• The provision about expiration of leave at 0900 has been in the "BuPers Manual" since 1948. The 1925 edition of the manual (which was superseded by the 1948 edition) did not contain any instructions on the subject.

However, the 1940 reprint of the 1925 edition had this statement—in reference to officers:

"... day of return from leave does not count as a day of leave if the officer returns before the hour for forenoon quarters on board ship or for commencing work at a shore station."—Ed.

## Dislocation Allowance

SIR: In July 1955 I was transferred from Harbor Defense Unit, San Francisco, Calif., to Class B Electrician's Mate School at Great Lakes, Ill. I received dislocation and dependents travel allowances.

In Jan 1956, after 22 weeks of school, I was transferred to a ship in San Diego, Calif., and received a dependents travel allowance, but I was told I could not draw another dislocation allowance because I had already received one for the fiscal year.

Was I eligible for a second dislocation allowance? If so, how do I go about collecting it?—J.R.S., EMC, usn.

• The limitation of one dislocation allowance per fiscal year does not apply if the Secretary of the Navy determines that the exigencies of the service require more than one such change of station during the fiscal year. It also is not applicable to members of the uniformed services ordered to, from or

between courses of instruction conducted at an installation of the uniformed services.

You apparently are entitled to the dislocation allowance you received for your move to Great Lakes. Since this move was made under orders to a course of instruction, the limitation does not apply.

Your move to San Diego was the first you made that fiscal year which came under the limitation of the "Joint Travel Regulations."

From where we sit, it looks as if you are eligible for dislocation for the second move, too.

We suggest you contact your disbursing officer regarding the preparation of a claim for the allowance.—Ed.

## Shipment of HHE Without Orders

SIR: I would like to know the earliest date an enlisted man can have his household effects shipped, and his dependents moved, prior to his transfer to the Fleet Reserve?

I will be eligible for transfer to the Fleet Reserve about February 1963 with a total of 19 years and six months' active duty. I would like to move my household effects and family to our home as soon as possible. However, I am told by the ship's yeoman that this cannot be done until my application for transfer to the Fleet Reserve is approved, and until I have orders transferring me to the Fleet Reserve.—J.H.W., BMCA, usn.

• There are only two situations under which regulations permit shipment of household goods prior to receipt of orders—unusual or emergency circumstances, or where a certificate is obtained from the order-writing command stating that separation from the service will occur within 60 days.

Unless you fall into one of these categories, shipment of household goods would not be authorized without orders releasing you from active duty.—Ed.

## Sea Duty Extension Request

SIR: Is it possible to remain on sea duty even though I am due for shore duty?

How should I fill out my seavey card if I desire to remain on sea duty?—R.G.S.

• If a man has a sincere desire to remain at sea, he should request a sea tour extension in accordance with the "Enlisted Transfer Manual," Article 3.33.

Don't hesitate to submit your extension request because it will be too late after orders have been issued.—Ed.



**PUTTING ON**—The Pacific Fleet attack transport USS Renville (APA 227) receives Amphibious Assault Award after conducting ship-to-shore movements.

#### Castor Toils On

SIR: While going over the master copy of my ship's history *uss Castor* (AKS 1), I noticed she was eligible for five service ribbons. It seems from her record, though, that she should have earned more than five in her long and colorful career. Could you tell me the ribbons to which she is entitled?—LTJG D.R.D., (SC) USN.

• Apparently the reference was intended to point out that *Castor* is entitled to five battle stars in WW II and Korea. On the basis of records at the Decorations and Medals Branch, BuPers, *Castor* is entitled to the following:

- American Defense Service Medal
- American Campaign Medal
- Asiatic-Pacific Campaign Medal (with 3 battle stars)
- World War II Victory Medal
- Navy Occupation Service Medal (Asia clasp)
- China Service Medal (Extended)
- Korean Service Medal (with 2 battle stars)
- National Defense Service Medal
- Korean Presidential Unit Citation Badge
- Viet-Nam Presidential Unit Citation "Ribbon of Friendship."

There seem to be considerably more than five in that list.

As this list of awards indicates, *Castor* has quite a record and quite a history. She is one of the Navy's senior ships, being one of the few with more than 20 years' service.

In her main operating area, the western Pacific, *Castor* is nicknamed *Ichiban* (roughly—Number One). An apt name, too, for *Castor* has always displayed a big "1" on her hull. It means she is

AKS-1, the first of the Navy's general stores issue ships. *Castor* has other firsts to her name. She was among the first several hundred Maritime Commission-type vessels (C-1 to C-4) to join the Navy. Present at the Pearl Harbor attack, she was the first of the ships there to return to the U.S., arriving 24 Dec 1941. She was the first of the "all cognizance" general stores issue ships, having taken on that sub-designation in 1956.

*Castor* takes her name from a star, which in turn is the name of a Roman deity who was a tamer of horses; his

#### Enlisted Precedence

SIR: The question of which of the following rated men—BM3, AD2, MM1, SDC—would hold precedence in non-military matters appeared on the last Navy-wide competitive examination for DC1. I have been unable to find the official answer to this question in any of the publications available at this command. Could you help?—R. G., YN3, USN.

• Personnel in one pay grade take precedence over all personnel in lower pay grades regardless of rating held. This is true both for military and non-military matters. An SDC, therefore, is senior to all individuals in lower pay grades.

Incidentally, either the stock of official publications at your command must be surprisingly incomplete, or you just didn't look hard enough. "The BuPers Manual" goes into complete detail on the subject of military and non-military precedence of enlisted men.—Ed.

twin *Pollux*, was a boxer.

Commissioned 12 Mar 1941 at the Navy Yard, Brooklyn, N. Y., *Castor* introduced a new concept in Fleet supply — carrying general stores, ship's stores, clothing, medical and dental supplies to advance areas. There she would supply any number of her 11,000 different types of items direct to other ships. The transfer would be made either at an anchorage or while underway.

Her shakedown cruise was to set a pattern for a great number of World War II ships built on the East Coast: Depart the commissioning yard, head south, transit the Panama Canal, make a brief layover at a West Coast port and then head west.

In April 1941, *Castor* received her initial cargo at the Naval Supply Depot, Norfolk, Va. At San Diego, Calif., the following month, she topped off her load, made a one-day stop at her new home port, San Pedro, and then departed for Pearl Harbor, T.H.

After several weeks of Fleet issue at Pearl, she got underway for the Mare Island, Calif., Navy Yard. Back to Pearl she went with another load. She hadn't been issuing long before her decks began to resound with marching feet.

On board were a few hundred Marines, members of the Corps' First Defense Battalion. They brought their field gear and some of their artillery with them. *Castor* headed west, and on 2 Nov 1941 her ship's boats carried nine Marine officers and 200 enlisted men ashore at Wake Island. These men formed nearly half of the tiny island's defense forces when the Japanese struck 36 days later.

After off-loading the Wake Island group, *Castor* headed for Johnston Island and bolstered that island's defenses with a somewhat smaller group of Marines.

Back to Pearl and then back to Mare Island. The tensions of the time were reflected in *Castor*'s latest cargo-loading, most of it being heavyweight ammunition of various types. With this hot cargo she arrived at Pearl Harbor 4 Dec 1941.

Most of it was still aboard three days later. During the enemy attack, *Castor* was moored to the wharf at Merry's Point, close by the Submarine Base. It was a dangerous spot, but also a good one for firing at enemy torpedo planes as they circled around to their right before making their runs on the ships moored at battleship row. Though it was hard to tell which ships shot down what planes, *Castor*'s four 3-inch/23s and four .30 caliber machine guns threw out a lot of lead at close-flying airplanes. The ship suffered no casualties, and resumed off-loading her cargo ammunition soon after the attack.

On 24 Dec 1941, after a brief layover in Honolulu Harbor, *Castor* ar-

rived in San Francisco Bay. Her anti-aircraft batteries were beefed up at Mare Island and then she headed back for Pearl Harbor with a general stores/ ammo load. From Pearl, in company with an attack transport, a Fleet oiler and two destroyers, she headed for the southwest Pacific. The force arrived at Efate, New Hebrides, in late March, 1942, and off-loaded troops and supplies.

During the early war years, Castor made her runs from the West Coast to bases in SoWestPac. Later, her runs were, in the main, to locations in the central Pacific. Wherever the main force of the Fleet was, there was Castor. By war's end she had made 20 major supply runs.

During her operations in 1946 and part of 1947, Castor visited many ports in the Far East, some of them ports no longer visited by U.S. ships—such as Tsingtao and Shanghai, China.

On 30 Jun 1947, as part of the post-war cutback, Castor was decommissioned and became a member of the San Francisco Group, Pacific Reserve Fleet. Since her commissioning she had cruised 246,354 miles.

As a result of the Korean conflict, Castor was again placed in commission. On 9 Mar 1951 she headed west and was soon making Fleet issues to units of the United Nations. Sasebo, Yokosuka, Inchon, Pusan—these were her main ports during her first year in Korea.

Castor departed Yokosuka for San Francisco on 17 Mar 1952, and was soon caught in a typhoon. Then trouble developed in her main reduction gears and she lay without power for 22 hours. After suffering damage, she was taken in tow and brought in to Yokosuka for repairs. On 4 Apr 1952, after more than 14 months of Far East duty, she passed under the Golden Gate Bridge. Then came more runs to the Western Pacific, with Subic Bay and Manila being added to her other ports.

Castor has had lots of variety in her duties. Consider some random dates. In August 1954 she was in Indochina, issuing supplies to ships evacuating war refugees. In April 1955 she was making underway replenishments to ships of the Formosa Patrol.

Early in 1956 Castor departed for the U.S. Then, in the San Francisco Bay area, came five months of overhaul and conversion. She emerged as the Navy's most advanced supply ship, ready to carry and issue general stores, electronic spares, ordnance spares, ship repair parts, clothing, medical and dental stores and petroleum products.

On 1 Aug 1956 Castor sailed west once again and her home port became Sasebo, Japan. Later, in October, it was changed to Yokosuka. Fleet issues of all types continue to be made and lots of miles continue to be steamed. It's nearly five years since Castor left the States, and she's just as likely to be

seen in an underway replenishment as in an in-port one.

There's no telling where she'll show up in the western Pacific. The Pescadores; Buckner Bay, Okinawa; Kobe, Japan; Subic Bay, P.I.; Hong Kong... they're all familiar to Ichiban.—Ed.

### Service Stripes and Rating Badges

SIR: I know silver rating badges are an authorized part of the uniform, but I wonder if the chevrons or service stripes have ever been made of silver.—J.A.R., MMC, USNR.

• To our knowledge, silver service stripes or chevrons have never been authorized. Scarlet or gold service stripes are worn on blue jumpers and blue CPO coats, and blue service stripes are worn on white jumpers and on white, khaki or green CPO coats.

Silver rating badges have, of course, long been authorized. These consist of silver eagle and specialty mark and also the stars on the E-8 and E-9 badges. Even the gold rating badges worn by PO1s, 2s, and 3s have a silver eagle and specialty mark.—Ed.

### Concurrent Travel Obligations

SIR: Does a person need two years' obligated service to travel concurrently with dependents from a West Coast ship to a Pearl Harbor-based ship?

Recently I was transferred to a Hawaii-based ship from a West Coast one and was told that I needed two years' obligated service to take my family with me.

My home was already leased and my household goods were en route to Hawaii, and I extended without question. Since then, however, I have come to question the ruling. Was it correct?—W.S., HM1, USN.

• From what you tell us, the ruling was incorrect. But, based upon other information available to BuPers, it was correct.

Records at BuPers indicate that although you were already in a one-year extension of your enlistment, you would



SOUP'S ON — Marine Corps GV-1 Hercules prop-jet aerial tanker refuels two A4D jet attack planes. The new tanker can be converted into a troop carrier.

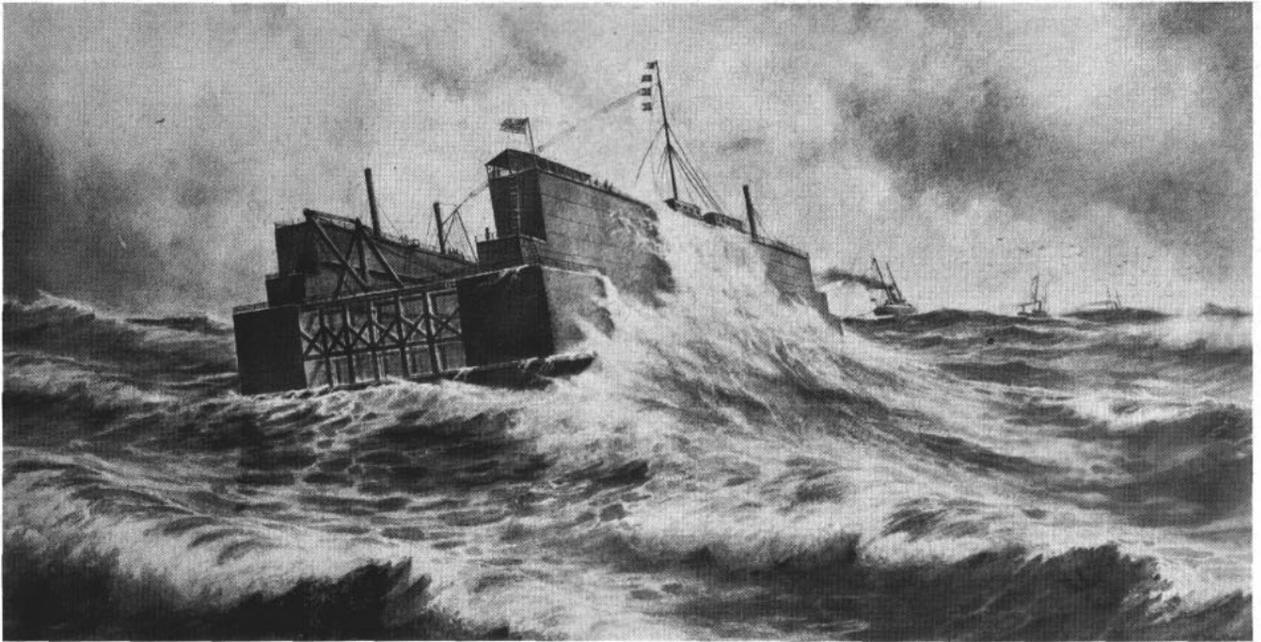
have had less than one year to serve at the time your dependents would have arrived overseas. For that reason, you were required to extend for an additional year to be eligible for dependent travel to Hawaii.

Perhaps you didn't understand that you needed at least one year's obligated service after your dependents arrive overseas, not when you received orders.

This bit of information is found in Para. 5(a) of BuPers Inst. 1300.26A which says: "Transportation of dependents of personnel attached to ships . . . and other mobile units will not be authorized in any case unless such personnel will have a minimum of one year's obligated service, and can reasonably be expected to remain attached to the ship or unit for a period of one year, subsequent to arrival of dependents at the overseas location."—Ed.



LISTENING IN—Strange appearance of USS Grouper (AGSS 214) is due to sonar gear and special job with Navy's Underwater Sound Laboratory.



**LONG HAUL**—It took six months and 12 days to tow Dewey from Chesapeake Bay to the Philippines back in 1905-6.

### The Ship with Four Lives

SIR: One of the most unusual tows I know about happened back in 1905-06 when the drydock *Dewey* was towed from the Chesapeake Bay to the Philippines. I wonder if this is still the longest tow on record.

As I recall the story, in reminiscences by W. E. Rudolph, Sr., the third assistant engineer, it took six months and 12 days to tow the drydock 12,000 miles from Solomons Island in the Chesapeake to Olongapo in the Philippines.

The tow began on 28 Dec 1905. Many persons warned that the 11,000-ton drydock, which had no power or rudder of its own, would founder in the troughs. But the young crew aboard wasn't about to give up without a struggle.

When the *Dewey* convoy, which was made up of two Navy colliers, a supply ship and a tug, headed down the Bay at two knots, it was stretched out for nearly a mile. A hemp-wrapped steel cable went from the bow of *Dewey* to the collier *Brutus*. *Brutus*, in turn, had a line from her bow to the stern of the other collier, *Caesar*. I believe a third section ran from *Caesar* to either the tug *Potomac* or to the refrigerated supply ship, *Glacier*, which alternated with *Potomac*.

Six days out, after the ships had passed Bermuda, the wintery Atlantic began to cause a bit of trouble. The drydock pitched, rolled, and shuddered as three times the tow lines parted. Once *Dewey* floated helplessly for three days.

Finally, after considerable trouble, *Dewey* was again taken in tow, but *Glacier* was still unable to put food aboard. From what I have read, the

food got pretty terrible before *Dewey* was finally resupplied.

After weeks of pounding in the Atlantic, the convoy put into the Canary Islands on 23 Feb 1906 for repairs. Three weeks later it headed for Gibraltar.

Again during this lap, *Dewey's* lines parted in a hurricane, and she thrashed around unattached for some time before lines could again be secured.

From Gibraltar the ships went on to Malta and then through the Suez Canal. There, they were hit by a sandstorm which whipped in from the desert.

Except for the merciless sun in the Indian Ocean there was little more trouble as the convoy passed on to Singapore and then to Olongapo.

As far as I know, *Dewey* sank at Subic Bay in 1910, but was later raised by the Navy. She went down for the second time on 22 Jul 1941, but was later salvaged and used by the Japanese at Manila during World War II. *Dewey* went down for the last time when the American forces reoccupied the Philippines.

Do you have any more information about this drydock?—H.D.D., ex-USN.

• We have very little additional information. As far as we know, *Dewey* did sink some time before World War II, apparently of natural causes, at Mariveles, P.I. Later, as you say, she was raised and used by the U.S. Navy at Olongapo.

In July 1941, she was again taken back to Mariveles, and records here indicate that she was sunk on 9 Apr 1942 to prevent her capture by the Japanese.

The Japanese, however, raised *Dewey* and used her in Manila Bay until Sep-

tember 1944, when she was sunk in a raid by American bombers, off Cavite.

*Dewey* was never again raised. In recent years she has been demolished during harbor clearance.

You asked if this was still the longest tow on record. The Bureau of Ships tells us that at the time it did set a record, but since then, several tows have been longer.—Ed.

### Transfer to Fleet Reserve

SIR: I would appreciate clarification of a couple of points concerning transfer to the Fleet Reserve and computation of service for retainer pay.

I reported to my present duty station on 1 Oct 1959 and completed 20 years of active duty on 9 Dec 1960. On 23 Jan 1961 I extended my current enlistment for two years in order to complete a normal tour of shore duty at my present station.

Here are my questions: First, can I transfer to the Fleet Reserve after I complete 21 years, 6 months and one day of active duty and still receive retainer pay for 22 years service?

Second, must I serve my entire extension, or can I request transfer to the Fleet Reserve before the two years are up in January 1963?—R.S.N., HMC, USN.

• As you know, there was some confusion last year over the business of whether or not "19 and six" could be counted as 20 years in computing service for pay purposes. This has been cleared up by SecNav Notice 1830 of 25 Nov 1960, which informed the Navy that the Comptroller General had ruled the fractional part of a year of six months or more could properly be counted as a full year in computing

service for pay upon transfer to the Fleet Reserve.

There is still, however, an important difference between the computation of "service for pay" and computation of "service for transfer to the Fleet Reserve."

"Service for pay" is figured in accordance with regulations set forth in Volume Four of the "Navy Comptroller Manual." Under these regulations, you cannot use constructive time in computing service for pay purposes. Your disbursing officer can set you straight on your service for pay, based on the information in your pay record.

If, on the date you transfer to the Fleet Reserve, you have acquired over 19 years and six months of "service for pay," you will be credited with a full 20 years' service for pay. Your retainer pay would be based on basic pay for an E-7 (\$350) which is the maximum pay for members in your pay grade. If you have less than 19 years and six months' service for pay, your retainer pay will be based on \$340, the basic pay for an E-7 with over 18 years' service for pay.

"Service for transfer to the Fleet Reserve" is computed according to Article C-13407 of the "BuPers Manual," and in this computation you do count constructive service.

In your case, if you complete 21 years, six months and one day of service for transfer to the Fleet Reserve, and if you have completed over 19 years and six months of service for pay, your retainer pay would be computed as: 22 (years service for transfer) x 2½ per cent x \$350 (the basic pay for an E-7 with 20 years' service for pay purposes). Thus, your retainer pay would come to \$192.50.

If you were to remain on active duty until you had completed 22 years and six months' service for transfer to

### Ship Reunions

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

- *uss Hammann* (DE 131)—A reunion is scheduled at the home of CAPT Rodman D. deKay, 12 South Court, Port Washington, N. Y., on 29 July. For further details, write to Andrew S. DeSarle, 22 South St., New York 15, N. Y.
- *Pearl Harbor Veterans*—A reunion is scheduled for 7 December at the Ambassador Hotel in Los Angeles, Calif. For more information, write to Pearl Harbor Survivors Association, 1908A Redondo Beach Blvd., Gardena, Calif.
- *uss Yellowstone* (AD 27)—All personnel who served on board from June 1955 to January 1959 who are interested in holding a reunion may write to Frank John Guarino, Route 82, Box 487, Hopewell Junction, N. Y.
- *Squadron VR-2* — A reunion is planned for enlisted men who served with VR-2, NAS Alameda and Treasure Island, Calif., from 1942 through 1945, at a time and place to be designated by mutual consent. Those interested may write to Paul Portelli, 1046 West Hillsdale Blvd., San Mateo, Calif.

the Fleet Reserve, the formula would be 23 (years service for transfer) x 2½ per cent x \$350. On that basis your retainer pay would amount to \$201.25. In no case is retainer pay less than

50 per cent of the basic pay being received at time of transfer.

Now, as to the other part of your question—your transfer to the Fleet Reserve will be authorized regardless of the amount of obligated service you have remaining on your enlistment or extension, provided you meet the qualifications outlined in BuPers Inst. 1830.1A. You would have to pay back the unserved portion of any reenlistment bonus you have received.—Ed.

### Shark's Lineage

SIR: As a student of naval history, I was particularly interested in the January 1961 article on *Shark's* lineage (page 55).

Your information disagreed with the data I have on the second *Shark*. According to my file, *Shark II* was an 87-ton schooner purchased by the Navy on 17 Sep 1863 and used as a Fleet tender during operations at Charleston, S. C.

On 17 Jan 1865 this *Shark* was renamed *George W. Rodgers* and continued in service under that name until sold on 8 Sep 1865.

This information was researched from the Ship's Data volume of Official Records of the United States and Confederate Navies in the Civil War.—D. M. G., ET1, USN.

• *The 87-ton merchant schooner Shark, to which you refer, is not included in the lineage because this Shark is the name of a merchant schooner purchased by the Navy at a prize court in New York. Her merchant name was not retained by the Navy. The Navy named her uss George W. Rodgers.*

In this connection, it is well to note that the date 17 Jan 1865 is not the date the name *George W. Rodgers* was assigned. This date applies to the date of first commission.—Ed.

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**INTERNATIONAL RACE**—Crew from the guided missile cruiser *USS Springfield* (CLG 7) loses to fast Lebanese navy crew in race in the Mediterranean.

#### Duties of Radarmen

SIR: At Radar "A" School we received the impression that RDs were going to take over all radar corrective maintenance. Since leaving the school, we've heard nothing further as to when we start making radar repairs. We would appreciate any information you have on this subject. — Radar Gang, *uss Cabildo* (LSD 16).

• *This problem has come before the Rating Structure Review Board several times. It has been decided to include in the RD rating only those maintenance functions which are outlined in NavPers 18068 "Qualifications for Advancement in Rating."*

*Corrective maintenance is not taught extensively at the "A" School level, but is being covered in classes at the RM "B" School, and, to some extent, at the RD "B" School. At present, these courses are being expanded to strengthen the maintenance and repair capabilities of electronic equipment operators (RMs and RDs).*

*Your commanding officer can direct you to perform repair functions if you are qualified to do so, but, at the present time, no increase in corrective maintenance responsibilities is foreseen for RDs beyond those listed in NavPers 18068.*—ED.

#### Temporary or Permanent WO?

SIR: The directives which deal with requests for permanent warrant appointment (BuPers Notice 1120) and non-

disability retirement (BuPers Inst. 1811.1B) do not answer all the questions I have concerning these two subjects.

I was promoted to W-3 on 1 Jul 1960. My permanent rating is E-7. If I retire as a temporary warrant before I complete 10 years of commissioned service, will I be retired as an E-7, and immediately advanced to W-3 for pay purposes? If so, will I be affected by the Dual Employment Act, or the Dual Compensation Act? Also, what would be the advantages of requesting a permanent warrant appointment?—R.B.N., CWO3, usn.

• *Under Title 10, U.S. Code 1293, you have the option of retiring in either the permanent or temporary warrant grade you hold on the day before the day you retire (assuming you are not entitled to some higher grade for earlier service). Your retired pay will be based on the monthly basic pay to which you were entitled if you had served on active duty in your retired grade on the day before retirement, or, if the pay of that grade is less than the pay of any warrant grade held by you on active duty, the monthly basic pay of the warrant officer grade.*

*If you do retire in an officer (W-1 or above) grade, the Dual Employment Statute will apply. There are, however, exceptions to this general rule. You should request specific information from the Judge Advocate General, stating particulars as to agency involved, sta-*

*tute under which retirement will be effected, and the particular job or position under consideration.*

*The only specific advantage of accepting permanent warrant rank is the achievement of permanent versus temporary status in the event of cutbacks. It is emphasized, however, that there is no plan to curtail the careers of any warrant officers, permanent or temporary, short of normal retirement.*—ED.

#### Duty Sections

SIR: In the February 1961 issue (page 28) is shown a calendar-like chart that indicates how the liberty sections should be rotated. The way I see it, though, the chart lists not the liberty sections, but the duty sections. Am I correct?—J.C.M., LT, usn.

• *Correct you are. And where the title over the chart now reads "Liberty Section," it should read "Duty Section."*—ED.

#### Pre-Commissioning Duty

SIR: I received orders to *uss Constellation* (CVA 64) back in June 1960 while I was attending a 10-week aviation boatswain's mate school at Philadelphia, Pa. Before I had gone to school, I had been stationed at the Naval Air Station, Argentia, Newfoundland, for 18 months.

After the Philadelphia school, I went aboard *uss Shangri-La* (CVA 38) for two weeks' indoctrination, and then on to Receiving Station Brooklyn for duty CFO (Commissioning and Fitting Out) *uss Constellation*. I reported on 18 Jan 1961.

The ship is scheduled to be commissioned on 22 Oct 1961. What about this pre-commissioning duty? Is it shore duty or sea duty?—T.W.B., ABE2, usn.

• *If you were assigned "For Duty CFO Constellation," you are on shore duty. You may request that the Chief of Naval Personnel (Pers B21) give you sea duty credit for this period. Unless you initiate some action, however, you will remain in a shore duty status until the day the ship is commissioned.*

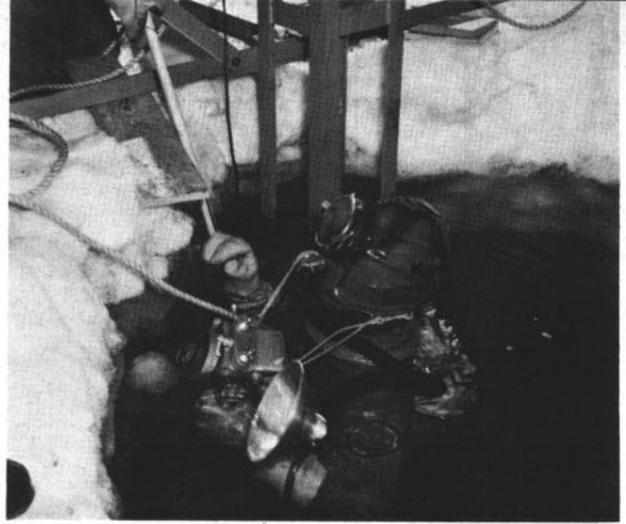
*If you had been issued TEMCFO (Temporary Commissioning and Fitting Out) type orders, you would be on sea duty. With this type of orders, your sea tour would have begun the day you reported to the building yard; if you had come from shore duty, or if you had come from sea duty, your sea duty would have been continuous.*

*For men like yourself, however, who were assigned "For Duty CFO" orders, the sea tour begins the day the ship goes into commission — that is, unless you get a waiver from this Bureau.*

*Even if you do get credit for continuous sea duty for this pre-commissioning detail, you will not be eligible for shore duty until after you have served at least one year aboard the ship after it has been commissioned.*—ED.



**CHANGE OF SCENERY**—*uss Wilhoite* (DER 397) leaves Pearl Harbor for duty as weather picket ship in Operation Deep Freeze in the Antarctic Ocean.



THE HOLE THING—Ice melter device is readied for test. Right: A diver goes below to photograph bottom of ice.

## Ice-Melting Machine

IT MAY NEVER REPLACE icebreakers, but a new ice-melting device recently tested in the Antarctic could save a great deal of trouble for ice-bound areas of the world.

The device, called the Aqua-Therm, melts the ice by violently churning the water under it. During recent Antarctic tests, two 10-horsepower electric motors were submerged in 28-degree water to melt ice up to 10 feet thick. The relatively small motors moved the water at some 30 knots.

For actual operation, large motors would be needed, but the smaller 10-horsepower motors were used because they provided a suitable basis for calculations. Sixty-horsepower units are now available commercially.

During one test at McMurdo Sound a 10-horsepower unit was submerged to about 10 feet below

the ice surface. In something like eight days, an area 26 feet long and 80 feet wide was completely cleared of ice. In addition, another area more than 200 feet long and about 75 feet wide was reduced to a thickness of one or two feet from ice which earlier had been some eight feet thick.

A 45-foot-diameter hole was made in eight-foot ice during another experiment in that same area. During this test, some 7000 pounds of ice were cleared in about four and one half days.

Possible uses of such a device, if proved successful, would be to keep dock areas free from ice and, perhaps, even keep long channels like the St. Lawrence Seaway open.

Although a machine for clearing long channels hasn't yet been developed, indications are that a chain of motors spaced over a distance of



SEAL HOLE is measured before the start of ice melting experiments in ten-foot ice at McMurdo, Antarctica.

several miles has an eroding effect on ice which is greater than that of a machine operating independently.

Navymen who have seen the device work see many possibilities for it, but no steps have yet been taken to scrap any icebreakers.

THAW ENOUGH—New device starts melting process by moving 700,000 gals. of water an hour at speed of 30 knots.



Brief news items about other branches of the armed services.



**ICE GRIND** — Coast Guard icebreaker *Eastwind* clears channel in McMurdo Sound for Deep Freeze cargo ships.

SOME AIR FORCE planes will soon be fitted with an atomic clock so accurate that its maximum error would not exceed one second in more than 1200 years.

The aerial clock—its technical designation is Airborne Atomic Frequency Standard—is scheduled to become available for operational use next year. It will replace the numerous crystal oscillators presently used as frequency or time standards to calibrate airborne communications, navigation, guidance, fire control, computers and timing devices.

First of its kind to be developed, and weighing 62 pounds, the atom-powered frequency standard is so simple that only a single on-off switch is required to operate it. Operators of the unit will require no special schooling. No radiation hazard is involved in its operation.

★ ★ ★

THE U.S. ARMY has developed a new type of ammunition which has a completely combustible cartridge case. Although the casing is designed primarily for use in tank guns, its use in artillery weapons is already being tested. Ultimately the Army hopes to use the new cartridge case in all Army guns.

Composition of the new shell casing is classified.

The combustible case eliminates the need for expensive brass shell cases and lightens the weight of each shell. In addition, it will help solve two problems of tank firing that are not foreign to Navymen—the litter of hot shells and the noxious gases released inside the turret after each firing.

Conventional shell casings must be thrown out of the tank by loaders whose hands are protected by asbestos gloves. Fumes are removed from the turret by a ven-

tilation fan. The new casing not only minimizes gases released from fired ammunition, but leaves no residue in the gun tube after firing.

Up to 10 times lighter than a conventional brass case, depending on ammunition caliber, the combustible case will lead to improved storage, shipping and handling, and less gun-crew fatigue. It is less susceptible to handling damage such as dents and scratches, and, like conventional cases, will not explode if hit by bullets or shell fragments.

The new shell case has proved its effectiveness in a series of tests which followed five years of extensive research and engineering.

★ ★ ★

THE THOMPSON TROPHY, a traditional symbol of supremacy in speed flying, has been awarded to the crew of an Air Force B-58 bomber which set a new record of 1284.73 mph over a 1000-kilometer closed course.

The record flight was made last January at Edwards Air Force Base, Calif.

The Trophy was presented to Major Harold E. Confer, pilot; Major Richard H. Weir, navigator; and Captain Howard S. Bialas, defense systems operator. The three men fly with the Strategic Air Command's 43rd Bomb Wing, based at Carswell Air Force Base, Texas.

The Thompson Trophy was first presented in 1929 at the National Air Races in Cleveland. The winning *Travelaire* was clocked at 194.90 mph over a 50-mile closed course.

More recently, the trophy was awarded in 1959 to Air Force Major Joseph W. Rogers for his speed dash in an F-106A *Delta Dart* interceptor which set a world's record of 1525.95 mph.

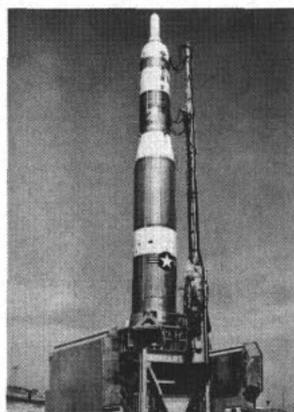
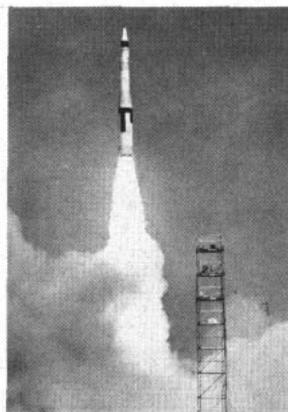
There was no Thompson Trophy event in 1960.

★ ★ ★

THE FAMILIAR 60-inch, truck-mounted searchlight of the U.S. Army is getting a more powerful little brother. Though it has only a 30-inch diameter, it has twice the range and intensity of the big job.

Also trailer mounted, the 30-inch light was developed by the Army's Engineer Research and Development Laboratories. Tests have been completed by the Artillery Board, Fort Sill, Okla.

The new searchlight utilizes a very-high-intensity,



**OFF AND ON**—SM-80 *Minuteman* missile launched by AF. Rt: *Titan* missile rises from underground silo.

liquid-cooled, carbon-arc mechanism in conjunction with a 30-inch reflector to produce 450 million peak beam candlepower with a beam width of 3.25 degrees. Not only can it be operated from a jeep-towed trailer, but it can be off-loaded by two men and operated from the ground.

Power for the searchlight is provided by a gasoline engine-driven, 400-cycle AC generator. The output of this is changed to DC by the use of silicon diodes. The searchlight can be operated continuously from six to nine hours. Extensive use of aluminum contributes greatly to the reduction in weight both of the light and the generator.

Indirect illumination of large battlefield areas is the primary role of an Army searchlight. This is achieved by aiming the light somewhat above the horizontal position. The downward scatter of light by particles in the atmosphere gives the indirect light. In the Korean fighting this procedure was brought to a fine art.

★ ★ ★

THE AIR FORCE'S new Combat Operations Specialist Course is a multi-service one. Here, officer students from the Army, Navy, Marine Corps and Air Force learn a multi-service tactical doctrine. Conducted at the Tactical Air Command's Air-Ground Operations School, Keesler AFB, Miss., the course was established by the Department of Defense to meet the need for instruction on joint and combined operations. It covers a full range of aerial, ground, and amphibious doctrine.

Variety is also found in the instructors. Air Force instructors teach counter-air, air interdiction and close air support. Army faculty members teach the Army's weapons system, target selection and marking, and airlift and airborne operations. Navy and Marine officers give instruction in amphibious matters and in Navy-Marine air control systems and Navy weapons.

For general officers and senior field grade officers, the basic course is two weeks long. The basic course for other officers is three weeks long. Air Force and Army quotas are 32 each, while the Navy and Marine Corps quotas are four each. In each class there are six places for other U.S. officers and allied officers.

★ ★ ★

FISHING ANYONE? That's what airmen at Eglin Air Force Base (Fla.) have been saying more and more lately. The fishing there is great, and Egliners have an award to prove it.

Eglin has been selected as the first recipient of the General Thomas D. White Fish and Wildlife Conservation Award. Each year the award will be presented to the Air Force base which conducts the most outstanding conservation program.

The program has made steady gains. For example, in a recent 12-month period, the Air Force planted more than two million trees, stocked lakes and streams with more than a million fish, established 35,000 acres of seed plots for wildlife grazing, and restored more than 1500 acres of fishing waters by chemical control of vegetation and fish.



**DARK EYES**—Darkness is no obstacle to driver wearing infrared binoculars developed by Army Engineers.

Eglin's award-winning effort encompassed an 800-square-mile area of semi-tropical swamp, woodland, sand and waterways. There the airmen created 22 artificial lakes, stocked them with game fish, and cultivated some 200 two-acre plots to provide food for the Eglin deer population.

Now, the abundance of wildlife at the Eglin reservation backs up the base's claim to the White Award. Eglin's deer herd has grown from 2300 to more than 12,000, and colonies of duck, quail, boar and black bear flourish. And, of course, the fishing is great.

★ ★ ★

THE ARMY Engineer Research and Development Laboratories at Fort Belvoir, Va., have announced the development of a xenon (a gas, pronounced "zeenon") lamp which is equal in lighting power to 200 present-day 100-watt light bulbs and has a brightness two to three times that of sunlight. It has a rated capacity of 8000 watts.

The new light, which creates a luminous source approximately seven millimeters in diameter, was originally developed for powerful Army searchlight operations, but is expected to have numerous other military, space and commercial applications.

Xenon reportedly has it all over carbon arc lamps. The xenons are clean, easy to maintain, have no open flame, and have a life up to 1000 hours.



**LANDING CRAFT** from Coast Guard icebreaker *Eastwind* lands equipment on beach of Cape Adare, Antarctica.

# ★ ★ ★ ★ TODAY'S NAVY ★ ★ ★ ★



## Eighteen Hours Under Water

There were dishpan hands aplenty in Underwater Demolition Team 21 after some members of that outfit completed an 18-hour underwater stint.

The UDT men did this in the interests of space travel, doing their part in a study of weightlessness—a condition experienced both in outer space and under water. The study took place at the Naval Air Development Center, Johnsville, Pa.

A call had gone out for underwater experts, and a dozen members of UDT-2, based at Little Creek, Va., volunteered. Led by their CO, LCDR W. H. Hamilton, they were: LTJG F. B. Bagnall; LTJG M. P. Lynch; LTJG M. S. Myers; L. T. Desautels, Jr., SMC; H. R. Williams, SF1; T. E. Blais, DM1; C. R. Watson, YN1; H. B. Collins, SK2; W. E. Burbank, SK3; J. C. Tipton, TM2; and G. E. Ball, QM2.

At Johnsville they submerged themselves in a plastic swimming pool heated to one degree below body temperature. They wore lead-weighted belts to keep them from bobbing to the surface. They breathed air pumped into individual breathing apparatuses and ate liquid food out of plastic bottles.

The purpose of all this was to build up an extended period of weightlessness. Then there came a sudden thrust of gravity—duplicating a situation astronauts would face upon returning to earth after space flight. The gravity thrust was simulated on the centrifuge.

The centrifuge ride was short, and the volunteers kept busy pushing buttons and talking, while scientists took notes.

By far the greater amount of time was spent under water, just building up "weightlessness time." The resourceful frogmen did more than merely drift around, however.

They played chess and checkers. They wrote notes on boards with grease pencils. They practiced their underwater sign language. They read pocket novels. (The pages don't stick together when the entire book is submerged.)

For awhile they had underwater

## Cargo—1000 Tons of Ice

The Navy icebreaker *uss Edisto* (AGB 2) had more than a little ice to break off her own rigging after battling her way through a week of violent storms in the Antarctic.

When she put into port at Lyttelton, New Zealand, *Edisto's* commanding officer reported plunging through 40- to 60-foot seas with winds blowing up to 90 knots. He said it was like sailing the ship down a street bordered by tall buildings, all of which were falling down on them. (*Edisto* was attempting to recover a fuel storage YOG, loaded with 200,000 gallons of aviation gas-

oline, adrift in McMurdo Sound.)

When *Edisto* lost her starboard propeller, RADM David M. Tyree, USN, Commander of Operation Deep Freeze, ordered the battered ship to return to New Zealand.

The icebreaker itself collected a coat of ice which was over six feet thick in places and weighed more than 1000 tons. The weight of the ice carried away a radio antenna and some of the rigging.

*Edisto* stayed in New Zealand for a week to rest her crew and do some preliminary work before shoving off for Hawaii for major repairs and replacement of her propeller.

## YESTERDAY'S NAVY



On 5 Jul 1862 the Navy Department was reorganized by act of Congress creating Bureaus of Navigation, Equipment and Steam Engineering. On 9 Jul 1798 Congress authorized capture of armed vessels of France. On 14 Jul 1882 a detachment of 100 seamen and Marines landed at Alexandria, Egypt, to extinguish fires started by the British bombardment and to guard the American Consulate. On 16 Jul 1862 Congress established and equalized the grade of U. S. Navy line officers and created grade of rear admiral. On 25 Jul 1866 grade of admiral was created.

television. A TV set, encased in a plastic tank, was lowered into the water. A speaker followed, wrapped in a rubber glove. It proved entertaining for a little while, but soon lost its appeal, for the picture was blurry and the sound too faint.

### Photographing the Weather

Some Navy photographic planes are currently performing on the lower end of a unique "double-play." They're snapping the same pictures from 50,000 feet up as those recorded by our *Tiros II* weather satellite from its 400-mile-high vantage point. And, between them, the satellite and the planes of Light Photographic Squadron 62 are helping the U. S. Weather Bureau to make more accurate advance storm warnings.

*Tiros II* has been steadily transmitting TV pictures of the earth's cloud cover back to earth since its successful launching by the National Aeronautics and Space Administration in November 1960. Going around the earth in a near-circular orbit 400 miles up, it is equipped with a narrow-angle telephoto lens which covers a 75-by-75-mile section of the earth's surface, and a wide-angle lens which photographs an area 750-by-750 miles. Its pictures are produced on a small scale, however—and that's where VFP-62 comes in.

On several occasions, at the request of the Weather Bureau's Meteorological Satellite Laboratory, VFP-62 planes have photographed a 400-to-500-mile-long portion of *Tiros II's* track within minutes of its passage overhead.

On these satellite-tracking missions, VFP-62 planes carry three cameras, each fitted with a one-and-a-half-inch focal length lens, and installed in a tri-metrogon configuration. Basically, this means that one camera is aimed straight down to take a vertical photograph, while the other two are placed to the right and left to photograph the passing horizon.

VFP-62's pictures cover only about 12 miles by 50 miles of the earth's surface, but, since they are on a much larger scale, they supplement *Tiros II's* images in aiding forecasting analysis.

All of the missions thus far have been flown over the southeastern U. S. The first extended from just southeast of Cincinnati, Ohio, to a point at sea off Cherry Point, N. C.; a second reached from the vicinity



SINGING — The Navy Wave Chorus, an unofficial group of enlisted women who stage song fests after work hours, pose with head of Waves.

### Navy Waves Chorus Hits High C's

The Navy Waves Chorus, which is an unofficial, after-hours group of about 25 young Navy women who serve in the Washington, D. C., area, may travel west in July to perform at the National Waves Reunion in Los Angeles.

It would be the first appearance by the chorus outside of Washington, where, since being organized last August, it has staged polished song-fests before many business and government organizations.

The choir has been the recipient of many compliments and requests for repeat performances, although

only two members of the group have received formal music training. LTJG Nancy Holway, the choir's director, received a Bachelor of Arts degree in music education, and the accompanist, ENS Ellen Glenn Lightsey, a BA degree with a major in piano. (Another Wave officer, ENS Sarah J. Watlington, serves as the choir's assistant director and business manager.)

Regular rehearsals (twice a week, after working hours) are credited with keeping the vocally-inclined Waves in good voice.

of Paducah, Ky., to Beaufort, S. C.; a third covered a track from western Georgia over Jacksonville, Fla., to some 250 miles out to sea near the Cape Canaveral warning area; while the fourth, and most recent, originated in the Gulf of Mexico west of Key West, Fla., and ended at sea northeast of Vero Beach, Fla.

VFP-62 is based at, and operates out of, NAS Cecil Field, Fla.

### Flying Wind Tunnels

Navy airships have been pressed into service as—of all things—flying wind tunnels. They are used for testing models of vertical rising and short takeoff and landing (VTOL-STOL) aircraft.

There has been very little information available on low speed aerodynamics because of the difficulty in using standard wind tunnels for tests. Large powered tunnels are

necessary and very few of those in existence meet requirements.

Regular wind tunnels are not usually designed to simulate low speeds. Attempts to modify the tunnel design had been both unsatisfactory and expensive.

Professor D. C. Hazen, of Princeton University, discovered that the steady speed and freedom from vibration, pitch and yaw made the 285-foot ZS2G-1 and the larger ZPG-2 airships at Lakehurst, N. J. usable for testing VTOL-STOL models for control and stability by hanging them beneath the airship's gondola on a retractable 33-foot-long strut.

Models with wing spans up to 10 feet and fuselages up to 14 feet in length have already been tested and, probably, models twice as long can be handled. Weather seldom hampers the program, so flights can be scheduled throughout the year.



**SOFT TOUCH**—Rubber fenders are the latest thing for Navy tugs. Here, YTB 181 sports new gear on sides and front while other is still arrayed in old type.

### New Fenders for Tugs

The familiar sections of old tires or heaps of rope puddening, which for years have been hung from tugs to cushion the impact produced when contact is made with other ships, may soon be mementos of the past.

A more streamlined, all-rubber fender design, which offers a longer life and higher resistance to rot, has been approved for Navy use by the Bureau of Ships.

The fenders are coming out in a variety of sizes, depending on the projected service of individual tugs.

Already decked out with the cushions are four East Coast tugs, *Pontiac* (YTB 756), *Oshkosh* (YTB 757), *Paducah* (YTB 758), and *Bogalusa* (YTB 759).

These ships were fitted at the bow with seven sections of various lengths, the longest of which was 19 feet. Their stern cushions are 10-by-12-inch sections which are built out from the hull and curve around in a 100-degree arc. Smaller, round pieces provide lateral protection, while all the sections are secured to the ships with chains.

### Navy Chief Wins Edison Award

An Edison Award Special Citation has been bestowed upon Donald Johnson, Petty Officer-in-Charge of the 12th Naval District Reserve Master Control Radio Station. The citation was for educational service

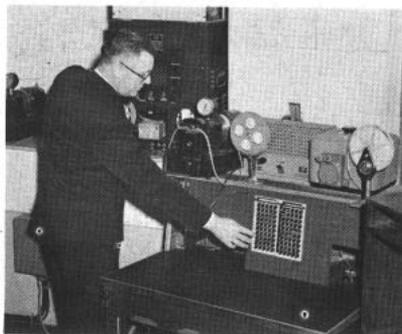
and for his work with the blind.

Chief Johnson, a naval veteran of 22 years, holds radio and electronics classes for pupils of both sexes, ranging in age from nine to 70.

Johnson was specifically cited for his work with a class which he organized to teach Explorer Boy Scouts.

His work with the blind was instituted at the Lighthouse for the Blind, where he taught the fundamentals of circuits by using a light thread which he had sprayed with plastic to give it body. Nine of 11 of his blind students now hold amateur radio operator licenses. A radio station has been built through Johnson's efforts for these amateurs.

Chief Johnson doesn't stress his naval background, but most of his students who have military obligations go Navy.



**CHIEF DONALD JOHNSON** operates controls used to switch code machines to various code tables in radio school.

### Rochester into Reserve Fleet

One of the Navy's veteran cruisers has been placed out of commission after more than 14 years' continuous service. *uss Rochester* (CA 124), formerly a member of the Pacific Fleet's Cruiser-Destroyer Force, has joined the Pacific Fleet Reserve Group at Bremerton, Wash.

Commissioned 20 Dec 1946, the *Rochester* was first assigned to the Atlantic Fleet, and in 1948 was the flagship of the U.S. Sixth Fleet. After the outbreak of the Korean hostilities in 1950 she joined the Pacific Fleet.

*Rochester* was the last of the three modified *Baltimore*-class heavy cruisers to go out of commission. The first of the three-ship class, *Oregon City* (CA 122), was laid up in June 1947, not long after her commissioning. The second, *Albany* (CA 123), was decommissioned in 1958—but only for conversion work. She is scheduled to rejoin the Fleet, not as a heavy cruiser, but as a guided missile cruiser — with the designation CG-10.

The inactivation of *Rochester* is part of a continuing program of placing older ships in Reserve status as new or modernized ships join the active Fleets.

### Project Advent

Now under development by the Department of Defense is a satellite of a somewhat unusual nature. It will be a hovering (or fixed-orbit) type, maintaining for a long period a relatively fixed position at a point 19,373 nautical miles above the earth. In that position it will be in a direct line of sight from all points of the earth on an 11,300-mile circle centered directly beneath the satellite. There it will be a key link in a system of high-capacity, instantaneous, radio communication—Project *Advent*.

The *Advent* satellite will contain miniaturized receivers and transmitters. It will receive a signal from one station on earth, amplify it, change the frequency as necessary, and then transmit it to another earth station. Both radio-teletype and voice broadcasts will be handled.

Under BuShips direction, a World War II Victory ship, now in mothballs, will play an important role in the research and development phases of Project *Advent*. The ship is to become a Military Sea Transportation Service (MSTS) ship. It will have a detachment of Navymen

aboard, chiefly electronics technicians. The Navy detachment will maintain and operate the communications equipment.

The ship will be a mobile earth station—in contrast to two fixed earth stations manned by the Army, one on the East Coast and the other on the West Coast. As a mobile station, the ship can test the system from numerous locations, providing data on fringe-area reception, propagation characteristics and system security.

The first of the hovering satellites—a research and development version—in Project *Advent* is expected to be launched early in 1963. During the launching, the Navy's Pacific Missile Range will provide instrumentation support. If this is successful, a whole series of hovering *Advent* satellites is expected to follow.

### Recognize This Fish?

Don't be surprised if one of these days you see a 300-foot fish pop out of the ocean or moor at your home port.

It is probably the research submarine *uss Grouper* (AGSS 214), which has taken on the appearance of a large, three-finned sea monster. *Grouper* is actually quite harmless.

Her strange appearance is due to the unusual service she performs. The three topside fins, which are actually complicated sonar devices, were added to the sub in 1959 when she was converted to an auxiliary status for work in underwater sound experiments.

Her forward torpedo room is now a workshop for scientists from the Underwater Sound Laboratory, New London, Conn., who are always on board to conduct experiments with noises of the deep.

*Grouper's* work takes her away from New London many times each year on Atlantic tours which range in length from six to eight weeks.

Although *Grouper* (named for a salt-water fish) is one of the Navy's most advanced floating laboratories, she is also one of our oldest active ships.

Commissioned in February 1942 at Groton, Conn., the sub participated in 12 Pacific war patrols during World War II, was credited with sinking 23,000 tons of enemy shipping, and rescued nine downed aviators.

In 1946, says *Grouper's* history, the first submarine combat information center was installed in her for-



WHAT ME WORRY? Young Midway Island gooney bird lives up to its reputation as it sits undisturbed near Seabee, J. C. Arnold, EO1, during maneuvers.

ward battery compartment.

The history also credits *Grouper* with becoming the first killer submarine. She was converted to SSK from the *Gato*-type SS class in 1950, and received her present classification in June 1958 when she was assigned to USL.

### Midway's Adopted Son

When *uss Midway* (CVA41) sails into the fragrant harbor of Hong Kong, she knows her 14-year-old adopted son will be on the pier to welcome her.

Pan Ia Long, the child of refugees from Communist China, was adopted by the ship's crew two years ago on *Midway's* first visit to Hong Kong. The boy was placed in a local welfare center.

Last year when *Midway* was in Hong Kong, the boy's foster parents found him in thriving good health



CARRIER BOY—Adopted son of *USS Midway* (CVA 41) is greeted by ship's skipper in Hong Kong with part of goods collected for needy refugees.

and doing well in his studies at school.

The 3700 officers and men of *Midway* expect to continue supporting the lad until he completes his education or until his refugee parents can take over his support.

The 62,000-ton carrier also delivered more than 2000 pounds of clothing, books and medical supplies to representatives of charitable organizations in a brief shipboard ceremony.

The goods were donated by *Midway's* crew and San Francisco and Bay Area charities to be turned over to missionaries of all faiths in Hong Kong as a part of Operation Handclasp.

### Ten Ton Radar

One of the largest seagoing radars ever developed is soon to go to sea. Called the AN/SPS-38, the 10-ton system is currently undergoing final tests. To be installed aboard cruisers and radar picket destroyers, it is designed to frustrate enemy attempts to jam it, and to furnish early warning against an air attack.

The new radar's 40-foot aluminum antenna rotates a full 360 degrees—a design which will permit tailoring of the radar beam pattern to the most advanced search techniques. Inside the antenna, an ensemble of 150 horns will beam and collect signals which could pinpoint an aerial invader hundreds of miles away. Also inside is a plumber's maze of pipes—transmission lines to carry waves to and from the many horns.

Key to the system's extended range and added flexibility is a newly-developed type of power tube, which will boost output, yet maintain operational stability.

**Des Moines Retires**

uss *Des Moines* (CA 134) has come home to retire. The 17,000-ton heavy cruiser is scheduled to be decommissioned at Boston, Mass., this summer. She was commissioned in Boston on 16 Nov. 1948.

It is just short of 13 years that this sleek, gray cruiser is calling it quits. During that period she has spent much of her time in one or another of the key areas of the world, ready, just in case.

*Des Moines* was flagship of the U.S. Navy's Sixth Fleet in the Mediterranean six times in those 13 years.

Most of these flagship tours were for a few months, but the last one is claimed as a new record for Sixth Fleet flagships. *Des Moines* carried the boss of the Sixth Fleet for 33 consecutive months.

There were a good many crises in the nearly three-year stint as flagship, including the trouble in Lebanon during 1958.

*Des Moines* was in company with other Sixth Fleet ships which anchored off the coast of that country at the request of the Lebanese government. U.S. Marines from the heavy cruiser landed in Lebanon to help keep the peace. After about a month the crisis was ended, and *Des Moines* returned to regular operations with the Sixth Fleet.

During her last 33 months in the



SIGNALMEN hoist 'homeward bound' pennant of USS *Des Moines* (CA134) before ship's arrival in Norfolk.

Med, *Des Moines* visited ports in Spain, France, Italy, Greece, Lebanon, Yugoslavia, Corsica, Algeria, Gibraltar, Malta, Sardinia and Sicily.

Sometimes, entertainers such as Spanish dancers or Italian mandolin players came aboard and performed for the crew. *Des Moines* also entertained, but most of this was for the hundreds of children who were invited aboard at almost every port.

This ship has also entertained many official visitors. These included Queen Elizabeth of England, King Paul and Queen Frederika of

Greece, Prince Albert of Belgium, Prince Rainier and Princess Grace of Monaco and Archbishop Makarios of Cyprus.

In December 1959, *Des Moines* carried President Eisenhower from Athens, Greece, to Toulon, France, at the close of the President's tour of Europe and Asia.

In 1960 *Des Moines* sailors saw the Olympic Games and also took part in celebrations in Lisbon, Portugal, which honored Prince Henry the Navigator.

Good will was only part of *Des Moines*' mission during her nearly three years in Mediterranean waters. *Des Moines* was an active participant in numerous NATO exercises during her cruise as Sixth Fleet flagship, in addition to taking part in such Fleet operations as *Green Swing*, *Monsoon*, and *Flashback Setback*.

In 37 months (33 of which were with the Sixth Fleet) overseas the heavy cruiser consumed 23,366,468 gallons of fuel and conducted 158 fueling operations. It took 35 replenishment exercises to keep the crew well fed while the ship cruised 173,000 miles.

All this was ended on 14 Dec 1960 when *Des Moines* moored at Palermo, Sicily, to switch the Sixth Fleet's flag to the guided missile cruiser uss *Springfield* (CLG 7).

For *Des Moines* it was something like the older man turning over a company to a younger man with modern ideas and equipment. *Des Moines* still had conventional weapons, while *Springfield* is the first guided missile cruiser to serve as Sixth Fleet flagship.

When all the filing cabinets, equipment and personal gear which go with the flag personnel had been switched to *Springfield*, *Des Moines* was ready to cross the ocean for what may have been the last time.

*Des Moines* is scheduled to hang up her hat at Boston.

**Advanced Aircraft Base Ship**

uss *Alameda County* (AVB 1) will lose her distinction as the Navy's only advanced aircraft base ship next year when *Tallahatchie County* (LST 1154) is placed in commission as AVB 2.

The versatility of this unusual type of ship has been demonstrated by *Alameda County* many times since December 1955 when she was assigned to the Mediterranean area

**HEADING HOME**—Heavy cruiser USS *Des Moines* (CA 134) is seen on cruise home to end 37-month tour as Sixth Fleet flagship in Mediterranean.



with Naples, Italy, as home port.

Although many of her missions have been simulated war exercises, others have been in actual support of naval operations. For example, during the 1956 Suez crisis, she activated the airstrip at Suda Bay, Crete, and each day handled an average of 51 takeoffs and landings as UN emergency forces were shuttled into the trouble zone via Suda.

In 1959, when the Sixth Fleet landed Marines in Lebanon, *Alameda County* was again operating at Suda Bay. She was the closest advanced base to Lebanon, so was called on to service, feed and house aircraft squadrons until the final division of Marines was ordered out of the area.

Originally commissioned as LST 32 in 1943, *Alameda County* received her present status in 1955 when a major conversion operation provided berthing and messing facilities for the extra 325 men who are needed for advanced base operations. Some of her ballast tanks were modified to stow ordnance, others for storing aviation gas. Extra evaporators were installed to provide water for the increased crew, and a jumbo boom was added to handle two LCMs, a rearming boat, and a bowser boat (for fueling), all of which are required to support support seaplanes.

*Alameda County* is not limited to servicing aircraft. She can set up



IN AND OUT—Rayford Alexander, SM1, USN, casts an approving eye at incoming mail box containing chief's hat he will don in near future.

seadromes and build airports as well.

*Tallahatchie County* is an LST of more recent vintage. Commissioned in 1949, she is one of only two steam-powered LSTs that were ever constructed. She will probably be assigned to the East Coast when her conversion to AVB status is completed next year.

### Portable Movie Theater

Something rather special has been added at the dependents' clinic of the Naval Hospital, Corpus Christi, Texas. It's a "pseudo TV set." The

instrument, which resembles a huge TV set, is actually an inexpensive, self-operated, cabinet-type movie projector that projects images on the inside of an opaque white screen in front of the cabinet.

The projector is fed films continuously without rewinding, for constant showing of Navy films in the dependents' clinic. So now, while waiting for the doctor, Navy wives and their children can get a better idea of the purpose of their husbands' or fathers' organization.

## Thirty-three Hundred Salutes

If ships of the Continental Navy had fired as many gun salutes as *uss Des Moines* (CA134) did during a recent tour in the Mediterranean, they probably would have run out of gunpowder.

*Des Moines'* two 6-pound saluting batteries sounded off more than 3300 times during the 33 months she served as 6th Fleet flagship. That's a lot of noise.

Because of powder shortages in the old Navy, warships generally fired only seven rounds while making a gun salute. When gunpowder was not so hard to come by, the number of guns for the naval salute was raised to 21. By common agreement the international salute of all nations is now 21 guns.

Many of the notables who visited *Des Moines* were of sufficient rank to rate the 21 guns which are reserved for Presidents, ex-Presidents,

Presidents-elect, royalty and other chiefs of state. Nineteen guns are rendered to a larger number of dignitaries, depending on their rank or position (SecDef, SecNav and CNO rate 19 guns; an admiral receives 17; vice admiral, 15; and rear admiral, 13).

The firing procedure for *Des Moines* saluting batteries is similar to that required for bigger guns. Four men are needed — a loader, passer, lanyardman, and hot-shell man. Projectiles are never fired by the saluting batteries, as the guns are used exclusively for making noise and smoke in honor of high-ranking visitors.

The officer in charge of the two saluting batteries (port and starboard, near the bridge) personally times the intervals between shots to make sure they are always uniform. The crews of both guns can load in

less than two seconds, and follow up a misfire by the alternating gun so fast the average spectator will never know a charge failed.

The batteries receive careful handling. After being fired the guns are disassembled, and each part is thoroughly inspected and cleaned by armory specialists.

To signify her saluting battery efficiency, *Des Moines* was awarded a white "E" last December after she was relieved as 6th Fleet flagship by *uss Springfield* (CLG 7). She displayed the E on both saluting batteries until returning to the U.S. last month. The award was the first of its type ever won by a 6th Fleet ship.

*Des Moines* also displays a red E on her stack for engineering proficiency and white E's on two 8-inch turrets for outstanding gunnery. The cruiser is now dry dock before going into the Reserve Fleet.



WINNING FORM—L. O. Brown, CS1, readies pork chops on *USS Galveston* (CLG3), COMCRULANT '61 New Award winner; A. L. Wymola, CSCA, watches.

**Ney Awards for 1961**

Outstanding general messes ashore and afloat were nominated as finalists in the 1961 annual Ney Memorial Awards competition. The best general mess in each of 39 operating commands was selected. Out of these 39 semi-finalists, the Awards committee chose six finalists.

*USS Courtney* (DE 1021), of COMDESLANT; *Galveston* (CLG 3) of COMCRULANT; and *Henrico* (APA 45) of COMPHIBPAC were the afloat finalists.

Naval Air Station, Patuxent River, Md., representing Commandant, Potomac River Naval Command; the Naval Security Group Activity, Kami Seya, Japan, under Commander, U. S. Naval Forces, Japan, and the Naval Submarine Base, Pearl Harbor, Hawaii, under the Commandant, 14th Naval District, were the ashore finalists.

These six finalists have been visited by the Awards committee, and the ashore and afloat winners are due to be announced early in July.

The Ney Memorial Awards Program was established in 1958 by the Secretary of the Navy as a means of honoring those U. S. Navy general messes considered outstanding in the preparation, management and service of food. The program commemorates the late Captain Edward F. Ney, SC, usn, World War II Director of the Subsistence Division of BuSandA.

The Awards Program is jointly sponsored by the Food Service Executives' Association (formerly the Ex-

ecutive Stewards' and Caterers' Association)—national non-profit educational and fraternal organization.

Winners will receive bronze trophies to be awarded at the FSEA convention in Detroit, Michigan, during August 1961. Runners-up in each group will be entitled to send a commissary representative to the Culinary Institute of America, Inc., for

a course in intermediate cookery sponsored jointly by FSEA and the BuSandA Subsistence Division.

Past Ney Award winners are *uss Franklin D. Roosevelt* (CVA 42) and the Naval Station, Guantanamo Bay, Cuba, in 1958; *uss Paul Revere* (APA 248) and the Naval Communications Facility, Kami Seya, Japan, in 1959; *uss Saint Paul* (CA 73) and the Naval Station, Guantanamo Bay, Cuba, in 1960.

Of the 1961 finalists, all except *Henrico* have won honors in past competition. *Courtney* was a semi-finalist in 1960; *Galveston* was a 1959 semi-finalist and was runner-up in 1960. NAS Pax was a 1958 semi-finalist, as was Sub Base Pearl, in 1959 and 1960. Kami Seya was a 1959 winner and a 1960 semi-finalist.

**Sign Language for Motorists**

Servicemen stationed in foreign countries are sometimes involved in automobile accidents because they do not understand the local road signs.

In Naples, Italy, steps have been taken to correct this situation, and a lot of the credit goes to Seabee Robert C. Williams, EO1. Similar efforts at other overseas stations would pay off too.

Williams, who serves at the motor

**Outstanding Messes Nominated for 1961 Ney Awards**

AFLOAT	COMMAND	COMMAND
<i>USS Amphion</i> (AR 13)	COMSERVLANT	U. S. Naval Air Station Oceana, Virginia Beach, Va. 5ND
<i>USS Antietam</i> (CV5 36)	CNATRA	U. S. Naval Air Station Patuxent River, Maryland PRNC
<i>USS Bluebird</i> (MSC 121)	COMINLANT	U. S. Naval Air Station Olathe, Kansas 9ND
<i>USS Charr</i> (SS 328)	COMSUBPAC	U. S. Naval Air Station Seattle, Washington 13ND
<i>USS Courtney</i> (DD 1021)	COMDESLANT	U. S. Naval Communication Station Guam, Marianas Islands COMNAVMIANAS
<i>USS Excel</i> (MSO 439)	COMINPAC	U. S. Naval Disciplinary Command Portsmouth, New Hampshire 1ND
<i>USS Frontier</i> (AD 25)	COMCRUDESPAC	U. S. Naval Mobile Construction Battalion Kubasaki, Okinawa COMCBPAC
<i>USS Galveston</i> (CLG 3)	COMCRULANT	U. S. Naval Radio Station Farfan, Canal Zone 15ND
<i>USS General W. A. Mann</i> (T-AP 112)	COMSTSPACAREA	U. S. Naval Security Group Activity Kami Seya, Japan COMNAVFORJAPAN
<i>USS Henrico</i> (APA 45)	COMPHIBPAC	U. S. Naval Station Annapolis, Maryland SRNC
<i>USS Hermitage</i> (LSD 34)	COMPHIBLANT	U. S. Naval Station Argentia, Newfoundland COMSERVLANT
<i>USS Howard W. Gilmore</i> (AS 16)	COMSUBLANT	U. S. Naval Station Kodiak, Alaska 17ND
<i>USS Independence</i> (CVA 62)	COMNAVAIRLANT	U. S. Naval Station Roosevelt Roads, Puerto Rico 10ND
<i>USS Interpreter</i> (AGR 14)	COMWESTSEAFRON	U. S. Naval Station Sangley Point, Philippine Islands COMNAVPHIL
<i>USS Jason</i> (AR 8)	COMSERVPAC	U. S. Naval Submarine Base New London, Connecticut 3ND
<i>USS Searcher</i> (AGR 4)	COMSEASTSEAFRON	U. S. Naval Submarine Base Pearl Harbor, Hawaii 14ND
<i>USS Yorktown</i> (CVS 10)	COMNAVAIRPAC	U. S. Naval Support Activity Naples, Italy CINCUSNAVEUR
ASHORE	COMMAND	
U. S. Naval Administrative Unit Lake Mead Base Las Vegas, Nevada 11ND		
U. S. Naval Air Station Corpus Christi, Texas 8ND		
U. S. Naval Air Station Glynco, Brunswick, Georgia 6ND		
U. S. Naval Air Station Johnsville, Pennsylvania 4ND		
U. S. Naval Air Station Moffett Field, California 12ND		

pool of Headquarters, Allied Forces Southern Europe, and Army Major John L. Walker, Assistant Transportation Officer, who conceived a visual driver's program, felt better training in foreign road-sign recognition would enable Navy motorists to avoid accidents.

To prove this, Williams constructed a training aid to test the 100 drivers assigned to the AFSouth motor pool.

The training aid centers around 50 international road signs, and includes a simulated town that is complete with curves, rail tracks, miniature cars, trucks and even horse-drawn carts.

After four months in operation, the program has been credited with producing a marked decrease in accidents that involve motor pool drivers, compared with similar periods of past years.

To complete the Williams Driving Test successfully, the motor pool's 40 Navymen and 60 Italian employees must show they can recognize at least 48 of the 50 international road signs. Once they understand the meaning of the signs, they must answer questions about what they can or can't do in traffic situations simulated on the mock-up.

The road test includes backing, signaling, leaving the curb, passing and many of the unusual situations you can meet while driving on crowded roadways.

Completion of the program does not in itself make non-drivers eligible for a license. It does, however, qualify headquarters personnel for renewed licenses once their old ones expire.

The instructors also test men seeking to upgrade their licenses to include vehicles of a different type.

### Quicker Than a Flash

Photographing high-speed, split-second action has long had certain shortcomings. Negatives exposed with chemical flash lamps and flash bombs contain only a few properly exposed frames.

Those properly exposed were in the photo-systems mid-intensity light range. Other frames were either underexposed because of the weakness of light at the beginning and end of the system's flash—or they were overexposed when the flash reached its peak brilliance. Added to these difficulties was the system's afterglow, which caused a number of frames to be double-exposed.



WINNER—ENS R. C. Harvey, SC, USNR, receives first place award in All-Navy Cartoon Contest from VADM W. R. Smedberg, III, USN, Chief of NavPers.

Such shortcomings are being met with a self-shuttering, high-intensity electronic flash device developed at the Naval Ordnance Laboratory, White Oak, Md. It is a gaseous discharge tube coupled with an artificial transmission line made up of a number of capacitors.

The flash instantaneously reaches and holds the peak intensity of 10 press-camera flashbulbs before turning off. It does this without an afterglow. When the flash unit is used in a missile test, its charged capacitors are discharged—which allows alternating current first to race back, and

then to race forward through the transmission line. This action keeps the tube's arc burning evenly for three one-thousandths of one second. Then the voltage across the discharge tube abruptly drops to zero, causing the light to cease shining immediately without an afterglow.

During the time the missile model is illuminated, a high-speed camera takes 82 equally-exposed pictures as it reacts to a shock wave.

The new flash device was designed by employees of the Gas Dynamics Division of NOL's Ballistics Department.



FUNNY BUSINESS—Judges for All-Navy Cartoon Contest look over crop of entries for '61. (l. to r.) LTJG H. H. Sullivan; H. C. Jordan, BM2; LT W. O. Eastwood (SC); LCDR(W) K. D. Chalmers; J. Seman, YNC; and W. J. Miller, JOCM. The winning cartoons for 1961 were published in May issue of ALL HANDS.

# THE WORD

## Frank, Authentic Advance Information On Policy — Straight From Headquarters

### • SPACE & ASTRONAUTICS COURSE

— A Space and Astronautics Orientation Course, designed to give senior officer and civilian personnel a better understanding of this new technology, its application to naval warfare, and its important role in national defense, has been established at the U.S. Naval Missile Center, Point Mugu, Calif.

Of four days' duration, the new course is in consonance with the Navy's global mission, and emphasizes the significant impact of astronautics on sea power. It is primarily aimed at those senior officers who have not had the opportunity to gain knowledge of astronautics and our current space programs. A highlight is a visit to the space vehicle launch and control facilities at the Point Arguello Naval Missile Facility and Vandenburg Air Force Base.

Eligible for the course are Navy commanders and above; Marine Corps lieutenant colonels and above, and civilian employees of the grade of GS-13 and above. Exceptions may be granted upon request to CNO (Op-54), in cases of officers and civilians junior to these who occupy key billets or billets concerned with astronautic matters.

One to three classes will be held each month. Specific convening dates will be published in periodic Opnav Notices. Attendance quotas will be apportioned through these notices to the Executive Office of SecNav; the Commandant of the Marine Corps; Fleet commanders in chief, and the chiefs of the bureaus. A small quota will also be retained by CNO. Your request for attend-

ance at this course should go to one of those commands, as appropriate. A Top Secret security clearance is required.

Information concerning this course is contained in OPNAV Inst. 1500.15 of 14 Apr 1961.

• **THE WORK'S THE SAME** — The title of Limited Duty Officer (Aviation Electronics) has been changed to Limited Duty Officer (Avionics).

The new name does not change the qualifications or duties of officers in this LDO category. It was done to bring the name in line with current terminology.

• **SUB TRAINEES NEEDED** — Now is the time to get into the submarine service if you're interested. The Secretary of the Navy has put out an urgent call for volunteers.

In explanation of the need for submariners, SecNav states: "The majority of personnel entering *Polaris* and submarine nuclear power training programs enter such training programs from the operating submarine forces. In order for the submarine forces to continue to support these programs so vital to our national defense, additional volunteers are needed for the Enlisted Basic Submarine School."

There is a special need for enlisted men in the EN, MM, ET, IC, EM, TM, FT and GS ratings in pay grades E-4 through E-6, as well as designated strikers. In addition, in the TM, ET, and GS ratings personnel in pay grade E-7 are also eligible for Basic Submarine School.

Other eligibles include: HMs in

pay grades E-5, E-6, and E-7; E-4s, E-5s and E-6s in the ratings of QM, SM, RM, YN, CS and SD; SK2s and SK1s; in addition to SN, SA, FN, FA, TN and TA. QMSNs and SMSNs are also needed.

Volunteers who are now homeported in New London, Conn.; Norfolk, Va.; Charleston, S.C.; Key West, Fla.; San Diego, Calif., or Pearl Harbor, Hawaii, may return to their present home port for duty aboard a submarine after graduation from Sub School if funds and service requirements permit.

To be eligible for assignment to initial submarine training, an enlisted man in one of the above ratings must meet the following qualifications:

- Have 24 months' active obligated service commencing with the convening date of the class to which ordered.

- Be a volunteer for sea duty in submarines.

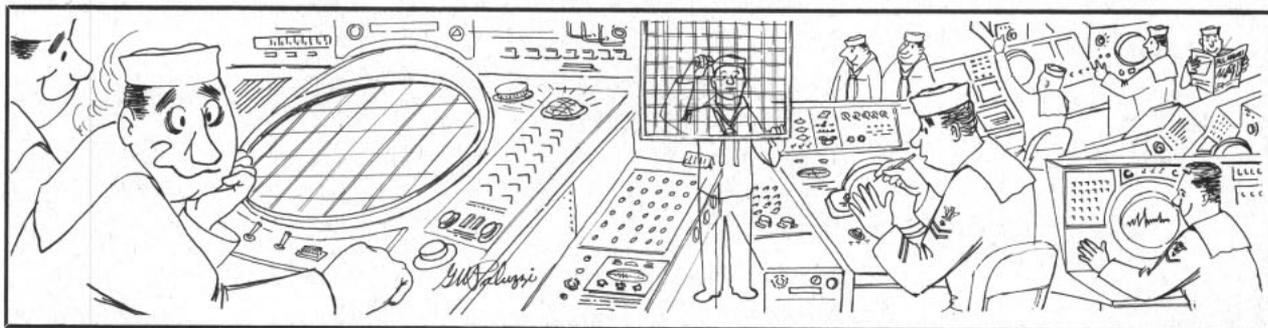
- Be physically qualified for submarine duty.

- Have demonstrated evidence of emotional and mental stability and maturity.

- Be no more than 30 years of age when reporting to Basic Submarine School. (Waivers will be considered for men in other than the ET, MM, EN, IC, HM ratings or for FNs and FAs.)

Personnel in the ET, MM, EN, EM, IC and HM ratings, in addition to FN and FA, must have a minimum GCT and ARI score of 110 plus a high school education or GED equivalent. Other eligible men must have a combined ARI and MAT or ARI and MECH score of 100, or a minimum GCT and ARI score of 100.

For more detailed information about submarine training, see Chapter 10 of the *Enlisted Transfer Manual* (NavPers 15909) and NavAct 3. (Chapter 10 of the *Transfer Manual*



YOU DON'T need radar to get the scope of ALL HANDS, but you do need to see each issue. Pass this copy along.

has recently been revised and therefore may not reflect correct qualifications for Basic Submarine School. The requirements as stated here, however, are correct and will be substantiated by a forthcoming change to the Manual.)

• **NUCLEAR SURFACE SHIP TRAINING—**

An opportunity in the field of Navy nuclear power training that may be of special interest to you is the Nuclear-Powered Surface Ship Program. It is open to qualified men in pay grades E-3 to E-6 of the ET, MM, BT, EM and IC ratings. HMIs and HMCs are also eligible.

Bear in mind that, although the opportunities are not open to all ratings, provisions do exist in many cases for a change in rating. It might be to your advantage to investigate the possibilities if you are interested.

These are the eligibility requirements:

- Be motivated for the program.
- Have minimum combined test scores of 105 in GCT/ARI or ARI/Mech through January of 1962 at which time the requirement will be 110 in GCT/ARI only. (This will be indicated in Memo Correction No. 3 to "Enlisted Transfer Manual.")
- Be a high school graduate or have a GED equivalent.
- Be not more than 32 years old.
- Have (or be eligible for) a Secret security clearance.
- Be a U.S. citizen.
- Have 48 months' obligated service at the time of reporting for the course of instruction.
- Be physically qualified.

Training in this program commences quarterly. It consists of two phases.

The first is the Basic Nuclear Power Course. It is 24 weeks long and deals with technology and science. Training is held either at the Submarine Base in New London, Conn., or the Nuclear Power School, Mare Island, Calif.

The second phase is the Operational Nuclear Power Course, with the stress being on operation of the plant. It is also 24 weeks long and is held at a Nuclear Power Training Unit—either at Idaho Falls, Idaho, or Schenectady, N.Y. Individual instruction and general classroom work are both provided here. A feature of this phase is the opportunity to operate a prototype nuclear power plant, for on-the-job training.

For other information on the various types of nuclear power training for enlisted men see ALL HANDS, April 1961 (pp. 48 and 49) and Chapter 11 of the "Enlisted Transfer Manual."

Applications for the surface program were solicited in BuPers Notice 1510 of 5 May 1961.

• **SEAVEY SEGMENT 2-61—**June was the commencement date for Seavey Segment 2-61. Throughout the 12-month period that began in June, orders will be issued for most enlisted personnel scheduled to come ashore under this Seavey segment. Once your orders are written, you can expect to be transferred about four months later.

Travel funds have been sharply curtailed, therefore there may be a delay for some men due to come ashore in this segment. Additionally, assignments will be made primarily as a result of consideration of economy and service requirements rather than personal preference. Normal Seavey procedures will resume when sufficient travel funds become available.

The following sea-tour commencement cutoff dates have been set. If you went to sea in or before the month listed after your rate, you should receive orders soon.

RATE	CUTOFF DATE	RATE	CUTOFF DATE
CSC	Jun 1959	PMC	Jun 1959
CS1, 2, 3, SN	Sep 1958	PM1	Dec 1958
		PM2, 3, FN	
MMC	Sep 1957		Dec 1957
MM1, 2, 3, FN	Mar 1956	MLC	Dec 1958
		ML1	Jun 1956
ENC	Jun 1958	ML2, 3, FN	Dec 1955
EN1	Sep 1956	SVC, 1, 2, 3, CN	
EN2, 3, FN	Jun 1956		Dec 1959
MRC, 1, 2, Jun 1958		CEC, 1, 2	Dec 1959
MR3, FN	Sep 1958	CE3, CN	Jun 1959
BTC/BRC	Jun 1957	EOC, 1	Jun 1959
BT1/BR1	Sep 1954	EO2, 3, CN	
BT2, 3, FN	Mar 1955		Dec 1959
EMC	Dec 1958	CMC, 1	Dec 1959
EM1, 2	Mar 1958	CM2, 3, FN	
EM3, FN	Jun 1958		Jun 1959
ICC	Dec 1959	BUC	Jun 1959
IC1, 2	Jun 1959	BU1, 2, 3, CN	
IC3, FN	Dec 1958		Jun 1958
SFC	Jun 1958	SWC	Jun 1958
SF1, 2	Jun 1956	SW1, 2, 3, CN	
SF3, FN	Jun 1957		Dec 1957
DCC	Jun 1959	UTC, 1, 2	Jun 1959
DC1, 2	Sep 1957	UT3 CN	Dec 1958
DC3, FN	Jun 1958	SDC	Dec 1958
SHC	Jun 1959	SD1	Dec 1956
SH1	Jun 1957	SD2	Mar 1957
SH2	Jun 1955	SD3, TN	Jun 1956
SH3, SN	Sep 1954		

# QUIZ AWEIGH

An enlisted man is confronted with problems of naval courtesy every day. Usually, it is a simple matter of saluting an officer when you meet him. Sometimes, however, you are confronted with a situation that is out of the ordinary.

What would you do in the following circumstances?

1. You meet a Naval Academy midshipman while on liberty. You realize he is in training to become an officer, but also that he is not yet commissioned. Would you: (a) Greet him verbally, but not salute; (b) act as though you didn't see him; (c) salute him?

2. You meet an officer from your ship while on liberty. You are both in civilian clothes and both are wearing hats. Would you: (a) Salute him; (b) speak, but not salute; (3) act as though you didn't recognize him?



3. You are walking with a lieutenant and you meet an ensign. What is the correct procedure: (a) You salute, then the ensign does, and finally the lieutenant does; (b) ensign salutes first, and then both you and the lieutenant return the salute simultaneously; (c) both you and the lieutenant salute and then the ensign?

4. You are going aboard or leaving a ship. The OOD is an enlisted man. Would you: (a) Salute both the national ensign and the enlisted OOD; (b) salute neither the national ensign nor the OOD because there is no officer on the quarterdeck; (c) salute only the national ensign?

5. You are walking with a senior. Should you: (a) Walk on either his right or left side, but one pace behind; (b) walk on the senior's left, but alongside; (c) walk on the senior's right, but alongside?

6. A CPO, an ensign, and a lieutenant are about to enter an automobile. What would be proper: (a) CPO opens the door, LT enters first, then ENS, and finally the CPO; (b) CPO opens door, ENS enters first, followed by LT and finally by the CPO; (c) CPO opens door, enters car first, followed by ENS and finally by LT?

Answers can be found on page 54.

# THE BULLETIN BOARD

## Now Is the Time to Make Plans to Take Care of Your Own

**T**HE COMMANDING OFFICER of a typical naval activity recently conducted a study of the after-death financial arrangements his men had made for their dependents. He uncovered some startling facts.

He learned, for example, that:

- Of the 13 deaths which occurred within the unit over a one-year period, 12 were abrupt—only one was the result of long illness during which the man had time to provide for his dependents.

- Of the 13, only four carried commercial life insurance.

- Only one had made a will.

The 13 deceased Navy men could—and should—have done much more to ease the financial and legal burdens with which their dependents were suddenly saddled.

In most cases, for example, the men had not established joint ownership of property with the right of survivorship. The property of the few who had done so was automatically passed to their wives, and not tied up pending probate of the remainder of the estate.

The captain recognized that the financial affairs of his men were their own business, but after his study, he concluded that when his men fail to act, it becomes a command obligation to provide the necessary incentive and assistance.

As a result, he has added to the command's check-in procedure for newly reporting personnel a thorough review of each man's financial status and what he has done to protect his family in case he should meet sudden death.

Since that time, each man has received detailed information on the various forms of benefits available to surviving dependents, an estate planning chart with instructions for its use, and a last will and testament form which requires the man to fill in only a few blank spaces. (In order to insure that his estate will be passed on to his heirs in accordance with his wishes, the Navyman should see to it that his will is properly executed, checked frequently and brought up to date from time to

time. This is particularly important if there is a change in his marital status, after the birth of a child, or if anyone mentioned in the will dies. It is always best to consult a legal officer or private attorney.)

A good way to plan for the future, the captain tells his men, is to determine the amount of money the surviving dependents would need each month in order to be financially secure.

Then, subtract the amount of benefits the survivors would receive from the U. S. government, and make up the difference with life insurance.

The Navy doesn't automatically take care of your personal finances. However, it can suggest certain courses of action you can take to avoid extra hardships for your dependents should you die.

For example, by executing a will you are assured that your property will be divided and administered in accordance with your preferences, not as some court may decide.

Every Navyman should have a will. Your property, in your opinion, may be of little value. At the moment you may have only two nickels in your pocket. But that situation will change, and a visit now to your legal officer, to make arrangements to execute a will, will save heartache later.

All-Navy Cartoon Contest  
Howard P. Wood, Jr., CMA2, USNR



"That's not quite how it's done, Lawson."

You can then rest assured that those two nickels, plus the odds and ends you have accumulated, will go to the person you designate.

Also, your DD 93 (Record of Emergency Data) form is in your service record to let the Navy know whom to notify in case of serious illness or death, and who will receive your unpaid pay and allowances, and the death gratuity (provided you are not survived by an eligible spouse or child).

You should fill out a new DD 93 whenever a change occurs in the status of your dependents, beneficiaries, or persons to be notified in case of emergency.

If you list on your DD 93 all insurance policies you have, the Chief of Naval Personnel will automatically furnish certification of casualty to the insurance companies involved.

It is suggested that you have readily available for your wife or other trustworthy person, such as the executor of your estate or a bank, the following documents as evidence of your dependent's entitlement to survivor's benefits (be sure that they know where the documents are stored):

- Birth certificates. One for each member of your immediate family.
- Naturalization papers (if not born in the U. S.).
- Marriage certificates (including former marriages of you or your wife).
- Court orders (any that pertain to support and custody of your legal dependents).
- Divorce decrees.
- Death certificates (of children, former wife, or former husband of your wife).
- Deeds and mortgage documents.
- Insurance policies.
- Bank accounts. (Also savings bonds and securities.)
- Wills.
- Power of Attorney. (With this, your wife can act in your name and legally handle your affairs.)
- Proof of service.

If you should die on active duty, your family will be visited by a com-

missioned naval officer who will help them obtain the benefits to which they are entitled. His first call is made within 24 hours after notification of death.

He will assist your family with special problems and provide information on death gratuity, unpaid pay and allowances, Social Security, dependency, compensation or pensions, personal effects, insurance, transportation, medical care, and exchange and commissary privileges.

This is an automatic service provided by the Casualty Assistance Calls Program.

Uncle Sam is generous when it comes to contributions for the support of surviving dependents of deceased Navy men. Usually the government provides enough money to keep the widow and children adequately supplied with food and shelter.

Here's a rundown on the financial aids presently available to your dependent survivors:

• **Death Gratuity.** A death gratuity (generally six months' pay) is paid to the widow, or, if no widow survives, to such other qualified survivor by the Navy as soon as possible after the active duty Navyman's death from service-connected causes. This lump sum payment is equal to six months' basic pay, plus any special, incentive, or proficiency pay the Navyman was receiving at the time of his death. The maximum gratuity is set at \$3000 and the minimum is \$800.

• **Dependency and Indemnity Compensation.** When a Navyman dies on active duty from a disease or injury incurred or aggravated in line of duty, his surviving dependents are entitled to certain forms of compensation. These are:

**Compensation for a Widow.** Payable monthly by the Veteran's Administration to the widow as long as she does not remarry. The amount is \$112 plus 12% of the basic pay earned by the serviceman at the time of his death. A minimum is set at \$122. There is no payment for surviving children under the widow's compensation.

**Compensation for Children.** This may be paid by the Veteran's Administration for the support of a deceased Navyman's children if his wife died or was divorced from the Navyman before his death, or if she

dies or remarries after his death. One child, \$70 each month; two children, \$100; three children, \$130, plus \$25 for each additional child. These benefits continue until the child reaches age 18, or 21 for children attending a VA-approved school. A benefit of \$35 each month is paid to children between ages 18 and 21 who are attending a school or college approved by the VA if a widow is also entitled to VA benefits.

**Compensation for Parents.** Parents

may receive a maximum monthly payment of \$100. Rates vary according to the number of parents, the amount of their combined or total income and whether or not they live together. (This is fully explained on the application form, VA-8-535.)

• **Social Security.** Every Navyman on active duty is covered under the Social Security Act and is entitled to all the rights, benefits, and privileges under the act.

When the Navyman dies, his wid-

## WHAT'S IN A NAME

### Anchoring and Mooring a Ship

As any quartermaster can tell you, "A ship is under way . . . when she is not at anchor, or made fast to the shore, or aground." That takes in a lot of area and it's right out of "Rules of the Road." The distinction between being underway or not is a major one and governs the application of many of the rules for seagoing traffic.

A ship can be at anchor in more ways than one. Generally it is a simple matter of dropping one of the bow anchors. However, sometimes a ship will anchor by the stern. Certain amphibious warfare vessels do this just before running up on the beach.

Anchoring and mooring are the two main forms of "not underway." Mooring takes several forms. Usually the ship is moored to (or "moored alongside" or "made fast to") a pier or wharf. A special case is a ship in drydock. Navy ships often make use of a mooring buoy, a large, sturdy buoy to which the ship makes fast by a mooring cable—which in many cases is the anchor cable with the anchor unshackled. When two or more ships are moored to the same buoy they form a nest. Ships moored alongside a tender or repair ship also form a nest.

Special types of mooring are the *Mediterranean moor* and the *Chinese moor*. In the former, the ship's anchor is "out in the stream" while its stern is within a few feet of the wharf or pier. The ship itself is at right angles to the wharf or quay. The use of "Med moors" allows many ships to moor in a small harbor. For example, four destroyers might occupy less than 300 feet of wharf frontage.

A Chinese moor is made when a ship heads in the reverse of the usual direction. Take the case of two minesweepers moored alongside one another to a pier and headed north. If a third minesweeper then makes fast to the outboard one, but faces south (that is, with its bow alongside the adjacent ship's stern), then the third minesweeper has made a Chinese moor.

The use of two or more anchors is also termed a moor. Two bow anchors give a

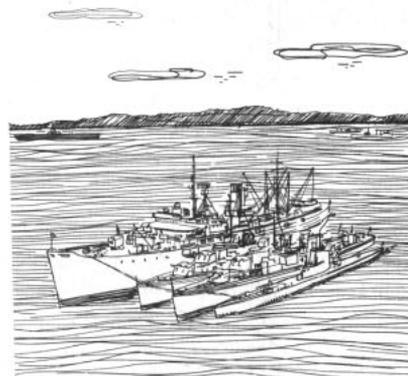
stronger holding power and tend to reduce the amount of swing caused by wind and current. One of the most seamanlike of all two-anchor evolutions is the *flying moor*, which is a sort of anchoring-on-the-run.

Ships engaged in salvage operations often make a *four-point moor*. To maintain a pin-point position over the submerged wreck or object, they put out four anchors, each about 90 degrees from the other.

In the Antarctic it is a common sight to see ships moored to an ice shelf. The object planted in the ice to which their mooring lines are made fast is a *deadman*.

There are just two ways for a ship to go aground: deliberately or accidentally. The former method is termed *beaching*. In the days before World War II, beaching was a most uncommon event for larger ships. However, sailing vessels at isolated spots were occasionally beached to make major repairs which could not be done while at sea. It was performed only as a last resort, since it was a long, laborious process. Today, LSTs beach as a routine matter.

One final thought concerning mooring terminology—though a mooring buoy is an object to which a ship moors, it does not anchor at an anchor buoy. This is a small float connected to the anchor by a line. It marks the location of the anchor.



ow and children, if qualified, receive a monthly compensation, the amount of which is determined by the deceased man's average monthly earnings (base pay).

Under the Social Security Act, a widow under age 62 does NOT receive Social Security benefits UNLESS there is a child or children who are entitled to benefits. The benefits cease for each child when he or she reaches age 18. Remarriage disqualifies the widow for Social Security payments.

There is also a lump sum Social Security payment made to the survivors for funeral expenses, the amount of which is scaled in accordance with the deceased Navyman's average monthly base pay. (The maximum is \$255, the minimum \$99.)

• **Unpaid Pay and Allowances.** This is the money due on the pay account of a deceased Navyman, including per diem, travel, transportation of dependents, transportation of household goods, savings deposits, etc., credited to him at the time of his death. A claim form is forwarded by the Casualty Branch to the designated beneficiary, next of kin, or legal heir (as noted on DD 93). It usually requires at least a month for settlement to be made.

There are other benefits—not all of which are in the form of cash payments—that the Navy provides for surviving dependents. These are:

• **Household Effects.** If a Navyman dies on active duty the Navy will ship his household goods to the home of the person legally entitled to receive them.

• **Dependents Transportation.** When a Navyman dies while on active duty his dependents will be authorized transportation from the place at which the notice of death was received to any other place designated by them.

• **Homestead Privileges.** The preference in staking claims to government land for the purpose of establishing a home may be available to surviving widows of eligible veterans, or widows of men who died on active duty. (Request information from Bureau of Land Management, Department of the Interior, Washington 25, D. C.)

• **Federal Employment Preference.** Certain Civil Service preference benefits are granted to widows of

All-Navy Cartoon Contest  
Stanley J. Rudge, ADJ2, USN



"Gee, Boats, how'd a nice guy like you ever get mixed up in this business?"

service personnel in connection with examinations, ratings, appointments and reinstatements—if they have not remarried. Under certain circumstances, a mother of a Navyman who dies in service may also be entitled to preference. (Eligibility details can be obtained from any U. S. Civil Service Office or from your local Post Office.) A dependent who is interested in Federal employment should visit the nearest U. S. Employment Service Office for information about job opportunities.

• **Commissary and Exchange.** The privilege of making purchases at any armed forces commissary and exchange is extended to the unremarried widow of a Navyman who died while on active duty or in a retired or retainer pay status. Application should be made to the CO of the activity where the commissary store or exchange is located.

• **Medical Care.** Unremarried widows and unmarried minor children of Navyman who die on active duty, Fleet Reservists, or Naval Reservists with eight or more years' service retired with pay, are eligible for medical care in uniformed services medical activities where facilities are available.

• **Personal Effects.** When a Navyman dies within the continental limits of the U. S., his personal effects will be delivered to his next of kin. Personal effects may be shipped direct, shipped with the remains, or delivered by the escort who accompanies the remains.

If death occurs outside the Continental U. S., or if there is doubt as

to the next of kin, the effects are shipped to a personal effects distribution point within the United States and held until the Casualty Branch of BuPers (Pers G23) determines who is entitled to receive them.

Should personal effects become damaged or lost in connection with naval service, a claim for reimbursement may be submitted. (Chief of Naval Personnel, Attn: Pers E3, Navy Department, Washington 25, D. C.)

• **Burial Expenses.** Provisions have been made whereby the remains of a deceased Navyman may be prepared at no expense to the next of kin, through the Navy's arrangements with civilian funeral directors. However, if the next of kin desires to make arrangements, the Navy will provide an allowance equal to that which would have been expended had the Navy made the arrangements.

Where an annual contract for care of the dead is not in effect, and the next of kin makes arrangements, the next of kin is asked to submit the bills, and an allowance not to exceed \$400 is paid towards these expenses.

Expenses of transportation of remains to destination selected by next of kin are defrayed by the Navy, as is the transportation of an escort when provided by the Navy.

Regardless of whether the Navy or the next of kin makes arrangements for preparation of the remains, the Navy will pay an allowance toward funeral and interment expenses as follows:

Where consigned directly to a national cemetery, an amount not to exceed \$75.

Where remains consigned to funeral director prior to interment in a national cemetery, an amount not to exceed \$125.

Where interment is made in a private cemetery, an amount not to exceed \$200.

Instructions for the submission of claims are given to the next of kin by the activity in charge of preparing the remains. The request for reimbursement for payment of burial expenses (NavMed 1347) should be made to the District Medical Officer. (BuMed Inst. 5360.1A is the authoritative guide for burial procedure.)

• **Headstones or grave markers** will be furnished for unmarked graves of men who have died in service. An

appropriate marker or headstone may also be furnished to commemorate any Navyman who was buried at sea, or whose remains have not been recovered or identified. Placement may be in a national cemetery in which plots have been set aside for this purpose, or in private or local cemeteries.

If the Navyman is buried in a private cemetery, application must be made to the Office of the Quartermaster General, Department of the Army, Washington 25, D. C. No application is necessary if interment is in a national cemetery.

- **Flag.** The Navy provides the U. S. national ensign which is draped over the casket. This flag is presented to the next of kin. If remains were not recovered, a flag will be furnished to the next of kin upon application to the Commandant of the Naval District where death occurred, or to the Bureau of Medicine and Surgery, Navy Department, Washington 25, D. C.

### This Is the Latest On the Status of Navy's Warrant Officers

Warrant officers are slowly disappearing from the Navy. If the present program continues, WOs will almost disappear from the Navy by 1975. They will not, however, be denied the opportunity to complete 30 years service, providing, of course, they remain professionally and physically qualified.

The main reason for the gradual disappearance of WOs is the curtailment of the input after fiscal year 1960. In addition to this, however, in a move to raise the experience level of junior officers, about 20 per cent of the warrant officers in the Navy were selected last year for the Limited Duty Officer Program or the Medical Service Corps. Selected WOs were given commissions ranging from ensign through lieutenant. This was not done to hasten the phase-down program, but it did reduce the number of WOs.

Although no similar mass selection is currently planned, eligible warrant officers may still apply for an LDO or MSC commission under the provisions of the 1120.18 series of BuPers Instructions. Few WOs are eligible for LDO, however, because of the age limitation.

Warrant officers who want neither a permanent commission as WO, nor a temporary commission as LDO, need not worry about their temporary WO status. They will be allowed to finish their 30 years' service as temporary warrant officers and continue to fill warrant officer billets.

As the number of warrant officers decreases, however, more and more WO billets will be filled by LDOs

### NOW HERE'S THIS

#### McIntyre's Island

Like most other Navy men, Robert C. McIntyre, CM1, USN, from Battle Creek, Mich., probably believed that the age when an explorer could have an island named for him had long passed.

This Navyman, however, has found that just isn't true. Recently, McIntyre, who is stationed at the U.S. Naval Training Center, Great Lakes, Ill., received word that an island in the vicinity of Vincennes Bay in the Antarctic had been named for him.

Carl R. Eklund, who was Scientific Station Leader at Wilkes Station in 1957, proposed that the island be named for McIntyre in recognition of his work in the Antarctic from December 1956 to February 1958. McIntyre was one of 27 men (14 Navy men) at Wilkes Station during the winter of 1957.

In addition to serving in Operation Deep Freeze II from December 1956 to February 1958, McIntyre (a veteran of 14 years in the Navy) was also one of the wintering-over party in December 1959. He remained in the Antarctic until October 1960.

McIntyre received official word that the Department of Interior had approved the island's name in a letter from the National Academy of Science, National Research Council. The letter stated that the island had been so named "in recognition of services rendered in support of the U.S. scientific program in Antarctica during the International Geophysical Year."



and by master chief petty officers. The fact that a WO billet is filled by an LDO or E-9, however, doesn't prevent a warrant officer from filling that same billet at a later time.

The sea/shore rotation for WOs will remain about the same, but effort is being made to reduce the length of sea tours for WOs who spend four years or more at sea. Sea tours for electricians, for example, have been reduced from four and one-half years to four years, and for machinists from five to four and one-half years. Other sea tour cuts for WOs are expected.

Warrant officers in all categories have also been assured that no action is contemplated that will terminate their careers, involuntarily, short of a full 30 years. This is provided, of course, that they continue to be professionally and physically qualified for continued service.

Additional details about the current and future plans for warrant officers may be found in BuPers Notice 1120 of 22 Mar 1961.

### New Correspondence Courses For Photogs, Opticalmen

Two new enlisted correspondence courses (ECC) are now available from the Correspondence Course Center, Scotia, N. Y. Three other enlisted courses have been discontinued.

The new courses are:

Course	NavPers Number
ECC Photographer's Mate 1 and Chief	91649
ECC Opticalman 2, 1, and Chief	91389

The enlisted correspondence courses discontinued are: *Range-finders* (NavPers 91390-B), *Lead Computing Sights* (NavPers 91391-A), and *Submarine Periscopes* (NavPers 91392-B).

Enlisted correspondence courses will be administered (with some exceptions) by your local command instead of the Correspondence Course Center.

If you are an EM on active duty, your division officer will advise you whether the course for which you have applied is suitable to your rate and to the training program you are following. If it is, he will see that your application (NavPers 231) is forwarded to the Correspondence Course Center, which will supply the materials to your command.

## Do You Have Enough Insurance? What Kind Should You Get?

**A** SURPRISING NUMBER of Navy men do not have life insurance. Many have insurance that does not suit their individual needs.

When a serviceman dies, the government provides many benefits for his next of kin (see Survivor's Benefits, this issue). However, these benefits are usually only enough to tide the dependents over until they can make other arrangements to supplement their income.

If you are one of the many Navy men who have no insurance, you could probably ease a financial strain on your dependents when you die by investing in a good life insurance plan now.

What is life insurance? How much do you need? What kind should you get?

Basically, life insurance is simply a cooperative, risk-sharing plan through which you are able to set aside part of your income regularly during your earning years in order to provide for the time when your income decreases or stops because of death, retirement, or declining health in old age.

It is comparatively easy for you to meet these uncertainties when you have a life insurance plan that fits your individual needs.

The four basic kinds of life insurance are Straight Life, Term, Limited Payment, and Endowment, each of which has several variations. Before you decide which plan is best for you, take a close look at each.

• **Straight Life** is the most widely used of all insurance plans, probably because it provides lifetime protection with comparatively low premiums. It is a good all-purpose policy which meets many different needs and family situations.

You usually continue to pay premiums on a Straight Life plan for the rest of your life. However, if you reach a time when you no longer want to continue the policy, you can take the cash value as a lump sum payment, or you can continue receiving the policy's full protection for a given number of years without further cost to you, or you can receive continued protection for a lesser amount for the rest of your life.

As the cash value of a Straight Life policy builds up year after year,

you can usually borrow against the policy whenever you need a loan.

Under what circumstances would Straight Life be your best buy? Consider this example: Suppose you're stationed overseas. Your wife and children live with your widowed mother back home. Your wife works, and your mother takes care of the children. If you should die, your service benefits would take care of the wife and kids, but how about your widowed mother? To protect her, you buy a Straight Life policy with her as beneficiary and your wife as contingent beneficiary.

Most likely, however, your mother will die before either you or your wife, in which case the protection shifts to your wife. She'll need more protection than anyway, especially if you are no longer in the Navy.

• **Limited Payment Life** is a popular variation of the Straight Life plan. This also provides lifetime protection, but limits the payment of premiums to a specific period such as 10, 20, or 30 years, or up to a certain age, usually 60 or 65.

The Limited Payment premium rates are higher than those for Straight Life, but the higher premiums build higher cash values.

If you want lifetime protection, but wish to limit premium payments to a definite period of time — for instance, the years when your earning power will be greatest — the Limited Payment Life plan may be just what you are looking for. However, the high premiums may tend to limit the amount of protection you can afford.

All-Navy Cartoon Contest  
James R. Odber, DM2-P1, USN



• **Term Insurance** gives you temporary protection. The face value of a Term policy is payable to your beneficiary if your death occurs during the term of the policy, which is usually anywhere from one to 15 years.

While you are young, the premium for Term Insurance is the lowest for any life insurance plan yet devised. While it is well adapted to many short-term needs, however, it is not so well suited to a long-haul family protection job. A Term policy usually has no cash value, which means you've nothing to fall back on if you can't meet a premium. Also, the premium goes up each time the policy is renewed (if it's the renewable type).

If you choose Term, your best bet would probably be a policy that is convertible — one you can exchange later on for a permanent form of insurance at a higher premium. Not all Term policies have this privilege.

Renewal and conversion privileges are important, as they give you the right to continue the protection later on, even though you might not otherwise be able to qualify because of sickness.

Term Insurance would probably be your best buy if you want to provide additional protection on your life while your children are growing up. During such periods, you usually need maximum insurance protection at a minimum of premium outlay. Another typical use of a Term policy is to guarantee the repayment of a mortgage on your home if you should not live to do so yourself.

• **Endowment policies**, which are essentially insured savings plans, provide for the payment of the policy's face value to you, the policyholder, at a future date selected by you, or, if you die before that date, to a person named by you.

Premiums for Endowment policies are higher than those for any other basic type of life insurance, so, because of its emphasis on savings, the plan gives less protection per dollar of premium than any other type.

An Endowment policy would probably be just what you need if you're in your late thirties or early forties, and your children are fairly well grown. You would receive some protection, and at the same time

would be building an income for retirement.

A younger man, however, probably needs protection more than savings, so one of the other three types of policies is usually better suited to his needs.

There are many variations of these four basic types of insurance. Many policies have been developed to meet special needs. All special-purpose policies are combinations of two or more of the basic policies with, perhaps, an annuity element added.

For example, if you have large family protection needs and a limited income, a Term policy may not be the answer, even with its low premium rate. Your protection needs continue for life, and the Term policy doesn't.

On the other hand, a Straight Life policy would provide permanent protection, but you probably couldn't afford enough of this type to do the job.

In such a case you should consider a Family Income or a Family Protection policy, both of which usually combine, in slightly different ways, the permanent protection of Straight Life with the cheaper, temporary protection of Term.

The permanent portion of most family plans runs for life. The Term portion usually lasts for 10, 15, or 20 years, and covers the period when your children are still growing and your protection needs are the greatest. The Term Insurance in these policies costs less than if you bought it separately.

Here's an example of how your dependents might benefit from a Family Plan. Let's say you're married and have two children. If you die, your family's biggest needs will come during the years before the children become self-supporting. Your best bet might be to buy a \$5000, 15-year Family Income Policy which guarantees your family \$100 a month from the date of your death for the remainder of the 15-Year Term period. At that time, the \$5000 would be payable as a lump sum or as continued income, which would be a settlement option.

Nearly all life insurance policies state that the policy benefit (face value) will be paid as a lump sum of money. However, you or your beneficiary may find it wiser to choose such a settlement option.

Under the terms of these options, the proceeds of the policy at maturity will be held by the company, which will then begin paying a regular income in place of the lump sum payment. The use of the option eliminates the danger that the proceeds, if paid in a lump sum, might be poorly handled or misspent by the beneficiary.

Option payments can be arranged on an annual, semi-annual, quarterly, or monthly basis. You should insist that your insurance agent spell out all the variations of option settlements under your policy.

It would be impossible for you to learn about every aspect of insurance in one reading. Therefore, before you go out and sign on the dotted line, it would be best to visit your Insurance Officer. He will not tell you

what type of policy to buy, but he can pass on to you some of his business knowledge of insurance matters.

Your Insurance Officer's helpfulness in selecting an agent or company is limited because he is not authorized to drum up business for commercial concerns. He will probably tell you to select your company and agent by making inquiries among your family and friends.

Your insurance agent should be the kind of man who you can consider a trusted adviser. A good agent has been given extensive training by his company, must hold a state license to practice his profession, and in many states must pass a written examination before he can qualify.

Your agent should represent a sound, reputable company. One way to learn important facts about a

## HOW DID IT START

### Hatches, Doors, Ports and Scuttles

Although a ship is relatively watertight, it contains many openings. Some are well known, others are not. Some are large, some small. Some are better known by the name of their covering than by the opening itself. Here are some details on the more common types.

**Hatches and doorways** are the main openings. Briefly, a hatch is an opening in a deck. It is horizontal and covered by a hatch cover. A doorway is an opening in a bulkhead. It is vertical and covered by a door. The door may be watertight, non-watertight, spraytight, or airtight. Many shipboard doors are plain panel doors, the type used for entering offices, staterooms and other such spaces within the ship.

Probably the most common type of hatch is the cargo hatch. However, not all cargo comes through the cargo hatch. Some ships have a large opening in the ship's side, the cargo port. On occasion the same port may be used as a gangway port.

Certain watertight doors and hatches are themselves equipped with a smaller device, one just large enough for a man to pass through. Known as a scuttle, this is a useful damage control device and does away with the need for the entire door or hatch to be opened for passage.

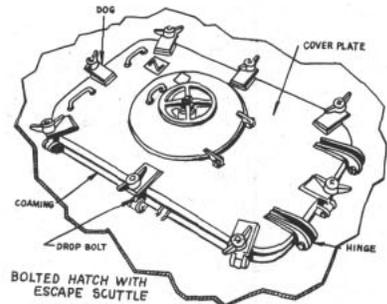
A manhole is an opening cut in a deck, bulkhead, or tank top to provide access. It differs from a hatch or doorway in that ordinarily it is used much less frequently and, normally, it is not hinged, like a door. It is topped by a manhole cover, which may have a scuttle built into it.

A port, which is an opening, is often

called a porthole. Ports come in various forms. When the opening is fitted with a metal windscoop it is referred to as an air port. Fitted with a metal-framed circular glass, it becomes a light port. Gun ports, through which the cannons' muzzles projected, were typical of the Navy's sailing ships.

Somewhat similar to a light port is the deadlight. It is set in the deck, however, and not in the ship's side. The deadlight's main feature is a thick piece of glass, usually circular, that lets sunlight into the ship's interior. Deadlights are more likely to be seen on older type ships than on modern ones.

Among other openings in the ship's side are hawsepipes and scuppers. The former are large holes through which the anchor chain passes. The latter are openings that carry off water from the deck and waste water from the ship's flushing system.



company is to obtain from the agent or the home office a copy of the latest annual report to policyholders. Reports generally cover such subjects as the varied activities of management, the company's objectives, its problems, its accomplishments, and a record of its financial results.

**How much insurance do you need?**

That is for you to decide. Your Insurance Officer can go over your financial status with you and advise you as to how much you could afford to pay for insurance each year.

Obviously, if you're a married man with several children, your insurance requirements would be greater than those of an unmarried Navyman who would not leave behind someone who was dependent on him. Therefore, your insurance needs vary as your family grows.

Many agents will tell you there's no limit to the amount of insurance you should have. However, there is usually a definite limit to the amount of premiums you can afford to pay each year, and you shouldn't be in the category of being "insurance poor," as are some Navyman who each month fork over practically their entire paycheck—to insurance companies. This, of course, is neither wise nor advisable. A good rule of thumb is to buy only the amount of insurance you can afford to make payments on.

Any insurance money you leave your family after your death is in addition to the benefits they receive from Uncle Sam. You aren't expected to leave behind a widow who is rich on your insurance—just comfortable.

Don't, however, let the money side of insurance buying influence you to the extreme that you choose one policy over another simply because it's cheaper. The important consideration is to select the policy that best fits your needs, and your pocketbook. Your Insurance Officer can help spell this out by explaining how you should go about comparing the cost of policies in different companies.

Another point to remember in selecting your life insurance is, of course, to read the fine print. Many policies, for instance, contain clauses which state that the policy will not pay off should you die in an aircraft accident or get killed in a war. If you're an airdale, a policy with an

**All-Navy Cartoon Contest**  
Peter Hansen, EN2, USN



"Goodness . . . I struck my finger."

aviation clause is obviously not designed to suit your needs.

Even though the Navy permits you to pay your insurance premiums under the allotment plan, and allows life insurance companies to present their policies to you at your station, this should in no way influence your selection of a company or agent.

However, you may not have to worry about buying commercial insurance if you still hold one of three types of government coverage which have been issued at different times, none of which are now being written. (Individual servicemen may have retained one or another type of policy.)

*U. S. Government Life Insurance (USGLI)*, issued during World War I, was discontinued in 1940. A few oldtimers still have it.

*National Service Life Insurance (NSLI)* took up where USGLI left off, and was available to Navyman and women who served during World War II. In 1951 it was replaced by the Servicemen's Indemnity program which provided \$10,000 worth of free insurance. This was discontinued at the end of 1956.

Today you have the benefits provided by the Servicemen's and Veterans' Survivor Benefits Act which has been in effect since January 1957. Therefore, except for service-connected disability insurance and the renewal and replacement of certain NSLI and USGLI policies, the government does not enter into any new contracts.

(If you once held an NSLI policy, you cannot renew or reinstate it if your policy was not in force on or

after 25 Apr 1951, or if you:

- Let your policy lapse during a break in service of more than 120 days.

- Surrendered your policy for cash, but failed to renew or reinstate it during a break in service of more than 120 days.

- Had a Term policy under waiver, but failed to resume premium payments during a break in service of more than 120 days.)

If you do, however, have an NSLI policy which is classed "Five Year Level Premium Term," you may be interested in knowing that if you started your policy at age 35 and should live to age 94, trying to keep your Term Insurance all the way, the total premiums you'd have to pay on a \$10,000 policy would add up to almost \$74,000. It bears thinking about.

That's why your Insurance Officer would probably advise you to convert your Term Insurance to a permanent plan under which you pay a fixed monthly premium for the rest of your life, rather than what appears to be a low premium now, but in later years increases as you renew your Term plan.

You may have to worry about such a situation if you entered the service before 25 Apr 1951—the NSLI cut-off date.

There is another benefit the government provides after your death which could be considered a form of life insurance. This is the Contingency Option Act, under which you may elect to receive a reduced amount of retired pay in order to provide your widow and children (under age 18) with a monthly income.

You must exercise this option before you complete 18 years of service for pay purposes, although deductions from your pay are not made until you retire. (When you approach 18 years' service, you should be automatically notified of the election deadline under the Contingency Option Act; however, it also remains your responsibility to check on this matter.

You don't have to be an insurance expert to be a policy holder. You should, however, thoroughly understand your own policy, if you now have one, and know how to go about selecting the right policy if you don't. Now's the time to do it.

# Unscheduled Fleet Movements, And How to Prepare for Them

**A** GROWING NUMBER of Navy dependents are voicing concern over hardships caused by the unscheduled movements of Fleet units. The Chief of Naval Operations has analyzed this problem, and reports that the majority of these cases troubling dependents fall into two related areas—(1) the prolonged absence or unscheduled departure of the Navyman from his family, and (2) inadequate provisions for the support of the family during the absence.

Some typical comments by Navy wives:

"... I would like to know what plans to make, whether to visit relatives while my husband is gone, and if it will be necessary to stretch my allotment check over a whole month for groceries. My husband is unable to send me money for groceries, and since I use all my allotment check for other bills, I naturally depend on his payday money..."

"... I naturally worry, not knowing what is going on. No matter where my husband is sent, I would feel easier just knowing where he is, so I could get in touch with him quickly in an emergency."

Before you can hope to eliminate such problems, or at least ease the worry they cause, CNO suggests you take a close look at naval requirements.

At present, the Navy's contribution to U.S. security is perhaps greater than it has been at any time since World War II. The reason is obvious. The times in which we live are troubled ones. The public relies on the Navy to meet the challenge of an expanding threat throughout the world.

There is no relief and no relaxation of military readiness in sight. Nor can you expect any decrease in the tempo of Fleet operations. Ships may frequently be called on to participate in hurried, unscheduled operations.

Security demands that some of these operations remain classified. Therefore, your dependents cannot always know what you are doing, where you are going, or when you will return home.

The Navy family should be prepared to meet such situations.

First, let's tackle the money problem—a problem that could be eased by keeping your financial affairs in reasonable order, and by living under the assumption you may be called on by the Navy to leave your family on short notice for extended periods.

Is your contribution to your wife's allotment adequate? If you anticipate shipping out, wouldn't it be wise to increase it?

Another widely accepted means of preparing your family to meet unforeseen expenses, should they develop, is a savings program. If you salt away part of your pay each month, it makes sense that your family probably won't be faced with expenses they can't handle.

An easy, profitable method of holding onto part of your earnings is the purchase of U.S. Savings Bonds. This can be done automatically through your disbursing office. Just ask the DK for a Savings Bond Allotment Request, and fill it out for the amount you wish to save each month. This amount will automatically be withheld from your pay and applied to bonds, which can be cashed in if your family is faced with a rainy day.

But, no matter how much you manage to save, there is always the possibility you or your family may run into financial troubles owing to the unusual situations which can occasionally confront anyone.

If such a situation develops, and you or your family can't handle it

alone, it's time to look for help.

Here are some of the assistance agencies to which you might turn:

**Navy Relief Society**—This is a private organization, supported by private contributions, which is not an official part of the Navy, but is closely affiliated with it. The Navy Relief Society operates exclusively in the field of relieving emergencies among Navy and Marine families.

The Society recognizes that Navy-men are independent, self-reliant, and self-supporting, but owing to the nature of service life, are subject to unforeseen problems.

Navy Relief services are available to all active-duty Navy and Marine families, to retired personnel, and to the dependents of those who die while in the service.

You should not hesitate to seek Navy Relief help in time of real trouble.

Assistance in the form of financial aid, may be given as a loan, grant, or combination of both. No interest is ever charged.

The work of the Society is borne by auxiliaries which are located at the headquarters of naval districts, naval stations, and Marine Corps posts. Branches are located at smaller stations.

All of these auxiliaries and branches maintain offices which are easy to reach and are open during normal working hours. (In an emergency, some of the staff can be reached at night.)

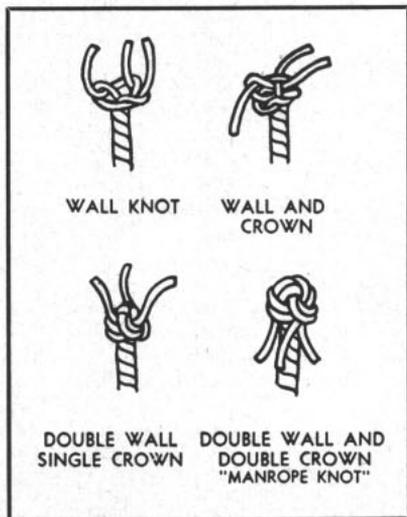
If an auxiliary or branch is not available, write or wire requests to the Headquarters, Navy Relief Society, c/o Navy Department, Washington 25, D. C.

In cases of immediate and urgent need, write or telegraph your request via the local chapter of the American Red Cross, which will assist in seeing that sufficient information is included.

**American Red Cross** — The Red Cross is authorized to conduct a program of social welfare which includes financial assistance for Navy-men. (In an emergency, see your local chapter.)

The Red Cross is an authorized medium of communication between dependents and the Navy, and can assist in gathering the necessary affi-

## Grains of Salt —



davits required when applying for dependency or hardship discharge. In emergency situations where leave or leave extensions are required, a commanding officer may request Red Cross assistance to investigate and verify facts.

**Legal Assistance Officer**—The purpose of the Legal Assistance Program of the Navy is to interview, advise and assist Navymen and dependents who have personal legal problems.

The Navy has established billets for Legal Assistance Officers, who are not only naval officers, but are also members of the bar of a state or the District of Columbia.

LAOs can be found at naval district headquarters, naval shipyards, naval stations, Marine Corps bases, and other naval activities where qualified lawyers are available.

All matters upon which you may consult your LAO are treated with the strictest confidence.

As CNO pointed out, the other problem with which dependents are faced — the Navyman's absence — is a matter of national necessity.

However, when your dependents recognize that the job you do is extremely important, and you do all you can to provide for them in your absence, their worries will be overshadowed by a pride in you.

**List of New Motion Pictures And TV Series Available To Ships and Overseas Bases**

The latest list of 16-mm feature movies and TV series available from the Navy Motion Picture Service is published here for the convenience of ships and overseas bases. Two one-hour TV shows are packaged together for a 108-minute program, but may be shown aboard ship only.

Movies in color are designated by (C) and those in wide-screen processes by (WS). They are available for ships and bases overseas.

**Motion Pictures**

*The Grass is Greener* (1715) (C) (WS): Comedy; Cary Grant, Robert Mitchum.

*The Goddess of Love* (1716) (WS): Melodrama; Belinda Lee, Jacques Sernas.

*The Misfits* (1717): Drama; Clark Gable, Marilyn Monroe.

*Thunder in Carolina* (1718) (C): Drama; Rory Calhoun, Alan Hale.

*Cry for Happy* (1719) (C)

(WS): Comedy; Glenn Ford, Miko Taka.

*Herod the Great* (1720) (C) (WS): Drama; Edmond Purdom, Sylvia Lopez.

*The League of Gentlemen* (1721): Drama; Jack Hawkins, Nigel Patrick.

*The Sins of Rachel Cade* (1722) (C): Drama; Angie Dickinson, Peter Finch.

*Cimarron* (1723) (C) (WS): Western; Glenn Ford, Maria Schell.

*All in a Night's Work* (1724) (C): Comedy; Dean Martin, Shirley MacLaine.

*Blueprint for Robbery* (1725): Melodrama; Jay Barney, J. Pat O'Malley.

*The Lawbreakers* (1726): Melodrama; Jack Warden, Vera Miles.

*Go Naked in the World* (1727) (C) (WS): Drama; Ernest Borgnine, Gina Lollobrigida.

*The Little Shepherd of Kingdom Come* (1728) (C) (WS): Melodrama; Jimmy Rodgers, Luana Patten.

*Underworld U.S.A.* (1729): Melodrama; Cliff Robertson, Dolores Dorn.

*Dondi* (1730): Melodrama; David Janssen, Patti Page.

*Legions of the Nile* (1731) (C) (WS): Melodrama; Linda Cristal, Ettore Manni.

*Tomboy and the Champ* (1732) (C): Drama; Candy Moore, Ben Johnson.

*Passport to China* (1733): Melodrama; Richard Basehart, Athene Seuler.

*Gorgo* (1734) (C): Melodrama; William Travers, William Sylvester.

**Television Programs**

5088: TV-1 (Series) *Wagon Train*—Western; (Episode) Around the Horn. TV-2 (Series) *Overland Trail*—Western; (Episode) The Reckoning.

5089: TV-1 (Series) *Wagon Train*—Western; (Episode) Tobias Jones. TV-2 (Series) *Overland Trail*—Western; (Episode) Sour Annie.

5090: TV-1 (Series) *Wagon Train*—Western; (Episode) Mary Ellen Thomas Story. TV-2 (Series) *Perry Mason*—Melodrama; (Episode) Sleepwalkers Niece.

5091: TV-1 (Series) *Untouchables*—Underworld Drama; (Episode) The 'Jack Legs' Diamond Story. TV-2 (Series) *Bonanza*—Western; (Episode) Julia Buttette Story.

5092: TV-1 (Series) *Wagon Train*—Western; (Episode) Kitty Angel Story. TV-2 (Series) *Perry Mason*—Melodrama; (Episode) Runaway Corpse.

5093: TV-1 (Series) *Wagon Train*—Western; (Episode) Hunter Malloy Story. TV-2 (Series) *Perry Mason*—Melodrama; (Episode) Deadly Double.

5094: TV-1 (Series) *Wagon Train*—Western; (Episode) Millie Davis Story. TV-2 (Series) *Perry Mason*—Melodrama; (Episode) The Case of the Silent Partner.

5095: TV-1 (Series) *Wagon Train*—Western; (Episode) Bill Tawnee Story. TV-2 (Series) *Perry Mason*—Melodrama; (Episode) The Case of the Sun Bathers Diary.

5096: TV-1 (Series) *Wagon Train*—Western; (Episode) Ben Courtney Story. TV-2 (Series) *Perry Mason*—Melodrama; (Episode) The Nervous Accomplice.

5097: TV-1 (Series) *Wagon Train*—Western; (Episode) The Last Man. TV-2 (Series) *Perry Mason*—Melodrama; (Episode) The Case of the Green-Eyed Sister.

5098: TV-1 (Series) *Wagon Train*—Western; (Episode) Dick Richardson Story. TV-2 (Series) *Perry Mason*—Melodrama; (Episode) The Daring Decoy.

5099: TV-1 (Series) *Wagon Train*—Western; (Episode) Ella Lindstrom Story. TV-2 (Series) *Perry Mason*—Melodrama; (Episode) The Case of the Rolling Bones.

5100: TV-1 (Series) *Wagon Train*—Western; (Episode) The Jasper Cato Story. TV-2 (Series) *Perry Mason*—Melodrama; (Episode) The Cautious Coquette.

5101: TV-1 (Series) *Wagon Train*—Western; (Episode) The Mathew Lowry Story. TV-2 (Series) *Cimarron City*—Western; (Episode) Respectable Girl.

5102: TV-1 (Series) *Wagon Train*—Western; (Episode) The Vincent Eaglewood Story. TV-2 (Series) *Cimarron City*—Western; (Episode) Child of Fear.

5103: TV-1 (Series) *Wagon Train*—Western; (Episode) The Swift Cloud Story. TV-2 (Series) *Cimarron City*—Western; (Episode) Have Sword—Will Duel.

5104: TV-1 (Series) *Wagon Train*—Western; (Episode) The Conchita Vasquez Story. TV-2 (Series) *Cimarron City*—Western; (Episode) The Rat Man.

5105: TV-1 (Series) *Wagon Train*—Western; (Episode) The Kate Parker Story. TV-2 (Series) *Cimarron City*—Western; (Episode) The Town is a Prisoner.

5106: TV-1 (Series) *Wagon Train*—Western; (Episode) The Jenney Tannen Story. TV-2 (Series) *Cimarron City*—Western; (Episode) Cimarron Holiday.

5107: TV-1 (Series) *Wagon Train*—Western; (Episode) The Andrew Hale Story. TV-2 (Series) *Cimarron City*—Western; (Episode) Burn the Town.

## DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs and NavActs as well as current BuPers Instructions, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult Alnavs, NavActs, Instructions and Notices for complete details before taking action.

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

### Alnavs

No. 14—Pertained to the security classification of certain Hydrographic Office documents.

No. 15—Amplified Alnav 10, which is concerned with government transportation of foreign-made automobiles.

No. 16—Is concerned with automatic, time-phased downgrading and declassification system.

No. 17—Announced probable expiration on 30 June of the \$50 exemption of customs charges for bona fide gifts from members of the U. S. armed forces.

### Instructions

No. 1120.22C—Provides information concerning procedures for the administration of active-duty agreements for Naval Reserve officers and invites applications from eligible officers who wish such agreements.

No. 4600.1B—Announces a revision of the established system of estimating travel costs resulting from the changes of home ports and home yards of ships and permanent duty station changes of aviation and certain miscellaneous units.

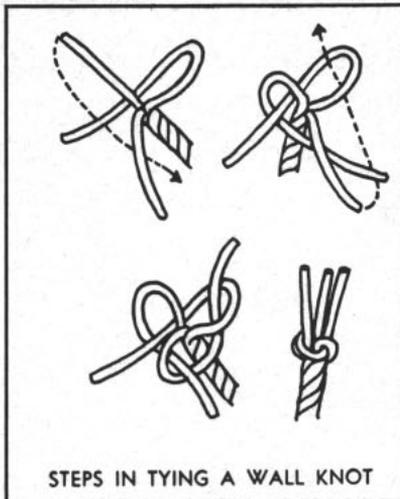
No. 7300.6—Establishes a revised system for the collection and reporting of estimated costs incident to permanent changes of station.

### Notices

No. 1640 (20 April)—Announced Change No. 3 to the *Brig Manual*.

No. 1830 (25 April)—Provided information concerning conditions under which requests for cancellation of applications or authorizations for transfer to the Fleet Reserve will be approved in connection with the LDO program.

## Grains of Salt —



STEPS IN TYING A WALL KNOT

No. 1418 (28 April)—Announced the availability of examination booklets to be used in preparing examinations for advancement in rate to pay grade E-3 of active duty personnel.

No. 1510 (28 April)—Announced the names of active duty enlisted personnel who were provisionally selected by the NESEP selection board for entrance into the program.

No. 1910 (11 May)—Revised the procedures for separation of enlisted personnel who are citizens of the Philippines and those whose home of record is in the Panama Canal Zone.

No. 1418 (15 May)—Announced the schedule of Navy-wide examinations for enlisted personnel to be held in August and called attention to pertinent information regarding advancements in rating.

No. 1520 (19 May)—Described the scope of the Navy Postgraduate Educational program planned for the academic year 1962-63.

No. 1120 (25 May)—Announced that the deadline for submission of applications for permanent appointment to warrant officer (W1 through W4) has been extended from 1 June to 1 August.

## Mohole Is Deep

Scientists have taken the first giant step toward learning facts about the earth as it existed from 20 million to 100 million years ago in Navy-supported Project Mohole off the coast of Mexico's Guadalupe Island.

Technical direction for the operation was provided by the AMSOC (American Miscellaneous Society) Committee of the National Academy of Sciences—National Research Council.

The drilling was to test the feasibility of the Mohole Project. Project Mohole is a plan to drill into the ocean floor through the earth's crust and into the underlying mantle of the earth.

The latest operation was one of a series. The preceding project had taken cores from the ocean's bottom near La Jolla, Calif., at a depth of 3000 feet.

The operation was undertaken while bucking eight-foot waves and 25-mile-per-hour winds, from a floating oil rig named *Cuss I*—a converted World War II cargo barge. The ship is equipped with a 98-foot derrick.

Drilling was done through a well extended through the center of the ship. Drill pipe is fed to the drilling platform by an automatic drill pipe handling system where it is then

handled by standard oil-well-drilling techniques.

*Cuss I* normally carries 8500 feet of drill pipe racked horizontally on its deck, but was modified by AMSOC to carry 13,500 feet of pipe.

*Cuss I* was towed from San Diego to the Guadalupe site by a commercial tug. The site, which is 44 miles east of Guadalupe Island, was chosen because of its nearness to home port; the fact that it is geophysically well surveyed, and because of the low rate of sediment accumulation on the ocean bottom.

Drilling was done in water more than two miles deep, and produced several cylindrical cores of gray-green clay, millions of years old, from depths as much as 560 feet below the ocean's bottom.

The Guadalupe tests were on a trial-and-error basis. It was the first attempt to drill into the ocean floor in very deep water—a process for which technological equipment only recently has come into existence.

This and future borings will give scientists new clues into the geophysical nature of the earth, and give industry clues as to the possibility of oil deposits below the ocean depths as well as to the feasibility of exploring the deep sea for valuable minerals other than oil.

## Report on Living Conditions for Navy Personnel in Vietnam

**D**UTY WITH THE Military Assistance Advisory Group, Vietnam, could be one of the most interesting assignments of your career. If you receive orders to this duty, here's a thumbnail sketch of what you can expect to find there.

MAAG Vietnam falls under the over-all command of an Army lieutenant general, with Navy and Air Force sections within the organization. The naval section is commanded by a Navy captain.

**Assignment**—The Chief of Naval Personnel assigns both officers and enlisted men to the Navy Section, MAAG, as reliefs for specific individuals. Final billet assignment, however, is made by the Chief, Navy Section.

If you are assigned to duty in the Navy Section, your sponsor is the person whom you are directed to relieve. You should correspond with him before you leave the U. S., so he can help smooth the way for your arrival. When you get there, he will meet you at the airport and help you get settled.

Approximately half of the Navy-men assigned to MAAG Vietnam work directly in naval advisory or administrative billets in the Saigon-Cholon area. The remainder are assigned to various other divisions or support units.

**Duty Tour**—The standard duty tour in the Saigon-Cholon area for those not accompanied by dependents is 14 months. Outside the Saigon area, the tour is 12 months. If you are authorized to have your dependents join you in Vietnam, your tour will be extended to 24 months.

**Climate**—You'll find that Vietnam, for the most part, is tropical. There are essentially only two seasons—the wet, which extends from May through November with heavy rain two or three times daily—and the dry, during which the humidity remains high, and the temperature even higher. The normal temperature range is from 80 to 96 degrees.

**Language**—Vietnamese is the spoken language, with Chinese, French and English as secondary languages. Classes are available if you wish to study Vietnamese, although it is a difficult language for most Europeans and Americans to learn. In the

time available, you will probably find it difficult to progress beyond the stage of being able to exchange polite greetings or bargain with shopkeepers. French is spoken in most restaurants and by many servants.

**Dependents**—There are only about 80 sets of quarters for MAAG personnel in all of Vietnam and, consequently, only a very small proportion of men are authorized to bring dependents. At present the figure is less than 10 per cent. For this reason, it is recommended that no preparations for dependent travel be made before you arrive. Personal plans should be based on the assumption that dependents will remain in the U. S. during your entire tour.

**Facilities for Dependents**—If you should be authorized to have your dependents travel with you, or if your dependents join you later, you will find that MAAG-furnished housing is very good.

The Navy Commissary and Exchange carry most goods that would not otherwise be available.

School facilities are good by usual stateside standards, except that high-school-level courses are taught using supervised correspondence school methods.

All families employ servants, since it is difficult for Americans to get along without their help in solving local household problems.

If you are authorized dependent travel, it is suggested that you write your sponsor for further information.

**Personal and Household Gear**—If you travel by MATS, you will prob-

ably be authorized to carry 165 pounds of baggage. Current allowances for household goods shipments may be obtained from *Joint Travel Regulations*, *Navy Travel Regulations* and your transportation office.

**Your Car**—Local regulations in Vietnam require you to be on station 30 days before you can apply for authorization to have your privately-owned vehicle shipped into the country. If shipment of a vehicle is anticipated, you (or your representative) must deliver it to an authorized port of embarkation (San Francisco, Los Angeles, New Orleans, Norfolk or New York) for later shipment. Current shipping regulations should be consulted before you depart from your present duty station.

You will find that gasoline is cheap in Vietnam because you are granted diplomatic exemption from all taxes. Most MAAG staffers, however, do not desire personal autos because taxis are cheap, and because of congested traffic conditions.

**Berthing**—Unless you are one of the few men lodged in government quarters with your dependents, you will be assigned to air-conditioned, hotel type facilities.

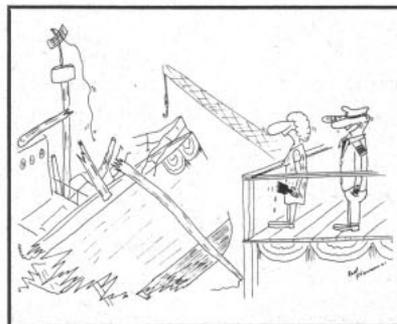
Officers are berthed in the BOQ in Cholon (single rooms) or one of the two BOQs in Saigon (2- to 4-room apartments). Each BOQ has an open mess. Monthly mess fees are from \$45 to \$55.

All enlisted facilities (which include both an open and closed mess) are in Saigon. MAAG will provide you with transportation to and from work.

**Uniforms**—All commanders and above, and other officers and enlisted men who work directly with the Vietnamese in an advisory status, wear uniforms on duty. Other men wear civilian clothes, although some enlisted Navymen other than chiefs may be required to wear khaki uniforms on duty. Correspondence with your sponsor will provide uniform information for your specific billet.

Good quality khaki and white uniforms are available in Vietnam at prices comparable to what you'd pay in the U. S. Uniform hats, braid, buttons, ribbons, and other insignia, however, are not available, so you should anticipate what you'll need,

All-Navy Cartoon Contest  
Neil H. Hansen, AC1, USN



"Mighty fine arm you have there, ma'am!"

and bring an extra supply.

Officers normally wear tropical khaki long on duty, although tropical khaki short is optional. Tropical white long is worn occasionally. The uniform for formal receptions is service dress white (dinner dress, white mess jacket, for commander and above). Informal civilian dress, however, is specified for many of the local social occasions. Service dress blue and khaki uniforms are not worn in Vietnam, although they may be needed for infrequent trips outside the country.

Chiefs and other enlisted men in advisory billets normally wear tropical khaki long (tropical khaki short is optional) while on duty. The duty uniform, when required, for other non-CPOs is tropical white long (service dress white is optional). All enlisted men must have a minimum of one tropical white long uniform.

**Civilian Clothing**—If you are authorized to wear civilian clothing while at work, and for off-duty hours, lightweight summer sports attire is recommended.

Your civvies should be washable, since local dry cleaning is expensive, and is of marginal quality. Before you leave the U. S., it would be advisable to buy several pairs of wash-and-wear slacks and conservative short-sleeve sport shirts.

A wash-and-wear business suit may be necessary, but can easily be purchased after arrival. Economical tailoring of good quality is also available.

Street shoes and sandals are available in Vietnam at reasonable prices. However, you are advised to purchase dress shoes, uniform shoes, gym or golf shoes (if desired) before you report, as prices for these items are high.

**Pay and Per Diem**—You will receive a cost-of-living allowance while serving in Vietnam. The actual payment is revised periodically, and varies with your rate or rank. Check *Joint Travel Regulations* for the current amount.

The MAAG Disbursing Office, which is a Navy-operated facility, will pay you once a month. Payment is made by check, except for a maximum of \$75 (\$100 if your dependents are on station), which may be drawn in U. S. currency. Vietnamese currency can be purchased at any of several places at the international

banking exchange rate.

When you arrive in Vietnam, you should have available resources (currency, traveler's checks, money orders or personal checks) of at least \$50 to tide you over until pay day.

**Mail and Communications**—Mail is handled through the Air Force postal system.

Radio-relayed telephone facilities are available, but are not dependable because of changing atmospheric conditions. Telephone calls to the U. S. may be placed from 0930 to 1130 Vietnamese time (early evening in San Francisco) daily except Sunday. The cost for three minutes is about \$5. However, if someone in the U. S. calls you, it would cost him (or her) \$10 for a three-minute chat.

The commercial telegraph address is MAAG, 606 Tran Hung Dao, Cho-

lon, Vietnam. Your family or friends should not send telegrams to your APO mail address.

**Medical Facilities**—The American Dispensary, located in Saigon, is staffed by three physicians and a dentist. It has limited in-patient facilities, but civilian sources are available if you should require treatment beyond the capacity of the dispensary. Even more extensive medical care is available at Clark Air Force Base in the Philippines, which is less than five hours flying time from Vietnam. Air evacuation facilities are available at all times.

You are encouraged to have all major medical and dental treatment completed before you depart your present duty station and, if you wear glasses, you should acquire an extra pair.

Most tropical diseases are common

## WAY BACK WHEN

### First Subs Go Overseas

The year 1908 was significant in submarine history, for that was the first time a U.S. submarine went on duty overseas or away from the parent nation.

This Navy first was scored by a pair of "A-boats," *uss Porpoise* (SS 7) and *Shark* (SS 8). Both were built in Elizabethport, N.J., and both were commissioned the same day, 19 Sep 1903. They were 107-ton, 64-foot vessels and were based in the Manila Bay area of the Philippine Islands from August 1908 to their final days.

The story of their journey from the East Coast of the U.S. to the Philippines got international attention back in '08. In those days submarines had a cruising range of some 200 miles, which ruled out their making the trip on their own. (A few years previously a U.S. company had sold Japan some subs to be used in the Russo-Japanese War (1904-05), but they were shipped in

a dismantled condition.)

Although it would have been possible to ship *Porpoise* and *Shark* piecemeal, or tow them, it was decided to transport them topside on a large ship.

The auxiliary collier *Caesar* (AC 16) was given the job. In April 1908 the two subs joined the coal carrier at the Brooklyn Navy Yard. They were placed on the ship's main deck and secured with wooden cradles for the long voyage. Steel cables rigged fore-and-aft and athwartships added to the rig-for-sea stability.

*Caesar* and her strange cargo arrived in the Philippines by way of the Suez Canal and Indian Ocean. Off-loading facilities were not available in the islands, so launching ways were built on board *Caesar*. To off-load the subs, the end supports of the cradles were knocked out and the launching ways extended six feet out from the ship's side. Even with this the ways were still seven feet above the water. So the submarines were eased outboard on the ways as far as possible and then dropped belly first into the water.

On 19 Nov 1911 the two ships were renamed A-6 and A-7, respectively. During World War I they performed patrol duty in the Manila Bay area.

In 1909 *Caesar* made a repeat run to the Philippines carrying another pair of submarines, *uss Adler* (SS 2) and *Moccasin* (SS 4) arrived at Cavite, P.I., 1 Oct 1909. Their history during the following 13 years was similar to that of *Porpoise* and *Shark*. All four ended their days as target vessels—and all were stricken from the Navy lists 16 Jan 1922.



in Vietnam, but are preventable, for the most part, by certain sanitation procedures. All local water must be boiled before use, and all vegetables must be cooked or treated before eating.

**Electrical Appliances** — The electric current in Vietnam is 50-cycle AC. Phonographs, tape recorders and other motor-operated items, therefore, should be fitted with 50-cycle adapters before you ship them or bring them into the country. Most electric shavers operate satisfactorily.

**Recreation**—There is a golf course in Saigon—membership is open to all men for a monthly fee of about \$7. Although golf clubs are available from Special Services, it is best to ship your own if you intend to make use of the course. There is no pro shop, and Navy Exchange golf equipment is limited to balls.

Two EM clubs and two officers' clubs provide the usual facilities in the Saigon area, and a cooperative mess at Nha Trang also has limited

## QUIZ AWEIGH ANSWERS

Quiz Aweigh is on page 41.

- |      |      |      |
|------|------|------|
| 1. c | 3. b | 5. b |
| 2. a | 4. a | 6. c |

club facilities.

The Cercle Sportif, a club having facilities similar to most U. S. sports clubs, including an excellent swimming pool, is open for membership to commissioned officers. Monthly membership fee is approximately \$7.

A theater, operated by the Army-Air Force Motion Picture Service, is located in Saigon.

Softball, volleyball, badminton and tennis leagues have been organized for MAAG and other U. S. and foreign agency staffers. MAAG vehicles are available at a nominal fee for recreational use, and there are two beach sites with good hotel facilities only three hours driving distance from Saigon.

Special Services provides library facilities, record loaning service, ath-

letic gear and handicraft equipment. A local radio station broadcasts daily news in English and plays American music. In addition, fair reception of Manila Armed Forces Radio Service broadcasts is usually noted.

**Newspapers and Magazines** — The Pacific edition of leading news magazines and an English-language daily newspaper are all available in Vietnam. *Pacific Stars and Stripes*, which is air-shipped from Japan, is available on a subscription basis. Surface mail delivery takes from four to seven weeks, so most men limit their magazine subscriptions to specialty and professional periodicals.

**Churches**—An American Community Church (non-denominational Protestant) and an American Catholic Church are located in Saigon. Lay meetings of the Church of England and other denominations, and various Bible study groups, are also held in the Saigon area. Auxiliary chaplains, both Catholic and Protestant, are associated with MAAG.

**Leave and Liberty** — You can visit several good tourist towns in Vietnam while on leave or liberty. Most transportation is by commercial aircraft, or by MAAG aircraft on a space-available basis.

Travel outside the country in a leave status is also possible. Bangkok, New Delhi and Manila may be visited via MATS space-available travel, and commercial transportation for travel to Cambodia is available. Occasional flights to Hong Kong and Singapore are made with some space available for men in leave status.

School facilities are good by the usual Stateside standards, but high school level courses are taught by means of supervised correspondence school methods. If you are authorized dependent travel, it is recommended that you obtain information concerning other pointers on living conditions from your sponsor.

## Latest Changes to Rating Structure Go Into Effect

The enlisted rating structure, up for a periodic Board of Review examination recently, was found to be trim and muscular with the exception of two emergency ratings the reviewers thought unnecessary.

The structure is now minus Aviation Pilot (ESV) and Photogrammetry Assistant (ESP), both carved off during the minor operation.

## WHAT'S IN A NAME

### Terms for the Experts

*Port and starboard, fore-and-aft, inboard and outboard* are all common terms that we Navymen know and recognize as shipboard antitheses. And they are not the only ones. There are many nautical terms to express contrasting movement, form, or direction which are in general use throughout the Navy.

In drills we go *up and forward* on the starboard side of the ship and *down and aft* on the port side. It's not hard to visualize what a drill would be like if this traffic pattern were not strictly enforced.

A ship's lengthwise direction, from bow to stern, is *fore-and-aft*. At right angles to *fore-and-aft* is *athwartships*. *Roll and pitch* are the ship's rocking motions. *Roll* is the side-to-side motion, while *pitch* is the motion fore-n-aft.

When we increase the scope on the anchor chain we *pay out* (or *veer*); to shorten it we *heave in*. In marlinspike seamanship, we *worm and parcel* with the lay and *turn* and serve the other way.

Here are a couple of terms that may even stump the experts. When the wind shifts in a clockwise direction it *veers*, and when it shifts in a counter-clockwise direction it *backs*. Try those on your shipmates.

By looking at a ship from dead ahead we can tell if her sides have a *flare* or a *tumble home*. If they have a *flare*, the

line from the deck-edge to the water line curves in and is concave. When they have *tumble home*, the line bulges out and is convex. The latter will more likely be found in small boats.

In navigation, *longitude* measures east-west distance and *latitude* is a north-south measurement.

*Tides rise and fall*. When tidal currents are incoming they are *flood currents* and while outgoing, they are *ebb currents*.

We feel sure that most of these terms are not new or unfamiliar to you, but that new fellow in the next compartment may not be as sharp on nautical terms as you are.





**Advice from Man Overboard: "Keep Calm"**

Refueling had just been completed and the hose-handling gang aboard *uss Intrepid* (CVA 11) was busy unhooking the hose so they could pass it back to the refueling tanker, *uss Severn* (AO 61).

Wearing their bulky lifejackets, the hose-handlers wrestled the awkward hose up to a position where it could be fastened to the wire between the two ships, and hauled back to the tanker. It was just a little while before midnight, in the Med.

Seaman Steven R. Walkup was closest to the edge of the platform deck on which the crew was working. The railing, normally strung up to prevent anyone from accidentally falling over the side, had been taken down so it would not be torn off and entangled in the hose.

"When we unhooked the hose, a little fuel spilled on the metal deck," recalled Walkup. "I had my arms wrapped around the hose, helping to lift it up to the wire, when I felt myself sliding across the deck. I hung on to the hose to keep my balance and before I knew what was happening, my feet had slipped out over the water.

"I was hanging in mid-air, facing my ship, and the rise and fall of the hose as the ships rolled caused the poor grip I had on the hose to slip. Suddenly, I felt myself falling down through the darkness.

"I hit the water feet-first. The salt water burned my eyes as I struggled for the surface as hard as I could. As soon as I reached the surface I looked up, and all I could

see in the darkness was the carrier passing by. I heard the loudspeaker blaring 'Man Overboard!' as I watched both ships pass by me.

"Things seemed to happen very slowly," Walkup continued, "but all this time two thoughts kept rushing through my mind: One was that this must be happening to someone else; the other was like a voice telling me to keep calm. The voice kept saying, 'Everything will be all right if you just keep your head.' I think I was talking out loud to myself.

"I could see the fantails of *Intrepid* and *Severn* traveling away from me. Then I saw they were dropping red flares in the water. I tried to swim for the flares, but I'd get just so far and the swells would carry me back. The harder I tried to swim to the flares, the farther away they floated."

Walkup was unaware that as soon as he was reported overboard, the lifeguard destroyer *uss Corry* (DDR 817), which was operating astern of the ships, was alerted.

"I was rising and falling with the swells," Walkup related, "and I could see that the ships were getting farther away. Then out of nowhere, it seemed, a bright light flashed over me. The light startled me, and when I turned to see where it came from, I saw a destroyer just a couple hundred yards away from me.

"The light passed over me once, and I was afraid they hadn't seen me. I raised my arms and waved to them, yelling 'Here I am!' for all I was worth.

"I guess they heard me, because

the light came right back on me. I saw someone on the destroyer throw a life ring, but it fell off to one side. I tried to swim through the swells to reach it, but couldn't. I then saw someone else throw a lifeline, and this time I managed to grab hold of it and wrapped it around my arm so it wouldn't slip away from me as they pulled me in.

"After I had been pulled almost to the ship, I saw that they had put a cargo net over the side, and several men had climbed down to the water level to help me aboard.

"Up to then I didn't realize how cold and exhausted I was. I never dreamed I had only been in the water for 12 minutes—it seemed like an hour. Aboard *Corry*, someone had blankets for me, and as soon as they were put around me I was led to the sick bay, where the doctor checked me over for cuts and broken bones.

"As soon as they found out I was still in one piece, *Corry's* captain spoke with me for a few minutes and ended by saying, with a pat on my shoulder, 'You're a very lucky man.' By that time it dawned on me that it really had been me out there in the water, and I was more than ready to agree with him.

"After my check-up, the doctor gave me a shot of brandy and a couple of tablets to swallow, and then put me to bed. That's the last I remember until the next morning when I was picked up by helicopter and returned to my ship."

Calmness, alertness, teamwork and fast action had paid off.

—Robert D. Moeser, JO1, USN.

**Camera Trainers for Pilots**

Naval aviators can learn to photograph targets from 30,000 feet while flying at a hypothetical 600 knots in new flight simulators recently delivered to the Navy. The training device shows student pilots terrain and targets as seen from different altitudes and under varied light conditions.

The trainers, which will be used at Cecil Field, Fla., and at the Naval Air Station, Miramar, Calif., should provide better training for pilots and

maintenance technicians.

Although this type trainer is designed primarily to supplement existing F8U-1P (photographic) cockpit and camera trainers, it can also be used to train pilots for other types of photo aircraft.

Through a system of lenses and mirrors, the trainer presents to the pilot photographic images and flight paths. A fan-cooled 1000-watt projection device illuminates the aerial film and projects a picture onto a screen in front of the pilot. The

instructor can introduce, through movement of the film, such aerial factors as aircraft velocity and direction, and wind velocity and direction. Because the cockpit trainer can move in four directions, student pilots get a realistic over-the-ground picture.

Two electronically controlled lenses in the trainer present terrain area as it would be seen either from 10,000 or 30,000 feet. The trainer can also simulate flights at speeds up to 600 knots and wind velocity up to 60 knots from any direction.

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## Amphibious Universities Are Located on Both Atlantic and Pacific Coast

Centered at the Naval Amphibious Base, located on the Pacific Coast one mile south of Coronado, Calif., is a cluster of training activities, schools and support facilities which, appropriately enough, could be called an amphibious university.

This facility, Amphibious Training Command, U.S. Pacific Fleet, specializes in teaching the art and science of amphibious warfare.

More than 2000 miles to the east, on the Atlantic Coast, a training command with the same mission—PHIBTRALANT—is located at Little Creek, Va.

The way these two organizations go about accomplishing their missions is similar. PHIBTRALANT and PHIBTRAPAC each have facilities which include their Naval Amphibious Bases, Landing Force Training Units, Amphibious Schools, and Amphibious Operational Training Units.

Through their varied training programs, which range from classroom theory to practical shipboard work, the PHIBTRAS keep the operating units of our amphibious forces up to date and in fighting trim.

The Naval Amphibious Base, San Diego, was created by dredging in the waters of San Diego Bay during the early days of World War II. In 1947 the Amphibious School was established by SecNav, and designated as the U.S. Naval Amphibious Training Unit. Redesignated the U.S. Naval Amphibious School, Coronado, in April 1958, it became a shore activity under the military control of Commander Amphibious Training Command, U.S. Pacific Fleet.

The base provides housekeeping and support facilities for its tenants, and, as its temporary wartime structures give way to modern buildings, it is taking on the appearance of a university campus.

PHIBTRALANT has the same facilities as her West Coast counterpart. The Atlantic Coast base was also built in the early stages of WW II.

On 27 Jul 1942, what was once 1761 acres of muddy soil became the foundation for the Amphibious Training Base, Little Creek, Va. A year later the Amphibious Training Command, U.S. Atlantic Fleet, was activated there.

Today the beaches at Little Creek

and Coronado are among the most assaulted areas in the world. Weekly training exercises of amphibious crews and ships entail some form of amphibious activity every working day, and sometimes on weekends.

Among the different courses taught at the two schools are air support, naval gunfire support, landing craft control, intelligence, communications, naval beach group operations and underwater demolition.

Training is also conducted in cold-weather operations and helicopter vertical envelopment.

Both schools help plan naval gunfire support and shore bombardment training for ships.

The Landing Force Training Unit administers basic instruction to new and inexperienced men, as well as refresher training for seasoned troops in such subjects as amphibious indoctrination, planning, intelligence, operational arms, communications, medical, logistics, shore party, embarkation and transfer loading and equipment waterproofing.

Amphibious activities centered at the two bases are not, however, confined to training. Several operational units are also home-ported at the amphibious bases.

They are the Naval Beach Group (assault craft units, beachmasters amphibious construction battalions), underwater demolition units and tactical air control squadrons.

Men of the beachmaster units are popularly known as the traffic cops of an amphibious beachhead.

The assault craft unit's primary mission is to provide medium landing craft for amphibious assaults.

The amphibious construction battalion's main objective is to help secure a beachhead. These units handle pontoon causeways, transfer barges and other seaborne equipment.

The primary function of an amphibious tactical air control squadron is air support in the objective area of an amphibious landing.

Perhaps the most widely publicized units in the Amphibious Forces are the frogmen of Underwater Demolition Teams.

Frogmen concentrate on reconnaissance of enemy-held shorelines, including the removal of enemy mines, the destruction of underwater obstacles, the removal of wreckage, and other clearance operations which require explosives.

## HERE'S YOUR NAVY

We can't imagine why you'd want to know, but it's a comforting thought that if you should idly ask the question—"What's the temperature like 40 miles up today?"—there's one naval activity prepared to give you an answer.

That's the Pacific Missile Range headquarters at Point Mugu, Calif., which recently made its one-hundredth successful launching of an upper atmosphere meteorological research rocket.

Many people, concerned with America's space programs, do want to know what the weather's like at 200,000 feet. As part of an inter-service effort in which rockets are launched from eight locations within the U.S., the Navy at Pt. Mugu fires two types of small rockets—the 92-inch Arcas and the 72-inch Loki—some 40 miles up to obtain data on temperatures and winds.

Information on the temperature of the upper atmosphere is vital to America's space programs, because the temperature of the air affects the density of the air and the reentry of space vehicles.

No attempt is made to recover the rockets.



Weather rockets have been fired from Pt. Mugu during every season of the year since October 1959.

Arcas rockets release a parachute attached to the body by metal lines, which permits tracking of the vehicle on the long-range radar at Pt. Mugu. As the Arcas drifts back to earth a battery-powered transmitter sends out a continuous signal, the strength of which is dependent upon the temperature's effect upon an exposed resistor.

Less complex Loki rockets measure only wind current. When these reach maximum altitude they explode and send a myriad of metal foil strips drifting back to earth. Tracked on radar, these strips furnish information on prevailing air currents.

# DECORATIONS & CITATIONS



## DISTINGUISHED SERVICE MEDAL

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

### Gold Star in Lieu of Third Award

★ SABIN, Lorenzo S., Jr., VADM, USN, for service as Chief of Staff to the Supreme Allied Commander Atlantic (SACLANT) from November 1957 to March 1961. Cognizant of the potential major threat of enemy submarines in the Allied Command Atlantic area, he sponsored the creation of the Submarine and Antisubmarine Warfare Section within SACLANT. In the field of military planning, his ability to organize realistic exercises, and to interpret and adapt the knowledge gained therefrom, has led to constant improvement of operational plans, and has furthered the over-all combat readiness of NATO Naval forces.



## LEGION OF MERIT

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

### Gold Star in lieu of second award

★ CLARKE, Ralph S., RADM, USN, for exceptionally meritorious conduct in the performance of outstanding service from April 1959 to May 1961 as Deputy Commander, Naval Striking and Support Forces Southern Europe. Rear Admiral Clarke has made a significant contribution toward insuring the combat readiness of the Naval Striking Forces Southern Europe (United States Sixth Fleet).



## NAVY AND MARINE CORPS MEDAL

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

★ CONLEY, Buddy A., SN, USN, for heroic conduct on 17 Dec 1960 while serving on board *uss 'Constant'* (MSO 427), en route in column from Sasebo, Japan, to Kaohsiung, Taiwan. When a shipmate accidentally fell overboard from the fantail of *Constant* into heavy seas, Conley unhesitatingly dived into

the icy waters and swam to the side of the panic-stricken victim with a life ring. Both men were quickly rescued by *uss Pivot* (MSO 463), the next ship in column. Through his prompt and courageous efforts in an emergency, Conley was directly instrumental in saving the life of a shipmate.

★ GANGLOFF, Ronald J., IC3, USNR, for heroic conduct on the night of 5 Nov 1960 while serving on board *uss Cero* (SS 225), moored to a pier in the Detroit River at Detroit, Mich. Upon hearing a disturbance on deck, Gangloff immediately proceeded topside and sighted a sinking cabin cruiser. Observing that two of the craft's three passengers had reached safety, but the third was clinging to the sinking craft which was drifting away in a swift current, he quickly sounded an alarm to summon aid and unsuccessfully attempted to pass a safety line to the victim. Gangloff then entered the frigid water and swam approximately 25 yards to the man. The craft had sunk and the man was struggling to stay afloat. Despite the strong current, darkness, and the struggles of the victim, Gangloff managed to tow him close enough to shore to grasp a safety line passed by a shipmate.

★ HILDEBRAND, Wayne T., LTJG, USN, for heroic conduct on the night of 14 Dec 1960 while serving on board *uss Hyman* (DD 732) in the Mediterranean Sea area. With his ship engaged in rescuing a downed naval aviator from the extremely rough and wintry waters of the Mediterranean, Hildebrand observed that the struggling pilot was unable to release himself from his parachute which, acting as a sea anchor, created sufficient drag to force the victim to release his grip on the life line. Quick to act, Hildebrand dived from the fore-castle of his ship into the hazardous five-foot seas, swam to the side of the drowning aviator, and succeeded in keeping him afloat until the ship maneuvered into position and lifted both men to safety. Through his prompt and courageous actions in the face of grave personal risk, Hildebrand was directly responsible for saving a fellow officer.

★ MCBRIDE, Arthur L., DC1, USN, for heroic conduct on 30 Nov 1960 while serving at the U.S. Naval Submarine Base, Pearl Harbor, Hawaii. Engaged in diving operations when he became aware that his diving partner, who only moments before had assisted him to the surface, was slipping under the water in an obviously semiconscious condition

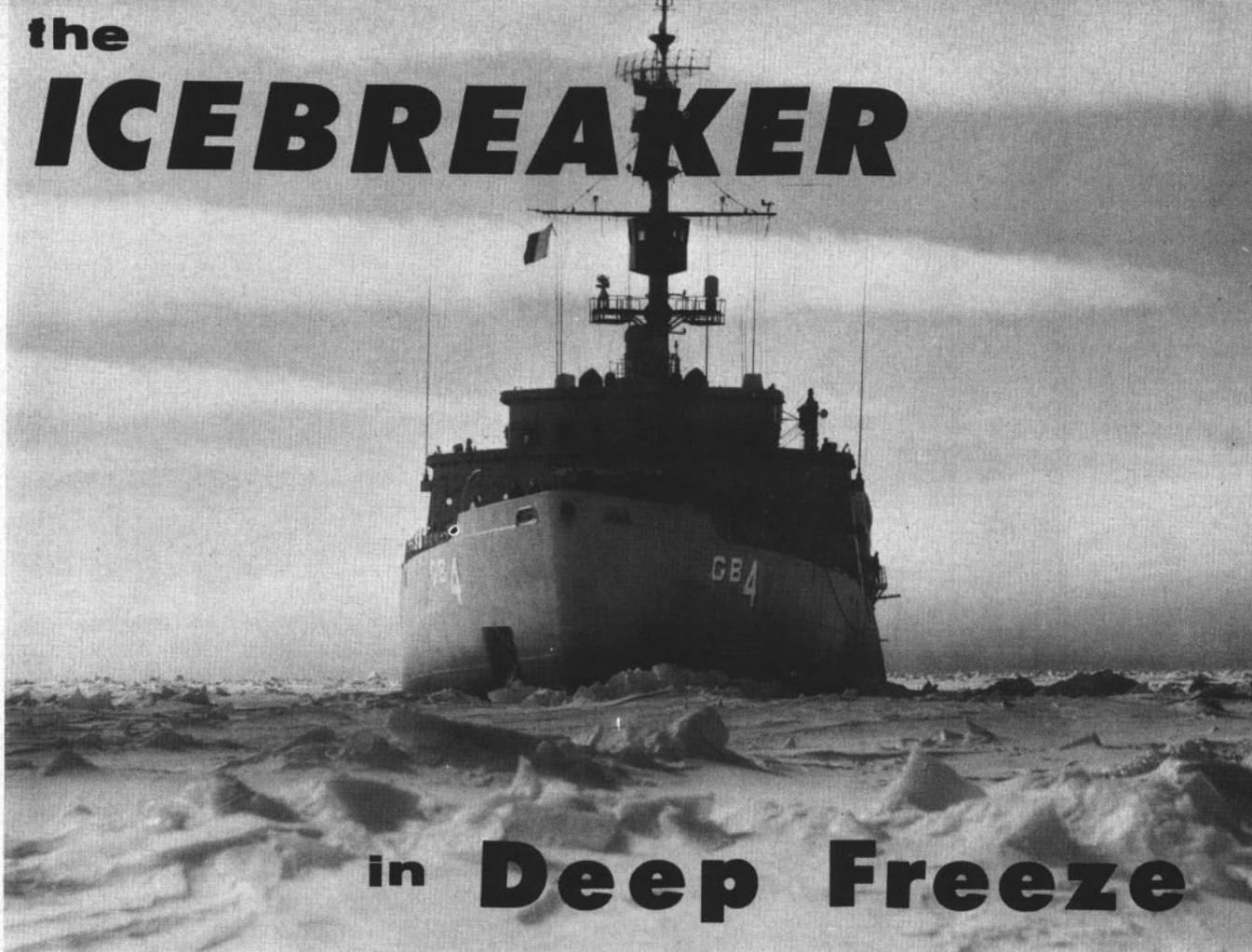
with mouthpiece hanging loose, McBride, although extremely fatigued and depending upon a malfunctioning breathing apparatus, unhesitatingly dived beneath the surface and succeeded in recovering his partner. Exerting his last bit of strength in the rough and turbulent seas, McBride managed to keep his shipmate afloat until the arrival of a rescue boat.

★ PAINTER, Philip C., LTJG, USNR, for heroic conduct on 29 Jul 1960 while serving on board *uss Sumner* (DD 692). When an aircraft crashed into the sea after the tail hook of the plane parted while landing on *uss Saratoga* (CVA 60), *Sumner*, as plane guard, approached the aircraft to render whatever assistance was possible. Although Painter was not one of the rescue party in *Sumner*, he voluntarily leaped into the water and swam to the aircraft in an attempt to rescue one of the downed air-men who was afloat just aft of the star-board wing. Securing a firm grip on the airman, he swam a few yards toward the ship before realizing part of the victim's survival gear was caught onto the aircraft. Painter quickly dived beneath the surface of the water in a vain effort to disengage the fouled gear. He then received a line from *Sumner* and was engaged in tying it to the parachute harness of the airman when the airplane sank, pulling the man down with it. Persisting in his efforts, Painter followed the victim beneath the water and again attempted to release him, but to no avail. He demonstrated courageous and selfless actions in risking his own life in an attempt to save the life of another.

★ TRAUTT, Robert A., Jr., SN, USN, for heroic conduct on 2 Dec 1960 in attempting to save the lives of three small children who were trapped in a burning house in Charleston, S. C. Observing smoke coming from an upstairs window of a neighbor's home, Trautt, upon learning that three children were alone on the second floor, immediately rushed to the rear door and tried to enter. Driven back by smoke and flames, he hurried to the front door, moved into the house on his hands and knees to lessen the effect of the smoke, and succeeded in groping his way through the house and up the stairs. Stumbling through two rooms, he finally located the victims. Picking up two children, one under each arm, he managed to make his way downstairs and outside where he quickly commenced to administer artificial respiration to one child until later relieved by firemen.

the

# ICEBREAKER



## in Deep Freeze

*Icebreakers first appeared in the U. S. Fleet during World War II when it was common knowledge among war planners that control of Arctic waters depended on a type of ship that could smash her way through ice, clearing a path for other forces to follow. As a result, the Wind class ships (Eastwind, Westwind, etc.), measuring 269 feet in length with a 6000-ton displacement, emerged as the first U. S. icebreakers.*

*The termination of war, however, didn't make the icebreaker obsolete. In 1955, the Navy's fifth and largest, icebreaker was placed in commission as USS Glacier (AGB 4). She is 2000 tons heavier and 40 feet longer than the Wind class breaker, and is equipped with 10 of the largest diesel-electric engines ever built.*

*Since her commissioning, Glacier has participated in each of the six Operation Deep Freeze exploratory and scientific research missions to Antarctica.*

*Glacier's first cruise was truly a cold water baptism into the Navy. Her role in Deep Freeze I served as both shakedown cruise and maiden voyage.*

*Her latest venture to the Antarctic, as a key support factor in Deep Freeze VI, is detailed here in this special report, made available by the ship.*

**U**SS *Glacier* departed Boston on Oct 13 1960, and, after spending four days in New York City, sailed for the Panama Canal Zone. Thus commenced the ship's sixth assignment with *Operation Deep Freeze*.

After brief stops at Rodman Naval Base in the Panama Canal Zone, and Pago Pago, the ship arrived in Port Lyttelton, New Zealand on 21 November and

spent the following week loading cargo for her trek to the Antarctic. On 28 November, under the flag of CAPT Edwin A. McDonald, USN, Commander Task Group 43.1, she departed for the McMurdo Sound area.

*Glacier's* assignment fell into three general categories. First, she was to complete her annual task of breaking a channel through the McMurdo Sound ice so that other ships of the task force could move supplies and relief personnel to McMurdo Station.

Upon completion of this, *Glacier* was to return to New Zealand and complete logistic preparations for her second mission, a scientific expedition to the Amundsen Sea, including, if possible, penetration into the icebound Walgreen Coast.

Finally, upon completion of explorations, *Glacier* had as a third mission the support of further survey work and oceanographic data collection in the area of various sub-Antarctic islands near the Palmer Peninsula.

The first ice of the season, a tubular berg, was sighted on 1 December, at latitude 63-40 South and longitude 179-11 East. While still 800 miles from McMurdo Sound, the ship entered a general area of icebergs, bergy-bits and loose pack ice of 6/10th coverage.

On Sunday, 4 December, a consolidated pack (10/10ths) was encountered, and then the fast bay ice of McMurdo Sound. Ice thickness in McMurdo ranged from three to six feet, then increased to nine feet at the southern end of the channel.

*In such a situation the unique design of an icebreaker pays off. As a rule, they are stubby in appearance, with*



**SOLID SEA**—USS Glacier (AGB 4) and USS Staten Island (AGB 5) crush their way through ice in Bellinghusen Sea.

beams almost double that of a normal ship of similar length. Wind class breakers have successfully coped with ice up to 12 feet thick, while Glacier can crush her way through ice more than 15 feet thick. Normally they depend on ramming themselves through ice floes. If this method fails, they can rise atop the ice and crush it with the weight of their hulls.

Icebreakers are built with round bottoms to prevent the massive force of pressure ice from crushing their hulls. When the ice pressure becomes too severe, it merely pushes the hull up instead of in.

Another feature of the modern icebreaker, designed to facilitate working free from ice jams, is a means of rocking the ship with the aid of large ballast tanks situated on either side of the vessel. Pumps of large capacity can transfer water ballast between the tanks in a matter of minutes, setting up a rhythmic 10-degree roll which is usually sufficient to rock the ship free.

Modern icebreakers carry enough fuel and supplies to sustain themselves for an almost indefinite period, should they become stuck in the ice. Additional supplies could always be provided by air, if necessary.

**DOWN BELOW**—Members of Glacier's black gang man the main control as the large icebreaker leads the way.



Also, all icebreakers today carry one or more helicopters, which search out and mark leads in an ice field through which the ships can most readily force their way.

**F**ROM 8 TO 10 DECEMBER, at a position about seven miles from Hut Point, Glacier moored to the ice and off-loaded high priority construction materials which were then transported to the base by tractor train.

When the channel was finished and other icebreakers—USS Staten Island (AGB 5), USS Edisto (AGB 2), and USCGC Eastwind (WAGB 279)—had arrived in the area, Glacier departed McMurdo on 24 December for drydocking and repairs at Wellington. Casualties included bent and broken blades on each propeller, a ruptured gasoline tank, and a leak in the ship's after fresh water tank.

In summary, however, the McMurdo phase of Glacier's Deep Freeze operation went smoothly and without incident. The ship's unusual approach to clearing a channel proved both fast and efficient, averaging more than a mile each day through the fast bay ice. The completed channel, wide enough for two ships to pass abreast easily, extended past Hut Point to the very edge of the ice shelf that forms Williams Field runway.

(What Glacier's crew calls the "Modified Herringbone" method of breaking channel is probably unique to the ship owing to her power and weight advantage. It involves making three parallel runs into the ice, spaced anywhere from one-half to two ship-widths apart, depending on the desired width of the channel. The center run is made in the desired direction of progress. Because of the angles involved, each successive run is able to displace ice into the area broken by the previous run, thus allowing steady and continuous progress. This method helps solve the problem of ice displacement when breaking through fast ice with no cracks or leads.)

**O**UT OF DRYDOCK on Sunday, 29 January, Glacier got underway from Wellington for the Amundsen Sea where she was to rendezvous with USS Staten Island, and form Task Group 43.1 for explorations. In addition to CTG 43.1 and his staff, scientists, foreign observers and correspondents were embarked aboard Glacier.

These included representatives from the U. S. Navy Hydrographic Office, the National Science Foundation, U. S. Geological Survey, Great Britain's Scott Polar Research Institute, a South African navy ice pilot, an Argentine navy oceanographer, and a Brazilian meteorologist.

*Glacier's* trip to the ice was without incident. On a general heading of southeast, the ship sighted her first iceberg on 1 February, near 61-40 South latitude and 164 West longitude. During the next two days, icebergs became larger and more frequent, and, on early morning of the 4th, the ship entered brash ice at about 70 degrees South, 200 miles from the continent, with medium-sized floes, 8/10ths ice coverage, and numerous icebergs in the area.

The ship proceeded eastward along the edge of the pack, and by the morning of 5 February had made contact with *Staten Island*. The two ships rendezvoused that afternoon, and then proceeded southeast toward the Antarctic Continent and Cape Flying Fish on Thurston Peninsula.

**W**HEN THE COAST of Thurston Peninsula was sighted at about noon on 6 February, the two ships were following leads eastward through heavy pack ice of five-foot thickness. Once the Peninsula was reached, a decision had to be made as to the expedition's direction—whether to go westward from Cape Flying Fish into the Amundsen Sea, or eastward into the Bellingshausen. Because of a wide coastal lead eastward along the northern shore of the Thurston Peninsula, CTG 43.1 decided first to attempt the Bellingshausen penetration.

By 0800 on Tuesday, 7 February, *Glacier* was at 71-47 South, 95-47 West, and had already gone farther eastward than had been possible during the previous year's expedition into the Bellingshausen.

Helicopter reconnaissance confirmed the feasibility of eastward progress, and of access to the uncharted, ice-bound Eights Coast.

The next few days *Glacier* explored and observed, working her way eastward along the Thurston Peninsula and the Eights Coast. The ship's track, positioned by sun line, became the base for a radar and visual survey of coastal areas. Shore parties, including men from ship's company as well as scientists, took theodolite astro-positions at exposed coastal sites, and obtained bearings on surrounding peaks and ice features. The use of helicopters brought sites 60 miles from the ship within range, adding immeasurably to area coverage.

**I**T WAS FROM the helicopter that what turned out to be perhaps the most important single observation was made. First and foremost, it was conclusively proven that the 3500 square miles of Thurston Peninsula, separating the Amundsen and Bellingshausen Seas, is, in fact, not a peninsula, but an island surrounded by ice shelf.

This had been suspected during last year's expedition, but without sufficient documentation to be acceptable. On 8 February, however, *Glacier's* helicopter flew over Seraph Bay, which lies to the east of Thurston. From an altitude of 5000 feet, the Seraph Bay ice shelf extended southwest to the limit of vision, approximately 95 miles. To the west of Thurston lies Peacock Bay, bounded by ice shelf which extends to the limits of accurate aerial photographic coverage as shown on the most recent charts.

If *Glacier's* observations are considered reliable, there



**HOMING BIRD**—*Glacier's* helicopter comes in for a landing after scouting ice situation around the ship.

can be no doubt that Seraph Bay and Peacock Bay are actually ice-choked inlets, with their ice shelf perimeters extending to join each other and surround what must then be "Thurston Island."

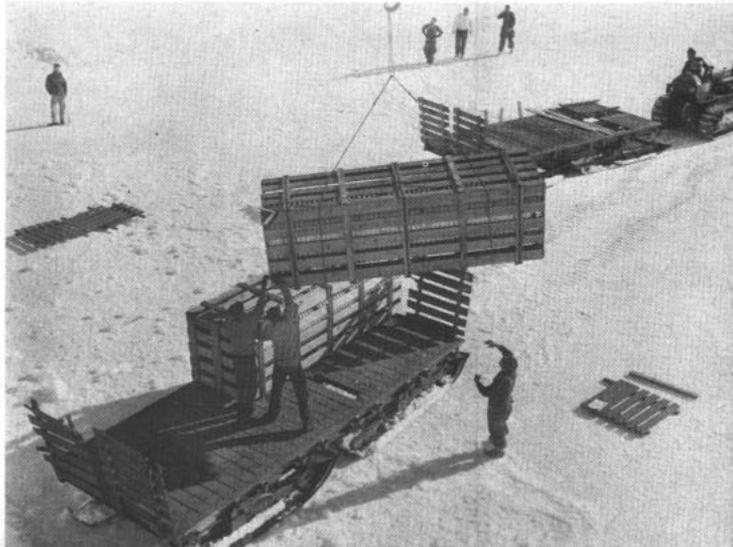
A second observation concerns the character of the Eights Coast as it extends eastward from Thurston Peninsula (Island). As *Glacier* followed the edge of the coastal ice shelf beyond Thurston along the Eights Coast, she passed various landfalls determined to be islands, almost completely flooded with ice and seasonal snow accumulations.

**T**WO OF THESE LANDFALLS, with exposed rock outcrops, were sites for shore party astro-positions. Again from the helicopter it was revealed that the western section of Eights Coast consists of a series of islands, with ice rises extending to the east for an unknown distance—in effect, a chain of islands with a tremendous mass of shelf ice in between. The actual coast of the area is now thought to be farther south than previously revealed, hidden beneath the depths of the continental ice plateau.

On 10 February, a reconnaissance flight discovered a camp site some 50 miles inland. It turned out to be that of a geological survey party from the University of Minnesota which had been flown to the site from McMurdo, and had vacated the area only a few weeks before *Glacier's* arrival.

Even though the existence of the site was known, its

**SNOWBOUND**—Navy men offload cargo from *USS Glacier* (AGB 4) on to sleds for trip to Deep Freeze base.





**STRANGE SOUNDS**—Depth sounding gear on *Glacier* records contour of bottom in unknown polar region seas.

location so near the coast was unexpected, and its chance discovery by *Glacier* observers came as a surprise coincidence. The event seemed to point out that even with Antarctica's great and little known expanse, separate operations and diverse activities can yet come in contact, with ever-increasing opportunities for mutual support.

The following day, *Glacier* helicopters spotted the University of Wisconsin's Ellsworth Highland Traverse, which was completing a three-month overland trek from Byrd Station to the Minnesota site along the coast. The traverse leader, Dr. Charles Bentley, was flown to the ship for a conference with CAPT McDonald, and while on board he had an opportunity to check his altimeter with the sea level readings of the ship. This was another case to illustrate the possibilities of naval support for scientific endeavors in the Antarctic.

**T**HAT SAME DAY turned out to be something of a landmark date. On 11 February *Glacier* had reached the eastern extremity of her Bellingshausen explorations. Moored to the thick sea, she was only a mile from the coastal ice shelf to the south. She had made her way through the ice along some 80 miles of coastline historically described as unpenetrable by any ship in the world, and had charted it for future navigation and exploration. Her shore parties, after overnight encampments, had been able to establish fixed and accurate positions to provide a basis for future aerial mapping and year-by-year observation of changes in the Eights Coast ice shelf.

Rock samples were collected for geological studies. From the ship, oceanographic data was obtained and depth soundings taken whenever open water permitted. A survey was made of all visible bird and animal life in the region, which, scarce as it is, was still significant to biological researchers. Plant life, which is rare in Antarctica, was found in the form of primitive lichens on exposed rock outcrops, and again specimens were collected.

On Sunday, 12 February, *Glacier* joined and moored alongside *Staten Island*, bows to the fast ice. A shore party was dispatched to study and survey a rock outcropping some 45 miles from the ships. After the party was established at the site and the helicopters had returned, it became apparent that the weather was becoming bad.

**B**Y AFTERNOON OF THE NEXT DAY, visibility had decreased to 25 feet, with the wind steady at 50 knots.

By 1600 it was snowing heavily. The two ships, moored together, required turns on their shafts to hold their bows in position against the fast ice.

By evening the ships were in the midst of a full-scale storm, with winds at 60 knots and gusts to 87 knots. At midnight, winds were up to 70 knots, with swirling snow from the land mass sweeping across the ice field and completely enveloping the ships.

On Tuesday, the storm showed signs of ending, but high winds and heavy snow squalls continued throughout the day, with visibility remaining zero. Although serious concern was expressed for the plight of the shore party, winds of 45 knots or more made any thought of helicopter rescue operations impossible.

However, by first light on Wednesday, 15 February, winds had abated to 25 knots. Flight quarters was sounded at 0154, and helicopters from both ships commenced the rescue mission. All hands were relieved when the aircraft radioed back to the ship that the shore party had been recovered. By 0445 all four men involved were back aboard *Glacier*, cold and hungry, but otherwise unharmed.

**T**HEY HAD BEEN OUT in the storm for three nights and two days. One of their two tents had caught fire and burned beyond use almost as soon as the camp had been established. High winds had made it impossible to erect the other tent. Freezing winds had reached more than 100 knots, and only the construction of a shelter made from rocks near the site had kept them from complete exposure. Cramped quarters had made cooking impossible and sleep difficult.

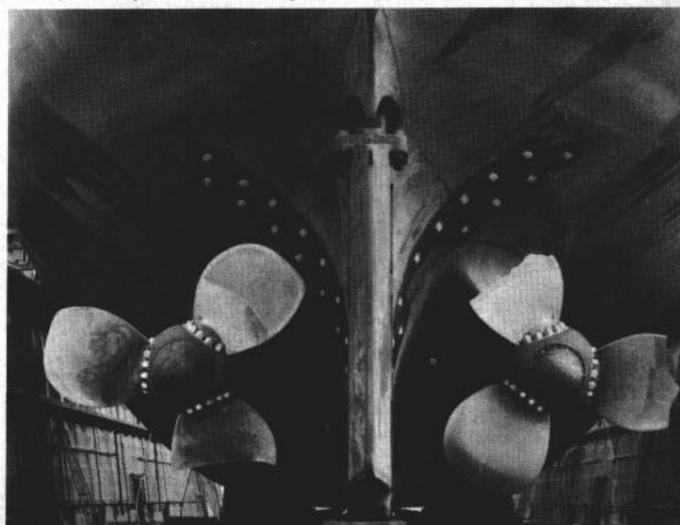
On Thursday the storm was over, but further eastward exploration was halted by fast ice. It was decided to turn westward, return to Cape Flying Fish, and then enter the Amundsen Sea.

En route to the site, a *Staten Island* helicopter suffered an engine failure, caught fire, and crashed. Because of an inaccessible location, the aircraft was written off. The flight personnel were recovered, however, all uninjured.

From 16 February to 2 March, *Glacier* and *Staten Island* slowly made their way through scanty leads in solid, heavily hummocked ice, which increased in thickness as they approached Thurston Island. In places, the ice was 18 to 20 feet thick. Progress was halted at night, and even during daylight the ships were often required to stop and wait for weather conditions to improve.

Then, on 2 March, the ships reached a large open

**ICE WORK**—USS *Glacier* rests in drydock at Wellington, N.Z., for repairs of damage caused by the Antarctic ice.



water area just off the coast of Thurston Island. By early morning the next day, the ice pack shifted and first light found *Glacier* solidly stuck with *Staten Island* similarly entrapped ten miles away. There they stayed from 4 to 7 March, waiting for the pack to shift and the leads to reopen.

**T**HE MORNING LIGHT of 7 March revealed a sizable lead 1000 yards north of *Glacier*. The pressure began to ease and *Glacier* commenced breaking her way to the now wide-open lead. Thick floes and heavy pressure ridges made this the toughest thousand yards of ice-breaking *Glacier* had experienced throughout the cruise.

That afternoon, in the way of an experiment, a demolition party was organized and sent out onto the ice. Helicopters landed some 1500 pounds of explosives, and shaped charges were placed in likely looking cracks at various points between the ship and the open lead. Plastic charges were lowered to the bottom edge of the ice. They were to act, in a fashion, as depth charges. The explosions, however, produced no immediate effects upon the ice and were finally discontinued as futile.

Then, in the evening, nearly four hours later as the ship made one of her many assaults into the ice before her, the pack suddenly yielded, and *Glacier* continued slowly ahead, forcing a tremendous floe in front of her into the open water. The explosives had managed to reopen old cracks in the ice and the final push of the ship had broken and dislodged the unyielding floe.

Once in open water, *Glacier* proceeded to assist *Staten Island*. To waste no more time in departing the icebound coast, *Glacier* worked through what turned out to be the coldest night of the cruise ( $-2$  degrees F), breaking through the heavy floes by searchlight. By dawn of the 8th, the icebreakers had again joined forces and proceeded in a northwest direction to clear the pack.

**F**OR TWO DAYS the breakers made steady northeast progress through rapidly diminishing ice pack. On Friday, 10 March, *Staten Island* and *Glacier* parted company, *Glacier* taking an easterly course for the Palmer Peninsula.

This was the third and final phase of *Glacier's* Deep Freeze '61 operation. She was scheduled to conduct surveys and take depth soundings in the area of various sub-Antarctic islands near Palmer Peninsula.

However, from 1 March and thereafter, high winds, overcast skies and heavy swells combined to make such observations practically impossible. The ship passed through Bismarck Strait on the 13th, and lay at anchor in South Bay, Doumer Island. The following day *Glacier* went through the beautiful but largely obscured Neumeier Channel and DeGerlache Strait along the Danco Coast.

She then anchored in Paradise Bay near Gonzales Videla, the Chilean meteorological station. Here she embarked two entomologists from Hawaii's Bishop Museum. Oceanographers took advantage of the stop to obtain bottom samples from the harbor.

On 16 March, *Glacier* proceeded northeast through Bransfield Strait to Penguin Island in the South Shetland group for a geological survey. When the ship had anchored in Admiralty Bay of nearby King George Island, winds and poor visibility prohibited operations near Penguin Island. While in Admiralty Bay, however, an examination was made of the now vacant British weather station, and ocean bottom samples were taken.



**PATHFINDERS** — Icebreaker men plot *Glacier's* frosty course while cruising on a mission for Op Deep Freeze.

**O**N 18 MARCH, with somewhat more moderate weather conditions, *Glacier* was able to conduct helicopter operations to Penguin Island, where biologists banded birds and collected specimens.

*Glacier* then proceeded east to investigate a 4000-fathom trench reported in the ocean floor near Zavodovski Island, one of the South Sandwich group.

Once again, however, high seas and winds frustrated attempts to develop a satisfactory track for depth soundings, and winds and low visibility prohibited helicopter operations for a planned survey on Zavodovski itself.

Finally, in the morning of 23 March, CTG 43.1 directed *Glacier* to discontinue operations in the area and to proceed to ports of call at Montevideo, Uruguay, and Rio De Janeiro, Brazil. After nearly six months of operations, the latter two of which were spent continuously at sea and in the ice, *Glacier* was homeward bound.

Despite the difficulties imposed by weather during the last two weeks, *Glacier's* operations during Deep Freeze '61 have proven both successful and significant. The advantages of her size and power have shown their practical value during the channel-breaking at McMurdo, and again during the penetration of the Eights Coast, Bellingshausen Sea, a feat never before accomplished by ship.

In naval support of logistics, scientific endeavor, and exploration of the polar continent, the icebreaker has proven herself indispensable.

**SNOW BALL**—Crew members take a break from ice breaking for game of football on ice at McMurdo Sound.



# TAFFRAIL TALK

**M**ERITORIOUS SERVICE by a crew member of the Atlantic Fleet Amphibious Force tank landing ship, *USS Terrebonne Parish* (LST 1156) doesn't go unnoticed — or unhonored — these days. It can, and does, earn him admittance to a select shipboard society — the Tango Mike Bravo, or "That's My Boy," Club.

Aboard *Terrebonne Parish* there's only one way to become a member of the Tango Mike Bravo Club: Display a good positive attitude, and be an asset to the ship and to the Navy. When a *Terrebonne Parishioner* has consistently demonstrated those qualities over a period of time, he's called before the CO, LCDR H. F. Munnikhuysen, and the entire ship's company, and formally initiated into the club.

Skipper Munnikhuysen doesn't claim the idea as an original — he was a junior ensign aboard the aircraft carrier *USS Valley Forge* (CVS 45) when the CO of that ship presented similar awards to the officers of his command.

Aboard his LST, however, he has limited membership strictly to enlisted men — and an indication of the pride and spirit he's instilled in the *Terrebonne Parish* crew is the fact that, of a total complement of some 110 men, 41 of "his boys" have already attained the Tango Mike Bravo Club.

★ ★ ★

An ALL HANDS staffer was invited to visit *USS Atule* (SS-403) when she called at Washington, D. C.

On his tour from the sub's bow to her stern, our man became pretty proficient in jack-knifing his six-foot frame on the ladders and through the hatches so neither his posterior got hung up on the one side of the hatch nor did his head get bumped on the other side.

As anybody who has been aboard a sub knows, many of the crew sleep in the forward and after torpedo rooms—over, under and around the torpedoes. To the unpracticed eye of our staffer, the quarters seemed a little on the small side. He was, however, treated to a demonstration, on how the bunks slid out—and was assured there was plenty of room.

Our man was taken into the conning tower with a secret hope that he could put his cap on backwards and peer through the periscope. It would have been a good chance to show his talent for the dramatic. However, the periscopes were secured.

Submariners have a reputation for being a clannish lot—proud of their ships and the men they serve with. Most submariners who have transferred to the Silent Service from elsewhere in the Navy seem to be glad they did. Our man came away with the impression that submariners are a group of pretty good guys.

★ ★ ★

Speaking of scientific appellations, which we weren't necessarily, reminds us that the ferocious *Negativus reversus* has apparently been up to his old tricks again.

We're not sure if *Negativus reversus* be fish, fowl, bug, or what-have-you. We do know that it is the particular bane of magazine editors and layout experts—and that it somehow slips into a bundle of thoroughly checked and rechecked photo negatives to do its dirty work. For an example of the results of the latest foray of *Negativus reversus* onto the pages of ALL HANDS, see page 56 of the March issue.

*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

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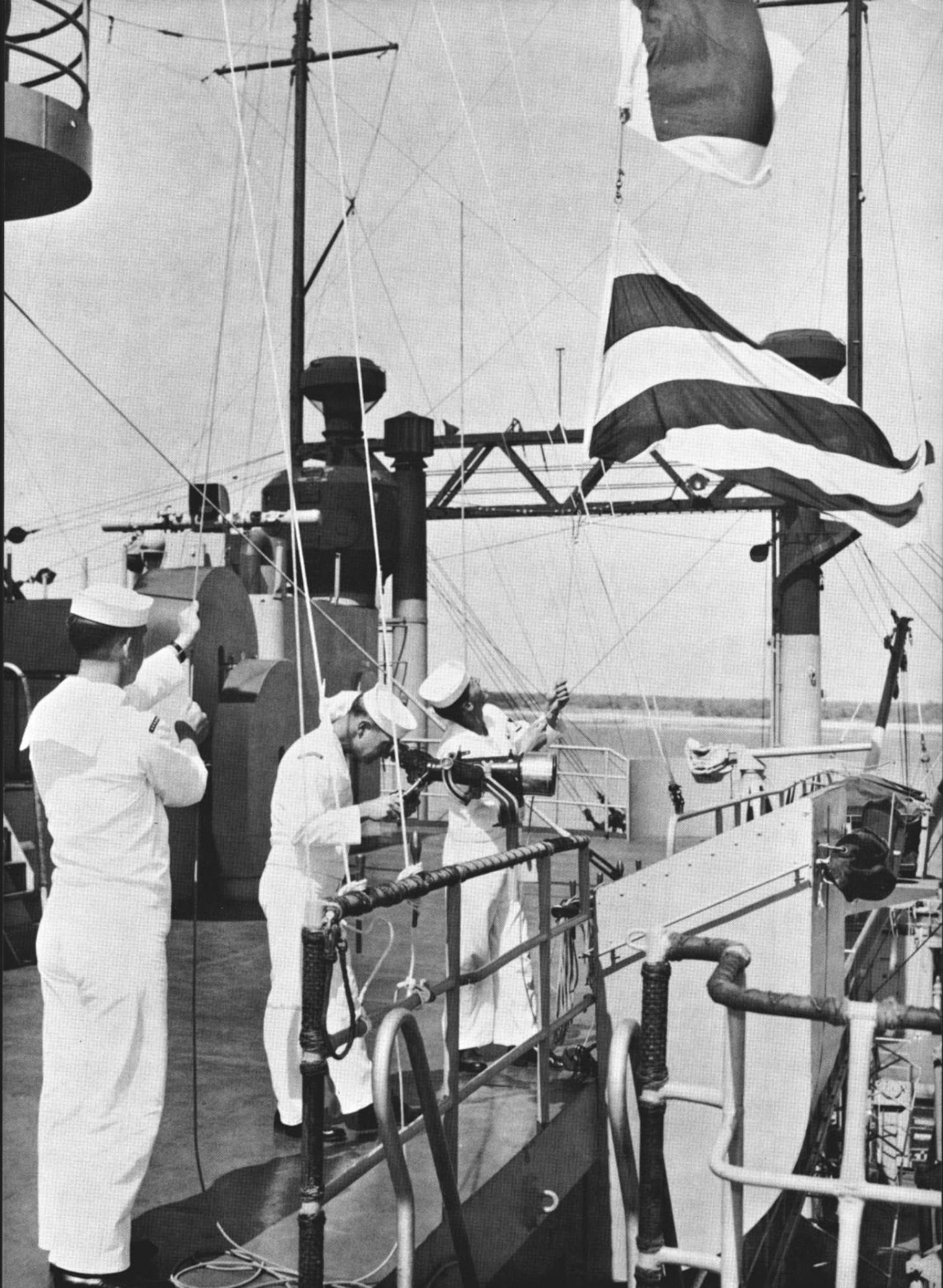
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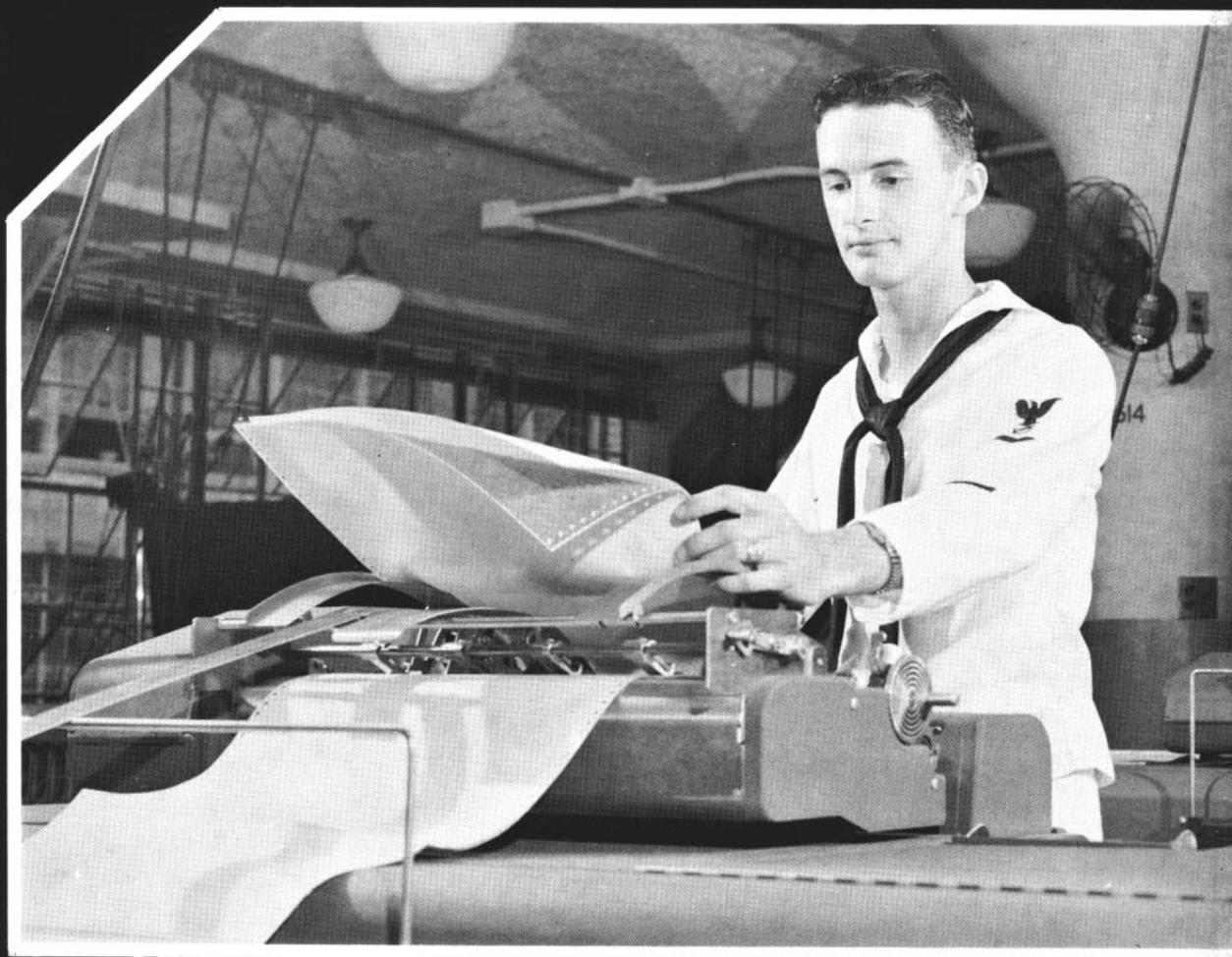
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• AT RIGHT: FLAG DAY—Signalmen on board destroyer tender *USS Everglades* (AD 24) send message aloft during flaghoist drill designed to maintain the destroyer's high degree of proficiency in sending messages and reading flags from other ship. ▶





**man of**  
**RESPONSIBILITY**