Play it smart — it takes a good study program to make the good grades that will lead to your next rate.

**A Sure Way of Moving**

You may be qualified in all respects to take the advancement in rating examination, but if you cannot pass the written test you will not be sewing that next stripe on your jumper or donning the chief’s hat.

Competition is keener in some rates and ratings than in others, but even if you are seeking advancement in a “wide open” rating, you must attain a passing score on the exam to be successful. In tighter ratings you must do better than merely squeeze by the passing/failing cutoff score or you will be quotaed.

Therefore, besides qualifying in all respects, you must concern yourself with studying for the examination.

There are some people who don’t bother to study at all. They think the knowledge they have picked up in a service school, on the job, and from required correspondence courses should be enough to prepare them for an exam. It isn’t.

Much of the knowledge you picked up in school may have become obscured with time and need refreshing. And in any case, a service school’s curriculum is not intended to include details of all you will need to know about your rating; it is designed rather to provide you with a foundation of knowledge for expansion.

Correspondence courses are sometimes approached with almost open hostility and skipped through hurriedly, with the result that little information is retained.

Perhaps you feel you’ve made a concentrated effort to study for an exam at some time in the past and still were not successful. Most who have failed or been quotaed on exams will probably fall into this category. How can you do better when you feel you’ve already done about your best?

The answer probably lies in your study techniques. Chances are you learn and retain only a fraction of what you are capable of doing through effective study, and this is something you can improve upon, as we shall see.

Contrary to the opinions of many, the way to achieve effective study is not by more study or more determined concentration, but by changing the quality of your study methods. People who are most successful in exams usually study slightly less than those who finish lower. They just use their time more effectively.

There are many authorities on the subject of “How to Study,” and most of them recommend similar “mechanics of study” as a means to achieving more effective use of study time. Several of the ingredients of this success recipe are:

- Prepare a study schedule. After you know what you must study, a schedule will help you discipline yourself and insure that sufficient time is allotted for everything which must be studied.

- Make the schedule as elaborate or as simple as you wish, but don’t fool yourself into believing that a schedule (or anything else, for that matter) will be of much use if you wait until the week before the exam to begin studying. Don’t wait to get in the mood — it may never come.

- Make a chart for each day of the week by dividing each day into work or duty time and free time. Then designate specific periods for studying specific topics or working on...
correspondence courses. These peri-
ods could be a half-hour each day,
one hour a day for three days each
week, or whatever you feel will work
out best according to your work and
duty schedule.

Keep a record of the time you
study each day, as a reminder that
you are or are not keeping to your
schedule. Remember, a person is
efficient not because of any great
amount of will power he uses to
force himself to stay on the job, but
rather because he has developed
habitual patterns or sequences of ac-
tivities.

- Locate a suitable place to study.
Poor lighting, inadequate ventilation
and noise tend to be fatiguing. Don’t
think, or brag, that you can study
under any conditions. Locate a quiet
place, one in which you can elimi-
nate as much noise—including the
radio and TV—as possible. Such a
place will come to mean study to
you and you will be returning to
familiar surroundings. You will not
have to be continually wasting time
“setting up” for studying.

If possible pick a study area that’s
well-ventilated—not too warm. Sit in
a straight-back chair, if you can, to
avoid becoming too comfortable or
having to adjust to odd positions.
Adjust the lighting so that it is suf-
ficient—not glaring or shadowy—and
not shining or reflecting in your
eyes.

- Organize your study materials.
Those not readily available cause the
continuity of work to be broken
while you hunt for them. Some peo-
ple have been known to waste an
hour or more “getting ready” to
study. By the time such people are
ready, their attention is so divided
that they’ve lost any enthusiasm for
concentration. This is just an excuse
not to study.

- Take notes. Underline signifi-
cant words or phrases with pencil
to recall attention to these points
during review. Use a separate note-
book to record important points—a
separate notebook for each main
topic (i.e., Military Requirements,
First Aid, etc.). Correspondence
course booklets are handy for this,
but be sure you correct wrong an-
swers after course has been marked.
Some people have a more elaborate note-taking system, utilizing a tape recorder. This system, if used effectively, can be most helpful.

The price you pay for advancement is computed in terms of effort and application. This means giving up things you would prefer to do, including loafing, and forcing yourself to perform the difficult act of learning. And this brings us to one more special ingredient in the recipe—Motivation.

If you consider the exam as merely a means to gaining increased income and privileges, your motivation is only half-hearted. You must bring yourself to understand why the Navy requires you to know what you must know for advancement, or else you will not be able to create the necessary interest.

As your responsibilities increase, your knowledge must be expanded if you are to be effective in your rate. Sometimes, what you know or do not know can make a big difference in the outcome of an emergency situation. An over-all desire for genuine self-improvement, for the right reasons, is accompanied by a more receptive mind. You are able to destroy many mental barriers to learning.

Your mental state is also affected by your health. Exercise, proper rest, proper diet, and anything else contributing to good health will have an effect on your studies. Some people are so worried about thoroughly preparing themselves for an exam that the worry prevents them from doing so. You can avoid this by putting the worry aside and tackling your studies. And above all, don’t continually find excuses for not studying. Give your studies the consent of your will.

On the opposite extreme, don’t try to “over study.” Utilize the tremendous capabilities of your subconscious. After a period of concentration by the conscious mind—one half hour will do—change pace; take a seventh-inning stretch and shift to another subject.

The final ingredient we will mention, although there are undoubtedly others, is Meaningful Reading.

The greater portion of the act of study consists of meaningful reading. Many of us are under the delusion that we know how to read, when actually there is much room for improvement in our reading ability. We are concerned with four kinds of reading while studying. They are:

- Skimming: A “seagull’s view” to determine contents and organization of a book, chapter or paragraph by dipping briefly into subject matter. Searching for a key word or idea.
- Quick reading: To refresh the memory, or to re-read familiar material in search of an idea or illustration.
- Normal reading: The speed will vary with the individual, but will be at a slower rate than the two types mentioned above. This is the type of reading you will do for the most part. The average college student should be able to read textbook material at the rate of 200 to 400 words per minute, and this is a good guide to follow.
- Deep reading: A slow and careful reading, weighing the meaning of each word, phrase and use of punctuation. Normally required for mathematics, this is one of your principal tools for problem-solving.

Many people can double their speed of reading by grouping words in larger units, such as phrases and sentences. A few hints are:

- Practice grasping larger units (phrases or sentences) with a single movement of the eyes. (This is the basic skill of faster reading.)
- Read for ideas, not words.
- Concentrate your attention upon meaning.
- Watch for a tendency on your part to misread certain words.
- Eliminate throat and lip movements while reading.
- Force yourself to read rapidly.

By improving your reading skill, you are not only contributing to better study methods, but increasing your chances on the actual examination, since many people who fail do so because they cannot grasp the full meaning of test questions, or cannot grasp the meaning quickly enough.

After you have worked on improving your own study practices, you may find it beneficial to spend some time studying with others. Fifteen minutes each lunch period, going over questions and answers in the personnel office or in the boatswain’s locker, can prove of inestimable help if applied regularly.

—Bill Howard, JO1, USN.

ALL HANDS
SER assigning NAVYMEN can now further their formal educations through the facilities of the Polar University Extension Program.

The program is an outgrowth of a cooperative effort between the Navy and the Commission on Extension Courses, Harvard University. When all the courses have been prepared, it will offer a complete two-year curriculum of college-level courses for the men on board Polaris submarines.

It began in 1961 with "A Study of Revolutions," by Professor Crane Brinton of Harvard, a noted historian. A second course, "Computer Age Mathematics," by Professor Francis Shepard, Chairman of the Department of Mathematics at Boston University, was also given to several of the crews. Enrollment for 1961-1962, including a number of presentations for the crews of Polaris subs, totaled over 7400 students.

By enrolling in the Polaris U program, the ambitious sailor can prepare himself for the increasing technological requirements of the submarine service and, at the same time, build up valuable college credits which may be applied toward the Bachelor of Arts Degree in Extension Studies at Harvard. The cost to each student is only five dollars tuition per course unit, plus about five dollars for books and such.

All courses will be of college level and constructed so that they can be taken during the regular cycles of patrol and in-port duty. Most of the courses will combine the use of sound film—on patrol and in-port duty. Most of the courses will be of college level and constructed so that they can be taken during the regular cycles of patrol and in-port duty. Most of the courses will combine the use of sound film—to be viewed on patrol with an accompanying textbook—and lectures and laboratory work ashore.

The first year's work includes mathematics, chemistry, physics, and English composition. The second year includes further study of mathematics and science, with electives in other subjects. During the time that the complete curriculum is being prepared, individual courses can be taken for credit as they are available.

This is an example of how the courses are designated:

A one-year course in introductory chemistry is divided into four units with credit for one quarter-course for each. (Each quarter-course is approximately equivalent to two credit hours or semester hours.) One of these units will be basic, and is to be taken as the introduction to the subject.

The method of instruction varies with different courses. A unit ordinarily begins with one or more class sessions on shore, taught by an instructor from one of the colleges in the Commission on Extension Courses (in addition to Harvard, they include Boston University, Boston College, Massachusetts Institute of Technology, Tufts, Simmons and Wellesley). Films of 15 half-hour lectures are shown on patrol.

Men taking the course for credit will view the films, do the required reading and work problems or write papers, if required, while on patrol. Then, during the shore duty following the patrol, they will have further classroom work under the instructor and take the final examination.

Some courses will have a different pattern, with less film instruction and more directly supervised classroom work and preparation of papers. Some may use teaching machines.

The program will be kept as flexible as possible. It will not be necessary to take courses in a strict order. That is, it will possible to begin with English composition, or mathematics, or a science, and carry through that course, then take others, perhaps starting one of them while working in a course begun earlier—as long as each subject is carried in a normal sequence. A man may carry two courses at the same time, and advance just as fast as his time and skill will permit.

The schedule of the Polaris crews will probably permit two units of a course to be completed in one calendar year, and a man taking two subjects simultaneously could thus complete one-fourth of a full year's study (one-eighth of the certificate curriculum) in one calendar year. Credit for each unit successfully completed is recorded as the student progresses.

The following courses are being planned for the first-year units:

- Mathematics: college algebra; analytic geometry; introduction to calculus; and calculus: polynomials.
- Physics: Introduction to modern physics; introductory mechanics; introductory electricity; and introductory wave motion, sound and light.
- Chemistry: Basic principles; covalent bonds; chemical equilibrium; and some elements and their compounds.
- English: Expository English I; expository English II; American literature; and English literature.

The following courses will be included in the second year's units:

- Mathematics: Calculus: trigonometric functions; calculus: exponential and logarithmic functions; and computer age mathematics, Parts I and II.
- Physics: Mechanics and heat; electricity and magnetism; modern physics; and electronics.
- Engineering: Introduction to computer mechanics, Parts I and II; introduction to metallurgy; and electrical engineering.
- Electives: Elective courses are planned in the areas of history, economics, government, literature, sociology and psychology.

A two-year certificate will be awarded by Harvard University to those men who satisfactorily complete the 28 course units listed above in addition to four units from among the available electives.
If someone approached you on the street and said, "Hey, Mac, how'd you like to make yourself $10,000," you would immediately respond with "What's the catch?"—and you can bet your ditty bag there would be one.

But what if the Navy offered you a four-year $10,000 college education, with an ultimate commission? Sound too good to be true? Well, it's a valid offer—and there's a good reason why the Navy wants people to take advantage of it. One way the Navy replenishes and maintains its pool of talent in officer grades is by providing this and several other extraordinary programs which lead to commissions for capable, qualified enlisted personnel.

Like any other big, fast-moving organization, the Navy has a constant requirement for skilled, dependable men to fill positions of authority. It's a simple case of supply and demand—your chances are as good as anyone's if you can meet certain specified requirements, and there are no gimmicks, hidden charges or false promises on the paths to a commission.

There are many programs forming these paths, and enlisted men and women who are seeking a challenging and gratifying step forward, and who would like the opportunity to expand their talents and increase their responsibilities (and earnings), should familiarize themselves with them.

These programs fall into two main categories, depending on whether or not the applicant has a college degree.

Some of the programs have recently been modified, and one—the NROTC college training program—has been canceled. (Regular NROTC had been available to enlisted personnel on active duty since the beginning of the program, on the basis of 10 per cent of the total annual quota. However, this quota was never met.)

You can travel the enlisted-to-officer path and find the experience most rewarding. There are about 15,000 appointments may be filled by active duty enlisted men through appointment by the Secretary of the Navy.

Under this program, candidates participate in a Navy-wide examination for entry to the Naval Preparatory School. Those who are selected then undergo about nine months of refresher training courses in preparation for taking the Naval Academy entrance examination.

Contrary to popular belief, Prep School students do not compete only against each other for appointment to the Academy. Naval Academy entrance exams are administered on a national competitive basis, and a Prep School student must fully qualify, like anyone else, in order to receive an appointment.

One of the primary eligibility requirements for this program is that the applicant be strongly motivated toward an officer's career in the Navy. The course is academically and militarily rigorous, but, success is most rewarding.

Screening examinations are administered in mid-April each year.
throughout the naval establishment. A second examination is administered in mid-July to recruits at Naval Training Centers who did not have the opportunity to take the earlier examination. BuPers Notice 1531 of 28 Jan 1963 gives the latest detailed information and application forms. Following are the general criteria necessary for establishing eligibility.

(a) **Source:** Enlisted men of the Regular Navy and Naval Reserve on active duty.

(b) **Age:** Applicant must be at least 17 and not have passed his 21st birthday before 1 July of the year he would enter the Naval Academy.

(c) **Marital status:** Be single and remain single until after graduation from the Naval Academy.

(d) **Education:** Must be a high school graduate or have completed enough high school courses so that credits earned at the Preparatory School (approximately three and one-half) will enable his secondary school record to show the necessary 15 credits required for admission to the Academy; plus a combined GCT/AIR score of 118.

(e) **Physical:** Must be physically qualified in accordance with physical standards contained in the *Manual of the Medical Department.*

**Naval Aviation Cadet Program** (NAVCAD): The NAVCAD Program involves 18 months of flight training as a naval aviation cadet. About 125 naval aviation cadets are picked from among enlisted men on active duty each year. In the past this program has provided about 20 per cent of all naval aviation cadets.

The qualifications are high and competition is keen. A man applying must be strongly motivated toward flying. If selected, he enters a program in which he becomes both officer and aviator.

Applications can be made through your command at any time. BuPers Inst. 1120.20C gives the procedures. Eligibility requirements include:

(a) **Age:** At least 18 and under 25 on the date application is submitted. If under 21, parental or guardian's consent is necessary before being accepted into the program.

(b) **Marital status:** Unmarried
and agree to remain unmarried until commissioned.

(c) Education: 60 semester hours or 90 quarter hours of unduplicated college work at an accredited junior college, college or university; or either 30 semester hours (45 quarter hours) of unduplicated college work or successful completion of the USAFI General Education Development Test (one-year college level), plus a minimum combined GCT/ARI score of 120 and a MECH score of 58.

(d) Physical: Must be physically qualified and aeronautically adapted for the actual control of aircraft in accordance with chapter 15 of the Manual of the Medical Department. Test qualifications: Must attain a score of at least three on the Aviation Qualification Test (AQ), and a score of at least five on the Flight Aptitude Rating Test (FAR).

(f) Service: Must sign a contract to complete at least three and one-half years of active duty after completion of flight training.

* Navy Enlisted Scientific Education Program (NESEP): NESEP is an uninterrupted four-year college education program which leads to a baccalaureate degree in engineering, science or mathematics categories approved by the Chief of Naval Personnel.

The applications of all fully qualified NESEP candidates are considered by a selection board convened by the Chief of Naval Personnel to select those candidates considered best qualified for high-level college performance and eventual careers as line officers serving in the Regular Navy. Those selected receive approximately nine weeks of refresher training courses in mathematics, physics, and English usage, plus orientation in college academic requirements before college entrance.

NESEP Colleges

Auburn University
University of Colorado
University of Idaho
University of Kansas
University of Louisville
Marquette University
Massachusetts Institute of Technology
Miami University (Ohio)
University of Mississippi
University of Missouri
University of Nebraska
University of New Mexico
University of North Carolina
North Carolina State College
University of Oklahoma
Pennsylvania State University
Purdue University
Stanford University
University of Texas
University of Utah
Vanderbilt University
University of Washington

Upon satisfactory completion of summer preparatory training and acceptance at a NESEP college or university, trainees obligate themselves for six years in the Regular Navy, retaining their present pay grades and ratings. Students maintain their enlisted status, and are eligible for advancement in rating in accordance with established procedures.

NESEP students receive full pay and allowances while attending college, and must pay for their subsistence and lodging. The Navy pays all other college expenses.

Graduates of NESEP, after receipt of their degrees and successful completion of Officer Candidate School or Naval School Pre-Flight, are appointed to the grade of ensign in the unrestricted line of the Regular Navy, if physically qualified. Graduates who do not meet the physical standards of the unrestricted line are considered on an individual basis for appointment in the restricted line or staff corps.

Commissioned graduates of this program must serve on active duty for a minimum period of nine months for every six months of education, and in no case shall this period be less than four years.

Each applicant for NESEP must submit a letter of application in time to reach the Chief of Naval Personnel not later than 1 November. Detailed requirements and information are contained in BuPers Inst. 1510.69F (Change One). A general rundown of qualifying factors includes:

(a) Source: Enlisted personnel of the Regular Navy or in the Naval Reserve on active duty, including personnel in the TAR Program, in pay grades E-4 and above.

(b) Age: Must have reached 21st but not 25th birthday by 1 July of the year selected. Waiver of maximum age may be granted by the Chief of Naval Personnel on the basis of one year for each year of fully transferable college credits.

(c) Marital status: Married or single.

(d) Education: Must be a high school graduate or possess a satisfactory high school level GED test score, plus a combined GCT/ARI score of 118.

(e) Sex: male or female.

(f) Physical: Must meet the physical standards of officer candidates, except as they may be modified in the above listed BuPers Instruction.
(g) Disciplinary: Clear record for two years preceding 1 July of calendar year in which application is made.

(h) Recommendation: Must be recommended by commanding officer.

- Officer Candidate Airman Program (OCAN): The OCAN program requires about 13 months of naval aviation observer training. This program was begun in May 1963 and is expected to provide about 20 per cent of all naval aviation observers.

The qualifications for OCAN applicants are the same as for the NavCad program except that applicants may receive constructive service credit up to 36 months for earlier active duty.

Thus, enlisted personnel with three years previous active service may submit applications for the OCAN program up to age 28 instead of 25, which is the maximum age for the NavCad program. In addition, OCAN applicants must be physically qualified and aeronautically adapted for duty involving flying as a Naval Aviation Observer and must have scored at least three on the Aviation Qualification Test (AQT), with no minimum score required on the Flight Aptitude Rating Test (FAR).

Selected applicants must sign a contract to complete at least three and one-half years of active duty after completion of NAO training.

Applications may be submitted in accordance with BuPers Inst. 1120.20C.

- Limited Duty Officer (Temporary) Program (LDO): The LDO program, in effect since 1948, replaced the temporary officer program of World War II, and has become the principal active duty enlisted-to-officer program of the Navy.

Its most attractive aspect is that it permits an officer the opportunity to continue working in the broad technical field associated with his former rating.

The selection board (which meets annually) considers the applicant's test score and service record, with the record receiving at least equal emphasis. It certainly helps if the record shows you have taken correspondence courses or evening classes, or have done other work to prepare yourself for your new rank. (It stands to reason that if two men are about equal in most respects, the man who has shown some initiative and has studied is going to be selected over one who has not.)

Generally, you should apply for the LDO category in your normal path of advancement (see the box below). When you try for selection in a different category, you will be compared with other men who probably have much more experience in the field than you do. This in itself will hurt your chance for selection.

HMs and DTs, however, have no normal path of advancement to LDO. Although they may apply for any category in which they feel they are qualified, they are encouraged to apply for commissions in the Medical Service Corps rather than in the LDO field. The problem of competing with more experienced men also applies here.

Personnel selected for the LDO (T) program undergo naval orientation at Officer Candidate School. They are appointed ensigns, U. S. Navy (Temporary), before attending OCS. Limited duty officers receive permanent appointment upon being promoted to the grade of lieutenant commander.

The following general eligibility requirements are taken from BuPers Inst. 1120.181:

(a) Source: Men of the Regular Navy, serving as petty officers first class and above or as commissioned warrant officers or warrant officers, may apply. If a petty officer first class, you must have served at least one year in rate by 1 July of the year in which application is made. If a commissioned warrant or warrant officer, you must not have failed selection for the next grade.

(b) Age: For appointment as ensign—must not have reached 34th birthday as of 1 July of application year. For appointment as lieutenant (junior grade), warrant officers and chief petty officers of no specified age are eligible—in 1963 only.

(c) Service: Must have completed eight years of active naval service...

### Normal Path of Advancement to LDO(T)

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HOW TO MAKE AN EXTRA $10,000

(including Marine Corps or Coast Guard when operating as part of the Navy), exclusive of active duty for training in the Reserve, on 1 July of the calendar year in which application is made.

(d) Education: Must be a high school graduate or possess the service-accepted equivalent.

(e) Physical: Must be physically qualified in accordance with physical standards contained in the Manual of the Medical Department.

(f) Disciplinary: No court-martial or civil court convictions (other than for minor traffic violations) for the two-year period preceding 1 July of application year.

(g) Recommendation: Must be recommended by commanding officer.

(h) Miscellaneous: No candidate can make application in more than two officer designator codes in a given year. And you must be in the Regular Navy on the date of the written examination, be on active duty at the time you are being considered by a selection board and, if selected, remain on active duty until you receive your commission.

• Integration Program: The Integration Program offers the opportunity for appointment to commissioned status, in the unrestricted line and staff corps of the Regular Navy, to outstanding junior enlisted personnel, both men and women.

This program is restricted to a small, select group (about 50 a year), and selectees compete throughout their careers with Regular Navy officers from all sources.

Competition is exceptionally keen, and on-the-job technical training and specialized training through schools and correspondence courses should be sought by all potential candidates.

If otherwise qualified and recommended, candidates take the Officer Selection Battery Tests, and these scores—plus complete applications and service records—go before a selection board. Candidates who are selected undergo six weeks of training at OCS before being commissioned.

Prospective applicants must submit special requests to their commanding officers by 1 August to be considered for this program.

BuPers Inst. 1120.181 has the details, but here's a rundown:

(a) Source: Warrant officers or enlisted personnel in pay grade E-4 or above in the Regular Navy.

(b) Age: Men must be at least 19 and under 25 as of 1 July of the calendar year in which application is made. Women must be at least 20 and under 25, although requests for waivers will be considered for exceptionally well-qualified women up to 30 years of age upon the recommendation of the commanding officer.

(c) Service: Normally, three years' continuous active service in the Regular Navy is required.

(d) Education: (1) Have successfully completed 30 semester hours of work at an accredited college or university, or have the service-accepted equivalent, or (2) Be a high school graduate or the equivalent, and have a GCT or ARI score of 60 or above, or (3) Civil Engineer Corps applicants must have completed three years of college credits toward an engineering degree at an accredited engineering school.

(e) Disciplinary: No conviction by court-martial or civil court (other than for minor traffic violations) for two years preceding 1 July of application year.

(f) Physical: Must be physically qualified in accordance with standards contained in the Manual of the Medical Department.

(g) Recommendation: Must be recommended by your CO.

• Nursing Education Program (NEP): This program provides an exceptional opportunity for enlisted women to obtain a baccalaureate degree in nursing and appointment to a commission in the Navy Nurse Corps.

Selected applicants are discharged from their present enlistments and reenlisted in the Naval Reserve for six years as Officer Candidate Hospitalmen (pay grade E-3).

They are then enrolled in civilian schools of nursing designated by the Chief of Bureau of Medicine and Surgery and ordered to active duty as students for the period of instruction required to attain the degree.

They draw pay and allowances (including subs and quarters) and are reimbursed up to $50.00 a year for textbook costs. Tuition and fees are paid by the Navy.

During the final year of instruction enrollees apply for appointment in the grade of ensign, and then serve a minimum of one year of active commissioned service for each year of training received under the program.

Applications may be submitted to the commanding officer at any time.

It's a wonderful opportunity, girls. A resume of eligibility requirements follows, but check BuPers Inst. 1120.27C for complete details:

(a) Age: Must be of such age that upon expected completion of training, and appointment as Ensign, Nurse Corps, you will not have reached the age of 29.

(b) Marital status: Unmarried at time of application and agree not to request discharge by reason of marriage during the period of training or active duty obligation.

(c) Education: Must be a high school graduate with academic standing in the upper half of her graduating class, or have a standard score of 50 or above on each of the five tests in the high school GED test battery and satisfy college entrance requirements.

(d) Physical: Must meet the physical requirements for original appointment for women officers contained in the Manual of the Medical Department.

(e) Service: Must be an enlisted woman of the Regular Navy or Naval Reserve on active duty, who has been on active duty for a minimum of one year before submission of application.

(f) Professional: Must have a clear record, free from any disciplinary action taken as a non-judicial punishment or the result of a court-martial and free from any record of civil court conviction, except for minor traffic violations, be of good personal habits and character.

• Medical Service Corps (MSC) Program: This program provides an opportunity for certain college graduates and non-graduates serving as hospital corpsmen and dental technicians to receive appointment in the Medical Service Corps.

There are several categories within the MSC to which appointments may be requested, including the Supply and Administration Section, Optometry and Pharmacy Sections, and the Medical Allied Sciences Section, which includes 17 specialized categories.

Eligible candidates for this program are considered by the Naval Examining Board at the Naval Medical School, Bethesda, Md. All appointments will be determined ac-
If you're a college graduate on active duty with the Navy, and you're interested in becoming a commissioned officer, the following programs will be of interest to you. They fall into three categories—the Officer Candidate (OC), for both men and women; the Aviation Officer Candidate (AOC 1395); and the Naval Aviation Officer Candidate (NAOC 1355) programs.

- The Officer Candidate (OC) program provides a course of training for selected college graduates leading to commissions as Reserve officers in the line, restricted line or staff corps. Selected enlisted applicants are designated officer candidates within their present pay grades, but not lower than E-2.
- The Aviation Officer Candidate (AOC 1395) program is geared for college graduates who meet the requirements for flight training. Enlisted applicants are designated as Aviation Officer Candidates within their present pay grades, but not lower than E-2. AOCs who successfully complete the four-month officer indoctrination course, if qualified, are commissioned as Reserve officers and, upon successful completion of flight training, are designated naval aviators.
- The Naval Aviation Officer Candidate (NAOC 1355) program provides training for college graduates who meet the requirements for a Reserve commission in the line within the aviation billet structure. Purpose of this program is to prepare aviation officers as naval aviation observers (NAO), or for weapons systems, air intelligence and maintenance billets in the categories of radar intercept operator, bombardier, navigator, bombardier/navigator, airborne early warning, antisubmarine warfare, ECM evaluation, maintenance, electronics maintenance or ordnance. Enlisted applicants are designated NAOC 1355 within their present pay grade, but not lower than E-2. Candidates who successfully complete the four-month officer indoctrination, if qualified, are commissioned as Reserve officers.

Basic eligibility requirements for all phases of the programs are the same. To qualify, you must:

- Be physically qualified in accordance with standards contained in the Manual of the Medical Department.
- Be a graduate of an accredited college or university with a bachelor's degree.
- Be on active duty at a permanent duty station where you have been serving for at least two months. (Naval training centers for recruits and service schools two months or more in duration are considered permanent duty stations for these programs.)

Exception: This requirement does not apply to Naval Reservists whose applications were being processed at the time they were ordered from inactive duty to a training center for active duty. However, Naval Reservists who are ordered to a duty station other than a training center while applications are in process are advised to reapply.

- Have at least six months of obligated service remaining under current enlistment upon receipt of orders to school. If you have less than six months remaining, you are authorized to extend or re-extend your enlistment, but the agreement to extend must be executed before you are transferred to the school.

BuPers Inst. 1120.29A has complete details on the above programs.

—Bill Howard, JO1, USN.
THE HOUR WAS 1100. The officers and men of USS Brush (DD 745) queued up on the mess decks for an important event—to honor the accomplishments of a distinguished lady, and receive shares of an anniversary cake. They were celebrating Brush's 19th year in the U. S. Navy.

This proud, weather-aged ship is a good example, in miniature, of the Navy's role in a modern world. On her bridge, she wears ribbons for the American Campaign, Asiatic-Pacific Campaign (with silver star), World War II Victory, Navy Occupation, China Service, Korean Campaign (with four battle stars), United Nations, National Defense, Philippine Liberation, Korean Presidential Unit Citation, and Philippine Unit Citation.

During her lifetime, her men have earned five Silver Stars, seven Bronze Stars, 24 Letters of Commendation and 60 Purple Hearts. Seventeen of these awards were made posthumously.

Brush was commissioned on 17 Apr 1944 at Staten Island, N. Y. After a shakedown cruise near Bermuda, she steamed for the Pacific to join Admiral Halsey's Third Fleet.

Before the end of the year, Brush had fought at the invasions of Leyte, Samar and Luzon, in the Philippines. During December she struggled through a gigantic typhoon.

With the Fifth Fleet early in 1945, Brush participated in the first air-sea strikes near Tokyo since the Doolittle Raid of 1942. Pushing a time schedule, she then assisted attacks against Formosa and Iwo Jima. On 15 Mar 1945, she battled in the Fifth Fleet strike against the island of Kyushu, Japan.

During this strike, a 500-pound aerial bomb exploded off her starboard side, cracking her keel. Seeing the ship come to a halt in the water, a Japanese submarine fired a torpedo. Realizing Brush was crippled, another destroyer turned into the weapon and took the explosion on its own bow.

Brush's life had been saved.

After hasty repairs in the Ulithi Islands, the ship continued attacks...
In Eventful Navy Career

on the Japanese homeland until the end of the war. In September 1945 Brush entered Tokyo Bay for the signing of Japan's surrender.

Brush operated from the San Diego-Long Beach area for five years after World War II. Then came Korea.

On 25 Jun 1950 communist troops invaded South Korea. United States armed intervention was ordered by President Harry S Truman on 27 June. Two days later, Brush entered Formosan waters.

Brush operated continually off the Korean coast until September. That month, while engaged in gunfire support, she struck a mine, tearing her amidships and breaking her keel for a second time in five years.

Thirteen men were killed, and 31 others were injured. Two sailors were thrown clear of the ship. One was rescued by USS Herbert J. Thomas (DDR 833). The other man swam to Brush with a broken shoulder.

Brush managed to reach Japan under her own power. Temporary repairs completed, she steamed to the United States for overhaul.

The veteran greyhound completed three additional deployments to Korea.

Since 1955 Brush has toured the Far East five times. When last heard from, she was doing her usual good job, winning the ASW “A” and Communications “C.”

—R. R. Monroe, LTjg, USNR.

Brushmen stack shells during lull in World War II action. (Above) J. S. Williams, HM1, USN, cuts anniversary cake.
Africa Welcomes Task

A n early morning rain squall lifts somewhere on the vast tropical coasts of Africa, just in time to uncover a three-ship task force steaming toward port. As the lead ship in the column nears the harbor at 0800, the humid silence is shattered with 21 guns, saluting a new African nation, independent for less than five years.

The three ships fly the flag of the United States; their official title is Task Force 88. To the countries of Africa they are known as SoLant Amity ships. The fourth such goodwill cruise, recently completed, has clinched the Navy's reputation as bluejacket ambassadors in this part of the world.

First ship to enter port is uss Spiegel Grove (LSD 32), flagship of Rear Admiral John A. Tyree, Jr., USN, Commander of the U. S. Atlantic Fleet's South Atlantic Force and Commander of Task Force 88. Close behind, the escort ships uss Van Voorhis (DE 1028) and uss Joseph K. Taussig (DE 1030) arrive to begin the heavy schedule of events.

Almost immediately, Spiegel Grove's cranes begin humming as tons of cargo are unloaded. "Project Handclasp" has collected material from business firms, organizations and individuals all over the United States for transportation to the developing nations of Africa.

The three ships, completing a 21,000-mile journey, started with 365 tons of supplies donated to the nine countries visited on the east and west coasts of the African continent south of the Sahara.

On the port-of-call list were the four West African cities of Freetown, Sierra Leone; Monrovia, Liberia; Lagos, Nigeria; and Point Noire, Congo. They made operational visits to the South African ports of Cape Town and Durban to replenish and refuel. They steamed into the Indian Ocean cities of Lourenco Marques, Mozambique; Diego Suarez, Madagascar; Dar es Salaam, Tanganyika; and Mombasa, Kenya, all new to most Navymen.

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As each ship is moored in the harbor of its latest port of call, the SoLant Amity program begins to unfold. The Task Force commander departs on calls to meet top government and military officials. Display boards are set up on the weather deck for the expected crowds of visitors. Side boys, the band and honor guard take their place for rendering honors to VIPs returning calls on the flagship. The control officer from the local U. S. embassy or consulate goes over last minute additions to or deletions from the program.

Then it's time to meet the public. They come in colorful groups from miles around and stand in long lines—sometimes at the mercy of sudden monsoon showers, or waiting in the tropical sun—to see the U. S. ships. On board, the African visitors are guided by sailors to see the bridge, lifesaving and firefighting equipment, boats, and displays explaining communications, navigation, seamanship, American landmarks, Navy activities in Africa and health. The lucky ones get to see the helicopters take off from Spiegel Grove's flight deck, a sight sometimes applauded by the pier-side crowds of all ages.

During general visiting, a team of sailors or Marines may leave the ship in the colorful uniforms of softball, soccer or basketball players. The vivid colors mix readily with the vibrant hues of flowing native robes and the elaborate headgear of the visitors from the African nations.

Soon a band of Navy musicians is heard playing in a public square. As the crowd gathers, the music takes effect and visual evidence of the beat sways through the audience, speaking music's international language. It's always a big success.
**SAME GAME —** Navymen of USS Van Voorhis play ball with Congolese team. *Rt:* Goodwill TF heads into new port.

**THE NAVY CREWS go on liberty.**

Everywhere people stop them on the streets to ask about America, talk about the cruise, invite the men to their homes or on tours to see the town. They exchange addresses and information about their countries.

Thus SoLant Amity reaches all levels of society in an area where little is really known about the United States, and vice versa. When the men return home, they have plenty to tell their friends about Africa, and dispel many preconceived notions born of Tarzan pictures and tales of Jungle Jim.

SoLant Amity is in keeping with one of the Navy's oldest traditions—showing the flag. But more than that, these cruises provide strong support for the missions of our State Department representatives in the African countries. The donation of Project Handclasp material becomes an intimate illustration of American concern for the well-being of developing nations. Project Handclasp is a personal program, not a government program. To know that the people of the United States care enough to send their goods to educate, clothe, feed and administer to the health of the people of Africa is—to them—startling proof of American friendship and good will.

**ON THIS CRUISE, the three ships of Task Force 88 represented the United States to more than 50,000 visitors and implemented the people-to-people program on a scale unmatched by any other effort.**

But in addition to the heavy schedule of goodwill visits, the three ships maintained operational readi-
ness through numerous underway exercises and tactical drills. There were underway demonstrations of antiaircraft gun firing, Weapon Alpha, depth charge, highline transfer, and helicopter recovery exercises for President W. V. S. Tubman. Similar displays were witnessed by 70 top Liberian cabinet members and government officials as well as 40 members of the young Nigerian Navy.

Task Force 88 developed into a double-barreled mission. On one hand the ships could honor a head of state, field a soccer team, tour thousands of general visitors at the drop of a white hat. At the same time, they represented an operationally ready naval presence in waters far from the normal shipping lanes in an increasingly important part of the world.

As a result of this cruise, ambassadors and consular officials, presidents and paramount chieftains, military people and civilians have been high in their praise for the United States and the Navy. Working hand in hand, the Navy and the diplomatic groups have gone far to improve friendly relations with the African countries through SoLant Amity.

The sight of U. S. Navy ships off the harbor entrance in an African port has become a symbol of U. S. interest in friendly relations with these nations. It illustrates the concern of the people of the United States for the people of Africa, using an old technique of showing the flag in modern dress, and—to most Navy men—in a new and fascinating part of the world.

—Ralph L. Slawson, LCDR, USN

PRETTY PICTURE — SoLant Amity ship USS Spiegel Grove (LSD 32) anchors in the port of Dar-es-Salaam.
NOT ALL OF TODAY'S YOUNGSTERS envision themselves as astronauts. Many keep their feet on the ground—or in the water—while daydreaming of ships, sailing, life in the Navy, and the ways of the sea.

A natural interest of young men in the sea and seamanship is documented in American history and has been demonstrated through the years.

In the Revolutionary War era, teen-agers became famous as sea fighters and ship captains. Commodore William Bainbridge, for example, commanded a ship when he was 19 years of age.

Today's Navy-minded youngsters don't skipper ships, but they do command attention. More youths participate in Navy-like activities than ever before.

Membership in various "junior Navy" programs sponsored at local and national levels by clubs, churches, PTAs and major national and world-wide youth organizations, is at an all-time high.

And, thanks to the cooperation of the Navy and individual Navymen, eager, enthusiastic juniors learn about the ways of the sea from professionals.

A working knowledge of junior Navy programs is not a requirement
for most professional Navymen. However, your ship or station may be one of many commands that sponsor and support junior Navy activities.

You may be assigned guide, escort or explainer duties when the youngsters come on board for a visit. Perhaps you have children who would like to participate in junior Navy activities.

Maybe you can help support your community by serving as a junior Navy leader.

JUNIOR NAVY programs available to 8 to 18-year-old boys and—shiver my timbers, girls—are numerous. Here’s a brief description of the most popular:

Sea Explorers—the Sea Exploring program is an advanced phase of the Boy Scouts of America for boys 14 to 18 years old. The dream of every Sea Explorer is to be afloat, to cruise on some kind of ship, and to put into practice the seamanship he has learned as an Explorer Scout. Sea Explorers attend weekly meetings to learn about ships and the sea.

Mariner Girl Scouts—Members of the Girl Scouts of America can study the ways of the sea by enrolling in the specialty of Mariner Girl Scout, an advanced program for 14 to 18-year-olds. The Girl Mariners organization is similar to the boys’ Sea Explorer program. Like the boys, Girl Mariners learn to handle small boats, read charts, plot a course, tie knots and, of course, swab decks. (For another outfit of interest to girls, see the box on Junior JANGOs, page 22.)

Sea Cadets—the Navy League of the United States administers two Sea Cadet programs for boys 12 to 18 years of age. One is the Navy League Sea Cadet Corps for boys 12 and 13. The other is the U. S. Naval Sea Cadets for boys 14 to 17. The Navy Department cooperates with the Navy League in both programs.

Sea Cadets are organized into local units they call ships, which meet weekly for classroom instruction at Naval Reserve Training Centers and Air Stations.

Sea Cadets have their own sailor-type uniforms, participate in drills, and go on summer cruises. Training is strictly voluntary, and membership does not obligate a cadet to a Navy career.

Shipmates—the Navy League also administers the Shipmate program for boys and girls between ages 12 and 18. Shipmate units are organized on a local level under League administration. Under the Shipmate procedure, Navymen can sponsor young people interested in Navy life by “adopting” them to explain various aspects of ships and a life at sea.

The various junior Navy programs provide instruction, facilities, and leadership for young men and women who have a special interest in the sea in general and ships in particular. Under these programs, youngsters can learn about life in the Navy, and may, on occasion, participate in group cruises on board Navy ships.

Most enjoy Navy food, but grumble at being awakened at reveille. All agree that “life in the Navy” is interesting, and fun.

The Navy encourages youngsters to further their knowledge of ships and the sea by welcoming them on board whenever possible. As evidenced by the following, “whenever possible” is frequent—and rewarding.

USS Oriskany (CVA 34)—Last year more than 1000 scouts in the San Diego area were welcomed on board Oriskany for tours. Back in 1956, while Oriskany was in the yards at San Francisco, the Mariner Girl Scout troop of Alameda, Calif., was adopted as the carrier’s namesake. Recently the CVA presented the Oriskany Sea Mariners with an old 28-foot motor launch the crew had made seaworthy and painted during their off-duty hours.
HIGH SPIRITS – Sea Scout takes watch aloft and (rt.) Naval Sea Cadet mans the wheel during cruise.

- **uss Lexington (CVA 16)** – This crew recently swapped sea stories with the young, energetic crew of NCS (Naval Cadet Ship) Lexington at Norfolk, Va. Formerly a Navy ARB (battle damage repair ship), the NCS is the training center of a Sea Cadet unit in Alexandria, Va. The boys embarked on board the bigger Lex for a cruise from Norfolk to Bayonne, N.J. Lexington has also been adopted as the name of a Sea Explorer unit in Dolton, Ill.

- **uss Intrepid (CVS 11)** – At Norfolk last summer, 40 Sea Explorer scouts boarded the ASW support carrier for an eight-day cruise; the scouts stood watches, practiced Navy knot-tying, line splicing, piloting, first aid, signaling and navigation, and ate chow with the crew. Intrepid is also the name of a converted 40-foot power boat the Navy presented to a group of San Francisco Sea Explorers in 1952.

- **uss Lake Champlain (CVS 39)** – Last January the Champ played host to 150 wide-eyed members of the Junior Naval Cadets of America at NAS Quonset Point, R.I.

- **uss Topeka (CLG 8)** – Topeka provided the name for the 33-member Girl Mariner unit of Long Beach, Calif. The Mariners boarded Topeka one day last March to celebrate their eighth anniversary in scouting, and their second anniversary as Senior Girl Scouts. In April, 14 girls of a Mariner Scout unit from Saratoga, Calif., toured Topeka at San Francisco.

- **uss Hollister (DD 788)** – A group of 32 Sea Cadets from Pomonia, Calif., embarked on board the destroyer at Long Beach one day last April for a cruise in the vicinity of Santa Catalina Island. The destroyermen introduced the boys to some principles of seamanship, gunnery and operations, then let them steer the ship.

- **uss Cabrilla (SS 288)** – Cub Scout Pack 427 of Houston, Tex., had a memorable visit to Cabrilla one day early this year when the sub tied up in the Houston ship channel on a training visit.

- **uss Cape (MSI 2)** – The Pacific Mine Force inshore minesweeper has, for the past two years, sponsored the 22-member Mariner Scout troop of North Long Beach. The Cape crew members attend weekly Mariner meetings, present safety lectures and provide seamanship instruction.

- **uss Cove (MSI 1)** – Another Long Beach-based inshore minesweeper, Cove sponsors Mariner Scout Troop 342. The Mariner scouts make many visits to the ship.

Virtually every ship in the Navy is at one time or another a center of attraction for Navy-minded youngsters. And, so are bases and stations.

The Reserve Training Center at the Naval Base in Portsmouth, N.H., is the source of much Sea Scout activity. The center has gone all out in supporting Sea Scout Ship Ranger 311. Portsmouth-based Navymen instruct the Sea Scouts in visual communications, flaghoist, rules of the nautical road, boat handling and safety at sea. The Navy has provided the Sea Scout unit with a 12-man, 20-foot launch that swishes the boys around at 18-knot speeds. And, uss Grouse (MSCO 15) a minesweeper used for training the local Naval Reserve unit, is often host to Portsmouth Sea Scouts for cruises up and down the coast.

At Great Lakes, Ill., last summer, 78 boys of the Eastern Sea Cadet Region participated in two weeks of training patterned after the type provided their older brothers in the Naval Reserve.

The Naval Station at Long Beach is another scout supporter. Last spring the station hosted the annual Mariner Girl Scout Jamboree for Los Angeles area troops. The girls displayed their nautical abilities in piloting, signaling, navigation and knot tying. They had practiced for the event all year.

Naval Base, Los Angeles, of which NavSta Long Beach is a component command, sponsors an Explorer Specialty Post for high school boys interested in service academy appointments. Field trips to investigate various aspects of military life in all the

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services are on the Specialty Post's calendar of events.

At Davisville, R. I., the Atlantic Fleet Seabees sponsor the 90-member Seabee Cub Scout Pack Two, one of the largest Cub packs in the state. The pack's 11 committeemen are all naval personnel.

In recent months the Atlantic Seabee bastion formed a Boy Scout troop for dependents of CBLant staffers, Construction Battalion Center workers, and sons of Navymen assigned to the five Atlantic battalions, Radar Picket Squadron Two and ships homeported at Davisville.

At Coronado, more than 1000 Sea Explorers were the guests of the Amphibious Base for a three-day rendezvous, during which the youngsters demonstrated what they had learned during the past year. To the surprise of seasoned Navymen, the teen-age boys proved to be most adept at pulling oars and rigging sails. The boys competed in rowing, signaling, knot tying, canoeing and line handling.

At NAS North Island one day last January, San Diego's Air Explorer Squadron 15 contacted Navy officials when it had been announced that a Navy seaplane was missing in the Pacific. The Explorers offered their services in searching for the plane. One 14-year-old said he and his fellow scouts would be happy to go on search missions, and act as lookouts, or "even just serve coffee to the pilots."

The list of enthusiastic young people goes on. During one recent fiscal year, the Boy Scouts of America said 105,000 members went on tours of various Navy shore activities, and 49,377 paid visits on board Navy ships.

During that year more than 10,000 Explorer Scouts were embarked in ships for short training cruises which provided them valuable experience at sea.

Orientation flights on board Navy aircraft were provided for 3000 Explorers at air stations throughout the country.

More than 33,000 Scouts utilized Navy training and educational facilities, while 18,593 participated in encampments at various Naval Stations.

Navy-minded young folks are not without competent leadership. Many programs are sponsored and led by Navymen who devote much of their off-duty time to youth work, providing a pat on the back and a little encouragement for the youngsters.

In Scouting alone, more than 2500 Navymen participate as leaders in their communities at home and at overseas bases.

In the Long Beach area, for example, Cub Pack 30 is led by Thomas M. Kirkman, BMC, and sponsored by the Garfield School PTA. The Assistant Cub Master is Merle Mel- ling, RDC. Both chiefs are attached to a Scout-conscious command—the Long Beach CruDes Support Group. More than 20 per cent of the command's enlisted men, and many of their wives, serve as Scout leaders. (Cub Master Kirkman's entire family is involved in Scouting. His wife is a Den Mother; their three children are scouts.)

Another scout leader is Robert F. McConnell, QMC, of the Naval Base at Portsmouth. In addition to his Navy duties as an instructor at the Naval Reserve Training Center, Bob has worked hard as the Assistant District Commissioner of the Round Table for Leadership, Boy Scouts of America, and as a committeeman of Sea Scout Ship Ranger 311.

Frederick B. Walker, BMC, of NTC Great Lakes, and Allen Sutterfield, MACM, of Washington, D. C., are among the other Navymen who
EAGER STUDENTS — Scouts of Sea Scout Ship Ranger receive nautical instructions at NRTC, Portsmouth, N. H.

have taken the time to serve their communities as scout leaders.

NAVY COOPERATION with major youth programs is clearly encouraged in official directives. SecNav Inst. 5760.6B encourages the voluntary participation of Navymen in programs sponsored by the Boy Scouts of America, particularly the Sea Explorer service.

Cooperation with the Sea Cadet Corps, as recommended in SecNav Inst. 5760.8A, authorizes the use of Naval Reserve Training facilities, training aids and other equipment.

Planning, liaison, and cooperation with the various youth programs is largely the responsibility of individual commands.

Youth contact programs administered on an official, Navy-wide basis include the Science Cruiser Program for sophomores, juniors and seniors in high school. A Science Cruise consists of a four-day tour of scientific installations ashore, and one day at sea. To participate, students prepare scientific exhibits which are judged by a panel of Navy scientists. Winners receive the five-day Science Cruise.

Basically, the Science Cruiser program is an expression of the Navy's attempts to encourage the nation's youth to develop a more active interest in science. The program, in turn, gives students an opportunity to see first-hand some recently developed scientific devices at numerous installations.

ANOTHER MAJOR Navy-wide contact with juniors is the Military Sea Transportation Service's program of summer cruises for Sea Explorers. Arrangements are made for the scouts to board MSTS ships for cruises to such areas as Hawaii, Europe, Alaska, the Far East and the Caribbean.

The boys and scout leaders pay a fee for personal maintenance, and travel under the same conditions as military troops. The youngsters follow a shipboard training schedule of daily lectures, training films and guided tours. They stand watches on the bridge and in engineering spaces. (Bridge watches are the most popular—the boys have a chance to steer the ship under close supervision.) Among the duties the boys must perform is the cleaning of their own living compartments and recreation areas.

Navy-minded youngsters who live too far inland to participate in ship- visiting excursions make do with what they have to demonstrate their seamanship. Sea Explorers, Sea Cadets and Girl Mariners can always find some way to engage in water-borne activities.

Several years ago, one story (reportedly true) goes, a member of the National Explorer Committee was motoring across Nebraska. In the midst of a prairie he came upon a group of Sea Explorers on the edge of a parched, dusty, shallow bowl. The boys were unloading two small sailboats from a trailer. A mess detail was preparing Navy beans and brown bread.

"I like your spirit," the committee-man complimented the boys. "It's too bad you have no water."

"Water?" piped a sun-burned 15-year-old. "Look astern, sir. See those black clouds over those hills? It's raining up there. The creeks are filling up, and in an hour this bowl will be a two-mile lake. If we're lucky, it won't dry up till the day after tomorrow."

Such is the spirit of youngsters, particularly land-locked junior Navymen who like ships and the sea.

—Dan Kasperick, JO1, USN.

JANGO Bears a Hand

Some youngsters maintain a variety of work-and-fun-type contacts with the Navy. Many literally roll up their sleeves and go to work as volunteer helpers in Navy Relief, Red Cross, and service canteen efforts.

In Washington, D. C., for example, the Junior Army Navy Guild Organization (JANGO) plans and coordinates worthwhile projects for daughters of servicemen.

Since the beginning of World War II, Junior JANGOs have been engaged in charitable activities, such as operating thrift shops and raising funds for needy families.

Many young girls have received nurse's aid training under JANGO sponsorship—volunteering for after-school work in hospitals. JANGO is an organization of wives, daughters, and granddaughters of commissioned service personnel.
NAVY PILOTS probably don’t smile when they come in for a landing, but perhaps they should. Sometimes they’re on TV.

The Navy has begun monitoring landings on board some carriers through the use of closed-circuit television; recording them for later study on video tape. The system is called PLAT-TV (for Pilot/LSO Landing Aid Television).

It has eliminated the “Vultures’ Roost” where earlier pilots watched the landings of others to improve their own technique.

It also eliminates the delay in having recorded landings available for study. Motion picture films were often not ready for hours, and sometimes days, after landings were made. This method was also more expensive.

Video tape, on the other hand, is ready for viewing immediately and costs less.

The importance of a pilot knowing how he landed his plane is better understood when it is noted that a Navy jet is traveling about 130 miles an hour when it hits the arresting cable. It continues a short distance before it comes to a complete stop (run out of the arresting gear is 320 feet).

Some people call this a precision landing. Others call it a controlled crash.

To record the landings, two television cameras, operated by remote control, are mounted under the angled deck’s center line.

A view of the entire flight deck is available to the operator of a third camera five decks above.

This operator follows the aircraft from the time it touches down until it stops. At this point, he zooms in to record the plane’s number then follows the arresting cable back to its normal position.

A smaller camera is located in the system’s control room. It is mounted in front of an instrument panel which shows wind velocity, date and time, aircraft speed (obtained by radar) and a wave-off signal indicator.

This information is automatically recorded and appears at the top of the picture on all monitors.

The rest of the picture shows the aircraft in relation to horizontal and vertical cross hairs etched on the camera’s tube face.

The horizontal line is calibrated along the correct approach path for aircraft landing, while the vertical line coincides with the center line of the angled deck.

In uss Constellation (CVA 64) all six ready rooms and air operations have television receivers. The landing signal officer (LSO) has one on his platform at the edge of the flight deck and the commanding officer has one on the bridge.

During landing operations, the LSO assists pilots by giving them approach directions. He makes notes and, with the assistance of video tape, can point out errors in landing techniques at briefing sessions.

Top to Bottom: (1) J. B. Hite, IC3, operates PLAT director. (2) Cameraman S. G. Peple, AN, follows launching with camera. (3) TV picture shows Skysnare about to land on uss Constellation (CVA 64). (4) Pilots watch their video tapes in ready room.

AUGUST 1963
Transfer for Separation

Sr.: I believe I read in ALL HANDS some time last year that a person stationed overseas who was being transferred back to the states for retirement could, at the discretion of his commanding officer, be transferred up to provide the man with an opportunity to scout for a job and a place to live before becoming a civilian.

BuPers Manual states that the transfer may take place 10 days before the retirement date. Which is correct? — D. D. H., YN1, USN

Before 1 Sep 1962 the Chief of Naval Personnel did permit enlisted personnel who had an approved application for transfer to the Fleet Reserve to be transferred to a separation activity of their choice up to 45 days early. This, I believe, was done to provide the man with an opportunity to scout for a job and a place to live before becoming a civilian.

BuPers Manual states that the transfer may take place 10 days before the retirement date.

Would you please clarify this point? — J. B., TMI, USN.

New Steward Rating Badge

Sr.: In April 1963 I suggested a new rating insignia for U.S. Navy stewards, consisting of an oak leaf with key. I was told that an insignia was approved by the uniform board. If this is true, when will it be authorized? — W. H. H., SDC, USN.

A new specialty mark for the steward rating has been recommended by the Permanent Naval Uniform Board and approved by the Secretary of the Navy. The design is an outline of an open book containing an overlay of a crossed key and wheat spike. The new insignia will not be authorized for wear until it is distributed through the supply system, and the effective date will be announced by a BuPers directive.

Copper-hulled Ships

Sr.: A centerspread called Oddball Ships appeared in the January 1963 issue of ALL HANDS. In one paragraph it was stated that the attack by Bushnell's Turtle could not penetrate the copper hull of the British flagship during the famous Revolutionary War submarine attack by volunteer Sergeant Ezra Lee. I recall reading somewhere that this attack was foiled, not by the copper bottom of HMS Eagle, but by a heavy mixture of coal tar and fiber that was standard on the bottoms of British men-of-war of that day. I believe it was to be something like four more years before the British used copper on their ship bottoms.

Would you please clarify this point? — C. Y., LCDR, USN.

Dr. Howard I. Chappelle, authority on sailing ships in the Smithsonian Institution, informs us that copper sheathing made its first appearance in the British Navy on the frigate Eliza in 1764, 12 years before the Revolutionary War. The sheathing was so successful that within little more than two years, general use began on warships of the British Fleet. Although many authorities speak of Eagle's copper hull there is, of course, no way of knowing that she was copper-sheathed at the time of the attack by Bushnell's submarine Turtle, or that the auger of the torpedo was fouled by the sheathing.

We find no indication of common use of a coal tar and fiber mixture on bottoms of British warships of that day. Pine tar was in use, but the most common mixture found in British shipyard docking records is a whitewash mixture of lime and tallow which discouraged marine growth and made the hull slightly less resistant when passing through the water.

It is possible that USS Eagle had...
impede the progress of the torpedo auger. With the tiny submarine in a state of submerged flotation balance, there would naturally be minimum pressure brought to bear on the auger lead screw, and thus a very slight obstruction might have prevented its penetration of the hull.—Ed.

Separation Overseas

Srn: I am an officer in the Regular Navy anticipating separation from active duty while my ship is in the Mediterranean.

According to the BuPers Manual, I may be released in Europe for purposes of travel if I submit a request to that effect containing a statement that permission has been obtained from the governments of the countries in question.

My problem is how to obtain this permission. Will a simple statement from the foreign Consulate General in New York City suffice or should I formally request permission of the foreign governments in question?

I would also like to know whether I am entitled to transportation to the United States from Europe at government expense. — P. E. M., LTJG, USN.

- You do have to obtain a foreign government's permission to travel in its country after an overseas separation.
- To get information on how and to whom to apply for permission, you should consult the Naval Attaché, U. S. Embassy, of the countries in which you wish to travel.
- You are entitled to transportation to the United States at government expense provided you return within a year of your separation. — Ed.

Administrative Advancements

Srn: A question has arisen at this command concerning the administrative advancement status of enlisted men who have become temporary officers.

May an E-6 or E-7 (acting) be advanced to E-7 (permanent) upon being commissioned to the grade of ensign or lieutenant junior grade (temporary)? — W. L. K., YN2, USN.

- Yes, he may. BuPers Inst. P-1430-7D, the pertinent directive for this situation, provides for administrative advancement from E-6 to E-7 (acting) after promotion to temporary commissioned status. Temporary officers may have their permanent enlisted status changed from CPO (acting) to permanent when they meet the service in pay grade requirements—three years.

As an example, let's say that an E-6, promoted to ensign (LDO) on 1 Jan 1961 had been an E-6 since 16 May 1959. Therefore, he fulfilled the service in pay grade requirements for advancement to E-7 (three years) on 16 May 1961 and was advanced to E-7 (acting) on that date. A recommendation for change of status to permanent E-7 should be submitted to BuPers in time to effect the permanent status on 16 May 1964. — Ed.

No Patches for AUWs

Srn: I'm serving on board a carrier in the Weapons Division of the Gunnery Department. The division likes to be called an Advanced Underseas Weapons Group.

One of the first things new men have done after checking into the division has been to sew an Advanced Underseas Weapsonian patch on their uniforms, no matter how little training in this field they may have had. Rates represented in the division are TM, GM and MN.

I have been told by several commands that the patch is outdated and should not be worn. Others say as long as you're in the Advanced Undersea Weapons program you are allowed to wear one.

What's the straight scoop? Also, how long have these patches been in use? — A. J. K., TM2, USN.

- The Advanced Undersea Weaponsman designation was established in 1948. An appropriate distinguishing mark, or sleeve patch, was authorized in February 1949.

Now, however, the sleeve patch is not authorized for wear, owing to cancellation of the qualifications for AUW.

- Change One to the current edition of "Uniform Regulations" has deleted the AUW badge from the list of authorized distinguishing marks. — Ed.

O'Brien Is A Tough One

Srn: I had the pleasure of seeing a copy of ALL HANDS Magazine recently and was most interested in a history of a Navy ship which you mentioned.

During World War II, I served in uss O'Brien (DD 725). I left her in 1945 and have often wondered what became of her.

Could you tell me if she is still in the Fleet? — E. G., Milwaukee, Wis.

- You picked yourself quite a ship in which to serve. You didn't say when in 1945 you left O'Brien but we assume it was when she reached Mare Island.

- O'Brien was repaired at Mare Island. However, a directive of May 1947 placed her out of commission in reserve attached to the Pacific Reserve Fleet.

O'Brien was a comparative late-comer

GOOD GROUP — Members of a Wave drill team, dressed in white uniforms with fourragères, look sharp as they stand by for an inspection.
AFTER SCORING three hits on drone in as many attempts, USS Springfield's CLG 7 Fox Division put a smile on their missile director.

to the war, being commissioned on 25 Feb 1944 but she was in the thick of battle with her first combat assignment—shepherding a fleet of 30 large infantry landing ships into Omaha Beach on D-Day.

Later, O'Brien was well inshore and slamming away at German shore batteries whileaviest Texas (BB 35) was farther offshore lobbing her 14-inch shells over O'Brien into Cherbourg.

Before long, the Nazi's long rifles which had been concentrating on other targets centered their attention on O'Brien.

Although the destroyer dodged and maneuvered, it was only a matter of time before O'Brien was straddled and a German shell hit the aft part of the bridge.

In spite of damage, O'Brien kept up her fire about three and one-half hours and furnished a smoke screen for Texas which had been hit, probably saving the battleship from more injury from shore.

O'Brien went to England for temporary repairs then returned to the United States for major repairs.

Later she joined the Third Fleet in carrier strikes against Luzon in connection with the Leyte landing operations.

At Ormoc Bay on 7 Dec 1944, O'Brien came under heavy attack by suicide planes which severely damaged uss Ward (APD 16). O'Brien's crew helped Ward's men fight her fires and engaged in rescue operations, but the fires were out of control and Ward was eventually sunk by salvos from O'Brien's guns.

In December 1944, O'Brien participated in the invasion of Mindoro which, to battle-wise O'Brien men, was considered very calm.

After Mindoro, O'Brien joined in the pre-invasion bombardment in the Lingayen Gulf. It was here, while she was escorting minesweepers and demolition teams in small boats around the gulf, that O'Brien came under a terrific Japanese suicide attack and was hit in her port side by a single engine plane which exploded, opening up a large hole in the destroyer's side.

Damage control parties stuffed mattresses and odd bits of lumber against the gaping hole and kept O'Brien on the job until invasion troops took over two days later. Only then did O'Brien return to Leyte for temporary repairs.

After a couple of repair jobs, O'Brien was again in the thick of things joining a carrier group for the first raid on Tokyo. This time she approached to within 90 miles of the Japanese capital while on picket duty far ahead of the rest of the Fleet.

O'Brien then divided her time between Tokyo raids and action against Iwo Jima and Okinawa. It was on 27 Mar 1945 that a Japanese suicide plane skinned out of Okinawa's low clouds and hit O'Brien just aft of the bridge, exploding a magazine. Twenty-eight men were killed outright, 22 were missing and more than 100 were injured.

Outstanding examples of devotion to duty under extremely adverse conditions helped O'Brien survive and, after receiving temporary repairs at an advance base, she returned to Mor Island where the extent of her damage can be judged by the 298,000-plus manhours it took to make her ready for Fleet duty again.

O'Brien came out of mothballs in 1950 for the Korean fighting and earned five battle stars in that conflict. She is still active with the Pacific Fleet.

Rendering the Salute

Smn: Page 112 of the training course, Basic Military Requirements (NavPers 10054-A), while discussing when to salute, says "... if you (an enlisted man) are walking with an officer and an enlisted man approaches and salutes the officer, you also return the salute when the officer does so."

Since this course is an authoritative document and a required course for all enlisted personnel, I would like to know if the above is correct and a part of traditional naval etiquette?

I believe that the actions indicated by this statement are not and have not been carried out by enlisted men of the Navy and further, that for them to do so would be of questionable value to the naval service. —G. F. P., ENCM, USN

- The text is correct. This question has been raised before by other readers, so—in an effort to answer it once and for all—an inquiry was made directly to an outstanding source of knowledge regarding naval customs and traditions, VADM Leland P. Lovette, USN (Ret). Admiral Lovette concurred with the propriety of the practice, and stated that it had been carried out in some commands, particularly training commands, as early as World War I.

Keep in mind that the salute is a gesture of mutual respect and a sign of comradeship and courtesy among ser-
Pink, White and Blue

Sir: I understand there is a U. S. Navy ship in commission and active in the Caribbean which is painted white. It is not a hospital ship nor a Coast Guard ship.

If my memory serves me correctly, ALL HANDS ran a pictorial story on the subject some time ago but I was unable to find it.

Would you please give me its name and hull number? Also please tell me what the ship’s duties are and if there are other U. S. Navy ships painted white.—E. E. M., RM2, USN.

Big, Bigger, Biggest

SIR: The caption on the picture of a floating crane on page 14 of the April 1963 issue has caused quite a controversy at the Naval Shipyard, Long Beach, Calif. The caption reads, “NSC Crane in Pacific.”

The caption did not mention the fact that YD 121 has a sister crane (YD 120) with the same dimensions, attached to the same U. S. Navy ship in commission and active in the Caribbean which is painted pink.

What about the granddaddy-of-them-all floating crane at Long Beach?—B. A. G., GMT1, USN.

Our Editor in Charge of Qualifying Captions to Prove ALL HANDS Correct informs us that Pearl Harbor is in the Pacific, whereas Long Beach is in the continental limits of the U. S. He was unable, however, to explain why the caption read “NSC” (Naval Supply Center), instead of Naval Shipyard—though he tried to squeeze through with the limp explanation that both activities are within the confines of the same naval base.

The crane in the photograph is YD 82. It has a maximum lifting capacity of 50 light tons using a maximum boom radius of 95 feet. Its pontoon structure measures 105 feet by 70 feet, and it has a draft of 12 feet. It was built in 1943. It is not Pearl’s biggest crane.

The largest floating crane at Pearl Harbor is the one at the naval shipyard, designated YD 121, which has a lifting capacity of 125 light tons using a boom radius of 100 feet. Her pontoons measure 140 feet by 81 feet and draw 16 feet of water. She was built in 1947.

Our caption did not mention the fact that YD 121 has a sister crane (YD 120) with the same dimensions, attached to COMMADMARENAS, Guam.

The largest floating crane at Long Beach, designated YD 171, is considered to be the largest floating crane in the world. It can lift 345 light tons at a 115-foot boom radius. Her beam of 109 feet presented somewhat of a problem to the Navy when she was brought through the Panama Canal, because the lock width is 110 feet. YD 171 was built in Germany in 1941 and was acquired by the U. S. in 1946 under the tripartite agreement on reparations. Her pontoons measure 206 feet by 109 feet, and she draws 17 feet of water. —Ed.

Mount Captain’s Insignia

Sir: Is a gunner’s mate who is a mount captain eligible to wear the Mount Captain’s Insignia?

NEW LOOK ON AD — USS Tidewater (AD 31), shown cruising by Morro Castle, sports new helicopter platform that was added during overhaul.

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mount captain's distinguishing mark on his uniform? I have been captain of a 3-inch/50 caliber mount for two years.

Also, I would like to know if a gold rating badge and hash marks must be worn on the undress blue jumper, providing, of course, the person is eligible for them?—W. C. S., GM2, USN.

- Sorry to disappoint you, but as a gunner's mate, you are not authorized to wear the mount captain distinguishing mark. According to Article C-7506 of the "BuPers Manual," gunner's mates and medical and dental ratings are not eligible for this insignia.

A recent change to "Uniform Regulations," which will be announced in the near future, has done away with the requirement for wearing gold service stripes and rating badges on undress blue jumpers. Men who are eligible will continue to wear gold service stripes on the dress blue jumper, but will wear the blue rating badge (scarlet chevrons) on the undress blue jumper.—Ed.

Barber Shop Regs

Sir: A Navy barber's examination I took recently had a question which I am not sure I answered right. The question was: Can a ship's serviceman (barber) give haircuts to civilians (retired or dependent) in a Navy Exchange barber shop at which the man is stationed?

There has been quite a bit of discussion around here about whether we are supposed to give civilians haircuts.—J. B. R., SH2, USN

- The barber shop is a part of the Navy Exchange, and all authorized patrons are entitled to its services. Navy Exchange regulations say that certain dependents and retired personnel are authorized patrons and, as such, are entitled to the services established by local authority.

Authorized patrons are identified by official identification cards. Regulations governing this point are in the "Navy Exchange Manual," paragraph 2412.—Ed.

Still More on Clamagore

Sir: I was pleased to see Clamagore stick up for the correct spelling of her name in the January 1963 issue of ALL HANDS. The Three Faces of Clamagore in the February issue was also interesting reading. Here is a possible fourth face of Clamagore.

In my normal career pattern as a naval aviator I have had little direct association with submarines. I do, however, claim the dubious distinction of having served as perhaps the only air group commander in uss Clamagore (SS 343).

While serving on board uss Forrestal (CVA 59) in the summer of 1960, I managed to wangle a "visiting fireman" berth in Clamagore for a two-day transit of our task group from Genoa to Barcelona. (This might be classed as a part of the people-to-people program, but mostly it was in "retaliation" for Forrestal's hosting two Clamagore officers in that carrier. These officers, planning to be on board Forrestal only a few days, spent two weeks as our guests after Clamagore, one dark night, left Naples on a special mission.)

I reported on board Clamagore the night before the task group was scheduled to sortie from Genoa. Clamagore was to play the role of the enemy, opposing the sortie. However, a last-minute change of plan occurred. An Italian TV concern had requested permission from COMSIXTHFLT to photograph an American submarine. Clamagore was elected, and her departure from Genoa was delayed until after the rest of the task group had left. Then, within minutes of Clamagore's departure to rejoin the group, a CPO arrived with a draft of 85 men for Forrestal. Tired and hungry, the men had just arrived by train from Naples—too late to catch their ship.

Without batting an eye, the executive officer hustled them on board. The reaction of the Chief of the Boat, faced with a more than 50 per cent increase in the size of the crew, was equally casual. I was impressed with Clamagore's cheerful acceptance of this sudden onslaught of visiting relatives.

With an attitude in which the silent service can take pride, Clamagore made sleeping and chain-feeding arrangements to accommodate the 85 guests. My "orders" were rapidly modified to include collateral duty as air group commander, weight and balance officer, and

NEW FISH — Polaris-toting submarine, USS Lafayette (SSBN 616) leaves a white wake in Atlantic waters as she cruises during builder's trials.
was again the "enemy." The training consisted of eight practice dives, with the guest teams observing procedures from key control points in the boat, and informal lectures given on the operation of various items of equipment. For recreation, the captain stopped the boat in mid-Med, life lines were rigged, the shark-shooter watch was posted, and we all went swimming. On the morning of the opposed entry into Barcelona, Clamagore was again the "enemy." Periscope in several other tongue-in-cheek functions. And away we went.

To this day, there's a warm spot in my heart for Clamagore—for the pleasure of the cruise, for the distinction of being an honorary lifetime member of her crew, and for the way she demonstrated that the Navy takes care of its own.

So come on, everybody—let's quit calling her Clamagore. — W. F. Foster, LCDR, USN

* A very good sea story. And notice that Clamagore is spelled correctly in this issue, LT Finster.—Ed.

Rearming Early DDs

SIR: In your reply to C. F. Allen's letter about the armament of six old four-stacker DD's (ALL HANDS, March 1963), you stated that the 5-inch guns on "Hatfield" (DD 231), "Brooks" (DD 232), "Gilmer" (DD 233), "Fox" (DD 234) and "Kane" (DD 235) were replaced with the 3-inch/50-caliber variety. I don't claim to know more than the BuShips experts, but if my memory serves me correctly, "Fox" had four 4-inch guns for her main armament, and I believe the same thing goes for "Hatfield.

Also, "Fox" and "Hatfield" were not reclassified as fast transports (APD) as far as I can recall. "Hatfield" was reclassified as an AG in 1944, and in the same year I happened to be at the Bremerton Navy Yard when "Fox" was converted to AG 85. The following year I was in Norfolk when "Fox" was decommissioned according to my recollections.

I don't know what became of "Hatfield" but I imagine she, like "Gilmer," was armed, as stated, with four 5-inch and one 3-inch guns, but during World War II she carried four 4-inch/50 caliber and one 3-inch/23 caliber guns.

The ship's history verifies that "Fox" was converted from DD 234 to AG 85 at the Puget Sound Navy Yard in October 1944. She was decommissioned 29 Nov 1945 at Norfolk.

"Hatfield" was reclassified from a DD to a miscellaneous auxiliary (AG 84) in September 1944 for use as a target-towing ship, decommissioned at Bremerton on 13 Dec 1946 and sold for scrap in May 1947.

As for the other three ships, we were correct about their conversion to APDs. "Brooks" became APD 10, "Gilmer" APD 11 and "Kane" APD 18. As you state, their primary armament in World War II was three 3-inch/50 caliber guns. Each also carried two 40-mm single AA mounts.—Ed.

Ship Reunions

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

- USS Barb (SS 220) — The reunion date has been changed to 16, 17 and 18 August at Pascagoula, Miss. For details, write to RADM E. B. Fluckey, USN, 1326 Barger Drive, Falls Church, Va.
- USS Bonaditch (ex-AG 30, later AGS 4) — A reunion is scheduled for 1 October at Portsmouth, Va. For information, write to LTJG H. F. B. Delamore, USN, 1326 Barger Drive, Falls Church, Va.
- USS Clamagore (DD 234) — The annual reunion for those who cruised with the ship's history verifies that "Fox" was converted from DD 234 to AG 85 at the Puget Sound Navy Yard in October 1944. She was decommissioned 29 Nov 1945 at Norfolk.
- USS Clamagore (DD 234) — The annual reunion for those who cruised with the Great White Fleet—the reunion for World War II shipmates will be held in Boston, Mass. For further information, write to Paul Carter, 804 4th Ave., Iowa City, Iowa.
- USS Clamagore (DD 234) — The annual reunion for those who cruised with the Great White Fleet—the reunion for World War II shipmates will be held in Boston, Mass. For further information, write to Paul Carter, 804 4th Ave., Iowa City, Iowa.
- USS New Mexico (BB 40) — The sixth annual reunion will be held in San Diego, Calif., on 31 August. Write to Joe Allegretti, 744 E. Delmar, Orange, Calif.
- VB 110—A reunion of Heavy Bomber Squadron 110 (VPB 110) is being planned for the week end of 6-8 September in Washington, D. C. Former members are requested to write to RADM James B. Reddy, USN, Commander Task Force 43, Building D, Sixth and Independence Ave., SW, Washington 25, D. C. for details.
This Is PCH-1, Hydrofoil ASW Ship

The United States Navy's newest antisubmarine warfare vessel, High Point (PCH 1), recently "flew" on the waters of Puget Sound, Wash., in a trial run before admiring eyes of the Fleet and the rest of the world.

High Point is the first operational-type hydrofoil ship to be built for the U. S. Navy (See All Hands, October 1960). Over-all length of the vessel is 115 feet, her beam is 31 feet and her full load displacement is 110 tons.

Designed to exceed 40 knots, the new vessel has two modes of travel—that of a conventional ship, on the hull; and flying on her foils with the hull clear of the water.

The trial was one in a series of exhaustive tests to investigate an antisubmarine warfare system which may counter some of the advantages gained by the new, highly maneuverable submarines.

Designed by the Bureau of Ships and built at Tacoma, Wash., High Point was launched on 17 Aug 1962.

A hydrofoil is a boat with underwater wings. The wings are connected to the hull by struts. As the craft moves forward, the foils generate lift forces in the same manner as an airplane's wing. As a result, the boat's hull is lifted clear of the water, resistance is reduced and speed is increased.

Two general types of foil systems are used for hydrofoils—surface-piercing and submerged. In the surface-piercing system (the most common) part of the foil system extends above the water surface. Since the amount of foil which is submerged tends to remain constant, the system has built-in righting forces which keep the craft upright. It also means that the system has built-in wave-following tendencies, which will produce a rough ride in high seas.

The other type is a flat foil system in which the foils operate wholly submerged below waves and rough water. The righting forces inherent in the other system must be provided by flaps or other means, as in airplanes. As long as the waves do not exceed the length of the struts, the hydrofoil with the wholly submerged foil system will be capable of operating in almost any weather.

The foils on the PCH and other present-day hydrofoil craft are "subcavitating." They have been designed to operate with a smooth flow of water over the foil surfaces, both top and bottom. As the foil speed through the water increases, pressure on the upper surface decreases, thus producing the lifting force. However, when the pressure on the upper surface drops too far, a vapor cavity is formed. The result is loss of lift and increased drag.

This phenomenon is referred to as cavitation and at present imposes a speed restriction on hydrofoil craft. Experimental work has indicated the possibility of designing a foil which would operate at "supercavitating" speeds, with a vapor cavity above a large portion of the foil surface.

High Point differs from the standard hydrofoil and uses the wholly submerged foil system. It has control surfaces on the foils, similar to aircraft ailerons, to control its course through the water. The foils will maintain level "flight," controlled by an electronic height-sensing system. The pilothouse itself is similar to an aircraft cockpit, complete with an "automatic pilot," aircraft bucket seats on sliding rails and aircraft-type throttle controls.

The hydrofoil has a draft of approximately 17 feet when the ship is resting on the water with foils fully extended. When the foils are retracted, draft is six feet. The average draft when the craft is "flying" on her foils is approximately six and one-half feet.

The forward foil is held by a single strut going down from the keel near the bow. Two struts, one on each side of the keel near the stern, support the after foil. These struts extend down more than 14 feet from the hull. Main propulsion comes from two gas-turbine engines, each driving two counter-rotating propellers (located at the base of each after strut) through two right-angle transmissions connected with a drive shaft in the strut.

When hullborne, High Point is powered by a diesel engine driving a conventional propeller.
PT Boats Rejoin Fleet

AFTER 18 YEARS, PT boats are back with the fighting Fleet.

Fast patrol boats PTF 1 through PTF 4—slightly larger, sleeker and faster than the colorful motor torpedo boats of World War II—have been assigned COMPHIBLANT for training and operations with Navy Sea-Air-Land (SEAL) teams. SEAL teams include Navy swimmers trained in guerilla and anti-guerilla tactics.

Each of the four new boats is a result of post-war experiments with PT design. Each is sleek and uncluttered; tailored for maneuverability and 45-knot speeds.

PTF 1 and PTF 2 were first commissioned in December 1950 and March 1951, respectively. Originally designated PT 810 and PT 811, they were two of four boats built to experimental designs by different U. S. shipbuilders. The four experimental types (the other two were designated PT 809 and PT 812) formed Motor Torpedo Squadron 1 in the Atlantic Fleet Operational Development Force from 1954 to 1959.

In November 1959, PTs 810 and 811 were placed in mothballs, and PT 809 was assigned to the Potomac River Naval Command where, under the name Guardian, she has served as a Civil Defense boat and Presidential escort. PT 812 was removed from active—if experimental—service.

Reactivated late last year for conversion to fast patrol boat status, PTs 810 and 811 were stripped of torpedo tubes and other weighty, not-necessary-for-the-job gear, and redesignated PTFs 1 and 2.

Both are of all-aluminum construction, larger than World War II PTs, with greater displacement, range and stability. PTF 1 is of half welded and half riveted structure. PTF 2 is of all-welded structure—the first (when she was built as PT 811) all-welded aluminum ship ever constructed. Respective measurement statistics of PTFs 1 and 2 are: Length, 89 feet and 94 feet; beam, 24 feet and 25 feet.

PTF 3 and PTF 4, known as "Nasty" class boats, were built in Norway and purchased by the U. S. Navy with SEAL team operations foremost in the minds of defense planners. The Norwegian-built PTFs, also tailored as experimental types, are 80 feet in length, measure 24 feet at the beam, and displace 81 tons (full-load displacement). They are made of thin mahogany sandwiched around fiberglass, which results in strength that will stand up in the heaviest of seas.

Each of the PTFs has firepower in 20- and 40-mm guns (surface and antiaircraft), and manpower in the form of 3 officers and 16 enlisted men.

Deck plates are built into PTFs 3 and 4 for easy installation of torpedo tubes and an 81-mm mortar, if such weapons are ever needed.

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### U.S. NAVY SERVICE CRAFT and DESIGNATIONS

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<th>Designation</th>
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<td>Garbage Lighter (Self-propelled)</td>
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#### Miscellaneous Auxiliary

YAG

### ADDITIONAL SHIPS — IN RESERVE

(The following types are not now part of the active operating Fleet, but could be reactivated if necessary in the event of mobilization. Also in the Reserve Fleet are many of the types listed in the centerspread.)

#### COMBATANT

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<tr>
<th>Class</th>
<th>Designation</th>
<th>Submarine Chaser (136')</th>
<th>PCS</th>
<th>Auxiliary Aircraft Transport</th>
<th>Distilling Ship</th>
<th>Large Auxiliary Floating Drydock</th>
<th>SERVICE CRAFT</th>
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<tr>
<td>Battleship</td>
<td>BB</td>
<td>Submarine Chaser (136')</td>
<td>PCS</td>
<td>Auxiliary Aircraft Transport</td>
<td>Distilling Ship</td>
<td>Large Auxiliary Floating Drydock</td>
<td>SERVICE CRAFT</td>
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<tr>
<td>Light Cruiser</td>
<td>CL</td>
<td>Submarine Chaser</td>
<td></td>
<td>Passive Support</td>
<td>Passive Support</td>
<td>Auxiliary Aircraft Transport</td>
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<tr>
<td>Anti-Aircraft Light Cruiser</td>
<td>CLAA</td>
<td>Cargo Ship and Aircraft Ferry</td>
<td>AKV</td>
<td>Auxiliary Aircraft Transport</td>
<td>Distilling Ship</td>
<td>Large Auxiliary Floating Drydock</td>
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<tr>
<td>Inshore Fire Support Ship</td>
<td>IPS</td>
<td>Submarine Oiler</td>
<td></td>
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<tr>
<td>Medium Landing Ship (Rocket)</td>
<td>LSMR</td>
<td>Self-Propelled Barracks Ship</td>
<td>APB</td>
<td>Auxiliary Aircraft Transport</td>
<td>Distilling Ship</td>
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<tr>
<td>Minelayer, Destroyer</td>
<td>DM</td>
<td>Battle Damage Repair Ship</td>
<td>ARB</td>
<td>Auxiliary Aircraft Transport</td>
<td>Distilling Ship</td>
<td>Large Auxiliary Floating Drydock</td>
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<tr>
<td>Fleet Minelayer</td>
<td>MMF</td>
<td>Salvage Craft Tender</td>
<td>ARST</td>
<td>Auxiliary Aircraft Transport</td>
<td>Distilling Ship</td>
<td>Large Auxiliary Floating Drydock</td>
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<tr>
<td>Coastal Minesweeper (Old)</td>
<td>MSCO</td>
<td>Aircraft Repair Ship (Aircraft)</td>
<td>ARVA</td>
<td>Auxiliary Aircraft Transport</td>
<td>Distilling Ship</td>
<td>Large Auxiliary Floating Drydock</td>
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</tr>
<tr>
<td>Escort (180')</td>
<td>PCE</td>
<td>Aircraft Repair Ship (Engine)</td>
<td>ARVE</td>
<td>Auxiliary Aircraft Transport</td>
<td>Distilling Ship</td>
<td>Large Auxiliary Floating Drydock</td>
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</table>

#### TYPES ASSIGNED ELSEWHERE (MST, MILITARY ASSISTANCE, LOAN OR LEASE, ETC.)

<table>
<thead>
<tr>
<th>Class</th>
<th>Designation</th>
<th>Submarine Chaser (136')</th>
<th>PCS</th>
<th>Auxiliary Aircraft Transport</th>
<th>Distilling Ship</th>
<th>Large Auxiliary Floating Drydock</th>
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<tr>
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<td>LSSL</td>
<td>Missile Range Instrumentation Ship</td>
<td>AGM</td>
<td>Auxiliary Aircraft Transport</td>
<td>Distilling Ship</td>
<td>Large Auxiliary Floating Drydock</td>
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<tr>
<td>Escort (180')</td>
<td>PCE</td>
<td>Cargo Ship, Dock</td>
<td>AKD</td>
<td>Auxiliary Aircraft Transport</td>
<td>Distilling Ship</td>
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<td>Patrol Escort</td>
<td>PF</td>
<td>Transport</td>
<td>AP</td>
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<td>Small Coastal Transport</td>
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<td>Yard Floating Drydock</td>
<td>YFD</td>
<td>Yard Floating Drydock</td>
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<tr>
<td>Vehicle Cargo Ship</td>
<td>LSV</td>
<td>Vehicle Cargo Ship</td>
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<td>Auxiliary Aircraft Transport</td>
<td>Distilling Ship</td>
<td>Large Auxiliary Floating Drydock</td>
<td>SERVICE CRAFT</td>
</tr>
</tbody>
</table>

The table above lists various types of service craft and designations used by the U.S. Navy, including those in reserve and elsewhere. Each entry provides the type of craft, its primary function, and a color or designation code.
Mobile Command Post

uss Wright (CC 2), the Navy's second fully equipped mobile command post, has been put into commission at Bremerton, Wash.

uss Northampton (CC 1) is currently operating with the Fleet, and the auxiliary aircraft transport Saipan (AVT 6) is being converted to CC 3 at Mobile, Ala.

Wright's command spaces provide facilities similar to those of command posts ashore for theater-type presentations. This includes projection equipment and extra-large motion picture screens.

The ship is also equipped with wall-sized status boards and maps mounted on tracks so they can easily be moved into view.

Wright's antenna deck has the largest and most powerful transmitting antennas ever installed in a United States naval vessel.

More than 200 of the ship's 1720-man complement are required to operate and maintain the ship's radio, antennas and other communications equipment.

One of Wright's spaces is given completely to the ship's teletype printers each of which can record incoming messages at 100 words per minute. Wright is capable of handling as many messages in a day as does a major shore-based communications station.

Wright will provide top echelon commands and their staffs with the most extensive communications facilities ever placed on board ship.

In the Persian Gulf

uss Valcour (AVP 55) has relieved Duxbury Bay (AVP 38) as flagship of the U. S. Middle East Force in the Persian Gulf and Indian Ocean area.

COMMDEASTFOR flag-shifting ceremonies were held at Aden (southeast tip of the Arabian peninsula) in July.

The veteran seaplane tender (Valcour was launched during World War II) is no stranger to her present area of operations. The ship's seven-month deployment there is her 14th. Several of Valcour's 185 officers and enlisted men claim to have been on board for as many as seven of those cruises.

This Group Gets Deep Scoop

A concentrated effort to solve many of the problems associated with deep ocean operations is under way with the establishment of a Deep Submergence Systems Review Group.

Headed by RADM E. C. Stephan, usn, a veteran submariner and Commander of the U. S. Naval Oceanographic Office, the DSSRG will review and formalize into one program all of the Navy's continuing efforts to shed light on various unanswered questions peculiar to deep water activities.

Among other things, DSSRG will coordinate oceanographic research programs which have been in progress for many years, and formulate plans for deep research vehicles.

The immediate objective of the group is to examine Navy plans concerned with the development of components and systems for locating, identifying, and recovering large objects from the ocean floor. In this connection, the group will review various programs now under way, and will make recommendations to CNO and SecNav.

In addition to having a full-time staff of experts, RADM Stephan will receive assistance from representatives of the Chief of Naval Operations, Office of Naval Research, and various Navy Bureaus (Medicine and Surgery, Ships, Weapons, and Yards and Docks).

SELECTED NAVAL Reservists from 50 Connecticut cities go aboard USS Coates (DE 685) at New Haven one week end a month for ASW training.

On 1 Aug 1943 the U. S. Naval Station at Roosevelt Roads, Puerto Rico, was established. On 1 Aug 1944 organized resistance ceased on Tinian, and a naval air base was established there.

On 2 Aug 1943 a naval task force bombarded Kiska, Aleutian Islands. On 2 Aug 1943 PT 109 was sunk in a collision with an enemy ship. On 6 Aug 1943 the Battle of Vella Gulf began shortly before midnight; three Japanese destroyers were sunk and one was damaged. On 14 Aug 1898 the blockade of Cuba by U. S. Naval forces was withdrawn.

AUGUST 1963

YESTERDAY'S NAVY

35
Meet Your New CNO—ADM McDonald Succeeds ADM Anderson

As of 1 August, Navymen have a new CNO. He is Admiral David L. McDonald, USN, successor to Admiral George W. Anderson, Jr., USN, who was CNO for the past two years. Admiral McDonald thus becomes the Navy’s 17th Chief of Naval Operations. Admiral Anderson—President Kennedy’s choice for U. S. Ambassador to Portugal—has entered retirement, closing out an illustrious naval career.

Admiral McDonald attained his present rank on 1 April this year, when he assumed duties as Commander in Chief, U. S. Naval Forces, Europe, in London. He was in this post only a matter of weeks before being selected for CNO.

This marks the second time that Admiral McDonald has succeeded Admiral Anderson in an important position. The first time was on 28 July 1961, when he relieved CNO-bound Admiral Anderson as Commander Sixth Fleet in the Mediterranean. At that time, Admiral McDonald received a concurrent promotion to Vice Admiral.

A native of Maysville, Ga., Admiral McDonald was appointed to the Naval Academy from that state in 1924. He was graduated and commissioned Ensign on 7 June 1927. He took his flight training at Pensacola in 1930.

His early service included sea duty in the battleships Mississippi (BB 41) and Colorado (BB 45), in Fighting Squadron Six on the carrier Saratoga (CV 3), and the aviation unit on the cruiser Detroit (CL 8). He spent shore duty time with the Navy Rifle Team at National matches, and as an instructor at NAS Pensacola, Fla.

At the outbreak of World War II, Admiral McDonald was serving as Flag Secretary to Commander Aircraft, Atlantic Fleet, and later served on the staff of Commander Naval Air Operational Training Command, Jacksonville, Fla.

During the latter phases of the war, Admiral McDonald was Air Officer and Executive Officer of the carrier Essex (CV 9), and Operations Officer on the staff of Commander Air Force, Pacific Fleet. He was awarded the Bronze Star Medal with Combat "V," two Letters of Commendation with Ribbon and Star, and is entitled to wear the Presidential Unit Citation ribbon for service on Essex.

In July 1947 Admiral McDonald reported to the Bureau of Aeronautics, Navy Department, to serve as Director of Military Requirements, and later, as Aide to the Assistant Secretary of the Navy for Air and to the Under Secretary of the Navy.

He commanded the carrier Mindoro (CVE 120) for a year in 1951-52 and, after a tour of duty as Assistant Chief of Staff for Operations to the Commander in Chief, Pacific Fleet, served a year as commanding officer of the carrier Coral Sea (then CVB 43).

In November 1955 Admiral McDonald was assigned as Director of the Air Warfare Division, Office of the Chief of Naval Operations, and from November 1957 until October 1960, he was assigned as Deputy Assistant Chief of Staff at Supreme Headquarters Allied Powers, Europe. He next became Commander Carrier Division Six, and then took over as Commander Sixth Fleet.

Admiral Anderson, the outgoing CNO, is also an aviator and graduate of the Naval Academy (class of 1927). He took his flight training at Pensacola in 1930.

He served on board several cruisers and aircraft carriers during his early years in the Navy, and in 1940 reported to Washington, D. C., for duty in the old Bureau of Aeronautics Plans Division. During this assignment, Admiral Anderson helped plan the American aircraft program for World War II.

Later in the war Admiral Anderson served in USS Yorktown (CVS 10) and as Plans Officer on the Staff of Commander Air Force, U. S. Pacific Fleet. From March 1944 to April 1945, he was Assistant to the Deputy Commander in Chief, U. S. Pacific Fleet and Pacific Ocean Areas.

He then returned to Washington to become Aviation Officer in the Strategic Plans Section on the Staff, Commander in Chief, U. S. Fleet. After the war, while assigned to the office of the CNO he served in western hemisphere defense programs and with the Joint War Plans Committee of the Joint Staff.

In July 1948 Admiral Anderson took command of the aircraft carrier USS Mindoro, and following this he attended the National War College in Washington.

Several sea duty billets followed: He was Fleet Operations Officer on the staff of Commander Sixth Fleet; senior U. S. officer in Plans and Operations on the staff of the Supreme Allied Commander in Europe; and then commanding officer of USS Franklin D. Roosevelt (CVA 42).

The admiral returned to Washington in 1953 to become Special Assistant to the Chairman of the Joint Chiefs of Staff, then went back to sea duty in 1955 as Commander Formosa Patrol Force. After that he served as Chief of Staff, Joint Staff, Commander in Chief, Pacific;
then was promoted to Vice Admiral and assigned as Chief of Staff and Aide to the Commander in Chief, Pacific. After a little over a year as Commander Carrier Division Six, he took command of the U. S. Sixth Fleet in the Mediterranean in September 1959.

Admiral Anderson holds the Distinguished Service Medal, the Legion of Merit, the Bronze Star Medal, the Commendation Ribbon (Navy), the Commendation Ribbon (Army), the Presidential Unit Citation Ribbon with one star, American Defense Service Medal, the American Campaign Medal, Asiatic-Pacific Campaign Medal with two stars, the World War II Victory Medal, and the National Defense Service Medal. He was also awarded the Order of the British Empire, rank of Honorary Officer.

**Independence Overhauled**

After five months in drydock at the Norfolk Naval Shipyard, uss *Independence* (CVA 62) is back in operation. The carrier went through a repair/modification process that puts her in like-new condition.

Work was done from the bottom of her hull to the tip of her highest mast. Machinery spaces, main engines, boilers and pumps were completely overhauled. Voids were inspected and many gauges and armored hatches repaired.

New aircraft safety nets were installed on elevators. Arresting gear machinery, catapults and jet deflectors were repaired or replaced.

All radar antennas, equipment, and radio transmitters were overhauled. New radar repeaters were installed.

The most extensive single project was an enlargement and modernization of the carrier’s air intelligence spaces, which included the installation of an electronic data processing machine center.

**Erben Is Now ROK Chung Mu**

The former uss *Erben* (DD 631), a destroyer which won 10 battle stars for operations in World War II and Korea, has been transferred to the Republic of Korea and renamed Chung Mu.

The 2050-ton DD had been in mothballs for the past five years. She was turned over to the ROK Navy last May during ceremonies conducted at Long Beach, Calif.
Sixth Fleet Flagship

The guided missile cruiser USS Little Rock (CLG 4), which relieved USS Springfield (CLG 7) as flagship of the U.S. Sixth Fleet this spring, is spending an active summer in the Med.

Little Rock departed the U.S. last April, and will remain in the Med area for eight months as VADM W. E. Gentner's Sixth Fleet flagship.

The ship is equipped with Talos guided missile light cruiser USS Little Rock (CLG 4) has assumed duties of flagship for Sixth Fleet.

missiles capable of hitting any aircraft within a 65-plus mile range.

Springfield Back in CONUS

The guided missile light cruiser USS Springfield (CLG 7), trailing a 610-foot red and white homeward-bound pennant, has returned to the United States after completing a 30-month tour of duty as flagship for Commander Sixth Fleet in the Mediterranean. The former flagship is now in New York undergoing a major overhaul at the Brooklyn Naval Shipyard.

Springfield departed the Boston Naval Shipyard on 4 Dec 1960, crossed the Atlantic, and relieved USS Des Moines (CA 134) as flagship on 14 December at Palermo, Sicily.

From that time until she was relieved by USS Little Rock (CLG 4) in May in Toulon, France, Springfield was one of the busiest ships in the Fleet. During her extended cruise in the Mediterranean Springfield visited 30 ports in 12 countries. These included Split and Dubrovnik, Yugoslavia; Beirut, Lebanon; Casablanca, Morocco; Naples, Venice and Livorno, Italy; Athens, Greece; Istanbul, Turkey; and Barcelona, Spain, plus others.

Over 80,000 people boarded the ship during public visiting, and many children received special attention from the ship's crew, with parties sponsored in every port.

Springfield was also host to many dignitaries, such as the Royal Family of Greece, and Princess Grace and Prince Ranier of Monaco. For these guests, and in honor of the nations they represent, a total of 2250 rounds of ammunition were fired from the ship's saluting battery. Of this number, 157 rounds were fired in one day at Athens during ceremonies for the King and Queen.

Between her heavy operational commitments, Springfield and her crew participated in two movie productions—The Longest Day and We Joined the Navy.

From the time she left Boston until the time she arrived in New York, the ship traveled over 130,000 miles. And of the 777 officers and men who returned, 173 were on board for the full two-and-one-half-year cruise.

New Ships on the Way

The Navy has awarded contracts for the construction of two amphibious transport docks (LPDs) and three guided missile escort ships (DEGs), authorized in the fiscal 1963 shipbuilding program.

The Bureau of Ships awarded the contract for the LPDs to a Seattle, Wash., company while the DEGs are to be built in Bath, Maine.

Each LPD will be 570 feet long with a maximum beam of 84 feet and a full-load displacement of 16,500 tons. They will be designated
LPDs 9 and 10, the third and fourth ships of the LPD 7 class.

The escort ships are designed to locate and destroy submarines. They will be fitted with a Tartar guided missile installation and will carry one 5-inch/38 gun, antiship missiles, Asroc, and the drone antiship helicopter—Bush.

These ships will be designated DEGs 4, 5, and 6, and will have a length of 415 feet, a beam of 44 feet, and a full-load displacement of 3400 tons.

**Amphib Transport Dock Ship**

*USS Vancouver* (LPD 2), the second of the Navy’s new amphibious transport dock ships, has been commissioned in New York.

The new type of ship combines the functions of the attack transport (APA) and the attack cargo ship (AKA), enabling troops to travel to an assault area in the same ship as their heavy equipment.

The LPD is similar to the dock landing ship (LSD)—the principal difference being in its shortened and covered well.

Combat-equipped troops can be landed in six CH-37C amphibious transport helicopters which are launched from the LPD’s helicopter platform over the well deck.

In addition, nine landing craft (LCMs), pre-loaded with troops and equipment too heavy to be carried by helicopter, can be launched from the well that opens to the sea at the rear of the ship.

*Vancouver* is 521 feet long and displaces 13,900 tons fully loaded. She carries a crew of 30 officers and 460 enlisted men.

Her troop-carrying capacity is 930 men with 2000 tons of cargo. She is armed with four 3-inch/50-caliber twin gun mounts and has a speed of more than 20 knots.

The first LPD was *Raleigh* (LPD 1), which was commissioned 8 September 1962.

**VAW-33’s Ground Crew**

Pilots and crewmen fly the Skyraiders of Carrier Airborne Early Warning Squadron 33, but just as essential are the band of maintenance men who keep the planes in the air.

With commitments that require manning six carriers at one time, VAW-33 must depend on the leadership and skill of its leading chief petty officers and the men under them. The talents that keep the many detachments going are not limited to any one rate as can be seen below.

VAW-33's leading chiefs, who have over one hundred years of service between them, are: C. A. Walker, ADC, of Detachment 39, *USS Lake Champlain* (CVS 39); G. B. Walsh, ADM, of the Administrative Command at Quonset Point, R. I.; R. S. Speaks, AEC, of Detachment 59, *USS Forrestal* (CVA 59); R. J. Updegraff, ATCS, of Detachment 62, *USS Independence* (CVA 62); F. W. Waage, Jr., ADC, of Detachment 18, *USS Wasp* (CVS 18); R. F. Walters, AD, of Detachment 65, *USS Enterprise* (CVAN 65); and W. L. Twining, ATCS, of Detachment 11, *USS Intrepid* (CVA 11).

It's hard to tell how many lives these men have saved, but the fact that the planes keep flying is formidable evidence of their outstanding service.

**LEI-ADORNED BOW** of Pearl Harbor-based frigate *USS John S. McCain* (DL 3) signifies her return to Hawaii after a six-month tour in the Far East.

**Night Hawks**

**KEY MEN** are these CPOs of VAW-33. L to R: C. A. Walker, ADC; G. B. Walsh, AD; R. S. Speaks, AEC; R. J. Updegraff, ATCS; and F. W. Waage, Jr., ADC.
High School Student Is Navy Ship Builder

Most Navymen have run across civilian Navy buffs during the course of their careers, but probably few have met one who pursues his hobby with the enthusiasm applied by an 18-year-old Arlington, Va., high school senior by the name of Edwin Finney, Jr.

Young Ed’s hobby is building ships. Occasionally, he uses kits, but more frequently he concocts the entire model from whatever is at hand—fragments of pine packing crates, lumber yard scraps and spare bits of this and that which he finds around the house.

The Finney models are by no means haphazard constructions. Ed takes the trouble to get blueprints from BuShips and follows them to the last detail. He also gets assists from pictures in back copies of Navy periodicals and ALL HANDS Magazine.

Edwin, Jr. admits his first love is the Navy’s four-stackers. When he abandons them for other models, he usually finds his inspiration in a ship out of the past but in the age of steam.

The big models he prefers to build take nearly a year to complete in detail because, as he puts it, schoolwork keeps interfering with his hobby.

All in all, Finney the younger has about 86 models to his credit. He hopes to translate his enthusiasm for the Navy’s ships by following his father and grandfather into a naval career via Annapolis.

MCB-1 Receives Two Awards

U. S. Naval Mobile Construction Battalion One has received dual awards—the Navy “E” for efficiency and the Peltier Plaque for 1962. The “E” was presented to MCB One for being selected as the best of its type in the Atlantic in 1962.

During 1962 competition, MCB One installed a nuclear power plant in Antarctica, and performed construction work in Rota, Spain; Argentia, Newfoundland; Sigonella, Sicily; St. Thomas, Virgin Islands; and Bermuda. The mobile battalion received the Navy Unit Commendation for work during the Antarctic deployment.

The Peltier Award is a bronze medallion mounted on a plaque and is named for the former Chief of the Civil Engineer Corps and Bureau of Yards and Docks, RADM Eugene A. Peltier, CEC, USN (Ret.).

The winner of the award is selected by the Bureau of Yards and Docks from two Seabee battalions selected as the best of their type—one from the Pacific and one from the Atlantic.

Boilerman Under Pressure

Last November, the fire in a boiler on board USNS Franklin D. Roosevelt (CVA 42) went out of control, making it necessary for the crew to evacuate the fireroom because of smoke and intense heat.

Meanwhile, the pressure in the boiler was building up. Danger of a damaging and perhaps fatal explosion was imminent.

Chief Boilerman Frank L. McGuire went into the fireroom of his own volition and succeeded in re-
lieving the boiler pressure in spite of the hazardous conditions and the
heat and smoke.

After the boiler pressure subsided, Chief McGuire reentered the fire-
room several times to help put out the fire.

Chief McGuire, a Navyman since 1949, was awarded the Navy Com-
memoration Medal on board his ship while she was at port in the Med.

They Fly on The Ground

Student pilots at Corpus Christi’s Naval Air Station have a new simu-
lated flight trainer which includes systems that were unknown when its
World War II predecessor was invented. By the end of 1964, the
Air Station expects to have a total of 13 new trainers.

In the multi-engine training pro-
gram, the new 2B13 trainer replaces the model which has been used by
military pilots for the past 20 years. It teaches student pilots the pro-
cedures and problems encountered in all-weather flying.

The cost of operating the new
trainer will be only one-twelfth that of actual flight.

Since about 195 Navy flight stu-
dents use the 29 trainers for about
100 hours a day at Corpus Christi,
the savings are impressive.

The trainee is seated in a repro-
duction of a land-based aircraft.
The instrument panel is a general-
ized version of those found in var-
ious aircraft.

The student is surrounded by
communications systems and navi-
gation aids he must use during nor-
mal flight.

The instructor’s console is located
directly behind the trainee’s station.
From his position, the instructor can
observe the student and monitor the
trainee’s activities.

By using automatic card readers
and punched cards, the instructor
can program the student’s flight,
complete with emergencies.

A card also feeds the student infor-
mation which he would receive
from ground navigation facilities
were he actually flying a plane.

The response of the plane and its
systems to the student pilot’s con-
trol are recorded by computer and
used for debriefing the trainee.

According to the instructors at
NAS Corpus Christi, some of the
students become disoriented in the
trainer and “crash” but, as yet, there
have been no physical injuries.

Jet Target Practice

An improved target-practice sys-
tem which provides targets for a
variety of modern anti-aircraft wea-
pons, including missiles, has been de-
veloped by the Naval Air Develop-
ment Center, Johnsville, Pa.

Until now, antiaircraft gun crews
have received their practice by firing
at sleeve or subsonic powered and
powered targets. The unpowered
targets were towed on a cable at-
ached to an aircraft flying at around
200 mph, and simulated another air-
craft in flight.

However, the old style AA guns
are not notably effective against to-
day’s Mach 2 aircraft, and are be-
ing replaced by supersonic missiles.

This poses a further problem. The
older targets suitable for the earlier
AA guns are too low and too slow
to provide suitable practice targets
for missilemen.

Johnsville’s new 1000-mph towed
target has a number of gimmicks to
simulate an aircraft threat. It can be
equipped with “passive or active
cradar augmentation,” “infra-red aug-
mentation,” and a scoring system as
required for a given mission.

The tow reel, fitted externally on
an aircraft, can store up to 70,000
feet of towline, and can deploy and
recover its attached target at speeds
up to 5000 feet per minute.

This system has completed eval-
uation flight testing at the Naval Air
Test Center, Patuxent River, Md.,
and currently holds the following
records:

- Highest tow target speed—
1000-mph.
- Longest cable and target in
tow—51,000 feet (more than nine
miles).
- Highest deployment speed—
5400 feet per minute.
- Highest recovery speed—5300
feet per minute.

The system has been successfully
used on the F4B (F4H Phantom).

PLANE PARKING — A variety of
Navy aircraft rest upon flight deck of
USS Coral Sea (CVA 43) in Pacific.

VENEZUELAN naval cadets get in sea time on board ARV General Jose De
Austria (D 32). Later, the destroyer steamed into San Diego, Calif.
Serrano Lightens Ship

Physical fitness has a firm grip on the Pacific Fleet's hydrographic survey ship USNS Serrano (AGS 24). Serrano has started a weight reduction program called Exercise Lighten Ship.

To get the program under way, each Serrano hand maintained a chart which showed his current weight, ideal weight, and all weekly changes.

The ship's corpsman advised the cooks on the preparation of menus and set up a special diet table for exception weight problems.

The original weigh-in revealed that 25 of the crew were overweight (the CO and XO included themselves in this group.) Overweight varied from four to 35 pounds.

So far, the three biggest losers, or biggest winners, have lost 27, 23 and 19 pounds apiece. Their prizes: Size 28 belts with engraved buckles.

Over-all, the 25 men in the group have lost a total of 310 pounds, an average 12.4-pound loss per man.

For the information of would-be dieters, Serrano passes along the following observations:

- Light, regular exercise accelerates weight loss and tones muscles. Too much exercise, however, overstimulates the appetite.
- It's difficult to make turnips and beets as appetizing as ice cream and cake.
- Overweight men report that they feel much better as the pounds fall away.
- It's easier to diet as a member of a group than to fight the battle alone.
- It's difficult losing weight on import days.
- Pie a la mode is minutes in your mouth and a lifetime on your waistline.
- If you stick to a wise diet, you do lose weight.

Sharp Shooting Seabees

Mobile Construction Battalion Eight is a sharp (shooting) outfit.

The battalion's 79.4 per cent qualification mark on the M-14 rifle is reportedly the highest recorded by any Seabee outfit that has undergone infantry training at the Marines' Camp Lejeune installation.

Out of 243 officers and men, 193 qualified as expert, sharpshooter or marksman. Highest scorer was Builder Third Class J. A. Rose, who scored 274 out of a possible 300 for an expert rating. Five others attained expert; 54 made sharpshooter and 133 qualified in the marksman class.

The training is now an annual routine for Seabee battalions, usually consisting of about six weeks of intensive drill in the techniques of individual combat at a Marine training center. The final few days are spent in a field exercise under simulated battle conditions.

MCB-8 is scheduled for deployment to Antarctica in September to continue construction started there during the last polar summer.

Sure Shot Sylvester Scores

Until April 1962, R. W. Sylvester, CT3, stationed at Naval Security Group, Kamiseya, Japan, had never fired a pistol. Today he not only fires, but walks away from almost every shooting match with at least one trophy under his arm.

Sylvester, a native of Baltimore, Md., had never fired a gun of any kind before he came into the Navy. He just wasn't interested.

Coaxed by a friend in Kamiseya, Sylvester joined the local marksman unit in April 1962.

A month later, after some coaching and limited experience in a local match, Sylvester was selected as one of a four-man team to represent his activity in the Commander U. S. Naval Forces, Japan, tournament.

With only those qualifications, Sylvester emerged from the tournament with a Navy Expert pistol medal after helping his team to a second place finish in team competition.

Since then Sylvester has been practicing three to four hours a week, and firing in about one match a month.

As a novice Sylvester often found himself matched against much more experienced competitors, but that did not prevent him from outshooting them. He promptly qualified as Marksman, and was soon elevated to Sharpshooter, leaving Expert and Master yet to be attained.

Once, after attaining his present Sharpshooter designation, he competed against a field of Masters, and walked away with the first place Master trophy.

On another occasion he won five trophies in one day, taking first place slow fire, first place timed fire, second place national match course, and first place aggregate with the .22-caliber pistol, and second place slow fire with the .45 pistol.

Sylvester has won 12 pistol match trophies besides those mentioned, and he's yet to get started on the rifle. —Erwin A. Sharpe, JOC, USN
A Whole Raft of Fish Stories

Chief Yeoman Harry Bonner might be just another yarn spinner when the fish stories start flying around the campfire, but he can verify his tales with a packet of contest awards and a son who most likely was with him.

On the list of 1962 winners in a national fishing contest sponsored by a sports magazine, Bonner's name appears 13 times. And to compound the evidence of his fishing skill, Bonner's 11-year-old son Stanford's name is also on the list three times—all for first place awards.

Bonner is stationed at the Naval Amphibious Base, Coronado, Calif., and is responsible for what is apparently the first father-son combination to place in more than one division of a nationwide fishing contest.

Statistics tell the story best, and the Bonners' statistics make for some interesting reading. Here's the list:

Division Three—Salt Water Fly Casting:
- H. S. Bonner—First Award, barracuda, 12-lb line (14 lbs 3 oz)
- H. S. Bonner—First award, albacore, 12-lb line (28 lbs)
- H. S. Bonner—Second award, albacore, 12-lb line (28 lbs)
- H. S. Bonner—First award, barracuda, 4-lb line (6 lbs 8 oz)
- H. S. Bonner—Second award, barracuda, 8-lb line (6 lbs 2 oz)
- Stanford Bonner—First award, white sea bass, 12-lb line (1 lb)
- H. S. Bonner—First award, oceanic bonito, 12-lb line (5 lbs 4 oz)
- H. S. Bonner—First award, yellowtail, 4-lb line (8 lbs)
- H. S. Bonner—Second award, yellowtail, 6-lb line (13 lbs 4 oz)
- H. S. Bonner—Third award, yellowtail, 8-lb line (19 lbs 14 oz)
- H. S. Bonner—Fourth award, yellowtail, 12-lb line (22 lbs 9 oz)
- H. S. Bonner—Fifth award, yellowtail, unrestricted (22 lbs 9 oz)
- H. S. Bonner—First award, blue shark, 50-lb line (152 lbs)
- Stanford Bonner—First award, bluefin tuna, 20-lb line (22 lbs)

Division Six—Junior Division:
- Stanford Bonner—First award, yellowtail, 20-lb line (19 lbs 3 oz).
- A fly rod enthusiast, Bonner is convinced that the technique is enjoying a resurgence in fresh water areas and is also spreading to salt water.

Marine Corps Reservists attached to the 100th Rifle Company in Meridian, Miss., were told recently by their base newspaper that "The warm days of summer bring out the sunning instinct in various creatures, the instinct being more prevalent in women and snakes. Both of these may become extremely dangerous when caught unawares or when irritated."

Four Marines stationed at Marine Corps Air Station, Beaufort, S. C., could take that editor to task for supplying incomplete information. They have reason to doubt that one must irritate a snake to gain bad favor, for they were mind on their own business—fishing from the banks of a pond—when 15 water moccasins approached them.

The Marines, Lance Corporals Terry Wagner, John Cooper and John Kolonick, and PFC Ronald Casey, decided to go fishing late one Sunday afternoon, so drove to a pond outside Beaufort. All avid fishermen, they systematically readied their tackle, baited their hooks, cast their lines, and waited. All around them fishermen were snagging bream, bass and various other fish. But the Marines were having no luck as they talked idly. The spell broke, and they became suddenly attentive when they saw what appeared to be a school of eels swimming toward them.

The water swirled and splashed as the "eels" drew nearer. In seconds the school was close enough for the Marines to have a better look, and you can imagine their surprise at realizing the eels were water moccasins.

Thinking the snakes would change their direction, the Marines didn't become alarmed, but it was soon evident that the snakes were heading ashore you-know-where.

They began slithering up the bank toward the men, and the fight was on. The men set to poking the snakes back to water with their fishing poles. But instead of dispersing, the snakes appeared to be reorganizing—surely without the knowledge that they were about to take on the U. S. Marines. Time was ripe for a Marine offensive.

Before the snake spearhead had time to form the Marines had their offensive underway. They charged into battle, throwing their lines among the snakes and snagging them one by one like tuna fishermen snagging tuna with gaff hooks. Each snake snagged was yanked onto the bank and, according to reports, dispatched with a huge stick.

Even at 15-to-four odds the snakes could not long endure. Several slithered away as the battle was raging. When retreat sounded, the casualties totaled five water moccasins dead, no Marines injured.

And, to verify their fish story, the victors returned to base with the evidence.

—W. L. H., JO1, USN
The Well-Read Navyman

Have you read any good books lately? Sure, lots of them.

So says a recent representative sampling of Navymen and Marines, both officer and enlisted, ashore and afloat.

The results of a BuPers survey are now in. Among other things the survey pointed out that the men of the sea service read a lot more books than the average adult American.

A poll conducted last winter by a professional polling organization demonstrated that less than half the adult Americans questioned claimed to have "read a book all the way through" during the preceding 12 months. Not a very good showing-

And That's a Lot of Books:

Over 11,000,000 books have been added to Navy ships' and shore-based libraries during the past 10 years by the Library Services Branch of the Bureau of Naval Personnel. That adds up to a lot of books—and it doesn't include the volumes that were already in ship and station libraries.

Here are the figures:

- 1,300,254 copies of non-fiction hard-backs.
- 1,254,970 copies of fiction hard-backs.
- 8,836,159 paperbound pocket-books—fiction and non-fiction—for ships and personnel on maneuvers, etc.

Records in the historical files of the Navy show books being furnished, as far back as 1828, for the use of ships of war on cruises and for the Navy yards of the period. Those books, as today, were furnished from appropriated funds.

While it is not certain when a "library program" can be said to have gotten underway, the records do show a headquarters office in the Bureau staffed by a professional librarian as far back as 1918. In 1926 there were some 249 ships' libraries and 59 shore-based libraries. The shore-based libraries numbered more than 155,000 books, exclusive of those in the Navy Department, Naval Academy and the Naval War College. Libraries afloat numbered approximately 100,933 volumes.

The Navyman was a reader in those days also. In 1926, the circulation of books amounted to 848,798.

Today, the Bureau of Naval Personnel Library Services Branch services a total of 1300 ship and station libraries. Of these, nearly 1000 are libraries afloat and 317 are shore-based libraries, plus numerous branch libraries and deposit collections.

All but four per cent of the officers and 16 per cent of the enlisted men in the test group had read at least one book in the preceding 12 months. (There is room for improvement.)

The average number of books read by the enlisted men polled came to four per year, and the average for officers was five. Contrast these figures with the national American average and you see the Navyman has a much higher rating. All but four per cent of the officers and 16 per cent of the enlisted men in the test group had read at least one book in the preceding 12 months. (There is room for improvement.)

The Navy survey conducted by the Bureau of Naval Personnel did much more than prove that men of the sea service enjoyed books and do read. It also revealed the broad
range of their interests and an interest in keeping abreast of new developments in today's rapidly changing world.

**YOU'LL BE GETTING more and more of the kind of books you want in your ship or station library.** Since the poll pointed out trends in service reading, it has provided valuable guidelines for the Library Services Branch of BuPers which is responsible for selecting and purchasing books for ship and station libraries, for ships stores and post exchanges that stock books and periodicals, and for commands ordering reading material from local funds.

Why do Navymen read? From officers and enlisted personnel came the same basic answers: to keep informed and for relaxation. Other important reasons, they said, were to improve naval proficiency and for special self-education.

Fiction rated high for relaxation, but the survey showed that even fiction reading has its serious side. In addition to more current fiction and best-sellers, some expressed a desire for "classics," better quality fiction, historical novels and historical-religious books.

On the non-fiction side, No. 1 on the list were books on naval or military history and science, strategy and tactics. They rated highest among officers and enlisted men.

Here are the officers' non-fiction choices, in order, after the top selection:

- History, geography and travel
- Political science, government, international relations; economics, law, education and public administration
- Scientific books (mathematics, space, physics, chemistry, oceanography, etc.); technical books (aviation, engineering, electricity, electronics, radio, business, etc.)
- Biographies
- Books on general literature

**IF YOU ARE** an enlisted man, check how your reading choices rate with those of your shipmates.

After naval and military history come the following, in order of popularity:

- Books on science; technical books; history, geography and travel; biographies; and general literature.

The survey also asked questions about magazine and newspaper reading habits during the survey year.

In the magazine field, officers indicated that periodicals concerned with current affairs were the most widely read, followed by: military and naval subjects; sports; business; history; general literary; aviation and rocketry; hobbies; engineering and science; radio, television and electronics.

Enlisted men agreed with the first three choices of officers, followed by: mystery and adventure; hobbies; general literary; history, geography and travel. Also reported was an interest in periodicals in the fields of radio, television and electronics, and aviation and rocketry.

**PLENTY OF BUSINESS**—Library in USS Independence (CVA 62) is busy spot.
LOTS TO READ — Station library at Treasure Island and the library at NAS Point Mugu welcome visitors.

The pattern of newspaper reading varied according to whether men were stationed on board ship or at a shore activity, where newspapers are more readily available. Front page and international news ranked high in interest. Three-fourths of the officers said that they followed the comics. The same percentage went for the sports pages and local news.

On the human side, two-thirds of both officers and enlisted men said they followed the comics. The same pattern of newspaper reading On the human side, two-thirds of both officers and enlisted men said they followed the comics. The same percentage went for the sports pages and local news.

We were sure of it, but here was proof. The survey points up the fact that men of the Navy and Marine Corps are "thinking men"—they read to keep informed, to improve professionally and to add to their knowledge in fields of special interest and endeavor.

Secretary of the Navy Korth, a firm believer in updating brains as well as hardware, recently appointed a special advisory committee of five well-qualified military and civilian personnel to select and recommend current books and magazine articles that will encourage the trend toward purposeful reading and stimulate intellectual growth and development.

Books chosen by the SecNav Naval Reading Program Advisory Committee will be made available to naval personnel through shipboard libraries and general libraries at shore bases, insofar as funds are available; and they may be borrowed by individuals directly through the Navy's Auxiliary Library Service Organization. Naval activities have also been encouraged to supplement their library collections from local funds and to enlarge their periodical subscription lists to include a wider range of magazines.

The Advisory Committee plans to publish a list of books on a quarterly basis. In preparation now is an extensive general reading list for all hands, consisting of basic as well as current books in the various fields in which they have expressed an interest. Periodic supplements to this list are also planned.

The reading hobby is like the proverbial snowball rolling down the mountain. One good article or book may lead to a quest for more information and other books, on the same or related subjects. Before you know it, you're an expert.

Navymen have always been reading men, but in the old days books weren't always so easy to come by.

Richard McKenna, a retired U.S. Navy machinist's mate who has achieved no little fame with his novel of the Yangtze River gunboat days, The Sand Pebbles, recently told an audience at the University of North Carolina about some of the problems he encountered as an 18-year-old sailor in search of reading material on the China Station back in the Thirties. Other Navy old-timers will recall similar situations.

"Books were hard to come by and I found entertainment in more than one unlikely volume. Some ships had no libraries. Others had only a few western stories. I could not often afford to buy a new book.

But in the thieves' market of Hong Kong I would sometimes find a few books for sale among the other junk. There was quite a good second-hand bookstore in Shanghai. And I soon learned that in the scores of cheap bookstores in Japanese cities there would usually be, far back in the rear, a few second-hand books in English."

"Thus I did not lack for books, although I had to read a weirdly varied lot of them. Finding them in my trips ashore was one of my chief enjoyments. The only gripe I had was my trouble in keeping them once I had read them. Lockers for personal gear were designed to hold just the prescribed outfit of uniforms, provided that they were rolled or folded very compactly. There was no room for books. I would hide books away in crannies all over the engineering spaces the way a squirrel hides acorns. When I transferred to a new ship, I would just have to leave most of them. Now that I live ashore I will not relinquish any book."

Ship and station libraries, of course, date as far back as the days of the 19th century Navy (see page 44). But they varied from place to place, and the books in the personal possession of seafaring men were passed carefully from hand to hand.

"It wasn't until after World War I that an organized library program got underway."

The Navymen today may take his shipboard or station library for granted, but it represents untold hours of planning and selection to maintain a well-read Fleet.
**Fast Delivery—by Jupiter**

**There is but one aviation supply ship in the U. S. Navy.**

**USS Jupiter** (AVS 8) is her name and she calls Yokosuka, Japan, home. Her mission is to supply Western Pacific aircraft carriers with spare parts for aircraft, catapults and arresting gear.

She, with assistance from her 180-man crew, delivers millions of dollars' worth of materials to Pacific Fleet carriers each year.

Included in her five cargo holds are more than 13,000 different parts ranging in cost from less than one cent to as much as $23,000.

**Jupiter** gets spare parts to her customers in three ways—fleet mail, in-port delivery and replenishment at sea.

Two methods are used in underway replenishments. If the parts are large and bulky the method of transferring them is the same as that used by other supply ships—alongside replenishment. But when the size of the cargo doesn't warrant this type of transfer, Jupiter makes use of her helicopter landing platform located on the fantail.

Installed in 1958, the landing platform has proven to be both a fast and convenient means of transferring cargo.

**Jupiter** hasn't always been an aviation supply ship. She started her career in 1939 as the merchant ship SS *Flying Cloud*. Later she was renamed SS *Santa Catalina*. In 1942 she was commissioned a cargo ship.

She was designated an AVS in 1947 and decommissioned later that year. Reactivated at the outbreak of the Korean conflict, she served with the First and Seventh Fleets until March 1955 when she was permanently homeported at Yokosuka.

**Clockwise from top left:** (1) Richard Jacques, AK3, USN, one of 28 aviation storekeepers serving in Jupiter, checks stock control cards. (2) Jupiter cruises in the Pacific. (3) Aviation spare parts are highlined from Jupiter to USS *Constellation* (CVA 64). (4) Jupiter supplymen stand by to load a helicopter from a Seventh Fleet aircraft carrier.

— Tommy Thompson, JO1, USN.

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**AUGUST 1963**
Brief news items about other branches of the armed services.

The Army has been road testing its solid-fueled *Pershing* missile and a full set of tactical equipment in Florida and is also taking it on a ride across country from Orlando to Cape Canaveral as part of a series of tests.

*Pershing* is being developed by the Army to replace the larger, liquid-fueled *Redstone* missile which has been operational for several years.

The testing included rough overland marches, simulated tactical exercises on unprepared terrain and missile firings by troops from Fort Sill, Okla.

The tactical equipment had been given a series of rough road tests on a bouncy course, before being transported to Cape Canaveral, to prove its capabilities to operate over practically any type of terrain.

*Pershing* is a two-stage selective-range weapon for field Army support, which makes it imperative that it be transportable on tactical vehicles like those used on the march.

The weapon is also designed to be moved by fixed-wing aircraft or by *Chinook* helicopters.

Components of the system can be lifted to the firing position by helicopters and assembled there preparatory to firing.

** * * * **

The Air Force F-4C, a high-speed tactical fighter plane which is a modified version of the Navy's high-flying F-4 *Phantom II*, is scheduled for extensive use by the Air Force's Tactical Air Command.

The first of the modified aircraft has been flown from Lambert Field, St. Louis, Mo., more than two months ahead of schedule. Plans call for the Air Force to buy several hundred F-4Cs this year, aiding in the modernization of its tactical air forces. A number of RF-4Cs specially equipped to handle reconnaissance missions, are also scheduled for procurement by the Air Force.

**INITIAL SWIM—Reliance, first major cutter built by Coast Guard since WW II, is launched at Houston, Texas.**

The F-4C is a two-place, twin-jet, all-weather fighter which can carry more than twice the conventional bomb load of the World War II B-17 heavy bomber. The external bomb racks are designed to carry a variety of weapons, including multiple launch rocket pods, napalm bombs, or nuclear weapons. *Sparrow* or *Sidewinder* air-to-air missiles are also part of the F-4C's armament.

Thus far, the *Phantom* has exceeded 1600 miles per hour and reached an altitude of 100,000 feet.

Air Force engineers determined that only minor modifications were necessary to convert the Navy aircraft to handle Air Force tactical missions.

Folding wings are to be retained on the F-4C, but will be set so that only the ground crews can manipulate them. Larger wheels, brakes and tires are required by the Air Force for use on paved and unpaved runways, and cartridge starters are being installed.

**LAUNCH TIME — Complete Apollo launch escape system undergoes its first tie-down test firing near Beaumont, Calif.**

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The tricky business of detecting hidden land mines will be a lot less hazardous—and will take less time—if a new idea conceived by Army engineers proves successful in practice.

The Army's idea is to mount mine detectors on ground effects machines (GEMS), or floating platforms kept airborne by the downward thrust of air generated by large fans.

The platforms would skim over ground to be searched without exploding the mines—just detecting them.

The air-cushion detector/carrier would be eight feet in diameter and would do its work while airborne about six inches above the ground. It would be attached to the front end of a truck or other vehicle by means of a 20-foot boom, and could operate on or off roadways.

The first of the Air Force's two new advanced range instrumentation ships has been named USAF General H. H. Arnold, in honor of the late five-star general and former Chief of Staff. Dedication ceremonies for Arnold were held at Port Canaveral, Fla., last May.

Arnold and her as-yet-unnamed sister ship are being fitted with sophisticated electronic gear designed to measure the track of ballistic missiles launched down the Atlantic Missile Range. When operational, they will provide tracking functions in areas of AMR not covered by land-based facilities.

The two ships will be heavily instrumented and, among other things, will have the newest in radar telemetry equipment.

The ARISs are expected to collect millions of bits of information as they go about tracking missiles.

The Army's armored training center at Fort Knox, Ky., competing with more than 100 other defense installations in 1962, has won the first annual Secretary of Defense Conservation Award.

Established in 1962, the award is designed to stimulate programs for the conservation of fish, wildlife and other natural resources at defense installations. A panel of judges selected Fort Knox from among six finalists (two from each military department) representing the more than 100 installations which entered the competition.

Runners-up were McChord Air Force Base, Wash., and Fort Huachuca, Ariz. The three other finalists were Marine Corps Schools, Quantico, Va.; the Naval Air Station, Lakehurst, N. J.; and the Air Force Academy, Colorado Springs, Colo.

The award consists of two trophies, one of which will remain in the Office of the Secretary of Defense while the other becomes the permanent possession of Fort Knox. Plaques and citations go to the two runners-up.

Figuring largely in the selection of Fort Knox were its outdoor recreation and conservation programs involving base personnel, the civilian community and the Boy Scouts from a five-state area.

The U. S. Air Force is experimenting with two WB-66D aircraft which have been modified to reduce drag caused by air friction. Named X-21As, the planes are equipped with "laminar flow wings." Other modifications include engines relocated from under the wings to the after fuselage, and a laminar flow control pumping system in the former engine pod positions beneath the wings.

If the experiment is successful, it is expected to increase range, load-carrying capacity and flight endurance of large aircraft. Military payoffs could include missile-carrying aircraft capable of staying aloft several days without refueling.

Laminar flow control removes the air layer which flows closest to the wing surface by sucking it through hundreds of tiny slots that run from the fuselage to the wing tips. These slots range in width from .003 to .010 of an inch. Beneath the slots are more than 815,000 tiny holes. The air then flows into ducts that take it to small turbo pumps. The turbo pumps exert suction through the system and also expel the air overboard. Removing the boundary layer next to the wing before it becomes turbulent allows the remaining thinner layer of air to flow smoothly over the wings, thus reducing friction drag.

The wing span of the planes has been increased from 780 to 1250 square feet.
THE WORD
Frank, Authentic Advance Information
On Policy—Straight from Headquarters

- BLUE ANGELS — The Blue Angels flight demonstration team is looking for two topnotch jet pilots to fill vacancies which open next December.

The team requires Regular Navy aviators who have completed tours with Fleet squadrons, have had recent jet experience, and are on shore duty now or expect to be rotated ashore by December 1963.

Those interested may apply by writing to the Officer in Charge, U. S. Navy Flight Demonstration Team (Blue Angels), Naval Air Station, Pensacola, Fla.

Pilots selected for the team can expect three-year tours.

- LEAVE RECORD — A new leave page has been adopted for use in the service records of all Navymen and women on active duty.

The new form is officially called the Leave Record, Officer-Enlisted, NavPers 601-8, Rev. 1-63. With its adoption, the same leave page can be used in both officer and enlisted records. In the past, different forms were maintained.

The new leave page is divided into eight columns. At a glance, you and your leave yeoman can see exactly how many days you have taken in the past, when you took it, and how much you have left on the books.

Leave yeomen can find instructions for the preparation and maintenance of the new form in BuPers Notice 1070 (dated 21 May 1963). This directive also contains up-to-date instructions for computing and verifying leave, and the steps to take when excess leave warrants a checkage of pay.

Individual commands have been told to ignore certain articles of the BuPers Manual which conflict with the new leave directive. Conflicting portions of the Manual will be re-worded with appropriate changes.

As for leave itself, you will still earn two and one-half days a month, 12 months a year, throughout your active duty hitch.

The new leave tables provided in the Notice will enable you to determine at a glance how much leave you will earn from a given date until the end of the fiscal year and how leave is earned for portions of a month.

Other changes announced in BuPers Notice 1070 are, for the most part, of administrative concern only to your personnel office.

- BAQ OVERPAYMENT — If you claim a child over 21 who is still attending school as a dependent for income tax purposes, this does not mean that you may claim BAQ for him. Several cases of this nature have recently come before the Navy Finance Center Waiver Board.

As a rule in these cases BAQ has continued to be credited to a Navyman for a child over 21 years of age who is neither physically incapacitated nor mentally defective. When the situation eventually comes to light, the BAQ on behalf of the child is discontinued, but a large overpayment has resulted.

When the resultant checkage is made on his pay record, the Navyman usually requests a waiver of the overpayment. He takes the attitude that, as the child is still going to school and, because it is possible to claim him as a dependent for income tax purposes, he should be able to claim BAQ for him.

It doesn't work that way. The income tax laws have no relation to the laws which pertain to BAQ. The BAQ law prohibits entitlement to BAQ for any child over 21 years of age unless that child is physically incapacitated or mentally defective. It is your responsibility to take action to have BAQ stopped when your child reaches 21.

Failure to do so will result eventually in a checkage, as this type of overpayment is not subject to waiver.

- NSLI, USGLI WAIVERS — If you are a permanent plan NSLI or USGLI policyholder, are paying premiums by allotment, and have not notified the Veterans Administration to terminate your in-service waiver of premiums, the financial future of your family may be at stake in the event something should happen to you. Your family might also be affected if you still have term insurance under in-service waiver of premiums.

When you have your NSLI or USGLI insurance under waiver it means you are giving up the benefits of the Survivors Benefits Act.

The Serviceman's and Veteran's Survivors Benefits Act, which went into effect on 1 Jan 1957, established a new system of compensation for death resulting from a disease or injury incurred or aggravated in line of duty. It was Dependency and Indemnity Compensation (DIC).

Before that time NSLI and USGLI permanent policyholders were pay-
ing only a portion of their insurance premiums, and the Government was paying the rest. Term insurance policyholders were having their entire policies paid for by the Government.

Under the new law each policyholder was then given an option either to continue his policy as it was or cancel his in-service waiver and commence paying his own premiums.

What some don’t realize is that under Public Law 881, if you die while you have NSLI or USGLI in force UNDER IN-SERVICE WAIVER of premiums, no dependency and indemnity compensation under the Survivors Benefits Act will be paid to your family. You would come under the old law, and this could mean a substantial loss to your widow, children, or both.

Generally, married men can provide better for their survivors by canceling their in-service waivers and resuming payment on their NSLI or USGLI policies. In this way their survivors are eligible for full benefits under the Survivors Benefits Act and for the NSLI or USGLI insurance on which you have been paying premiums. Excellent counseling information is contained in NavPers 15947 for those in doubt about the best thing to do. (In the case of men with five or more children, check with your insurance officer about benefits under the old and new laws).

Do you know whether or not your insurance is still under waiver?

In the case of term insurance, if you register an allotment for payment of premiums, the in-service waiver of premiums will be canceled automatically. If you are NOT paying premiums on term insurance, AND if you have NOT canceled the in-service waiver of premiums, your policy is still in effect, BUT under waiver. Check on this now.

The best thing to do, if there is any doubt in your mind, is to write to the Veterans Administration, “to cancel Section 622 waiver.” As always, when writing to the VA, make sure you include your full name, present and previous service or file number, date of birth, policy number or numbers (if known), and permanent mailing address.

Confused? Insurance can be confusing to anyone. The best thing is to see your insurance officer now.

- DUTY-FREE GIFTS — Here’s good news for gift-giving Navymen stationed overseas. The Commissioner of Customs says the value of gifts that may be mailed into the U.S. free of duty and tax will remain at the present $10 limit—at least for a while.

For several months the Customs people have considered chopping off the tax and duty-free gift package privilege virtually altogether, owing to widespread abuses which cropped up in recent years. Principal abuses, which make parcels subject to seizure by Customs, included:

- False labeling packages as “gifts.”
- Claims that gifts do not exceed the $10 value limit, when it is known that they do.
- Splitting a gift shipment, such as a set of chinaware valued at more than $10, into smaller parcels valued at less than $10 each.

Wide publicity given the contemplated reduction resulted in a major decrease in abuses.

Now, says Customs, if abuses continue to be kept at a minimum, a reduction may not be necessary.
Biweekly Pay Schedule Meets Approval of Most Navymen During Trial Period

After a six-month test, in which Navymen and Marines at selected activities were paid every two weeks, instead of twice a month, the Navy is encouraging all commands to adopt the biweekly payday system.

During the test, three surveys indicated a widespread acceptance of biweekly pay by Navymen and their wives. Of those surveyed, 81.3 percent preferred it, 13.5 percent did not, and 5.2 percent indicated no preference.

Major advantages are the elimination of payday which span three weekends, easier personal budgeting, due to paydays being on a definite day of the week and, for most individuals, payment of the same amount each payday.

Most of the test activities experienced a leveling of the monthly administrative workload and some decrease in special payments. The major criticism concerned the withholding of a small portion of the earned pay. However, the test questionnaires indicated that after the initial adjustment, regularity and the increased number of paydays compensated for the small amounts withheld.

In the biweekly system any day of the week is selected as the regular payday. The selection is made to best meet such local conditions as banking facilities, shopping opportunities and operating schedules. The amount paid is computed using one of the three methods outlined in SeeNav Notice 7220 of 10 May 1963.

When a regular payday falls on a holiday, the payday is customarily scheduled for the day before the holiday, unless there are local circumstances which dictate otherwise.

Before adopting the biweekly pay system, commanding officers have been instructed to make sure all personnel understand how it works, what effect it will have upon their pay and why it will be advantageous to them and their families. In addition, an information program in advance permits the necessary rearrangement of payments of personal bills to conform with biweekly pay.

While the increase in frequency of paydays will not result in more pay, the change may be expected to ease some of the timing problems many Navy families have.

If, after implementing this change, commanding officers would like to survey their commands to determine how to improve the system, the Navy Comptroller, upon request, can assist by furnishing test questionnaires and instructions.

Attaache Duty for Waves Authorized in Certain Ratings

The office of the Naval Attache, Buenos Aires, Argentina, is soon to receive a chief yeoman who claims to beUnlike any other chief ever assigned to attache duty. This chief is a Wave.

Winfred F. Bishop, YNCA, USN, has been ordered to Buenos Aires for a three-year tour of duty under the provisions of a forthcoming change in Chapters 6 and 14 of the Enlisted Transfer Manual. This change will permit Waves to request attache duty if they are YN, DK or SK in pay grade E-6 or above. Applicants must be unmarried, possess outstanding service records, and be eligible for Top Secret clearance.

Promotion Opportunities Just Fine for Officers In Nuclear Sub Program

WANTED: Outstanding officers to serve in nuclear submarines. The Secretary of the Navy has announced that an urgent need exists for outstanding Sea experienced officers to enter nuclear power training for assignment in the rapidly expanding nuclear submarine program.

Secretary Korth further commented concerning the enhanced promotion opportunities to be offered to outstanding officers serving with the nuclear submarine program.

"Association with one of this nation's highest priority programs provides unprecedented opportunities to increase professional qualifications and potential. Selection boards have been and will continue to be appropriately advised to give enhanced opportunities for promotion to outstanding personnel in the nuclear power field. Outstanding officers serving in nuclear submarines continue to have an enviable record of success in being promoted ahead of many of their contemporaries," he stated.

During this fiscal year it is expected that about 200 officers with the rank of LCDR or below will enter nuclear power training. Applications are desired from all eligible officers who are interested in the program. These applications should be forwarded without delay.

Commanding officers have been instructed to see that officers eligible for this program are informed of the need for applicants and of the increased promotion opportunities for those selected.

Also, interested officers are encouraged to visit nuclear subs in port and to make indoctrination cruises whenever possible.

For the details on eligibility see BuPers Inst. 1520.88.

Selected officers will receive a six-month course of academic instruction, followed by six months of nuclear plant operation. Those volunteering for submarine duty will receive an additional six months' training at New London.
Overpayment Can Mean Trouble for Everyone

Some "safety precautions" have been published for the benefit of Navymen and civilians assigned to administrative, disbursing and personnel work affecting pay and allowances.

According to a recent General Accounting Office report, during four fiscal years ending in 1961, one and one-quarter million overpayments to armed forces personnel totaled over $100 million. Although most of this money was recovered, its collection involved considerable expense and, at times, morale problems.

The report does not state what portion of these erroneous payments can be attributed to the Navy. However, significant errors were detected in these areas:

- **Reenlistment bonus**: Failure to recoup unearned portions of the bonus when a member, due to his own misconduct, or voluntarily, does not complete the term of enlistment for which he was paid a bonus; erroneous payments in excess of the statutory $2000 maximum; paying bonuses for periods of reenlistment extending beyond 20 years; paying at erroneous rates of basic pay; and paying bonuses erroneously to members in a pay grade that does not warrant a bonus or to members during recruit training.

- **Allotments**: Forwarding allotment checks after payroll deductions have been stopped; continuing allotments during substantial periods in which members are in non-pay status; paying allotments after discharge of a person; and paying allotments when payroll deductions are not being made.

- **Leave rations**: Failure to charge periods of authorized absence on the leave record (this error can be the cause of serious morale problems later, and, if not detected, eventually results in a considerable loss to the government, as the member receives payment of basic pay and appropriate allowances for an excess number of days of unused leave at the time of discharge); among other errors is the filing of PCS orders in service records with no action to account for leave taken en route.

- **Basic allowance for quarters**: Paying at erroneous rates; continuing allowances in behalf of dependents after entitlements have ceased; and clerical errors. One more bothersome problem in this area is in determining entitlement to BAQ for those members without dependents.

- **Dislocation allowance**: The following types of unauthorized payments were detected in this area: Dislocation allowance paid to the member when his dependents did not travel to a bona fide residence at the new station; when the household was not actually relocated; when members reported to their first duty station upon entry or re-entry to active duty; when travel was performed before issuance of PCS orders; when the member did not have dependents; and when permanent change of station was within the same metropolitan area or to a hospital for treatment.

- **Advance pay**: Authorizing advance pay on PCS when insufficient obligations were found in which to make an ordinary liquidation; and failing to carry forward unliquidated balances onto new pay records.

- **Basic allowance for subsistence**: Paying BAS when subsistence in kind is furnished during periods that members are in a travel status and receiving per diem allowance; and not deducting BAS for periods while members are on leave or in an unauthorized leave status.

- **Basic pay (longevity)**: Overpayments result if the disbursing office does not receive an adjusted pay entry base date from the personnel office for reason of periods of lost time.

**WHAT'S IN A NAME**

Happy Valley's Triple Career

Since her long, tapered keel was first laid down in 1944, USS Valley Forge has had a triple career. One of the Essex-class carriers ordered for World War II, she has served as a ship in three classifications. Her missions have been numerous, of many types, and all have been performed with distinction.

Known to carriermen as "Happy Valley," the 30,000-ton ship was first commissioned as an attack aircraft carrier (CVA 45), a designation that over the years has been reserved for the biggest, toughest carriers the Navy could put together.

At the time of her commissioning in 1946, Valley Forge was well qualified to serve as a CVA. She was big for the times, measuring nearly 850 feet in length, 93 feet across the beam and 136 feet across the widest portion of her flight deck. She could carry nearly 110 aircraft, and was fitted with numerous guns of various caliber.

Happy Valley spent about two years in the Korean combat zone and, according to Pacific Fleet historians, launched the first American carrier-based aircraft strike of the Korean conflict, and the first American carrier-based jet plane ever used in actual combat, scoring the first Navy kills in aerial combat in Korea by shooting down two Yak-9s over Pyongyang.

By 1952 the jet age was well underway and the need for larger attack carriers was well established. The keels of the 60,000-ton Forrestal (CVA 59) and Saratoga (CVA 60) were laid, and Valley Forge went into the yards for conversion to antisubmarine support carrier status. In January 1954 she rejoined the Fleet as CVS 45, the first flagship of ASW Task Group Alpha, formed in April 1958 as an experimental force that pioneered modern antisubmarine warfare methods and accelerated the development of ASW tactics, doctrine and equipment.

The second life of Happy Valley lasted seven years, during which she distinguished herself by improving and perfecting hunter-killer techniques, and made national headlines in 1960 when she retrieved the nose cone of a space shot from Cape Canaveral.

On 1 Jul 1961, after another major facelifting, Valley Forge began a new life as an amphibious assault landing ship (LPH 8).

She now specializes in vertical envelopment carrying Marines and helicopters ready to land on troubled beaches.

AUGUST 1963
Navy Relief Society Lends a Helping Hand in Time of Need

NAVYMEN FOR MANY YEARS have had reason to be thankful for the existence of a Navy Relief Society.

During the past year, as usual, help has been extended to Navymen in a number of ways. They range from aid in an emergency to a sailor, his wife and sick child, to care for the long stream of refugees from Guantanamo Bay.

The case of the distraught sailor began during lunch time at Navy Relief's headquarters office in Washington, D. C. The sailor had been sent to Washington on a humanitarian transfer so his baby could be treated at the Naval Medical Center, Bethesda, Md., for a heart defect.

Lost in Washington, the young man had started at the top of the official ladder by inquiring as to where he should go. He was referred to the Navy Relief Office. When he reached the office he was overcome with fatigue and worry.

He and his family had driven from Wisconsin, and they were tired and hungry.

One of the first things the Navy Relief people did was get the wife and baby out of the car, and something to eat for the whole family.

While they were having lunch, Navy Relief workers made arrange-
ments for the man to get the baby to the hospital and contacted the chaplain at his new duty station to find out where the man should report.

A yeoman in the chaplain's office volunteered to share his apartment with the family for the next two weeks while they looked for a place of their own. In a matter of minutes, the baby was in the hospital receiving expert attention, the Navyman and his wife were temporarily settled, and the outlook for the future looked considerably brighter—thanks to Navy Relief.

The Navy Relief Society provides assistance in lots of ways. Take loans, for example.

The number of loans which the Navy Relief makes without interest charges or collateral dropped last year. The society takes this to be an indication of better financial planning on the part of Navymen since, in the past, many of the loans it made were necessitated by shortsighted or over-optimistic management of family finances.

Even though the number of loans diminished last year, still 51,722 of them were made, totaling well over three million dollars.

The Navy Relief Society also made 13,601 outright grants, total-
ing more than 844 thousand dollars. This money was given to especially hard-put Navymen and families without any obligation on their part to pay it back.

In the Cuban crisis Navy Relief helped collect diapers and other baby gear, plus clothing for older children and adults, to be ferried to ships carrying refugees from tropical Guantanamo Bay to a freezing Norfolk.

It was also on hand at Norfolk to supply those who needed it, with money for travel. However, because of advance pay arrangements made by the Navy, only a comparatively few needed to ask for this kind of assistance.

In addition, Navy Relief took care of situations which arose incidental to the Cuban crisis in such areas as Camp Lejeune, Key West and Camp Pendleton, where rapid, secret deployment of troops and ships left no time for men to make allotments to their families.

Many were accustomed to receiving a pay check at home each pay day. With the head of the house away on duty, families living in government housing were left with no BAQ allotment available and, in many cases, no voluntary allotment to meet household expenses.

It wasn't a matter of not having money, it was a case of its not being in the right place. This story, of course, didn't cut much ice when the bills came due, but Navy Relief alleviated the situation with loans to families temporarily in need.

The Navy Relief Society works on the assumption that Navymen want to maintain their independence, and offers its assistance much in the same spirit that a close friend would offer assistance to a buddy.

It has no intention, of course, of maintaining a Navymen indefinitely.

The Society exists to lend a helping hand when, for some reason or other, the going gets rough. When it makes a loan it does so without interest charges and with no more collateral than the Navyman's word that he will pay it back on the terms agreed upon.

In some cases, where repaying the money would create great hardship, the Society considers it a gift.

Many times, Navymen come to

Financial Emergency? Check with Navy Relief

The Navy Relief Society is an organization to aid Navymen temporarily in distress because of unforeseen emergencies.

In many such cases, it supplies the Navyman or his family either with a loan or an outright grant or a combination of both. At times, it may also convert a loan to a grant when the recipient cannot afford to repay the loan.

Here are some examples of situations in which financial aid might be granted:

- Active duty or retired Navymen can call upon the Navy Relief Society for loans to cover basic necessities while awaiting delayed dependency allotments or in other emergencies for which family resources are temporarily inadequate.
- When a Navyman dies, the Society may help his widow, minor

children or dependent parents to obtain their basic needs until they receive government benefits.

It might even help the widow get back to her family and finance a training course to help her earn her own living. In some cases, it provides assistance to the widow to enable her children to remain in school.

There are also the sort of cases which may consist simply of advice from persons qualified to give it, or help in obtaining someone to care for the children in an emergency situation. (See article, this page.)

Through these loans, grants and services the Navy Relief Society makes an important contribution to Navy morale and to the security and peace of mind of the individual Navyman and his family.
the Society with their personal problems, and frequently get expert counseling from people who are at a better vantage point than the ones who are emotionally involved.

At other times, Navy Relief is able to find ways of caring for children while one or both of their parents are disabled.

Navy Relief carries on its work with only a handful of paid employees, whose salaries are paid from income accruing from the Society’s investments. These investments are largely in the form of stocks and bonds which have come to the Society as bequests.

The Navy Relief Society’s great personnel strength comes primarily from its corps of more than 6600 volunteer workers, who give their time without compensation.

Any Navyman or Navy dependent who wants to ask for help can go to one of these workers for it, or he can write to the Navy Relief Society’s Headquarters in Washington, D. C., or to any of its 49 auxiliaries.

Auxiliaries are located at:
- The Marine Corps Supply Center, Albany, Ga.
- Naval Training Center, Bainbridge, Md.
- Balboa, C. Z.
- Camp Lejeune, N. C.
- Camp Pendleton, Calif.
- Marine Corps Air Station, Cherry Point, N. C.
- Submarine Base, New London, Conn.
- Naval Air Station, Dallas, Tex.
- Washington, D. C. headquarters of NRS.
- Naval Air Station, Alameda, Calif.
- Marine Corps Air Station, El Toro, Santa Ana, Calif.
- Naval Training Center, Great Lakes, Ill.
- Guantanamo Bay, Cuba.
- Naval Base, Norfolk, Va.
- Naval Air Station, Jacksonville, Fla.
- Naval Base, Key West, Fla.
- Naval Air Station, Lemoore, Calif.
- Naval Station, Long Beach, Calif.
- Naval Shipyard, Mare Island, Calif.
- Boston, Mass.
- Naval Academy, Annapolis, Md.
- Naval Base, Portsmouth, N. H.
- NAS, Lakehurst, N. J.

When the Navy established the bureau system in 1842 there was no Bureau of Naval Personnel, or any equivalent to it. The Secretary of the Navy handled the appointment, assignment and promotion of officers. Ship captains usually recruited crews from the area near a ship’s home port, and for only one cruise at a time.

When the Civil War broke out in 1861, assignment of naval personnel became more complicated. To handle the problem, Secretary of the Navy Gideon Welles set up the Office of Detail, which looked after officer appointment, instruction and assignment.

In 1862 the newly created Bureau of Equipment and Recruiting took over the recruiting of enlisted men. It has been explained that recruiting was connected with equipment because providing a ship with a crew was akin to equipping it.

The Bureau of Navigation was established the same year—1862. Some of the first activities assigned to it were the Naval Observatory, Nautical Almanac Office, Hydrographic Office and the Naval Academy, since it was intended as a scientific bureau.

However, at the end of the Civil War, Secretary Welles transferred the handling of all officer personnel matters from the detail office to the Bureau of Navigation. Then, in 1889, Secretary of the Navy Tracy reassigned the duties of the bureaus, bringing the handling of enlisted personnel under the control of the Bureau of Navigation.

BuNav gradually lost its technical duties and, when World War II broke out, was primarily concerned with personnel administration, although the Naval Observatory and Hydrographic Office were still under its control.

Shortly thereafter, these activities were placed under the control of the Chief of Naval Operations and, in 1942, the Bureau of Navigation was renamed the Bureau of Naval Personnel.

From the small Office of Detail where clerks once wrote up orders with pen and ink, BuPers has developed into a complex organization, using such modern equipment as electronic computers and data processing machines.

BuPers recruits, trains and distributes all naval personnel—officer and enlisted. It looks after the welfare, promotion and discipline of Navymen; operates all training centers and recruiting stations; and maintains liaison with the other armed services of the Department of Defense on personnel matters.

Among the past Chiefs of the Bureau of Navigation and Bureau of Naval Personnel are such well-known figures as Admirals David D. Porter, who was chief for the month of August 1865; William D. Leahy, June 1933-June 1935; and Chester W. Nimitz, June 1939-December 1941.

<table>
<thead>
<tr>
<th>Navy Relay Hospital</th>
<th>Location</th>
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<tr>
<td>Navy Station, New Orleans, La.</td>
<td>Naval Shipyard, Brooklyn, N. Y.</td>
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<td>Naval Station, Orange, Tex.</td>
<td>Naval Station, Orange, Tex.</td>
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<tr>
<td>Naval Air Station, Pensacola, Fla.</td>
<td>Naval Air Station, Quonset Point, R. I.</td>
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<tr>
<td>Naval Shipyard, Bremerton, Wash.</td>
<td>Naval Air Station, Newport, R. I.</td>
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<tr>
<td>Marine Corps Schools, Quantico, Va.</td>
<td>Naval Station, San Diego, Calif.</td>
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<tr>
<td>Naval Supply Depot, Seattle, Wash.</td>
<td>San Francisco, Calif.</td>
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<tr>
<td>Naval Air Station, Corpus Christi, Tex.</td>
<td>Naval Air Station, Corpus Christi, Tex.</td>
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<tr>
<td>Naval Base, Charleston, S. C.</td>
<td>There are also Navy Relief Society offices for Alaska, Bermuda, Hawaii, London, Japan, the Marianas Islands, the Philippine Islands, Puerto Rico, Sigonella (Sicily) and Trinidad, BWI.</td>
</tr>
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Seavey Segment Three
Orders Will Start Going
Out on 1 October

If you're in one of the ratings of
Seavey Segment Three, you may now
check your basic eligibility for trans-
fer ashore. Sea duty commencement
cutoff dates for these ratings were set
forth in BuPers Notice 1306 of 18
May 1963.

The Seavey listing of men eligible
for transfer under this segment will be
received in the Bureau of Naval
Personnel about 1 Oct 1963. At
that time, the first Segment Three
orders of men will be issued, directing
the transfer of men in February
1964. No inquiries as to the Seavey status
of individuals eligible for Seavey
Segment 3-63 can be answered before
1 Oct 1963.

Commanding officers may check
column W of the Enlisted Distribution
and Verification Report (BuPers Report
1060-14) which identifies
a man's Seavey status through a
two-position code. This code is ex-
plained in the Instructions for the
Naval Manpower Information Sys-
tem. NavPers 15,642, Part 1 (Acti-
ve). This code will normally an-
swer all questions concerning Seavey
status.

Men serving overseas, who are eli-
gible for Seavey, must have one year
of obligated service remaining from
the month their overseas tour expires
to receive shore duty orders. Those
who do not must indicate on their
Seavey rotation data cards an agree-
ment to extend their enlistment.

Otherwise, they will be reassigned
to sea duty or extended by the ap-
propriate Fleet Enlisted Personnel
Distribution Office.

Below are the sea duty cutoff
dates for the third segment. Senior
and master chiefs have the same cut-
off dates as those in pay grade E-7,
unless otherwise indicated.

<table>
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<tr>
<td>FEB 1962</td>
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Year of Obligated Service
Is Key to Seavey Tour Date

Seavey detailers in the Bureau of
Naval Personnel have noted many
cases in which men completing
overseas tours do not understand
why they have received 14-month
extensions of duty.

The explanation is that men on
overseas tours and on each new
Seavey segment, who do not have a
year of obligated service from the
month the overseas tour expires, will
be reassigned. Each man should
remember that he is usually con-
considered for assignment months before his rotation date. If the
required obligated service is not in-
dicated at that time, the 14-month
extension will be applied. His status
will not change if the obligated
service is acquired after the exten-
sion is applied.

PuPers Notice 1306 of 18 May
1963 announced sea duty commen-
tence cutoff dates for Seavey
segment 3-63 and called attention
to the obligated service require-
ments.

If you are on Seavey, or if you
anticipate making the next Seavey,
it would be wise to review this
Notice.

Grains of Salt—

List of Motion Pictures
Available to Ships
and Overseas Bases

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

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

Motion Pictures

Love is a Ball (2322) (C) (WS):
Comedy; Glenn Ford, Hope Lange.  
My Ship (2323) (WS): Drama; Paul
Newman, Patricia Neal.

Only Two Can Play (2324):
Comedy; Peter Sellers, Mai Zetter-
lung.

A Face in the Rain (2325):
Drama; Rory Calhoun, Marina
Berti.

Five Fingers (2326): Melodrama;
James Mason, Danielle Darrieux
(Re-Issue).

Walk East on Beacon (2327):
Drama; George Murphy, Virginia
Gibson (Re-Issue).

Follow the Sun (2328): Drama;
Glenn Ford, Anne Baxter (Re-

The Pride of St. Louis (2329):
Drama; Dan Dailey, Joanne Dru
(Re-Issue).

Come Fly With Me (2330) (C)
(WS): Comedy Drama; Dolores
Hart, Hugh O'Brian.

I Could Go On Singing (2331)
(C) (WS): Musical Drama; Judy
Garland, Dirk Bogarde.

Black Gold (2332): Drama;
Diane McBain, Philip Carey.

The Wrong Arm of the Law
(2333): Comedy; Peter Sellers,
Lionel Jeffries.

People Will Talk (2334): Com-
edy; Gary Grant, Jeanne Crain
(Re-Issue).

The Official Story (2335):
Drama; Dana Andrews, Gene
Tierney (Re-Issue).

Black Rose (2336): Drama; 
Tyre Power, Cecile Aubry (Re-

Coroner Creek (2337): Western;
Randolph Scott, Marguerite Chapman
(Re-Issue).

Come Blow Your Horn (2338)
(C) (WS); Comedy; Frank Sinatra,
Barbara Rush.

It Happened At The World's Fair
(2339) (C) (WS): Elvis Presley, 
Joan O'Brien.

The Main Attraction (2340) (C):
Drama; Pat Boone, Nancy Kwan.
Operation Bikini (2341): Drama;
Tab Hunter, Frankie Avalon.
711 Ocean Drive (2342): Drama;
Edmond O'Brien, Joanne Dru (Re-Issue).
The Day The Earth Stood Still (2343): Science Fiction; Michael Multi,
Lauren Bacall, Michael Rennie, Patricia Neal (Re-Issue).
Tokyo Joe (2344): Drama;
Humphrey Bogart, Florence Marly
(Re-Issue). Dreamboat (2345): Melodrama;
Clifton Webb, Ginger Rogers (Re-Issue).
Island of Lost (2346): Comedy;
Robert Preston, Patricia Neal (Re-Issue).
The Yellow Canary (2347): Drama;
Pat Boone, Barbara Eden.
The Nutty Professor (2348): Comedy;
Jerry Lewis, Stella Stevens.
Flipper (2349): Drama;
Chuck Connors, Kathleen Maguire.
All The King's Men (2350): Melodrama; Broderick Crawford,
Mercedes McCambridge (Re-Issue).
Sirocco (2351): Drama; Humphrey Bogart, Marta Toren (Re-Issue).
Sandal Sheet (2352): Drama;
Broderick Crawford, Donna Reed (Re-Issue).
Hangman's Knot (2353): Drama;
Randolph Scott, Donna Reed (Re-Issue).

DIRECTIVES IN BRIEF
This listing is intended to serve only for
general information and as an index of
current Alnavs, BuPers Instructions, BuPers
Notices, and SeCNav instructions that apply
to ships and stations. Many instruc-
tions and notices are not of general interest
and hence will not be carried in this section.
Since BuPers Notices are arranged accord-
ing to their group number and have no
consecutive number within the group, their
date of issue is included also for identi-
fication purposes. Personnel interested in
specific directives should consult Alnavs,
Instructions and Notices for complete de-
tails before taking action.
Alnavs apply to all Navy and Marine
Corps commands; BuPers Instructions and
Notices apply to all ships and stations.

Alnavs
No. 14—Announced approval by
the President of the report of a
selection board which recommended
line officers for temporary promotion
to the grade of rear admiral.
No. 15—Announced approval by
the President of the reports of selec-
tion boards which recommended offi-
cers of the Medical Corps, Supply
Corps, Civil Engineer Corps and
Dental Corps for temporary promotion
to the grade of rear admiral.

In Sasebo, Japan, not long ago,
Joseph A. Butler, SFC, USN, was
commended by the commanding
officer of vs Epping Forest (MCS 7)
for outstanding service while
on board that ship. There have been
many such commendations, and in
all likelihood there will be more,
but this commendation was a little
different.

Following the commendation of
Chief Butler, his CO, CDR G. A.
Schaedler, USN, continued on to
commend the chief's wife, who was
present for the ceremony. Mrs. Butler received praise for her tire-
less efforts in civic affairs, for her
assistance to Navy families newly
arrived in Japan, and especially
for the splendid example she set
for Navy wives and mothers in the
Sasebo area.

Because Mrs. Butler is typical of
Navy wives who have been doing
this type of work for many
gyears, CDR Schaedler was pleased
to recognize her efforts as well as
those of her husband.

Grains of Salt—

AUGUST 1963
THE 20TH ANNIVERSARY of the establishment of the U. S. Naval Photographic Center marks a period in which NPC has paced the Navy in photographic progress.

The story begins in 1943 at the Anacostia Naval Station, Washington, D. C., during World War II. It was a cold, blustery February day when Secretary of the Navy Frank Knox formally established the U. S. Naval Photographic Science Laboratory, later named the U. S. Naval Photographic Center.

In 1941, a board convened by Secretary Knox had recommended that existing facilities be expanded and a central photographic laboratory be built to meet new photo requirements. The Bureau of Aeronautics, which had earlier experience in military photography, was assigned to the program.

Construction at the Anacostia Naval Air Station began in February 1942. The building drew pessimistic predictions, since it was built but a short distance from the roaring vibration of planes landing and taking off. An ingenious solution was found. Suspended within the building an insulated shell was constructed to surround the camera and stage unit. A year later, in February 1943, the building was completed, and officially opened.

It was not accidental that the roster of personnel read like a “Who’s Who” of U. S. photography. The Navy needed highly skilled motion picture and still photo personnel, and it got them. From Hollywood and New York, from Chicago, Rochester, and wherever they could be found, came the photographers, editors, animators, lab specialists, writers, directors.

World War II created thousands of highly specialized jobs for which men had to be trained quickly. The Motion Picture department devised speeded-up methods for making the films and based them on solid teaching principles to ensure that the training was effective. They used the concept of motion pictures and audioslide-films for training, which was, for the Navy, a new approach. Soon, hundreds of training aids and instructional films were running through the production lines, covering just about every conceivable subject—from battlefield surgery to operation of 5-inch/38 guns. The programs were successful and commercial film firms were given contracts to produce additional training films for the Navy.

PSL’s partner in the production of Navy films during the war years was the Hollywood U. S. Naval Photographic Services Depot which provided the liaison between Navy and Hollywood studios. Many of the outstanding training films of the war were produced by Navy personnel working there.

The Research and Development Department met problems and demands with inventions and modifications of photo equipment, cameras, and chemistry. They expanded production and improved quality.

The Still Picture Department was literally swamped with processing and printing requirements. Requests were received for pictures of every conceivable kind. Shortly after the building was commissioned and in full operation the third deck was sealed off to become one of the most closely guarded top secret areas in Washington. Here, Navy personnel worked night and day to produce photo mosaics of the Normandy beachheads for the impending invasion of France.

World War II was the first major conflict to be thoroughly documented on film. Navy photo teams entered every arena of combat. Their stills and motion picture
footage found their way to the PSL's labs where they were processed, edited into informational films, and often released to a public eager to know what was happening, or preserved in the film archives for release after the war's end as history.

The films that flowed in mirrored the course of the war. In the projection rooms and in the still library could be seen the long array of amphibious craft moving in on the beaches of Leyte, or the last rites for a Marine lying on the volcanic ash of Iwo Jima. There were views of flaming and exploding Zekes and Tonies in a battle that would later be famous as the "Marianas' Turkey Shoot," or the ordeal of the Navy as it fought the kamikaze onslaught off Okinawa.

There were many other unforgettable scenes caught on film—the beachhead battles at Normandy, the crossing of the Rhine, the courage of the Franklin, and the final chapter—the solemn ceremony in Tokyo Bay aboard USS Missouri (BB 63).

With the end of the war, most of the laboratory staff returned to their jobs in industry.

The post-war breathing spell for the Navy was to be a short one. Photography had gained momentum and was advancing swiftly. It became obvious that the science of photography was undergoing vast changes. The Navy's central photographic laboratory, renamed the U.S. Naval Photographic Center, was heavily involved.

NPC was caught up in the demands for new techniques, materials, and equipment to keep up with the increasing photo requirements. The command had to continue to maintain its reputation as a leader in the field of photography.

The importance of NPC increased as photography became a tool in naval planning and policy. Radically new ships, submarines, missiles and planes became operational, with the accompanying need for film services to train personnel, and to provide photo information for intelligence uses, and to the public and press. Improved cameras, films, papers not available in earlier years required special techniques in handling and processing as high quality photography became more important.

The motion picture Department, still the largest activity in NPC, made many contributions to the art of teaching with films. Over 45 prizes and awards were given to NPC films from 1943 to 1962.

NPC films have been exhibited at home and abroad, and have received awards at the International Exhibitions at Venice, Italy, and at the Film Festivals in Edinburgh, Scotland. They have been honored by the Academy of Motion Picture Arts and Science; the New York Film Critics; the American Film Festival in New York; the Film Council of America; the Stratford, Ontario, Film Council; the Associated Film Writers; National Safety Council and its National Committee on Films for Safety; and the Art Directors' Club of New York.

Among the films either produced by NPC or in the making of which it cooperated were such productions as 20th Century-Fox's "Fighting Lady," Warner Bros. and U. S. Marine Corps' "With the Marines at Tarawa," National Broadcasting Company's "Victory at Sea;" the U. S. Marine Corps' "Force in Readiness;" and Office of Strategic Services' "Battle of Midway." Also, PSL's "Fleet That Came to Stay;" and NPC's "Origins of the Motion Picture," and recent "uss Nautilus," "Portrait of Antarctica," and, with the U. S. Informational Service, "Polaris—Time for Survival."

The most ambitious undertaking of government and industry of this nature was the production of "Victory at Sea," a series of 26 programs, each 30 minutes in length, made 10 years ago, still being shown and still considered an outstanding historical documentary.

Television proved an ideal medium for presenting Navy films. As a result of the Navy's cooperation
A reel of 16mm motion picture film to be printed.

with the TV industry, the American public saw firsthand some of the great episodes in the Navy’s history.

Navy films play a dual role. While they advance technical knowledge and education in the Navy, they also become an important aid to educational institutions and industry.

Films on medicine and surgery and other medical subjects are widely used to train doctors, nurses, hospital corpsmen, and technicians.

A series of six films concerning transistors have become “best sellers” to universities and industry for informing and training students concerning this scientific break-through.

A series of six films on computers have filled a gap in training needs of industry, as well as the Navy, on the complexities of modern computers.

Although such films are produced primarily for the Navy with Navy funds and production is supervised by NPC, the demand for them by private industry, universities, and others has been heavy.

Both the training film and other film services have required drastic changes in technique and methods. New approaches in camera work and processing are now in use. Art and animation are widely used. In 1962, training films were produced at the Photo Center using closed circuit TV. Today, motion pictures are being produced, not on film emulsion, but on magnetic tape.

Tape can record images with less illumination than needed for film. Speed and economy are additional features of the videotape system. Since videotape records both picture and sound by a single system and permits immediate play-back and editing, it is possible to edit a program on videotape or kinescope (film) with little delay. This system is now used by NPC.

The Motion Picture Department’s production facilities at NPC include sound stage; film and tape recording and mixing equipment; art and animation artists, film and sound editors, TV specialists, script writers, Navy photographers and technicians, directors and producers.

The processing division is capable of developing and printing negative film, release prints in 35mm and 16mm black-and-white, and negative-positive color. More than 15 million feet is processed and printed yearly.

An average of about 150 motion pictures are filmed each year. Their primary use is for training, maintaining Fleet readiness, explaining new weapons and devices; and for medical, historical, indoctrination, safety, and recruiting purposes. Many motion pictures are produced with NPC’s own facilities and personnel. However, approximately 75 per cent are contracted out to established commercial film producers, and supervised and supported by NPC personnel.

The Motion Picture Film Depository contains millions of feet of film taken by the Navy over the years. The library holdings contain stock footage for current films and are widely used by other government agencies and commercial film firms. Nearly a million feet is cross-referenced and filed as stock footage each year. More than a million feet yearly is used for training films and TV and motion picture industry films. Many episodes from TV series like “20th Century,” “Project 20,” and “Navy Log” came from the Film Depository. The Depository is also now in the process of converting all nitrate base film to safety film. Nitrate film represents old but invaluable footage of Navy history. These records will deteriorate and disappear unless copied on safety base film.

The Motion Picture Department has also pioneered in the making of Technical Film Reports. These contain scientific records, often using special illustration techniques to show equipment instrumentation and functions. They are also used to show scientific progress, for engineering analysis and documentation, for information on missiles like Polaris and other military weapons.

During World War II, Strategic Film Reports were made by the Art and Animation Branch. Written reports and descriptions were sent in from the battle zones of the Pacific and battle scenes were reconstructed through the use of art and models, and then made into motion pictures. The films were studied by command officers for possible changes in military strategy. This was the first time motion picture art techniques were used in this way.

NPC pioneered in developing the Filmagraph technique. Using still photographs on motion picture film, Filmagraphs have replaced sound film strips. The name was coined by the Navy and it has become a widely accepted definition and technique by private film industry.

There is direct liaison with Hollywood’s motion pic-
ture industry through the Navy's Motion Picture Office in Hollywood, which cooperates with individual producing companies, the Motion Picture Producers of America, and the Academy of Arts and Science. Outstanding Navy films have been made available to the Hollywood Motion Picture and Television Museum.

A cooperative relationship with commercial motion picture and television interests has benefited the Navy. Whenever private sources provide a film which can be used for educational or training purposes, it has been used by the Navy. An excellent example is "The Year of the Polaris," and Edward R. Murrow's CBS program which was used by the Navy for educational purposes.

In the same spirit, the Navy has made available its own films to the public. Many Navy films have proved useful for film libraries in the U. S. Information Service foreign program, for school use in education, and for use by private industry in training. Such films are released through the Office of Education.

Recently, responsibility for central distribution of all Navy films was assigned to NPC, which also compiles and publishes the Navy Training Film Catalog.

To much of the Fleet and the public, the Navy Photo Center means the Still Picture Department. Here have been produced all types of still photography, including aerial photography for intelligence use, official portraits, murals, and public information photos.

During World War II, the Still Picture Department printed V-Mail and microfilms. The latter grew enormously, rising to a production of 100,000 feet of paper prints daily. Continuous processing techniques and ingenious short cuts in production made this output possible.

Here aerial Kodacolor was first processed for the Fleet; captured enemy films were viewed and analyzed; and photolithographic services were provided, as were aerial film processing and printing. Printing and processing at NPC are still the heart of the Fleet's photographic program. The press received its print releases from NPC and the vast coverage printed in newspapers and magazines showed the American public the progress of the war and intimate glimpses of its men in action.

One big change over the years has been in the growing demand for color films. In 1961 the color production methods were changed from dye-transfer to Type C color printing. Soon automatic color roll paper processing equipment will be installed.

In earlier years, the Still Department maintained many office-type duplication reproduction and photolithographic services, which have been eliminated. The department is now entirely photographic.

The Still Picture has been widely utilized to become part of many motion pictures using the Filmagraph technique. Stills are also widely used in the preparation of slide-sound audio visuals. Pictures taken by Navy photographers in the Fleet come to NPC from all over the world to be processed, printed, and sent out for distribution to the national press.

In the Still Picture Library are many thousands of negatives and prints which comprise a history of the Navy. They are widely used by the commercial film industry, TV stations and networks, other Defense and government agencies, the public, newspapers and magazines, and book publishers, to illustrate their publication.

Over 36,000 negatives a year are received from the Fleet and from Navy cameramen all over the world. Available to the public on a pay basis, pictures from these files have illustrated famous books such as LIFE's "History of World War II," "History of U. S. Naval Operations in World War II" by RADM Samuel Eliot Morison; "U. S. Destroyer Operations in World War II" and "U. S. Submarine Operations in World War II"—both by Theodore Roscoe; "U. S. Naval Aviation, 1910-1960" by Adrian O. Van Wyen and Lee M. Pearson; "Beans, Bullets and Black Oil" by RADM Worrell Reed Carter; "The Blue Ghost" by Capt Edward Steichen; "Victory at Sea" by Henry Salomon and Richard Hansen, and "Golden Wings" by Martin Caidin. Nearly a quarter of a million black-and-white and color prints pass through the Still Picture Library yearly.

Navy photos now in the Still Picture files are valuable reference material for historians, now and in the years to come. An outstanding example is the coverage of Antarctica.

Development and research, test and evaluation, experimentation, invention, modification—all are functions of Research and Development. In addition, technical photo specifications are written here. A photographic Publications Division writes instruction, bulletins, and manuals for the Fleet.

In recent years, Research and Development has accomplished the following (you may not understand the terminology—neither did we—but the experts will):

- Developed the Navy Rapid Paper Processor which can process 27 feet of paper per minute. Hot solutions with temperatures up to 115°F are the key to the success.

WELL-EQUIPPED black and white finishing room handles all incoming and outgoing jobs.

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During WW II Navy personnel worked night and day to keep up with the production demand.

cess of this processor, which has been adopted by other Defense and government agencies, and by private industry.

- Engineered color film processing machines with automatic agitation.
- Designed housing for 4 x 5 underwater cameras.
- Designed and wrote specifications for the first 70mm underwater camera.
- Performed original development work on the kine-
scope recording camera.
- Sponsored the development of a web processing magazine. Manufacture of the magazine and successful formulas for special web processing were completed under contract, supervised by R & D. This processing magazine can be adapted to the back of any roll film camera. Immediately after exposure the film is developed and fixed, and is immediately ready for viewing or printing. This is now operational.
- Developed the first cyclo-spray processing unit for 70mm film. The machine used atomized spray and rapid access processing instead of conventional methods, and achieved a production speed of 60 feet per minute at a hot temperature of 90°F. The success of the machine depended on the development of new rapid processing formulas which were specially devised by the department. Another development was special prehardened film, made by a commercial firm at R & D request.
- Developed scope recording, cathode ray recording, and kinescope recording, also in color.
- Perfected rapid processing of oscilloscope traces.
- Engineered a rapid-cycling intervalometer, which permitted low-level aerial photography with increased sharpness.
- Recognized the potential of roller transport processing systems and encouraged their development and use.
- Were first to recognize the potential of Xerography. Some of the first printers were obtained by NPC, and experimental work was performed in continuous-tone Xerographic printing.
- Were among the first to conceive and develop 70mm reconnaissance photography.
- Developed procedures for using 16mm motion picture film as either negative or positive, and then developed new chemistry for accomplishing this.
- Developed submarine periscope photography and new cameras and adapters to improve the quality.
- Made the first successful kinescope recording from an underwater TV camera.
- Made the first airborne kinerecording with a TV camera. A TV camera was carried on a Navy blimp and transmission of pictures was made to the ground receiver. This was later used in the Korean conflict in the front of a robot plane so the ground operator could visually direct the robot plane to its target.
- Tested and evaluated captured enemy photo equipment.
- Developed the first high acuity step and repeat still enlarger. Original ideas were conceived, specifications were written, and the development supervised.
- Made early improvements in rapid access photography—radar camera, processor and projector combined to result in projected finished pictures seven and one-half seconds after exposure.

Research and Development personnel also participated in the committees of the American Standards Association and helped to establish standards in photo equipment and supplies.

A N IMPORTANT SUPPORTING DIVISION of R & D is the Publications Division which writes and produces all technical photographic publications for the Navy. Manuals, Photo Technical Bulletins, and other photo literature produced here keep the Fleet abreast of latest developments and techniques in photography.

The Publications Division also maintains a Technical Library dealing with all phases of photography.

Scientific advances undreamed of by the pioneering personnel who first opened the Photo Center back in 1943 have become a reality. Already, developments in the new areas of science are so complex that difficulties arise in communicating knowledge essential for required training of personnel and in translating photographically the infinite amount of information now capable of being transmitted. There are revolutionary concepts of propulsion, nuclear-powered ships and submarines, high-speed aircraft, missiles, satellite navigation and weather systems, underwater exploration and oceanography, and exploration in outer space.

The capability of photography for investigating, recording, researching, and communicating has already added information of great value. Explorations into frontiers that excite the imagination—frontiers like the activities in the Antarctic, nuclear submarine navigation under the North Pole and through the Northwest Passage, explorations at tremendous depths never before seen by man—all are areas in which Navy photography plays a part in lifting the veil of many mysteries.
DENNISON, Robert L., ADM, USN, for service from February 1960 to April 1963 as Supreme Allied Commander Atlantic and Commander in Chief, U.S. Atlantic Fleet. ADM Dennison, as Supreme Allied Commander Atlantic, skillfully directed the highly sensitive aspects of this assignment, and contributed substantially to the high state of readiness and efficiency of the forces of the North Atlantic Treaty Organization.

JAMES, Ralph K., RADM, USN, for service as Chief, Bureau of Ships, and Coordinator of Shipbuilding, Conversion, and Repair for the Department of Defense from April 1959 through April 1963. Exercising remarkable foresight and professional abilities of the highest order, RADM James has had a direct and substantial influence in the success of the U.S. Navy in achieving its pre-eminent position of unprecedented technological superiority and superb material readiness. The Fleet's strike capabilities have been revolutionized by the expedition's completion in ever-increasing numbers of new missile-armed surface ships, aircraft carriers, Polaris submarines and nuclear-powered ships.

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DIXON, George C., CDR, USN, for the performance of outstanding service from 22 Oct to 26 Nov 1962 in response to an urgent requirement of the Department of Defense. During this period, CDR Dixon exhibited unusual technical knowledge and skill in designing, developing and placing in operation complex and original communication equipments of great urgency. Through his original thinking, creative efforts, determination and perseverance, he was responsible for making available to the Department of Defense unique communication equipments which have far-reaching applications and which are unquestionably most valuable assets to the Department.

KNIGHT, Page CAPT, USN, for services from June 1960 to June 1963 as Assistant Chief of Staff for Plans on Staff of CINCLANT and CINCLANTFLT. During this three-year period of recurring international crises involving all the areas for which CINCLANT is responsible or required to support, Captain Knight personally directed the preparation of all general war, contingency and cold war plans and was responsible for generation of strategic studies leading to new concepts and command policy. He provided the Commander in Chief sound, feasible and economical courses of action. During the Cuban crisis of 1962 he supervised the details of execution of all facets of the strategic plan of CINCLANT, and of the operational plans of the Army, Naval and Air Force components.

Gold Star in Lieu of Second Award ✴ LAWRENCE, Martin Jay, RADM, USN, for outstanding services from June 1960 to June 1963 as Chief of Industrial Relations. During this period, RADM Lawrence exercised a high degree of professional skill and resourcefulness in directing the efforts of the Navy's vast and complex industrial relations organization. Under his direct guidance, the Navy has taken the leadership in implementing the President's Executive Order on Employee Management Cooperation. To familiarize senior commanding officers with practices and methods employed in relationships between labor unions and management, RADM Lawrence personally directed the establishment of seminars on techniques for negotiation of contracts.

Gold Star in Lieu of Second Award ✴ MCDONALD, Edwin A., CAPT, USN (Ret.), for outstanding service from 29 Jun 1956 to 30 Jun 1962 while serving as Task Group Commander and Deputy Commander, U.S. Naval Support Force, Antarctica. Exercising sound judgment and outstanding knowledge of ship operation in those regions, CAPT McDonald skillfully commanded resupply and exploratory ship task groups of Task Force 43 for the U.S. Navy's Operation Deep Freeze from its inception to the conclusion of Operation Deep Freeze 62. During this six-year period, he effected timely delivery of thousands of tons of cargo, despite stormy conditions. In addition, he personally led scientific expeditions into previously unexplored Antarctic waters.

HIGHLY, Francis M., Jr., LCDR, MC, USN, for heroic conduct on 17 Nov 1962 while serving at the Air Crew Equipment Laboratory, Naval Air Engineering Center, Philadelphia, Pa., as a flight surgeon and inside supervisor/observer on a 14-day confinement run conducted in the Bioastronautical Test Facility to determine the effects of acceleration and prolonged exposure to 100 per cent oxygen at a simulated altitude of 25,000 feet as applicable to National Aeronautics and Space Administration Project Gemini. When a fire broke out in the lower bunk area of the Bioastronautical Test Facility and quickly spread to the clothing of the test subjects, LCDR Highly, disregarding his own flaming clothing, attempted to extinguish the fire which had enveloped his comrades. He then sounded the alarm to the outside observers and operators and directed emergency evacuation of the subjects from the test facility, thereby averting what could have been a much greater accident.

HINCHLEY, Timothy K., Jr., LTJG, USN, for heroic conduct on the afternoon of 7 Oct 1962 while serving on board uss Nautilus (AO 106) at sea approximately 380 miles east of Yokosuka, Japan. After a fellow crewman was washed overboard from the stern cargo deck of Nautilus during heavy sea conditions with seven-to-10-foot waves, LTJG Hinchley, who was on the bridge as ship's navigator, sighted the man on the return run of the ship and, despite the heavily rolling seas, entered the water to attempt a rescue. Although subjected to repeated pounding and immersion as the vessel rolled to port and starboard, he finally managed to secure a line around the injured and nearly exhausted victim, permitting the latter to be lifted to safety.
OUR EDITOR-IN-CHARGE-of-irrelevant-statistics has finally met his match, he thinks, in the person of LCDR David D. Davison, who serves in USS Ranger. Not content with such routine and possibly useful data as fuel oil consumption, miles steamed and landings completed, LCDR Davison has come up with some figures that would be hard to beat.

With the assistance of Nat Picker, STC, LCDR Davison is compiling the 167,311-page WestPac Catalogue of Little-known and Relatively Useless Information.

Just to give you an idea, in the event that you are planning to place an advance order with LCDR Davison:
- The word "Now" was spoken over the 1MC 123,411 times during Ranger's recent cruise.
- 227,000 announcements were made by the air boss over the flight deck speaker system. Of this amount, 50,306 were understood in their entirety. 38,115 were partially understood, the flight deck speaker system. Of this amount, 50,306 were during final thought—"It matters little what you do—it's how well you keep records of it that counts."
- 187,311-page compiling the 187,311-page general mess. Of these, 1100 were bent back to their original position.
- 28,347 buttons were torn from shirts in the ship's laundry. Of this total, 41,911 reappeared in Wardroom One in the Thousand Island salad dressing. LCDR Davison's staff hasn't located the balance, but some members are investigating Sick Bay under the impression that they may have been dispensed as throat lozenges.
- 2300 flies were guests in the CPO mess. The deck buffer in compartment 03-187-2-L completed 187,634,521 1/2 revolutions.
- The Marine Detachment was called to attention 27,642 times and dismissed 27,641 times.

Of such stuff is our Navy made. To quote LCDR Davison's final thought—"It matters little what you do—it's how well you keep records of it that counts."

It happened during a recess between the hide-and-seek exercises between uss Wasp (CVS 18) and Nautilus (SSN 571). A helicopter from Wasp had just flown over Nautilus to deliver a can of electrical gear. The helo lowered the can into the waiting arms of a sailor. Up to this moment, it was simply a routine transfer but then, suddenly, the sailor's line snapped and he was washed from the sub into the sea.

The pilot broke away from the sub, reeled in his cable and dropped his rescue ring. The sailor climbed aboard and in a few seconds was resting—wet, shaken, but uninjured—inside the helo.

He took a few moments to catch his breath, thanked the chopper crew, then asked to be dropped back into the water. He had his orders to take aboard the sub the can of equipment, and that he was about to do.

An accommodating sort, LTJG Jim Bean shrugged his shoulders and lowered the man back into the water. This time, he did capture his prize and both the sailor and can were delivered safely to Nautilus, now about half a mile away.

Of such stuff is our Navy made.