

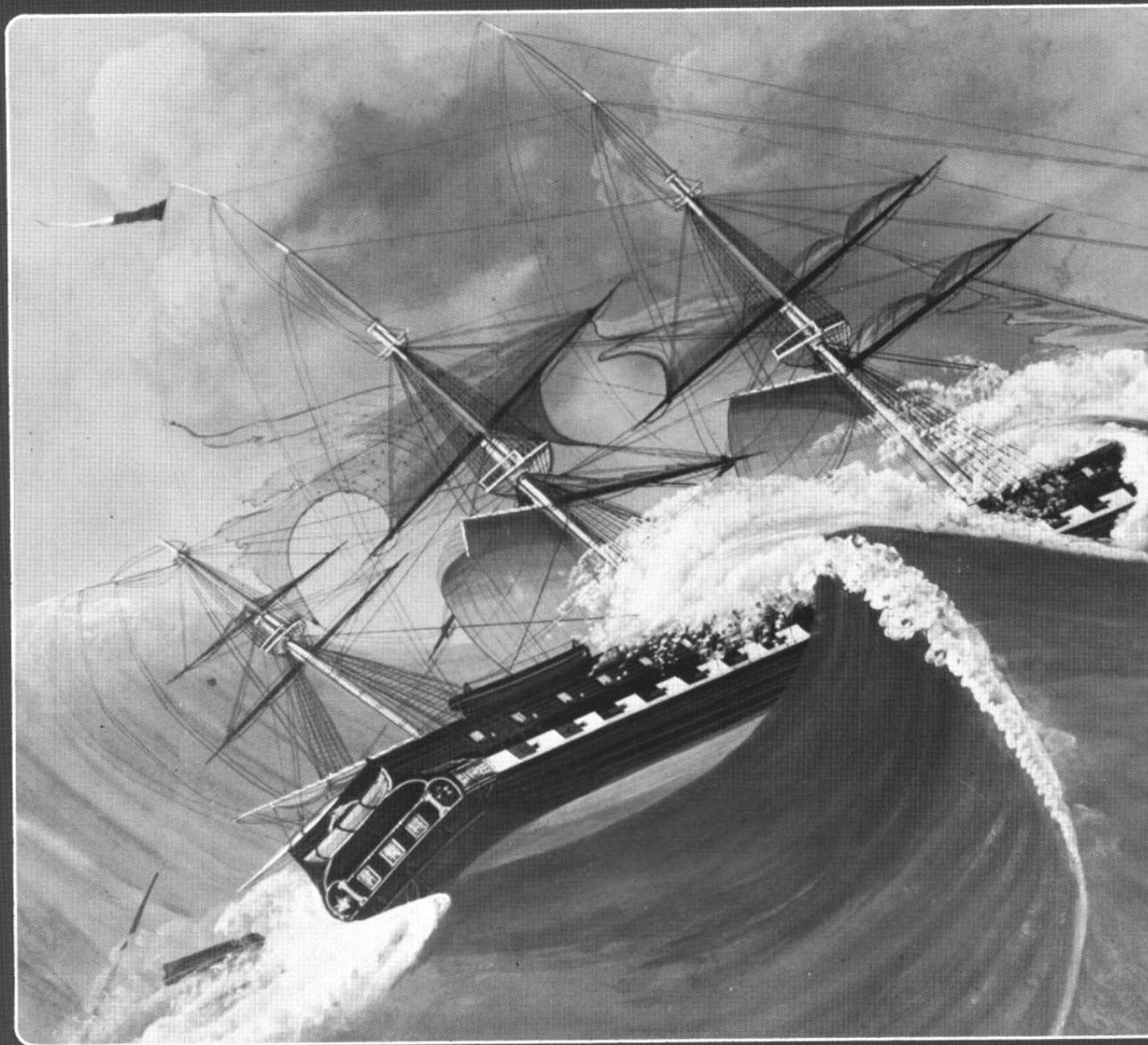


ALL HANDS

JUNE 1972

in this issue...

"Profile of the New Sailor"



ALL HANDS

THE BUREAU OF NAVAL PERSONNEL CAREER PUBLICATION

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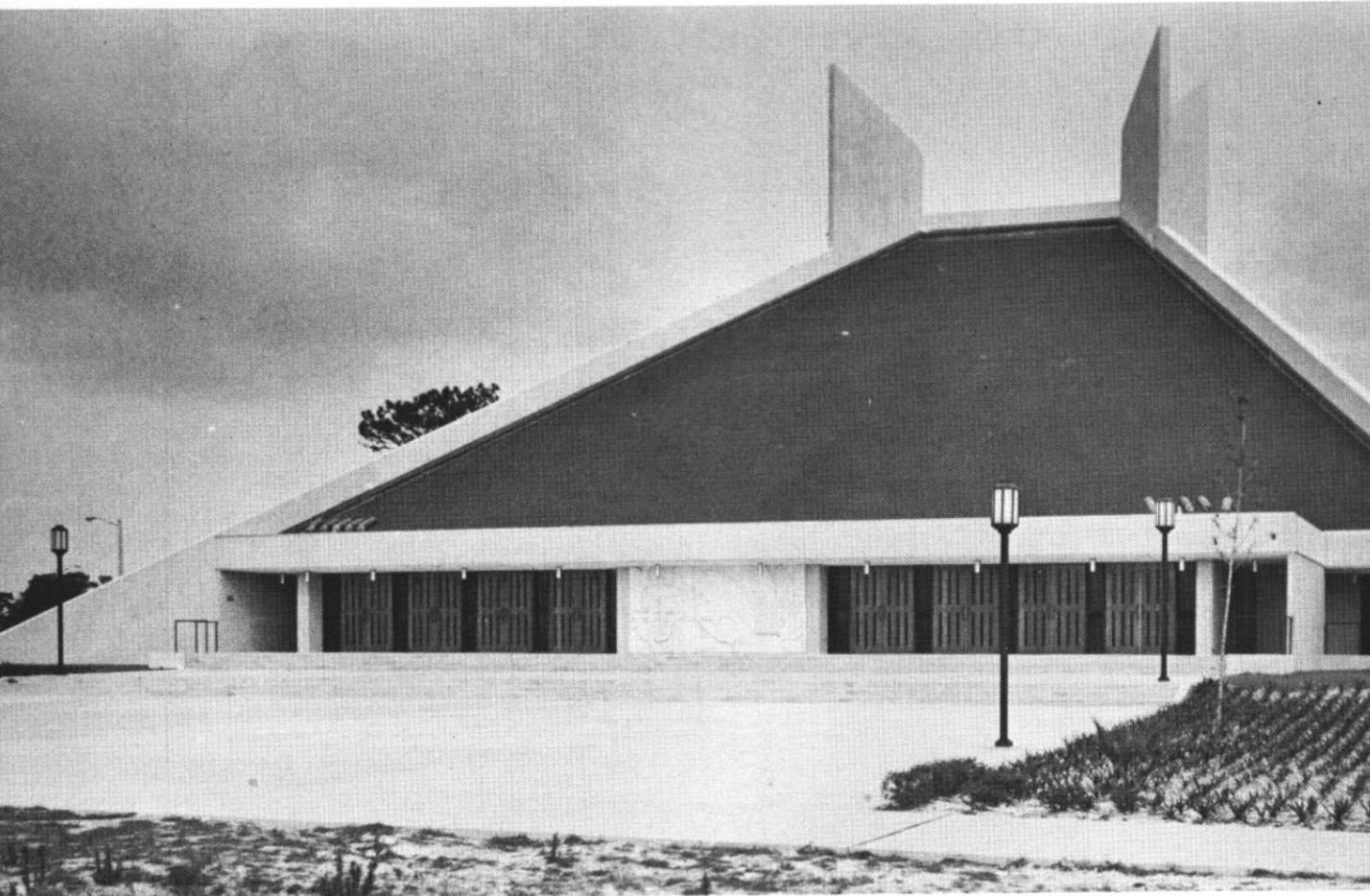
Gerald Wolff, **Reserve**

• **FRONT COVER: RECRUIT GRADUATION DAY**—the end of the beginning of a new way of life, the life of a sailor. The adventure, travel and invaluable experience found in the Navy are impossible to measure and difficult to match anywhere else. Front and back cover designs by JOSN Dale K. Wagner.

• **AT LEFT: THE CALL OF THE SEA**, from the earliest days of our republic down to the present, is exemplified in this painting of USS Constellation navigating in rough waters. The painting, by an unknown artist, was presented to the Office of Naval Records and Library in 1922 by Mrs. S. W. Merger of Richmond, Va.



ALL HANDS VISITS NTC



ORLANDO



Top, left: The Recruit Chapel at Naval Training Center, Orlando, Fla. Left: Graduation ceremonies.

DOWN IN CENTRAL FLORIDA, they like to call it the “showcase of the Navy”—and a case can certainly be made for its right to this title.

This is NTC Orlando. It's new—for the most part. It's sunny—a good deal of the time. And the weather is mostly mild—although you can expect cold days in winter.

The Naval Training Center is a still-growing complex of training and educational activities for naval personnel—and it is developing under a master plan that will make it one of the most attractive naval bases in the nation.

Already the handsome, yellow-brick buildings of the Recruit Training Command, spaced out among the Florida palm trees and surrounded with hibiscus and eight-foot-tall azalea plants, give the appearance of a bright, new college campus.

And that's what it is, in a sense—an “instant” nine-week college for the Naval Recruit, plus a group of schools and training activities for primary, advanced and specialized training for officers and enlisted personnel of the Regular Navy and the Naval Reserve.

NTC ORLANDO officially started on 6 Dec 1966 with the authorization for the establishment of a new training center to augment those already in existence in Great Lakes and San Diego. One of the features determining its selection was that new recruits coming into the sea service would be able to spend about two-thirds of their time in the outdoors.

The actual commissioning took place on 1 Jul 1968. What had been an air base, first under the Army and later under the Air Force, began its transformation to the Navy blue and gold.

At the present time the NTC complex is a mixture of the modern and the traditional military base. The central point and dominating feature after you pass beyond the gates is the huge, pyramidal Navy Chapel, a tremendous building that won an architectural award, making it the top winner in a biennial program in 1971, judged by the American Institute of Architects.

Here is a picture of the new section of the command—the RTC “campus.” Rising along avenues with their

NTC ORLANDO

palm tree settings are a series of buildings, which have a coordinated, modern appearance, combining the distinctive-colored brick with borders of white concrete slabs.

There is a mess hall with a feeding capacity for 4600 persons in a 90-minute period—three times a day. The recruit training complex is a three-story building equipped with a closed-circuit television studio and 26 classrooms, plus five 800-man barracks.

Already in various stages of construction are buildings which will duplicate, or “mirror” the recruit training facilities now in use.

All of the RTC buildings are connected by 20-foot-wide concrete walks which permit the recruits to march eight abreast as they move from one class to another.

AT THE END of a 12-acre field stands *USS Bluejacket One*, also known as “Never Sail,” where recruits receive instruction in basic seamanship. The 249-foot landlocked mockup, constructed to two-thirds the size of a DE escort ship with all the trimmings, has three classrooms below and plenty of room topside to provide a realistic background for instruction in knotting, phone talking, line handling, and cargo and small craft handling. On recruit graduation day, full-dress ship is observed and her signal flags spell out, “Well Done. Proceed on Duty Assigned.”

At the helm of the Naval Training Command during ALL HANDS’ visit was the late Captain S. L. Rusk (see Taffrail Talk, page 64). His successor is Captain J. C. Burkhardt. NTC headquarters are located in the older, traditional area of the complex. Here also are located, for the most part, all the component and tenant commands. They include, in addition to the Recruit Training Command (see the accompanying article), the following:

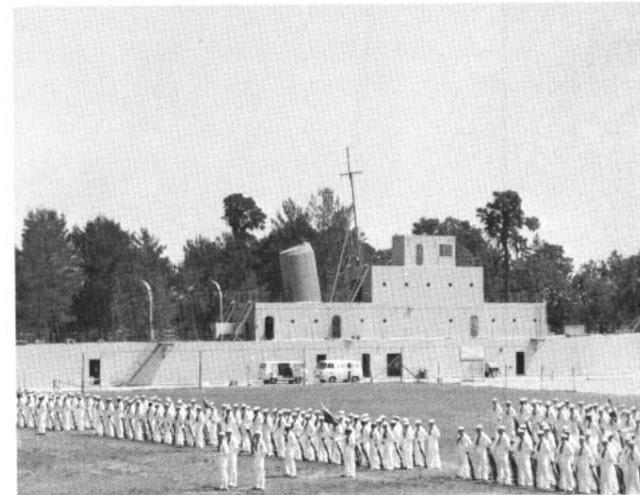
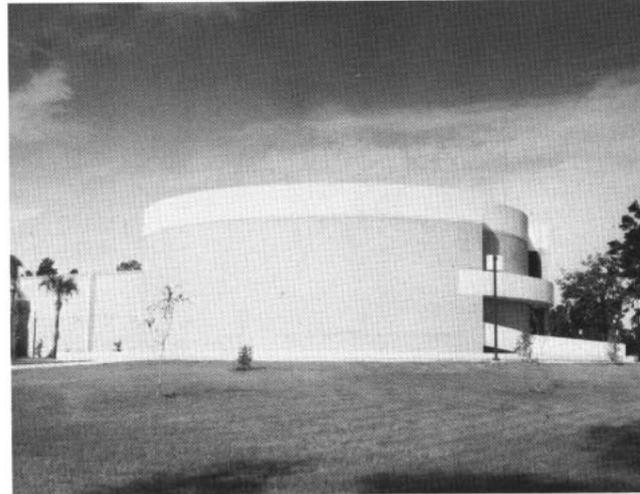
- The Service School Command presently consists of a Personnelman Class “A” School, and the Advanced Undersea Weapons School. The latter offers 24 courses dealing with the subject of underwater weaponry.

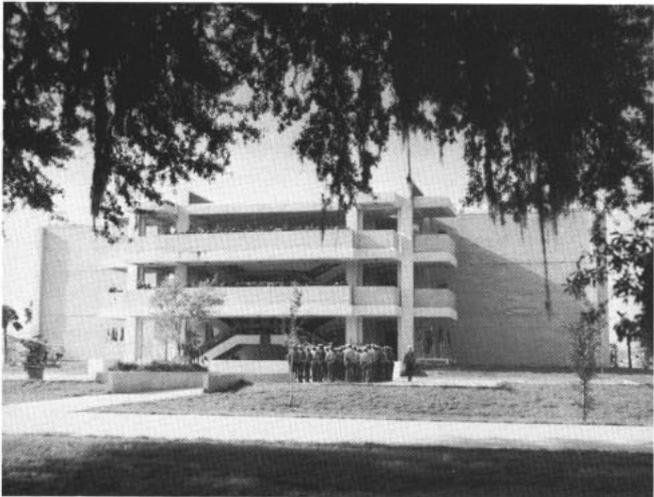
- The Naval Training Device Center, which has been in existence for more than 25 years. It is responsible for research, development, production, maintenance and modification of air, sea, subsurface, land and space trainers applicable to all types of military situations. (See article on page 18.)

- The Naval Hospital, a 200-bed facility that overlooks palm-fringed Lake Baldwin, one of several lakes that dot the more than 1200 acres comprising NTC Orlando. This single-story complex is scheduled to be replaced, sometime in the 70s, by a modern high-rise hospital that will be a new landmark for the center.

LOCATED 50 MILES from the Atlantic Ocean on the east, and 80 miles from the Gulf of Mexico on the west, Greater Orlando has been rated (in a report published by a national magazine) as one of the 20 most pleasant places in which to live.

Top to bottom: Recruit barracks. (2) Auditorium. (3) USS Bluejacket. (4) Mess Hall.





But it is not *all* sunshine and roses.

If you're looking for figures on the climate, here they are. Central Florida may be classified as warm, moist, "invigoratingly cool" in winter, with "adequate" sunshine. The normal January temperature is 60.4 degrees, with a normal July temperature of 82.5 degrees. The average annual temperature is 72 degrees. Humidity can be a problem.

From June through September the rainy season offers scattered afternoon showers on a near-daily basis. However, in addition to providing rain, the loyal Floridian adds, the showers bring about a drop in temperature and are accompanied by a breeze. The annual rainfall is 52 inches.

HOUSING IN ORLANDO will pose a problem for the Navy family. On-base housing at NTC is not available. In the greater Orlando area, there is a critical shortage of rental and temporary housing.

Before renting, everyone is required to check into the Housing Referral Office (which is located just inside the main gate). This office maintains a listing of facilities that may not meet the requirements of DOD directives, which would make them ineligible for naval personnel.

When available, unfurnished apartments rent monthly as follows: one bedroom—\$150 to \$200; two bedrooms—\$180 to \$250; three bedrooms—\$250 to \$350; four bedrooms—\$400 and up. Rental houses are limited and quite expensive if you can locate them. Houses rent in the following range: two bedrooms—\$150 and up; three bedrooms—\$160 and up; four bedrooms—\$250 and up. Utility bills for both apartments and houses are usually not included in the rental fees.

At the present time, older houses for sale are fairly plentiful in the Orlando and surrounding areas. New houses are priced from \$22,500 and up, and they are often, when available, financed with minimum down payments.

The Navy Lodge facilities at NTC Orlando include 28 units, of which 6 consist of one bedroom and community bath plan; there are eight units with two double beds and semiprivate bath; and 14 units with two double beds and private bath. Among the facilities are a laundromat, extra cots and cribs, television, vending machines, car rental, cafeteria, messes and clubs. The daily rates are \$4.50 and \$5.50.

BOTH ON STATION and off station, there's lots to do in the way of recreation.

Aboard the station all kinds of sports are available: a nine-hole golf course, six tennis courts, bowling alley, skeet range, and a marina where you can check out boats, motors, sailing craft and trailer hitches. The NTC Orlando yacht club will even provide instruction for novice sailors.

For the Navyman and his family, there's an arts and crafts center (with instruction for those interested in ceramics), an automotive hobby shop, with a complete

Top to bottom: RTC Headquarters. (2) RTC Administration Building. (3) Training Building. (4) Bowling and Crafts Center.

NTC ORLANDO

line of tools and equipment for many types of vehicle repair, plus technical information available from the attendant on duty.

There's a picnic area adjacent to Lake Baldwin, which also features two beaches. Lake Baldwin, located on the station, also has a ski takeoff and landing area.

For those interested in do-it-yourself projects, there is a boat-building hobby shop, which specializes in making canoes and fiber glass boats, along with repair facilities for your own boat.

The station library is well stocked with both fiction and nonfiction, and one of its special features is a soundproof music room with a record collection, both classical and rock.

ORLANDO DATES BACK to the early 1840s, starting off as a trading post called Jernigan, after its first settler, in Florida "cow country." In the 1850s, its name was changed to Orlando, in memory of Orlando Reeves, an early settler who lost his life in a skirmish with the Indians on the shores of Lake Cherokee.

Even in 1875, it had a population of only 75 people. Today the greater Orlando area ranks as the fifth fastest growing metropolitan area in the U. S., with 1,005,000 persons living within a 50-mile radius.

Strategically located from the standpoint of both industry and the tourist trails, it has something to offer for almost every taste.

• Just 15 miles to the southwest (and 20 minutes by car) is the magical Walt Disney World. Already it is such a grand success that the number of visitors (including a sizable contingent from NTC Orlando) is

expected to range between 15 and 20 million a year.

• To the east, approximately 65 miles, is Cape Kennedy, with its satellite-launching pads and moon flight blastoffs.

• Some 50 miles to the southeast are the Cypress Gardens, which show what can be created out of a typical "swamp."

• And nearby is Lake Okeechobee, the second largest freshwater lake wholly in continental United States. (Okeechobee is not in the same class as the Great Lakes, of course, but only one of the latter, Lake Michigan, is entirely in the U. S.; the rest are shared with Canada.)

CENTRAL FLORIDA itself is lake country. It features some 2000 freshwater lakes. Orlando, in fact, has 54 lakes within its boundaries, and there's fishing in all but two of them. (Fishing license costs \$3.00.)

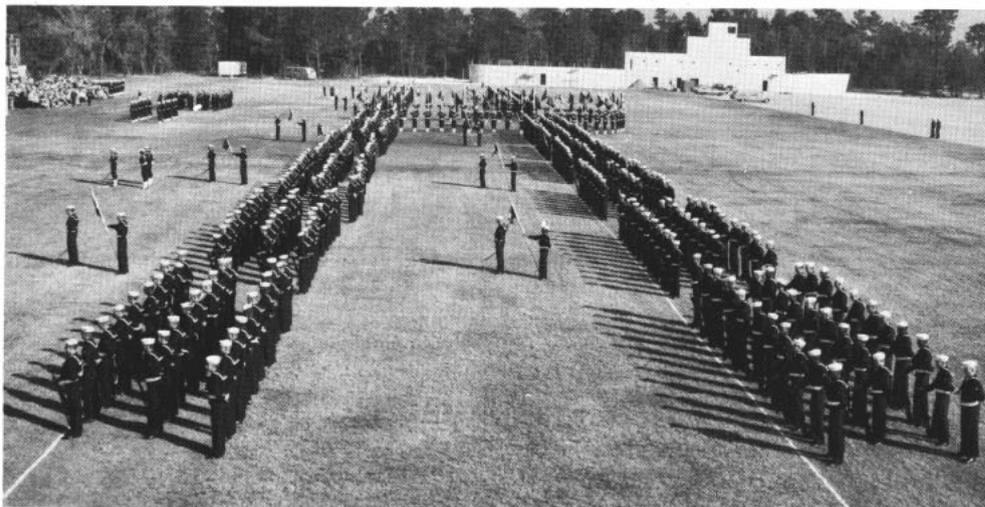
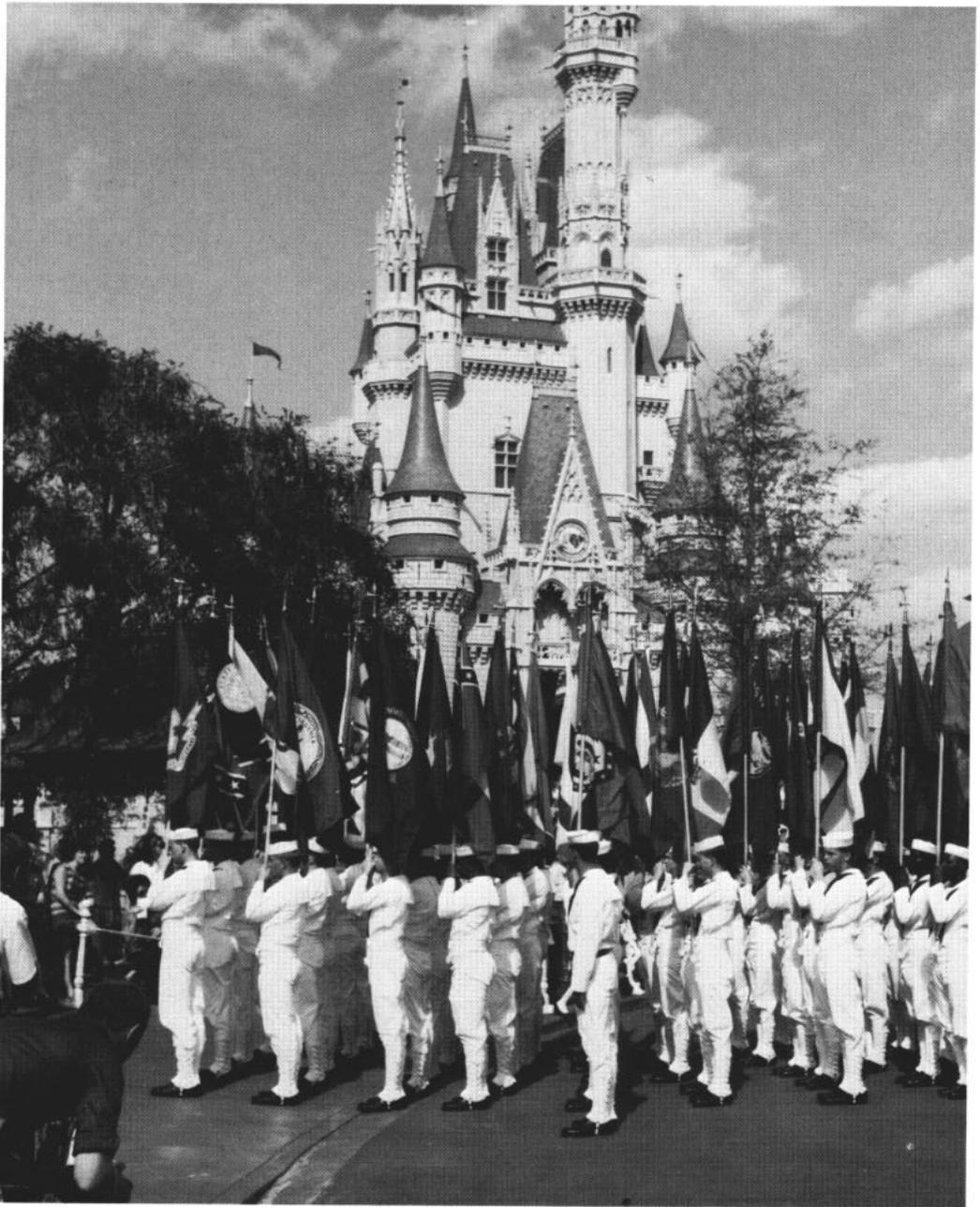
The fabulous Disney World has got to be seen to be believed. It encompasses 27,400 acres of land (twice the size of New York's Manhattan Island), which provides a wide belt of green that retains the natural beauty of the subtropical terrain. There can be no disturbing commercialization right outside its gates.

In its development, the builders created 55 miles of canals, and the recreation center itself stands on the shores of a huge, man-made lagoon. Disney World offers a family amusement park, two theme resort hotels, golf, riding stables and swimming, camping facilities, and a monorail transportation system with a train that "flies" right through one of the hotels.

For more on NTC Orlando, read on.

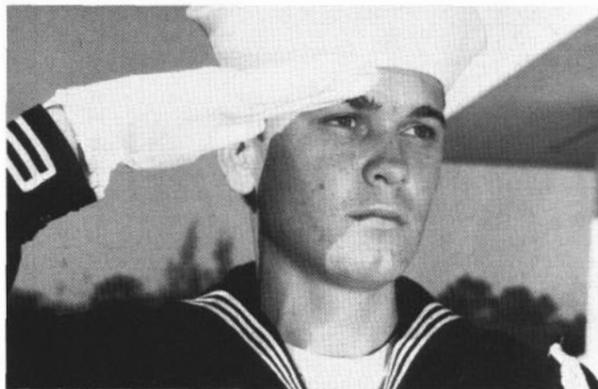
—John A. Oudine





Facing page: Recruits learn the elements of firefighting. Above: The 50-state Flag Team at Walt Disney World. Left: Graduation ceremonies at RTC.

PROFILE OF THE NEW TOMORROW'S



ROBERT E. LEE is 17 years old, from Nashville, Tenn. Before he joined the Navy he wore his hair down to his collar, and was thinking vaguely about college, but couldn't afford it.

Today he is a recruit at RTC Orlando, and one of a group interviewed by ALL HANDS. What does he think of recruit training and the Navy, and why did he decide to make it a career?

"First, I talked with the recruiter when he came around to the high school, and then I went down to the station in Nashville. It sounded like fun and, besides, I may still get that college education. I've already applied for the Naval Academy, and if I don't get that I may go into the nuclear program."

Philip R. Hinton, of Mobile, Ala., 20 years old, chose the Navy, after experiencing what it was like to try to find a good job opportunity without training.

"I couldn't think of going to college—my family couldn't afford it. So I made dozens of applications—for all kinds of jobs—starting at the top, of course. I finally got a job, digging ditches. And the guy right next to me, also with a shovel, was a four-year college graduate—in physics, yet.

"That decided me. I went right down to the recruiting station to see what they had to offer. They tell me I have an aptitude for any one of four fields. I can try for ET in the electronics field, for interior communications, or I can qualify as a machinist's mate or electrician's mate."

DENNIS W. PETERS is a two-by-six Reservist, on active duty for two years with a four-year Reserve obligation after he returns to inactive duty. Twenty-one years old, from Warner Robins, Ga., he is a junior college graduate with an additional year at Georgia Southwestern College.

"I knew I would be drafted, so I decided to end the uncertainty and get into a program that interested me. Now I'm thinking of making the Navy a career."

Peters was married five days before joining the Navy. "My wife is all for it," he said, speaking of his decision to take advantage of the Navy's training opportunities. "She's proud of the Navy and, besides, she wants to travel. We figure we'll be able to go places together. Everybody said you make many friends in the Navy, and it's really true. Even the officers are human. One thing I've learned here at recruit camp—the Navy is really close."

SAILOR NAVYMAN

JEFFERY M. MAJEWSKI, of Gainesville, Fla., was next. "My draft number was No. 1! But even before I had to worry about the draft, before I turned 18, I went to recruiting stations. First I went to the Air Force, then to the Army. But being born in Florida, I like being close to the ocean. Besides, I'm interested in marine zoology and medicine, and I figured it could offer me training in either one or both of these areas. "Also, the Navy offered me a delayed enlistment, under the CACHE program, of up to six months. I was sworn in when the quota was filled up, and was able to go back home to complete a job that I had started."

ORLANDO IS A SURPRISE—a pleasant surprise—to the recruits.

"I never expected it to be so attractive—so clean. It's like a college campus," said John E. Potter, whose home is in Torrington, Conn. He's 19 years old.

"My draft number was 24—but that was not the real reason for joining the Navy. After graduating from high school, I looked at the job situation, and there just wasn't anything for someone my age without any job qualifications.

"I went to the various recruiting centers to see what they had to offer. The other recruiters came on so strong—I felt they were treating me like a 10-year-old. When I saw the Navy recruiter, he just presented the programs and let me decide for myself. He laid it on the line, so I knew what to expect from the training. And I wasn't disillusioned when I got here. But what really sold me—I met some of the recruits coming out of boot camp after graduation. They were enthusiastic!"

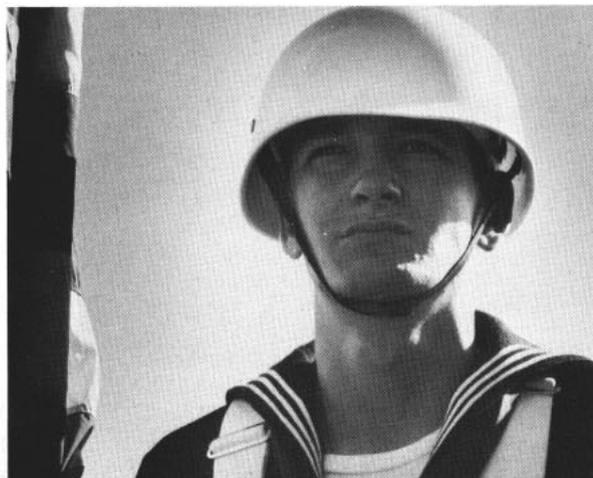
Not all the recruits at RTC Orlando have this degree of motivation toward the Navy. In fact, one out of every 10 recruits "washes out" for one reason or another.

But the 90 per cent that are graduated after a demanding nine-week indoctrination are something to be proud of.

TO FIND THE ANSWER to what makes a recruit go into the Navy, we turned to Captain John W. Haizlip, USN, the CO of the recruit training command.

"Not long ago," he said, "we had a poll of the recruits. From some 3000 questionnaires we got a set of answers. High on the list was the education and train-





ing offered by the Navy. I'd say that is number one. Of course, the draft has been an important factor." (For more on this subject see the article and statement by Admiral Zumwalt, Chief of Naval Operations, on page 38.)

Will the move to an all-volunteer force and a possible end to the draft affect the numbers of enlistments?

CAPT Haizlip would not project into the future. "No one knows what effect it could have."

But the captain and his staff of company commanders, instructors and administrators are determined to turn out a well-indoctrinated, motivated group of recruits to the Fleet.

The first recruits at RTC Orlando began their training on 1 Oct 1968, and that class graduated 393 smart-looking sailors on 12 Dec 1968 on the parade ground before an audience of proud parents and admiring friends on a warm winter day, blessed by Florida sunshine.

SINCE THAT TIME there have been more than 150 graduating classes, in fact, a new class each Friday of every week throughout the year, with the exception of two weeks at Christmas.

The 90 per cent of the recruits that make it through boot camp are a gung-ho group.

But what about the other 10 per cent? Attrition in recruit training is roughly divided into three categories.

- *Medical problems.* About three and one-half per cent of the total number of recruits are weeded out for some sort of physical problem which usually shows up early in their training. Strangely enough, a large percentage of these are knee and foot problems.

- *Conduct.* Approximately one per cent of the total number of recruits don't make it for this reason. Included in this category are fraudulent enlistments—that is, men who have a police record which they failed to reveal when they enlisted, or who had a record of drug usage prior to entering the service. Only a very small number out of this one per cent actually fail because of misconduct *during* training.

- *Lack of aptitude for the military life.* Slightly more than five per cent of all the recruits reporting to recruit command are in this category. This includes those who are emotionally or psychiatrically unsuited—"mommas' boys" make up a sizable portion in this group. Also lumped into this area are those who can't learn, or who just are not able to swim. For the first time, many of them are required to wash their own clothes. They have to make their own beds. They've "never been away from home."

WHAT, ESSENTIALLY, is recruit training?
"It's finding out if you are capable of following orders," says Seaman Recruit Robert E. Lee.

"It's being able to work together," says SR Potter.
"Do your job, and don't pass the buck," says Ma-
jewski.

"If you can take orders from an equal, when he has
been placed in charge, you've got it made," says
Peters.

Organizationally, the new Navy recruit becomes an
integral part of a new community, the entire purpose
of which is to help turn him into a responsible mem-
ber of a team, geared to work not just for himself as
an individual, but as a reliable shipmate.

He becomes one of about 70 young men in a re-
cruit company, watched over by a company com-
mander. (By the time they end their nine weeks of
training, there is a real bond between the CC and each
member of his company.) "Halfway through boot
camp the recruit starts believing that the company
commander can walk on water," says Lieutenant R.
W. Moriarty, who has the overall assignment of regi-
mental commander for all the recruit companies on
the station.

EACH COMPANY BECOMES a member of a group. There
are four to eight companies in a group, and each is
set to compete with the others in its group. The top
company in each group becomes the honor company.
The groups, in turn, are formed into battalions headed
by the regimental commander.

The first three weeks are the roughest.

For those three weeks the new recruits are dis-
tinguished from their more senior shipmates. They
wear baseball caps, and are known as "primary com-
panies" because of their inexperience and appearance.
They have not yet learned how to wear the uniform,
and are still awkward in marching and drills. During
the fourth week, known as "service week," they get to
wear white hats.

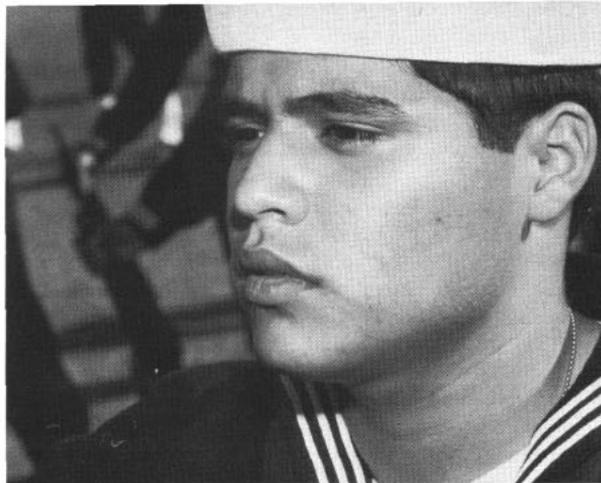
On a tour of the station, a visitor will see individual
sailors or pairs of sailors "double-timing" at a fast
trot from one class to another. Double-timing is the
custom for all recruits unless they are in groups of
three or more, in which case they form a marching
unit.

Reveille is at 0530, but many of the recruits are up
by 0400 on special details (for which they have volun-
teered). Breakfast is staggered (the mess hall provides
some 15,000 meals a day).

THEN THE CLASSROOM day begins, starting the first of
six morning classes at 0645, and finishing the
last of four afternoon classes at 1630. Packed into the
nine-week schedule are such subjects as career in-
doctrination, first aid, physical training, military drill,
naval history, rating review, Navy Regulations, boat
and deck seamanship, ordnance, small arms drill, fire-
fighting, NBC warfare, marlinspike seamanship, ship-
board organization, telephone talkers. And mainte-
nance painting.

Next in the crowded schedule is evening chow.

After dinner, nightly routine gets underway, includ-



ing cleaning the barracks, extra instruction in those training areas where recruits have experienced difficulty, followed by study period.

Then it's shower and sack time. The berthing areas consist of rows of two-tiered beds, but the "barracks" are not like the ones of old. They have tiled floors, attractive lounges and private washroom facilities.

LIBERTY? There is a one-day liberty at the end of the seventh and eighth weeks. At this time the busy recruits have an opportunity to see some of the sights of Florida, including Walt Disney World, which is approximately 20 minutes away.

Bill Jackson, a young Black American, was interviewed on liberty. With a group of other young sailors he was enjoying his first visit to "Tomorrow Land" in Disney World.

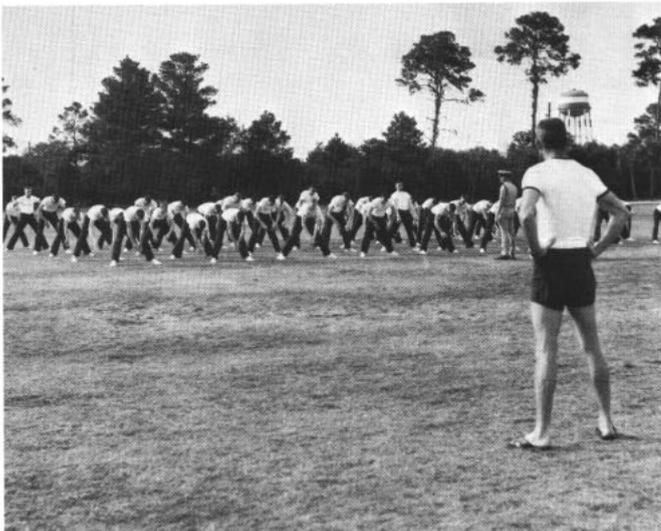
"It sure is great to get away from camp," he said.

How did he like it at RTC? "It's tough," he said, "but I like it." Important to him was the fact that the end was in sight and that he had made it.

"You know you get to be part of a team. You've stuck with your job. You feel kind of proud."

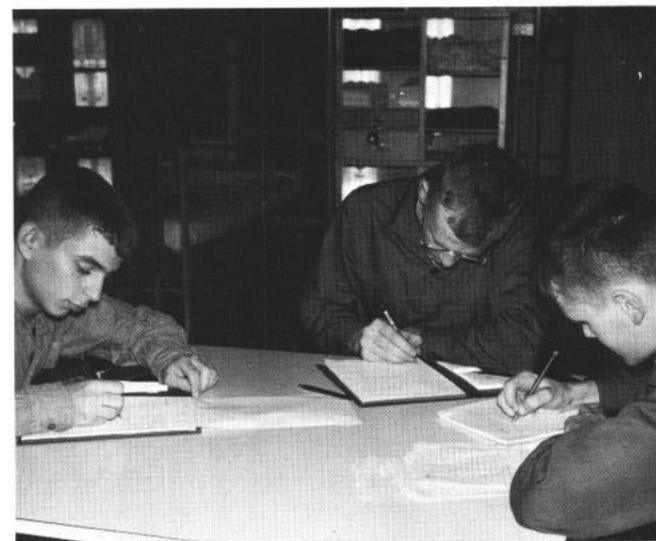
And if there's any doubt about the caliber of the young people coming into the Navy today, it is dispelled by the graduation ceremonies. On Friday morning of the ninth week, with ceremonies beginning at 1000 on the button, the brilliant Florida sun (hopefully) shining down on the colorful spectators in the reviewing stand, the recruits of nine companies march out on the field.

THIS WAS THE 150th graduation. In the far corner, a Navy band played "Anchors Aweigh." Seated in the foreground were the families and friends of recruits, some of whom had come from as far as Texas,



After a strenuous day which includes exercise, swimming and equipment indoctrination, recruits relax and write letters home.

The pace is fast and the days are long, but when recruit training has ended the men are proud to be members of the Navy team.





Connecticut, Kentucky and Maine.

Keynote of the graduation ceremony was the 50-state Flag Team and the Recruit Drill Team. The final phase of the colorful ceremony is the formal pass-in-review, the last act of the nine-week session before graduating into the Fleet.

The American Spirit Honor Medal is the highest award a recruit can win during his basic training. At this graduation, Seaman Apprentice John Huttunen (of St. Petersburg) received the award for Training Group 51 and SA Mudge Brooks of Red Level, Ala., received the same award for Training Group 49. At the same time, the recruits voted the top man in each of their own companies as Honorman to represent them.

The training and education the young recruits were talking about at the beginning of this article were already beginning to prove to be a reality.

Of the 552 recruits graduating in the 150th class, 365 went on to attend Navy technical schools before going to their next duty stations. Another 137 were scheduled to receive on-the-job training aboard ships and shore installations. The remainder were Reservists returning to their drill-training units.

Watching from the reviewing stand, one cannot help feeling among the spectators a sense of deep personal satisfaction as the members of the recruit companies march off the field—eager, motivated, and ready to take their place somewhere in the Navy, ashore or afloat.

"I see these men graduating every Friday morning throughout the year," said Captain Stephen L. Rusk, then commander of NTC Orlando, "It still gives me a sense of pride—and a lump in my throat. I only wish more people had an opportunity to observe that ceremony. The enthusiasm is catching."

—j. a. o.

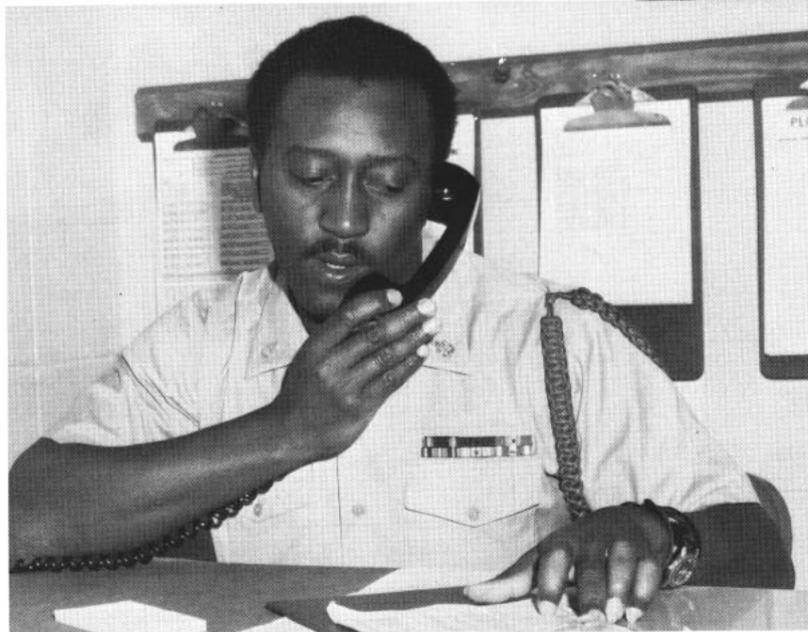


Above: RADM Edward Snyder, Jr., USN, ComTraLant and CAPT John Haizlip, USN, Commanding Officer, Recruit Training Command, with Recruit Honormen at graduation ceremonies.

"MOST REWARDING

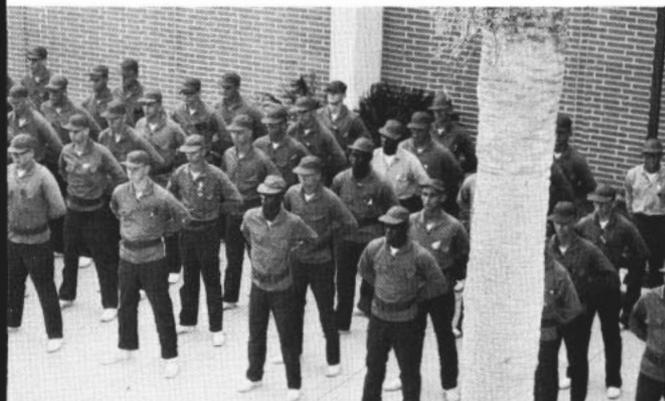


Company Commanders on the job: Radarman First Class Robert W. Stockton (above), Chief Machinist's Mate Frederic C. Steele (right), Chief Hull Maintenance Technician Calvin J. Moore (below). It takes long weeks of indoctrination instruction, counselling, on-the-job training, and record-keeping to turn a recruit company (as seen below) into a fine working team.



ASSIGNMENT IN MY CAREER..."

**"SO FAR, this has been the most rewarding assignment of my career."
"It's interesting duty."
"Tough—call it a challenging tour."**



Three comments, from three different career Navy-men, sum up the attitude of the Company Commander in today's Navy. Their job? To turn young Americans fresh out of the civilian community into sailors ready to enter the Fleet.

They are members of a group of senior petty officers assigned—some initially against their own wishes—to the Navy's three recruit training commands, at Great Lakes, San Diego, and Orlando, Fla.

What is their function? "Basically, we have the tough job of guiding the new recruits to adapt their way of thinking and their attitudes from those of an individual point of view to a team effort. That is, to work as members of the group."

This is the comment of Chief Machinist's Mate Frederic C. Steele, USN, a company commander assigned to RTC Orlando.

"You might say the company commander is the key to the success of the whole recruit training program." The statement comes from Chief Warrant Officer William E. Murph, USN, a battalion commander at RTC.

THUS, YOU MIGHT ALSO SAY, he has one of the most important jobs of any senior enlisted man in the Navy today.

How does one get to be a "company commander?"

The Navy likes to have you volunteer for this duty, and at Orlando more than 50 per cent are volunteers. The BuPers detailers scour the P.O. evaluation sheets for the remaining percentage—contacting individuals who seem to have the kind of leadership and training capabilities that are essential for this type of billet.

A lot of men who are first approached to take on this type of assignment are hesitant.

"I didn't volunteer for this duty," says Radarman 1st Class Robert W. Stockton. "I questioned whether I was good enough to do the job. I thought, 'Am I the type to handle these young guys—can I inspire them?' Well, I decided to make a try of it, and I'm glad I did—the most rewarding assignment in 14 years of active duty with the Navy."

It takes a lot to train a recruit. From the standpoint of manpower, at RTC Orlando there is one administrative billet for every 10 recruits at any one time. The RTC has an allowance of 286 instructors of which 96 billets are for company commanders; that is, one for every 15 recruits. That's a lot of individualized atten-

tion. But, as stated before, the key man is the company commander.

A BASIC QUALIFICATION for company commander is leadership potential. But there are other requirements.

Before he is ready for the job, he must first go through instructor school. In fact, in addition to serving as a company commander, he will also serve as instructor. The first 12 weeks of duty in his assignment are taken up with an indoctrination course on leadership and instructor duty at the base's RCC school.

Then the candidate takes on another few weeks of on-the-job training during which he "shadows" a company commander to get a real feel for his job.

Since the Navy is always looking for topnotch volunteers for this assignment, are there any incentives to encourage a man to ask for the job?

First of all, it means a longer shore tour than most—three years or the normal tour for his rate—which ever is longer.

Second, company commanders are also entitled to special instructors' pay of \$50 a month. After they have been at the RTC for a period of six months, they are also entitled to a special lump-sum payment for uniforms.

"Most important," says Chief Warrant Officer William R. Horsfield, another battalion commander, "is the factor called job satisfaction.

"There's nothing like the personal satisfaction of taking a group of individuals and shepherding them through a tough nine weeks of concentrated indoctrination, then seeing them walk out those gates as sailors."

HOW DO YOU GET the recruits motivated to graduate? "During those first few weeks you're like a Dutch uncle," says the Regimental Commander, LT R. Moriarty. "After that, each company commander seems to have his own technique."

No Navyman arriving from his most recent ship or shore duty station is quite prepared for his new assignment as a company commander, even after instructor and leadership training. When he is first faced with some 70 raw recruits at 0500 on that first day of training—with the realization that there are only some 60 days ahead during which he must ready them for the Fleet—there is an almost inevitable sinking sensation in the pit of the stomach.

And the first three weeks of each training cycle are the hardest—not only for the recruit, but also for the company commander.

Those early days are filled with bewilderment and loneliness on the part of the trainees and add up to long hours of work establishing, on the part of the company commander, a communications link with each of his 65 or 70 charges.

WHILE NO RECRUIT COMPANIES are alike, and no two company commanders are alike, there are

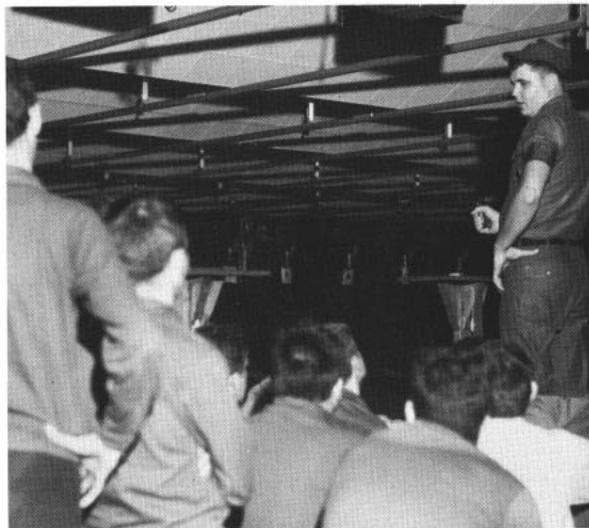
certain characteristic attitudes which you will find in both groups.

Each gets "involved," and the success of the nine-week training session becomes a mutual aim, for the recruit and his company commander.

During that initial shakedown period, the company commander barely gets to see his own family. He's off at the crack of dawn, usually, and it's late in the evening before he returns.

In other words, he is just as much an integral member of his own company as the youngest and rawest recruit. But the feeling of pride in his men is hard to beat.

How does the company commander instill this sense of teamwork? "Well, for example, the company is worked as a whole, and it is rewarded as a whole," says Chief Steele. "The first couple of weeks he may scare the pants off the recruits, but by the end of boot camp training, they have developed such great respect for their company commander that they wouldn't do anything that they feel would be letting him down. He psychs the men mentally so that they're not only working for themselves, but also for their shipmates and their CC."



Above: Instructing on the firing line. Right, top to bottom: NBC warfare training. (2) Shipboard terminology. (3) Teaching precision drilling.

AN INDICATION of the success of the program is that 90 per cent of the new recruits who go into the program will graduate and join the Fleet. (The first five per cent who are "attrited"—that is, wash out—don't get very far into the stage of becoming a member of a company. They're usually discovered in the initial weeks of physical examination and mental tests.)

"I started out with 67 men," says RD1 Stockton. "At the end of five weeks I had 60 men. Of the seven others, three were found to be slow learners, so we put them back into other classes to give them a chance to

catch up. They will graduate. Right now there are four who may possibly end up on the outside. We're all doing what we can to pull some of them through. One showed up with drug 'flashbacks'—he's out; another may not be 'psychologically equipped,' according to the medical office; and the other two haven't yet made the adjustment away from home and family. Some call them 'crybabies'—but whatever you call them, they can't seem to be able to adapt."

WHAT ABOUT disciplinary problems with the recruits?



"Of course, there are always minor disciplinary problems, which are handled by the company commander," says Chief Steele. "If an individual seems to be headed for more trouble than usual, he ends up before the battalion commander."

"We work on this basis," says CWO Murph, "there's an easy way to go through boot camp—and there's a hard way. We try to get this across in the disciplinary cases—at the battalion level. If they want to try it the hard way, we're ready to show them."

"Pushups, jumping jacks, situps, a few miles on the exercise bicycle. After trying it the hard way, they don't want to come back before the battalion commander."

Regimental Commander LT Moriarty adds, "I'm the 'disciplinary chief.' One of the greatest incentives for the recruits is to stay with their company. Even in the short time that they're here they develop a sense of belonging to their company. If they become disciplinary cases, there's always a possibility they may be set back in their training—that means they might be taken out of their company. In most cases, that's enough for them."

"Ninety percent of the minor disciplinary cases return to their company. We rarely get a 'repeat.'"

FROM ALL THE FOREGOING, you can see that the company commander's job is not easy. Although he's on shore duty, he's still spending long hours from home. Can he hack it?

The answer is that assignment as a company commander alternates with duty as an instructor. During the latter period, he has a much more normal day and the RTC attitude is to provide a breathing spell. There's plenty of time to share with his family.

CAPT John Haizlip, head of the Recruit Training Command at Orlando, voiced some of the problems in getting the caliber of personnel desired.

"Some senior petty officers coming to take command are a bit frightened at the prospect of taking on a company of new recruits. 'My career and my crow are on the line,' they say."

"This just isn't the case. It's no different at RTC Orlando than it is aboard any ship or station."

"A few chiefs and 1st class petty officers object to this kind of duty because they say it takes them out of their rates. For example, an engineman in the next rating exam will be competing against all enginemen, but he feels he may be at a disadvantage because he hasn't been working in his rate."

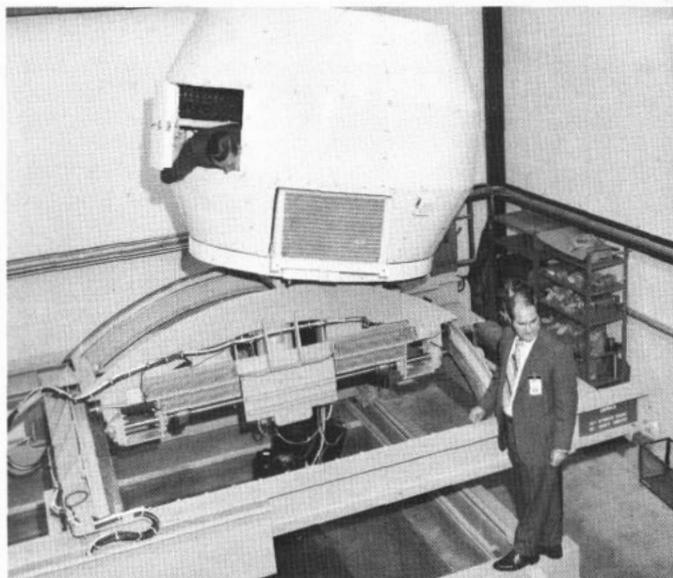
Statistically, petty officers at RTC are advanced at about the same, or better, rate as the Navy as a whole. "Additionally, there's the extra time ashore on a three-year tour, there's the challenge of a demanding and rewarding assignment and, finally, there's the chance to help mold the men who will make up tomorrow's Navy."

Any volunteers for company commander? If so, see your personal officer or Chapter 5 of the Transfer Manual.

—j. a. o.

WHERE CAN YOU DESCEND to the ocean depths, more than a mile beneath the surface, explore the seafloor, and within a few minutes soar to 20,000 feet and fly your aircraft safely through hurricane winds?

There's only one such place in the world—at NTDC Orlando. It's all simulated, of course. But at the Naval Training Device Center, now beginning its second quarter of a century, simulation is a very realistic way of life.



NTDC: We take the DANGER out of training

ALL HANDS will take you on that trip to the ocean bottom, and fly through that hurricane later on in this report, but first a few facts about the Naval Training Device Center.

What is its mission?

NTDC has the responsibility for the research, development, and production of training devices for all types of military situations, and also for their maintenance and modification as technology advances.

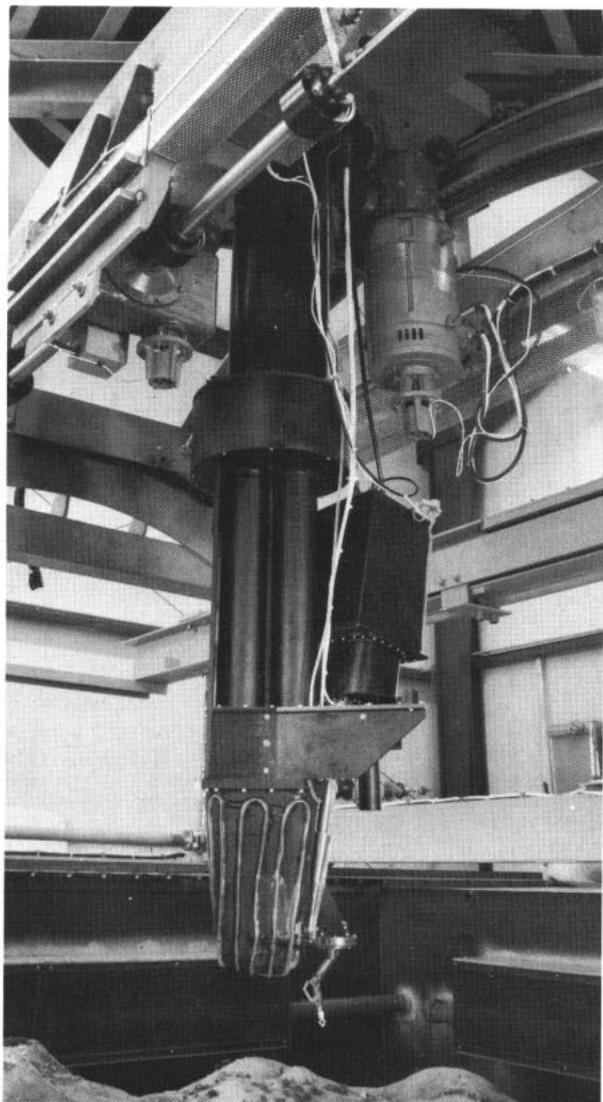
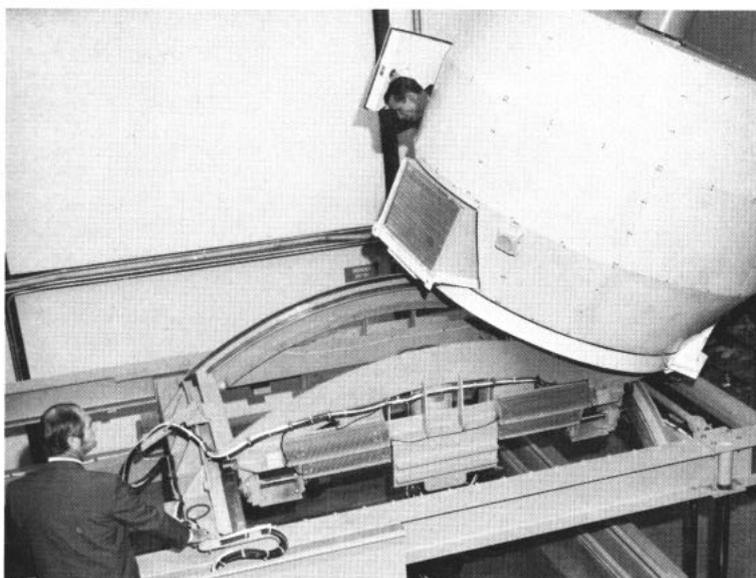
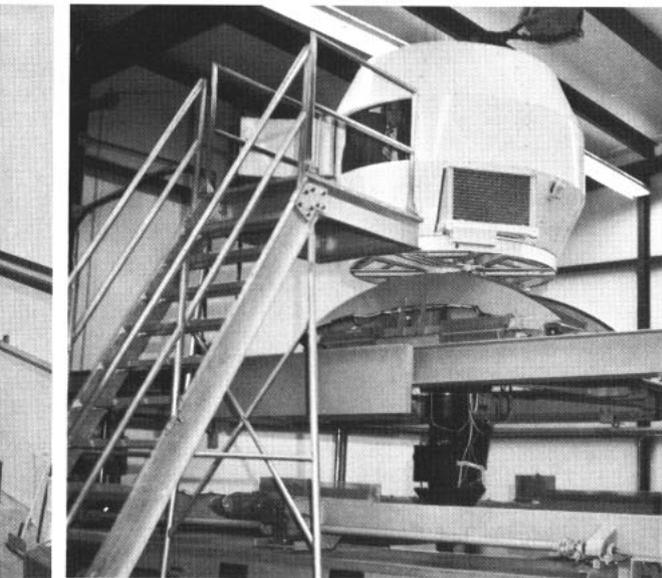
To accomplish this mission, it employs up to 1100 people—scientists, computer technologists, engineers, administrative and technical personnel, occupying 45 buildings located at the Naval Training Center in Orlando.

Among its professional employees, at last count there were 186 with bachelor's degrees, 69 with master's,

and 18 with doctorates. Add to this the scientific and engineering expertise of the activities in industry which work with NTDC under contract, and you have a vast amount of know-how, all dedicated to making a more efficient, better trained Navy.

IN ITS 26-YEAR INVENTORY, NTDC is credited with more than 5000 training devices valued at approximately \$475,000,000. The devices fit into the following categories: ASW (there have been more than a thousand in this category alone); command support; operational support; strike warfare; and land combat training devices for the Marine Corps.

In its past record are a variety of achievements. For example, it has been linked with such projects as the human centrifuge used in the training of the *Mercury*



Top, left to right: Checks are made before the Underwater Terrain Reconnaissance and Navigation Simulator undergoes a test. (2) Project Engineer Wiley V. Dykes makes an observation from the UTRNS cab. (3) The UTRNS can move forward, backward or sideways, up and down, as well as roll, pitch and yaw. Left: The probe takes a look at a simulated ocean floor. Above: The real-life, submersible Alvin is readied for a dive.

astronauts, and also associated with closed-circuit television for the White House. It has developed training devices used not only by the Navy and the Marine Corps, but also by the Army and the Air Force.

The human centrifuge, for example, which carries the unglamorous title of 9-G-1 at the Training Device Center, became an important training facility for the NASA *Mercury* program, installed at NADC Johnsville in 1954. Actually, an earlier model had been installed at Pensacola in 1945, almost a decade earlier.

Practically every sailor in the Navy has probably used, at one time or another, a training device that had its beginnings at the Naval Training Device Center.

Take that ingenious device developed from a simple rotating card disc and known as the Hand Semaphore

Trainer (see illustration on this page). It costs a few cents to produce. On the other hand, there's the vast ASW computer complex which takes up 36 individual rooms.

The hand semaphore device shows not only the front line but also the back positions for every semaphore flag position which can be shown by a mere flick of the finger. It is approximately four inches square.

ON THE OTHER EDGE of the scale is Device 14A6. That's the ASW Coordinated Tactics Trainer. Involved in this terminology are the 36 rooms mentioned above, simulating command centers of different mobile ASW units. Half of the command centers simulate DDs or submarines; one center sets up the conditions found aboard a carrier, while another is in Flag Plot. The remaining command centers set up conditions experienced in land- or carrier-based patrol craft or helicopters on antisubmarine warfare patrol.

To make the training even more realistic (and demanding), there are problems and tactics posted by individual target submarines or submarine packs which are controlled by instructors operating over a simulated area of thousands of square miles.

Since the "sensor" capabilities of the ASW tactics trainer can be programmed to provide performances well beyond those that can be achieved in today's Fleet, the training can keep pace with future advances in ASW technology.

What you see at NTDC Orlando are not training devices themselves, but "research tools," the scientists and engineers at the center hasten to say. In other words, a major part of the mission of NTDC is to perform the research that will ultimately result in a training device to be installed at naval activities for instruction and indoctrination. Before the device can go into production, it must meet NTDC standards.

In addition, the center performs another valuable service. Its computers can generate problems and analyze various operating conditions which have applications in the potential future use of equipment and weaponry.

NOW FOR THAT JOURNEY DOWN to the ocean's bottom. You'll be sailing aboard UTRNS, and if you can't pronounce that, try Underwater Terrain Reconnaissance and Navigation Simulator.

Making a descent to a projected 5850 feet beneath the surface, you'll take over the controls from Wiley V. Dykes of the Physical Research Laboratory, the project engineer for UTRNS.

Here's how UTRNS came into existence.

The Center received from the Office of Naval Research a "requirement" to develop a research tool which could simulate exploration of the ocean depths without actually having to use a submersible like those already in existence—*Alvin*, *Sea Cliff* and *Turtle*.

Out of this UTRNS was developed—and so realistic is its operation that it recently won the praise of six real-life submarine pilots from Woods Hole Ocean-



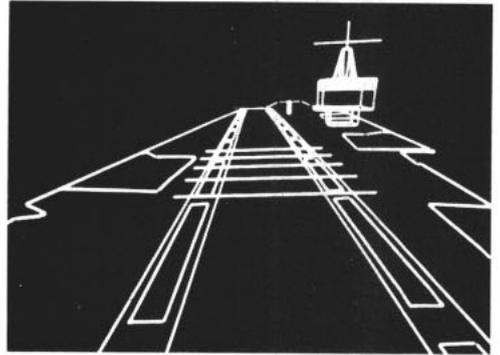
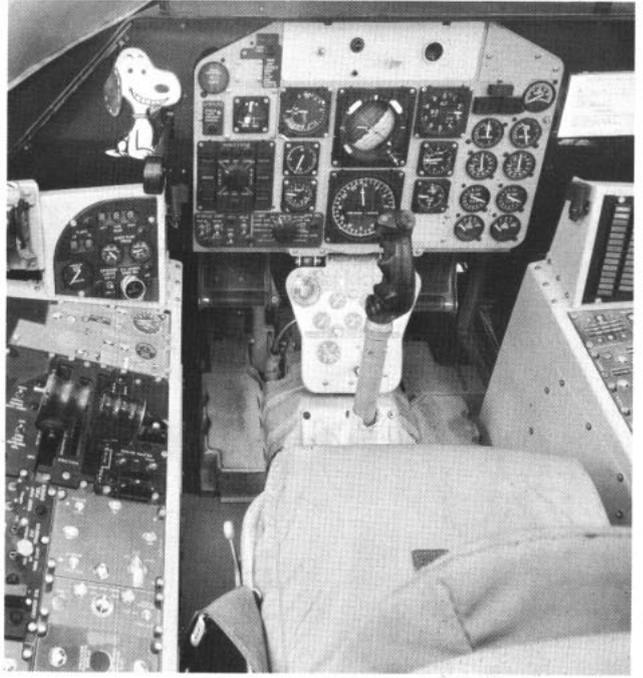
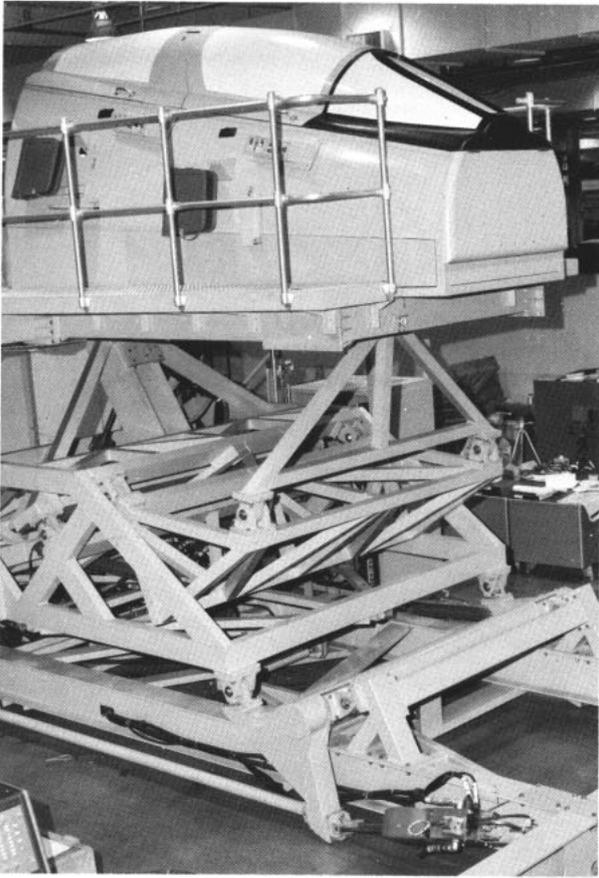
ographic Institution. It consists of a cab—about eight feet across which can move in several different ways—forward or backward, sideways, and up and down, as well as roll, pitch and yaw—in a simulated ocean environment. It achieves this scientifically realistic effect by moving over a tank of water in which are located precisely scaled topographic models.

Under the guidance of your instructor, you—the pilot trainee—navigate UTRNS by means of sonar guidance systems, or by visual observation, or by gyro compass—or any combination of the foregoing.

ALL THE TIME that UTRNS is navigating in its underwater world of water, you and your passenger are subjected to the various kinds of environmental effects—such as wave motion and ocean currents.

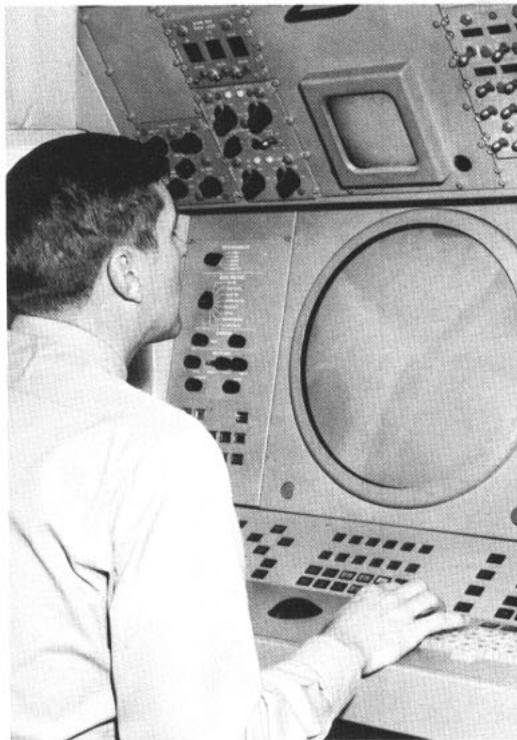
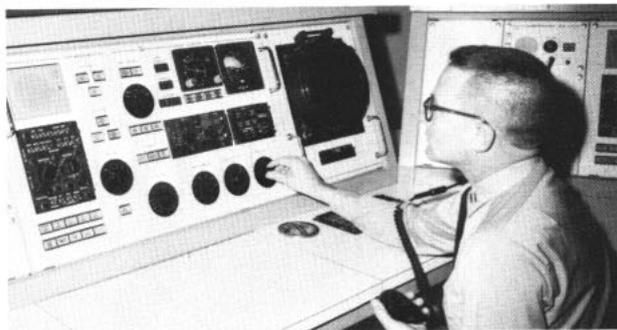
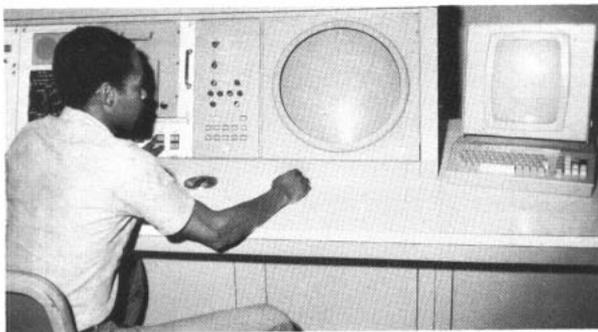
However, the only part of the cab that ever goes underwater is the optical probe that extends down from the cab into the tank.

Attached to the probe is a "manipulator arm"—which simulates the huge, lobster-like claw in a real submersible.



Facing page: An actual F-4 Phantom takeoff from a carrier. Photos clockwise show F-4J Weapon System Trainer, a simulation which provides total and realistic operation (above), the cockpit, and a cathode ray tube display of the visual carrier landing (right). Below is the instructor's console which sets the problems and monitors the pilot's actions.





You can view the world of inner space through port-holes in the cab (see photo). This effect is achieved via the upsidedown "periscope" within the downward-extending probe. The simulation periscope has the ability to enlarge the objects on the tank's ocean bottom 60 times, so that the observer is actually seeing a real-world, one-for-one presentation.

In effect, Project Engineer Dykes explained, although the tank is just 15 feet square, the miniaturized ocean world that is portrayed is the equivalent in size to the playing area of eight football fields, or a total of 360,000 square feet.

WHILE YOU MANEUVER, your roving eye takes in some of the features of UTRNS. It has, among numerous other instruments, side-looking sonar and altitude sonar, plus closed-circuit television. Various meters and gauges indicate speed through the water, rate of ascent or descent, distance from the surface, buoyancy—all the conditions, in fact, that would be found in a true submersible.

Project Engineer Dykes adds to the realism by creating current and wave motion patterns. He can vary the optical effects by use of dyes in the water to reflect the murky conditions found in the ocean.

And as the submersible continues to "descend" he can change the temperature and introduce the effects of audio reverberations or "white noise" and fading in the communications system.

Now you're close to the 6000-foot depth, which this type of vehicle is capable of reaching. The ocean is very dark, requiring external lights under actual working conditions. UTRNS is provided with spotlights and floodlights so that, after landing the vehicle on the simulated bottom, you (the student trainee) can get practice in operating the manipulator arm. It is even possible to take photographs of the simulated environment.

Operating the manipulator arm, you make a quick effort to pick up a strange-looking object on the ocean's bottom.

Then it's back to the surface—as quickly as possible, because there's still that aircraft flight to take in.

WHAT IS THE VALUE of a device of this kind? First of all, it can provide a means of evaluating the capabilities of personnel going into this underseas program, and it can also provide valuable training to make them more efficient. It can serve as a means of rehearsing a planned operation to avoid pitfalls and provide for contingencies. And finally it can save the expense of making the descents into inner space in the actual vehicle until all those involved—scientists, observers and operators—are ready for "Go."

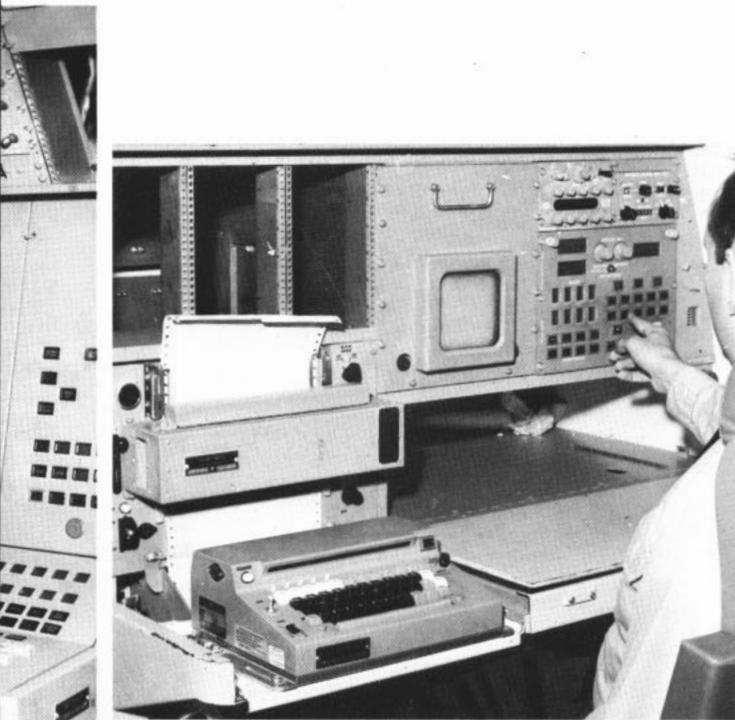
Next, you're introduced to TRADEC, the center's new computer-simulator system. Dedicated in the latter part of 1969, it is another "research tool"—not a training device—the purpose of which is to advance training device technology and new simulation concepts. TRADEC is the acronym for Training Device Computer.

The physical plant is made up of two rooms, which are temperature- and humidity-controlled, the first of which is the "motion system room," and the second the "computer room."

The former is located in one side of the two-and-one-half-story building. A variety of military vehicles and systems can be simulated by changing the control station or cockpit on the platforms and then "programming" the system.

At the present time the motion system or "simulator" room houses an aircraft cockpit on a platform, plus an operator console. This simulates the F-4E aircraft.

BACK IN THE COMPUTER area is a 25- by 40-foot chamber filled with metal-and-glass "furniture," consoles with magnetic tapes and discs (the latter are



Facing page, top left: Aircraft control console of P-3C Weapon System Trainer. Below left: The tactics instructor's console contains the equipment required to monitor and evaluate the performance of the trainee, and to perform functions required of the instructor during training problems. Left, above: TACO station. TACO is responsible for direction and coordination of the ASW mission. This page, above: NAV/COM station of the P-3C Weapon System Trainer (Tactics), officially known as Device 2F87(T). Right: The nonacoustic sensor station.



similar to the tapes, but with even more fantastic memories). There are card punch machines, card "readers," computer printers—housed in massive metal cabinets, standing on a raised floor, so constructed to provide for the interlaced mass of thousands of wires linking the various components of the computer and further linked to the equipment in the next room.

Through these wires come the signals which permit NTDC to observe and manipulate the simulator in the next room, and put its operator to the test.

Returning to the motion system room, you see the operator's console equipped with the same flight and engine instruments that are located in the cockpit. In addition, it has a bank of pushbutton switches which can be used in a variety of ways, including simulation for the purpose of training, or in the conduct of research.

TODAY WE ARE simulating different conditions of flight.

There is a buzzing sound as the hydraulic pump, like a gigantic steel jack, begins to raise the covered cockpit in the simulator room.

The buzzing stops and the plane comes to a momentary rest. Then, like a Disney World monster, it begins to gyrate in all different directions—pitching, rolling, and yawing.

At one side of the room an operator monitors the controls.

"There are 19 instruments in the cockpit," he says,

"and they are duplicated on the control panel. If the 'pilot' does well on this run, we'll give him a more difficult problem on the next run.

"You want to see what he can do in rough weather? We'll give you a sample of a tropical hurricane."

At that, the wingless cockpit buffets in all different directions.

After a minute or so, the instructor computerizes the weather conditions into somewhat more friendly air, and the pilot is given a new problem, again via the magnetic tapes of the computer.

The F-4J Weapon System Trainer, designed to provide training for flight crews of the *Phantom*, features several innovations, including a "hands-off" All-Weather Carrier Landing System capability. The capability of simulating ASW and countermeasures environment provides for realistic training. Units of the training device have been installed at NAS Miramar, Calif., and NAS Oceana, Va.

HOW MUCH DOES A DEVICE like the F-4J Weapon System Trainer save in the way of cold cash (not to say the human safety factor provided by such a method of indoctrination)? NTDC adds up the operating cost and depreciation involved in each actual F-4J flight hour (\$2400) as against the same operating cost and depreciation of the trainer (\$450 per utilization hour). The savings, *per hour of use in each case*, comes to \$1950.

This savings is based on the full life cycle cost or



Left: Entrance to present NTDC Headquarters. Below: Artist's view of proposed NTDC headquarters at Herndon.

the prorated acquisition cost of the training device and the aircraft. Multiply the number of hours that a training device is put to use in its lifetime by the savings for only one hour of use, and you'll get a very tidy figure, not to mention the amount of safe "flying" time in the simulator.

Using the same method of figuring NTDC comes up with a \$1351 savings per flight hour for the A-7A Weapon System Trainer over the actual aircraft and a savings of \$912 per flight hour for the P-3A training device.

COMPARING THE COST of an at-sea exercise involving a destroyer attack on a real submarine target, and a simulated attack via Training Device 14A2B, NTDC made an estimate by the following method:

It computed the costs of the two operating ships, practice torpedoes, torpedo retrieval, and expenditure of fuel. The at-sea exercise involved \$4286 expenditure for fuel and supplies, plus \$12,283 operating costs. Then it computed the prorated full life cycle cost of the NTDC simulator, which came to \$621, plus an additional \$204 operating costs. The total savings came to well over \$15,000 *per exercise*, that is, for each training session using Training Device 14A2B.

NTDC'S LONG HISTORY is as interesting as many of its current assignments.

Back in early World War II, there was a Special Devices Section (later a division) in the Bureau of Aeronautics (known as BuAer). It had the job of providing devices necessary for the training of urgently needed numbers of combat-ready personnel, with maximum economy through "the application of the technology and art of simulation."

Rear Admiral Luis de Florez, then a commander and a graduate of MIT, was director of the Special Devices Division when "synthetic training" got under-

way. Some of the early training devices he developed are still in use. He saw the program develop from a project in a remodeled garage, formerly operated by a used-car dealer (at 610 H St., N.E., Washington, D. C.) to a "castle" on Long Island, N. Y.

The castle—at Port Washington—which was to become the busy headquarters of NTDC had been built

in the early 1900s. But after many years, during which the property was used as an aeronautical institute and a refuge for British children in World War II, the Navy bought it for \$332,000 in 1951 (at the turn of the century it had cost some 10 million dollars).

THE FORMER STABLES (with 80 horse stalls) were transformed to an engineering building with shops and scientific labs. The kennels were converted to a Public Works Department office, and the casino (minus its marble-lined swimming pool) and the greenhouse became a BOQ and cafeteria building.

In August 1946 the growing activity's name was changed to Special Devices Center and, serving as a functioning part of the then-new Office of Naval Research, NTDC dates its official birthday from that time.

Involved in its early days in the development of training devices for navigation, gunnery, bombing and torpedo training, and pilot training and safety, over the years NTDC has expanded its development of simulators into the various fields of naval responsibility—surface, undersea, air and land.

The Naval Training Device Center moved its headquarters from Long Island to Orlando in three annual increments ending in 1967. Since that time it has expanded its research in the field of ASW training devices.

Training devices in naval aviation have been one of the major fields in NTDC's past, and the emphasis in this area remains, with the Naval Air Systems Command accounting for about four-fifths of NTDC's expenditures.

BUT THE VISITOR to Orlando will find much variety in its numerous research tools.

For example, back in 1966 the center initiated the development of simulated antipersonnel mines and



Top, left: Training aid to teach semaphore code. Photos at top left and left show trainees working in a simulated submarine environment. Above: DD/SS Command Center.

economical lifesaving devices. These devices produce noise, smoke—and a nontoxic, washable red dye to squirt on careless trainees. The devices have reload kits so that they can be used 100 times or more.

Also developed have been simulated Viet Cong booby-traps, such as the "bamboo whip," "punji pit," and the "spiked board." In each case, the trainee exposed to the trap who fails to recognize it or take the necessary precautions gets the telltale dye on him. Needless to say, the devices are realistic. They are now widely used in training situations to prepare troops for the real thing and reduce casualties.

The U. S. Army has participated in NTDC programs since 1950, paying a proportional share of the Center's operating costs. An Army group which had been stationed at NTDC was recently enlarged and elevated to the title of U. S. Army Training Device Agency.

ANOTHER RECENT ACCOMPLISHMENT has been in a new area of concern and ever-growing importance—the environment. This involved the development by NTDC, working with scientists of the Illinois Institute of Technology's Research Institute of an almost "smokeless" fire for use in firefighting training. This antipollution effort to reduce or eliminate the black carbon particles that used to spew forth involves the principle

of injecting an atomized water spray to the surface of the burning oil. The effect is more nearly complete combustion. The system has proved successful in tests at NTC Great Lakes and the firefighting school at Norfolk, Va.

The future holds new assignments and a new move for the Naval Training Device Center. Pointing up the continuing emphasis on its role in the area of "people-training" research and development is the fact that NTDC was recently shifted from an activity of the Naval Material Command to the Chief of Naval Training.

The commander of NTDC, Captain Frank Featherston, was recently advanced to head the newly activated Naval Training Support Command. In this capacity he will continue to have NTDC as one of his major responsibilities. The center is scheduled to set up its permanent headquarters at Orlando's Herndon Field, where a training test facility and other accommodations already exist.

CAPT Featherston sums up the NTDC role.

"With the increased sophistication and intercomplexity of tomorrow's weapons systems," he says, "the Naval Training Device Center is destined to make an indispensable contribution to the readiness of our naval personnel, and to the other branches of the armed services as well."

—j. a. o.

SQUADRON COMMANDER



IN HIS 17TH YEAR OF NAVAL SERVICE, Commander Fred W. Richardson, Jr., can look at his life as a fighter pilot with a feeling of satisfaction. At 38 he has attained one of the goals professional Navy aviators strive for throughout their careers—he is commanding officer of a fighter squadron, Fighter Squadron 194.

As squadron CO, Richardson's command includes more than a dozen very expensive F-8J *Crusader* supersonic jet fighters, their 15 pilots, and 185 other highly skilled officers and enlisted men.

When it's not aboard an aircraft carrier in the western Pacific, the squadron operates from the Navy's massive fighter base at Miramar Naval Air Station near San Diego, Calif.

Married 17 years to his college sweetheart, Donna, Fred Richardson and his family—they have four children—live in a spacious home in a quiet neighborhood 25 minutes drive from the base. CDR Richardson's life revolves around the fighter he has flown for the last eight years—an F-8J *Crusader*. It is one of the most important aircraft in the Navy's air arsenal.

Naturally, Richardson has more than an objective opinion of that plane. "I think it's the best out-and-out fighter in the Navy," he said.

He backs that admittedly biased opinion with a solid record of flying in the *Crusader*. Over the years he has flown this aircraft more than 2300 hours including 225 combat missions in the Republic of Vietnam and many, too, over North Vietnam.

HIS EXTENSIVE FIGHTER EXPERIENCE, and his more recent job as commanding officer of VF-194 were recently recognized by award of the Bronze Star medal. The award was a milestone, as it were, in his career that began just after college in Michigan.

Born in Arkansas, Fred Richardson moved north with his family to Battle Creek when he was seven. After being graduated from Battle Creek High in 1951, he left home to attend Western Michigan College where he majored in industrial relations. He earned his BS degree while working his way through school, spending as many as 25 hours a week on a variety of part-time jobs.

His favorite job, he recalls, was salesclerk in a little "mom-and-pop" store: the product was fish. He worked during the week and 10 hours each Saturday.

In his senior year he happened across a Navy aviation exhibit on campus depicting the new Aviation Officer Candidate (AOC) program. He applied, was accepted, and seven days after graduation—June 1955—he was on his way to flight training at Pensacola, Fla.

Before leaving he proposed to Donna, who was majoring in occupational therapy at Western Michigan.

Opposite, top: In the cockpit of an F-8 *Crusader*, CDR Richardson readies for a training flight. Left: The Richardson family poses at the conclusion of an awards ceremony in which CDR Richardson was presented the Bronze Star. From left are: Mark, Mrs. Donna Richardson, the CDR, Fred III, James and Sonya.

PREFLIGHT TRAINING was a combination of military indoctrination and academics lasting 16 weeks. "The most startling revelation," said Richardson, "was that I had to work five times as hard at my studies as I had in college. In college, if you missed a class it could be made up fairly easily. But at Pensacola it would be really tough to make up for lost ground."

With preflight completed, Richardson had his commission but still faced 16 months of intense, advanced flight training at a half-dozen Navy sites scattered through the South.

One of the most coveted jobs was that of fighter pilot and Richardson was guaranteed the type of aircraft he would fly. He chose fighters. Why? "I just wanted it."

In 1956 Richardson pinned on his Navy wings and reported to Alameda as part of Fleet Air Service Squadron Eight. His first jet fighter experience was with VF-24 at Alameda where he flew the F-3H *Demon* jet.

From the beginning with FASRON Eight, CDR Richardson began to build up experience in Navy fighters. He deployed four times to the western Pacific in different ships and squadrons. Then he was flying the *Demon*.

After five years with squadrons, he served his first shore tour at the Antiaircraft Warfare Training Center in San Diego and he taught air intercept control. At the end of that tour in 1964, he took transition training from the *Demon* to the *Crusader*.

SPEAKING OF HIS EXPERIENCE IN VIETNAM, CDR Richardson said, "It's still the human element that decides the victor in aerial combat. It's the eyeball-to-eyeball or canopy-to-canopy contact that makes dog-fights much the same today as 55 years ago in World War I."

Of one engagement he fought over North Vietnam he said, "We were escorting a flight back from a mission when we ran into four MIGs."

With his hand depicting the aircraft movement, he continued, "The four *Crusaders* in my flight engaged the MIGs. The flight leader 'dropped' one with a missile. I got a shot at one of them—but missed.

"We were flying high performance aircraft and covering a lot more air space than the planes in World War I, but the air battle was basically the same, except that speed was multiplied several hundred times."

How does it feel to go into aerial combat, knowing the chances?

"I had time to get scared," he said with frankness, "but when we were jumped we reacted automatically. That's why we train; all this routine training leads towards the time we go into combat. The actual dog-fights, then, aren't dramatically different from the training.

"Our country has the resources to produce better pilots," he added soberly, "but you always assume the other guy is just as good a pilot as you are."

Luck had something to do with his success. He adds that through all the scores of missions he flew, his air-



craft never was hit.

The commander emphasizes his high opinion of the F-8J, "While each bird has its particular advantage, the *Crusader* has the capability of shooting missiles. If those miss, a pilot can move in and use guns. It's the versatility that impresses me."

AT THE CONCLUSION of his second combat deployment, Richardson received orders to a U. S. Air Force unit as an exchange pilot. He welcomed the change. It gave him an opportunity to have a fairly normal family life after several years of hectic combat and training duty.

While flying a respectable number of hours in the Air Force's RF-101 *Voodoo* at Shaw AFB in South Carolina, he also had time to spend with his wife and their children.

Donna Richardson's warm personality is like her husband's. Outwardly quiet, she speaks softly, and her conversation is often highlighted with a warm smile.

After leaving college, she worked for six months at a Veterans Administration Hospital in Marion, Ind., until she and newly commissioned Richardson were married.

"We were married while Fred was in flight training, and I didn't mind the idea of his being a pilot at all. In fact, I was kind of thrilled by it," she said.

"I don't think I anticipated the long deployments, but as the years go by I learn to fill my time profitably. It goes much faster than if you're idle."

The family has spent most of its time in California, and they like it there, but Donna likes the change of scene that comes with transfers. "I find it interesting to meet new people and see new places. It's good for us and the children."

She states that Fred's transfer as an exchange pilot enabled them to meet a whole new group of people.

"The wives of the Air Force pilots have problems similar to ours, yet different. It was fun comparing notes. Our family went on sightseeing trips—and we made a cross-country trip from South Carolina to California when we were transferred again."

LIKE THOSE OF MOST SERVICE WIVES, her memories are a combination of the good and the bad; fortunately, Donna Richardson's reminiscences of Navy life are mostly good. "Two of the happiest things I'll remember," she said, "were the celebrations we had when Fred was promoted, and his return from deployment. The worst was during a bout of chronic asthma our oldest son had—he nearly died. Fred was deployed at the time, and while I could have gotten in contact with him, there was nothing he could have done.

"Then, of course, there are always things around the house that have to be taken care of—they seemed to go out of order as soon as Fred would leave on a



tour. Autos or appliances, things like that, and you just have to cope with it as best you can," she said.

"Long separations during deployments are hard on any family, but 'absence makes the heart grow fonder.' We have grown closer together and realize how dependent we are on one another, and how much our lives are intertwined."

Flying and family are two vital facets of CDR Fred Richardson's life. But a look at his job of commanding officer is necessary to round out a three-dimensional view of him. Though flying has been his life since he entered the Navy, he now finds that his duties as squadron skipper demand an increasing amount of time in administrative work.

A TYPICAL MORNING AT HIS DESK might include working on a variety of tasks: fitness reports on his pilots, responding to a mother's query made through the Red Cross about a son being remiss in

his letter-writing and, always, seeing people involved in the running of a complex military unit such as VF-194.

Though he's pinned to his desk more than at any time in his career, he still feels that his most important job concerns the unit's aircraft.

"I like to get out of the office as much as possible. Out there is where the action is. I like to walk around and look over the fighters and see what's going on for myself."

While it is obvious that the CO's life is still inextricably bound with flying, he spoke of a not unnatural change in his attitude towards aviation. "It used to be that I would go flying just to punch holes in the sky. Now, after so many years, it's just not the same.

"I still like to fly, but it's the mission, the job at hand that I'm more concerned with rather than just flying for the fun of it."

During his casual visits to the shops and offices,



Top left: Using the sign language of the fighter pilot, CDR Richardson retraces his path during a training "dogfight." Left: Walking down the line, CDR Richardson casts an eye over the multimillion-dollar jets for which he is responsible. Visits like this one aid the CDR in keeping abreast of both aircraft and men. Right: While a mechanic crawls into the plane's air intake to make a final check, CDR Richardson prepares to go aloft.

Richardson communicates directly with his men. He knows this is more effective than just sitting in the confines of his office.

NAVY PILOTS have traditionally been close to the men who maintain their aircraft. Their lives literally depend upon how well the myriad of skilled technicians in the squadron keep the planes in repair. Richardson agrees with the concept that we cannot have a black Navy or a white Navy, just one Navy. The position of a commanding officer requires that his conduct and judgment be scrupulously impartial. His relations with the men reflect this fact.

"The most meaningful thoughts of my men surface during these informal talks, like their problems here on the job or at home. Through these conversations I get a better understanding of their needs.

"I've found that people want to be treated decently. As far as Black Navymen are concerned, they want to



be considered first as men."

There are seven blacks in VF-194. Four are career-oriented, that is, they have reenlisted at least once. Another is considering the Navy as a career.

One sailor, who's black—a career 2nd class petty officer—said there's been no difference in the way blacks or whites were treated. He said CDR Richardson handles everyone equally and fairly.

"He's got to treat everybody the same way, or morale would just go out the window."

RICHARDSON'S POSITION towards officers and men in the unit is clearcut, "I take people at their face value. I demand professionalism and mature conduct, and I regard the men of my squadron as men, regardless of age or rank."

While the job as CO demands impartiality, he does

not suggest that the racial problem has not touched his unit. He believes, though, that most problems are related to his men's personal lives, such as housing.

"Of course discrimination in housing still exists," he said. "There are still people who believe that Negroes do not have the capability to maintain a home. The problem is not nearly as great in the San Diego area today as it was when I first came here in 1961.

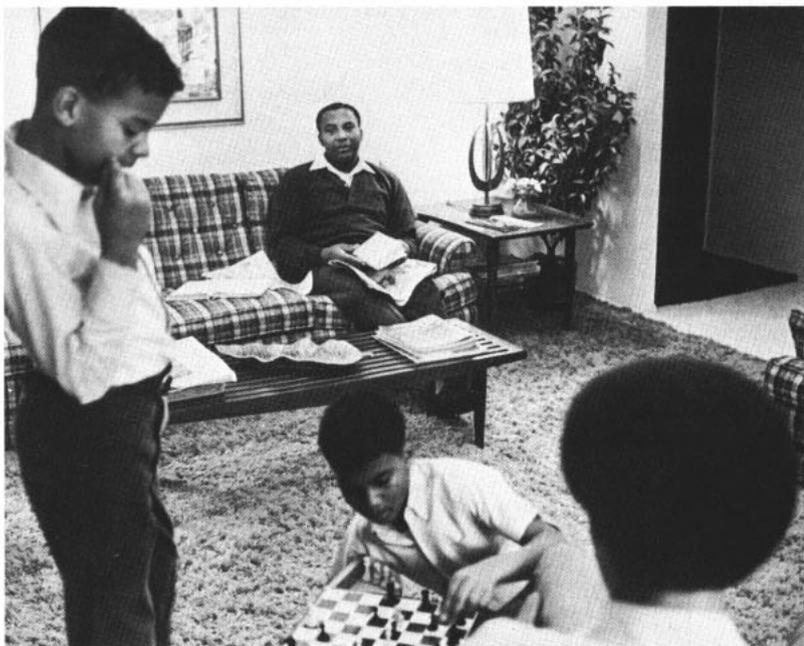
"Ten years ago it wasn't uncommon to follow up an ad in the paper for a house or apartment and then be told when you saw the place that it was already rented!

"The housing problem for Black Americans is less severe now because of the law of supply and demand, and also because of the positive attitude of the local construction trade."

The Richardsons chose their own home not on the



Whether playing checkers with daughter Sonya or helping son Mark with his homework, the Richardsons spend much of their free time engaged in family activities. Facing page, bottom, Eldest son Fred III discusses entry into the Military Academy with a retired Army officer. One of CDR Richardson's favorite pastimes, as with all fathers, is talking about the children with his friends (far right).



basis of racial acceptance, but because they liked the house itself, and the high quality of the local schools available to their children. Their three sons, Fred III, Mark, and James, are all enrolled in special classes for gifted children. Vivacious little Sonya is scheduled to be tested for the same program.

Richardson is adamant in his opinion that being a Negro had no bearing on his career in the Navy, neither helping nor hurting it.

"There have been no obstacles placed in my way. My performance has been compared to other people with professional backgrounds similar to mine, and when the selections for promotion were completed, I made it."

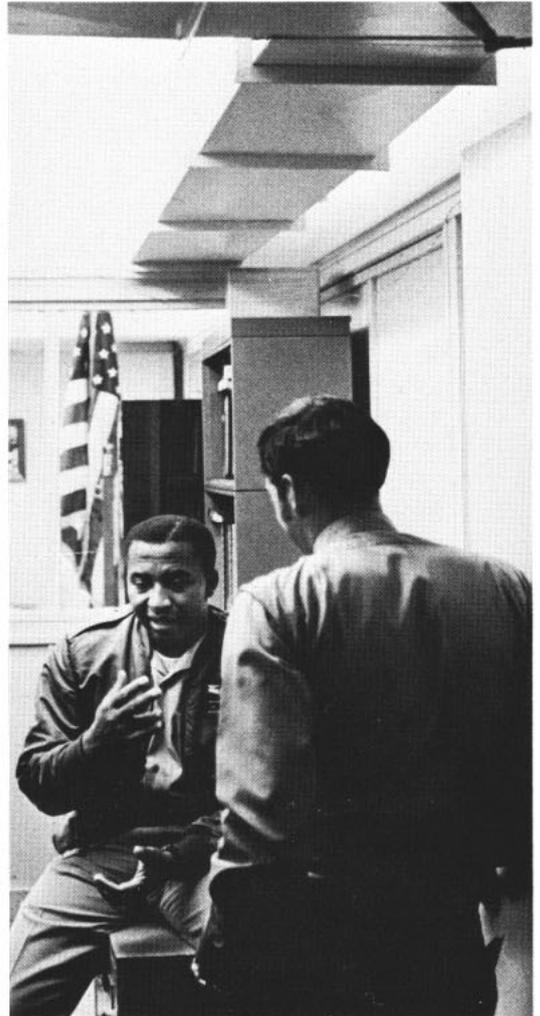
The impression one forms of CDR Fred Richardson is that of a man filling a vital role and occupying an admired position in American society. He is a success by

any standard that can be applied, including education, income and professional achievement. He's not an outsider looking in. Rather he's an American who has reached out like many before him and succeeded in his quest for the American dream.

If selected for promotion to captain, he will come within reach of flag rank, the top goal of every career Navy officer.

The trickle of blacks beginning some 30 years ago into the Navy officer corps has grown considerably as part of the service's program that actively seeks members of minority races. In the coming years, many qualified black Navy officers will be wearing the stars of flag rank. Perhaps CDR Fred Richardson, Jr., will be among them.

—Story and Photos by PHCS William M. Powers



- WOMAN ADMIRAL INCLUDED IN LARGEST FLAG NOMINATION SINCE WWII

Captain Alene Duerk, head of the Navy Nurse Corps, was recently selected to become the Navy's first woman admiral when President Nixon approved and nominated to the Senate the largest group of naval officers to be selected for flag rank since World War II. Also included among the 50 rear admiral selectees was CAPT Kinnaird McKee who, at 42, will become the youngest rear admiral in the Navy's history and CAPT Albert Sackett, who is believed to be the second in naval history to make every rank on the seaman-to-admiral route. Of those selected, 43 are unrestricted line officers, 10 of whom never held a major at-sea command; about 15 subspecialties, including two communications subspecialists, were represented.

- EFFECTIVE 1 JULY: NEW REENLISTMENT STANDARDS

New reenlistment standards in the area of minimum overall trait averages will become effective on 1 Jul. Petty officers 1st class must have a minimum overall trait average of 3.3 during their current enlistment to be eligible for reenlistment; PO2s need a 3.1 average. Requirements for an honorable discharge remain the same--a minimum 2.7 overall average with at least a 3.0 average in military behavior. Minimum marks for reenlistment eligibility for PO3 and below and for CPO and above remain as stated in BuPersMan 3410150 and BuPersInst 1616.7 series, respectively.

- FINALISTS ANNOUNCED IN NEY AWARD COMPETITION

The Secretary of the Navy recently announced the finalists in this year's Edward F. Ney Memorial Awards Program for excellence in food service. Winners will be selected after a final on-site evaluation by the Ney Awards committee to be conducted between 22 May and 30 June. The finalists are as follows:

- o Large Mess Afloat: USS Kitty Hawk (CVA 63); USS LaSalle (LPD 3); and USS Sperry (AS 12).
- o Large Mess Ashore: Naval Station, Guam; Naval Communication Station, Republic of the Philippines; Naval Training Center, San Diego.
- o Small Mess Afloat: USS Blakely (DE 1072); USS Frederick (LST 1184); and USS Waccamaw (AO 109).
- o Small Mess Ashore: Puget Sound Naval Shipyard, Bremerton; Naval Communication Station, Puerto Rico; and Fleet Activity, Sasebo.

- RETENTION ABOARD USS CONSTELLATION: A SUCCESS STORY

The retention rate aboard USS Constellation (CVA 64) received a boost when 24 of her crewmen reenlisted for a total of 105 years' additional duty. During her current WestPac deployment, 36 per cent of Constellation's eligible first-termers reenlisted, hitting a high point in March when 64 per cent of her first-termers shipped over. Also in March, the ship's reenlistment rate for career people was 100 per cent.

Explaining Constellation's retention success, Career Counselor MMC C. S. Lloyd said, "This is a good ship; we've got a good skipper. We've been enjoying some of the fun that CNO is trying to put back into the Navy. But if I had to put my finger on any one thing," he continued, "I'd say it's an in-

creased awareness of all the Navy has to offer. We learn about opportunities and benefits on ship's TV; you hear it on the radio stations; you read about it in the plan of the day, the ship's newspapers, ESO's newsletters. The men are really getting the word."

- Z-GRAM 108: CONTINUATION BEYOND 30 YEARS' ACTIVE SERVICE

Following some field trips and personal contacts with Navymen, Chief of Naval Operations Admiral Elmo R. Zumwalt, Jr., recently issued Z-gram 108 (19 Apr 72), which details the Navy's current policy regarding voluntary continuation beyond 30 years' service. Citing a constant need for well-qualified senior petty officers, Admiral Zumwalt said, "In recognition of the outstanding contributions made by members of this community, the Chief of Naval Personnel will selectively authorize continuation when members requesting consideration (in accordance with BuPersMan 1040300.20) can be effectively utilized." Navymen with outstanding performance records in paygrades E-7 through E-9 in undermanned ratings or who possess needed special skills are encouraged to request these "twilight tours." See Z-gram 108 for more details.

- CNO ANNOUNCES LEGAL CHECKUP PROGRAM

The Chief of Naval Operations recently announced the creation of a Legal Checkup Program designed to make Navy people and their dependents aware of services available from Navy Legal Assistance Officers and to ensure that each person is given the opportunity to review his personal legal affairs periodically. Although Navy people may get legal counseling at any time, special emphasis will be given to legal matters during October, designated as annual "Legal Checkup Month," when Navy people will be strongly encouraged to prevent legal problems by planning ahead.

The Navy has had a legal assistance program since 1943, but many Navy men and women still seem to be unaware that qualified Navy lawyers are available to help them with personal legal problems. The Legal Checkup Program, which will be further detailed in a forthcoming OpNav Instruction, is intended to increase their awareness of assistance available and the importance of keeping abreast of their personal legal matters.

- OPERATION HIGHLINE: NAVY LEAGUE ASSISTANCE FOR VETERANS

The Navy League has announced the reestablishment of Operation Highline, a voluntary program to assist all Navy and Marine Corps people, both at EAOS and retirement, who will soon be returning to civilian life. Designed to provide assistance for those resettling into the civilian community, help in finding a job, and a simple point of contact providing the name of a "shipmate" to whom one can turn, Operation Highline includes information about veterans' programs, federal programs, educational opportunities, housing availability, and similar subjects pertinent to a serviceman's transition to civilian life. Interested persons who are approaching separation or retirement should see their career counselor or Project Transition officer, or write to: Director, Operation Highline, Navy League of the United States, 818 18th Street, N. W., Washington, D. C. 20006.

- CIVVIES AUTHORIZED FOR REDUCED RATE COMMERCIAL FLIGHTS

The Civil Aeronautics Board has ruled that service men and women flying at reduced rates on commercial airlines can now travel in civilian clothes. The new policy, which went into effect on 17 Apr, affects all military people on leave or liberty and applies to all domestic U. S. airlines involved in interstate commerce. Most airlines offering reduced military rates require a copy of DD Form 1580; however, a few airlines require only that military people have a valid, active duty I. D. card. If you're planning to fly at reduced rates, you should check with the appropriate airlines to determine their policies. Copies of DD Form 1580, if needed, are available in your personnel office. AMTRAK also drops uniform requirements for Railway travel. (See p.36).

- DEPENDENTS' DRIVERS' LICENSES UNDER STATE JURISDICTION

One of the recommendations made by the Lieutenant Commander Retention Study Group was that provision should be made by appropriate legislation to extend to military dependents the right to maintain home state driver licenses. Since traffic laws and licensing of automobiles and drivers have traditionally been functions of local and state governments, little can be accomplished through federal legislation. However, the Interservice Study Group on Motor Vehicle Traffic Supervision has succeeded in getting incorporated into the Uniform Vehicle Code a provision for reciprocity on drivers' licenses for the spouse and dependent children of a serviceman. To date, 39 states have adopted that portion of the code which grants reciprocity to service wives. Only five states--Alabama, Maryland, Mississippi, Nebraska and Ohio--have extended this privilege to dependent children.

- FOUR NAVY OFFICERS CHOSEN FOR SKYLAB CREWS

Four Navy officers will be among the crews of Skylab, America's first earth-orbiting space station, after the space workshop is launched in the spring of 1973. After her unmanned launch, Skylab will be visited three times by three-man crews over an eight-month period; each crew will consist of a commander, a science pilot, and a pilot. Aboard the first manned Skylab, which will last 28 days, will be Commander (MC) Joseph P. Kerwin, Commander Paul J. Weitz, and Captain Charles Conrad, Jr., who has flown on Gemini 5 and 11, and Apollo 12--the second manned lunar landing. Captain Alan L. Bean, who served as lunar module pilot aboard Apollo 12, is scheduled to be aboard the second Skylab mission for its 56 days.

- EXTENSIONS AUTHORIZED FOR MEMBERS WITH PREGNANT WIVES

Extensions of up to one year may be granted to active duty Navymen with pregnant wives who wish to receive maternity benefits from the Navy. Such extensions may be granted in accordance with BuPersMan 1030150 and BuPersMan 1050150, provided the member's services have been satisfactory and that he can be utilized effectively during the extended period. Requests from officers must be submitted to the Chief of Naval Personnel, and unusual cases concerning enlisted people will be referred to ChNavPers for resolution.

- NAME CHANGED FOR ESK RATING

Information Security Specialist (ESK) has replaced Telecommunications Censorship Technician as the title for this rating; the original rating abbreviation (ESK) and badge device remain the same. The change in title will be reflected in the June 1972 revision of the Manual of Qualifications for Advancement (NavPers 18068C).

- INTERESTED IN A NURSING CAREER? CONSIDER NENEP

The Navy Enlisted Nursing Education Program (NENEP) provides an excellent opportunity for qualified members of the Hospital Corps (both Group X and Group XI) to obtain up to four years of college education, to earn a baccalaureate degree in nursing, and to receive a commission as a Navy Nurse Corps officer. Nurse Corps officers serve in naval hospitals and other activities having medical facilities, and the need for trained, qualified registered nurses increases as technology of the medical profession progresses.

Petty officers of the Hospital Corps serving on active duty may be eligible if they meet the following qualifications: not over 24 years of age; high school graduate; U. S. citizen; meet physical requirements; and have a combined GCT/ARI of at least 118. Applications must reach the Commander, Navy Recruiting Command before 1 Jan 73. If you're interested and think you can qualify, see your career counselor for more information.

- PHONE NUMBER FOR NAVY LODGE AT NAS JACKSONVILLE

If you've been trying, unsuccessfully, to reach the Navy Lodge at Naval Air Station, Jacksonville, Fla., by the phone number listed on page 65 of the ALL HANDS Rights and Benefits Issue (Dec 71/Jan 72), the reason you couldn't get through is because that number has been changed. The new commercial number for NAS Jacksonville's Navy Lodge is: (904)-772-2549.

- NEW HOUSING OPTION FOR PCS TRANSFERS INVOLVING SCHOOL

A recently approved change to OpNavInst 11101.13E, which governs assignment to Navy housing, gives Navy people attending school or refresher training during PCS moves the option to move their families before or after their schooling.

- NORMAL SEA/SHORE ROTATION WAIVED FOR FLAG OFFICER WRITERS

It was recently announced that normal sea/shore rotation provisions can be waived in assigning Flag Officer Writers (NEC YN-2514) and Stenographers (NEC YN-2512). Top performing yeomen in paygrades E-5 through E-9 desiring duty as Flag Officer Writers and who meet the prerequisites listed in the Formal Schools Catalog (NavPers 91769-A) are requested to submit Enlisted Transfer and Special Duty Requests (NavPers 1306/7) to the Chief of Naval Personnel (Attn: Pers-B2151).

Qualified applicants will be ordered to the 14-week Yeoman Stenography Course A-511-0015, and then for duty as a Flag Writer, without regard to sea/shore rotational eligibility. Yeomen not currently coded NEC YN-2514/2512,

but who meet requirements listed in the Transfer Manual and desire assignment under this program are encouraged to submit Navy Enlisted Classification (NEC) Code Change Recommendation (NavPers 1221/1) to BuPers (Pers-B224).

o VOLUNTEERS FOR PERSONNEL EXCHANGE PROGRAM WITH FOREIGN NAVIES

Officers in all designators and grades and enlisted members in all ratings are eligible to apply for billets in the Personnel Exchange Program (PEP), a billet exchange between the U.S. and allied navies. Billets are now available in the following countries: Australia, Belgium, Brazil, Canada, Denmark, Germany, Greece, Italy, Mexico, Netherlands, New Zealand, Norway, Portugal, and United Kingdom. Other countries will also be included soon. Enlisted volunteers should be willing to extend or reenlist in order to serve a complete tour, be career oriented E-5 or above, have excellent records indicating stability, and be recommended for advancement. They should also list the number of dependents, their relationship and birthdates in their request and should receive command endorsement for family participation. Both officers and enlisted members when applying should state foreign language proficiency, including FLAT (Foreign Language Aptitude Test) scores, and any special medical or dental requirements. Requests should be made to the appropriate assignment or rating control officer. For more details see your personnel officer.

o VOTING "ACTION LINE" ESTABLISHED

An action line telephone circuit has been established in the DOD Federal Voting Assistant Task Force Office, providing quick assistance to voting coordinators and counselors throughout the world. Manned during normal working hours (0830 to 1700 EDT), the service also features an automatic answering device to record calls during the non-duty hours. Voting coordinators and counselors may expect prompt replies -- either by telephone or by airmail letter -- to all inquiries. Questions should be limited to subjects not covered in existing publications concerning the mechanics of registration and voting, information concerning individual states such as county seat addresses, or needed materials. The number is (202) 694-4777 or AUTOVON 224-4777.

o FORWARD DEPLOYMENTS HELP REDUCE SEPARATIONS

In order to lessen the impact of frequent deployments on the individual, plans are being developed to homeport more ships overseas and to expand the number of ports involved. Forward deployment of these units has been used to reduce the deployment intervals in the First and Second Fleets. These plans will open up new opportunities for adventure in foreign countries, and for married members, they will provide greater opportunities for enjoyment of family life while on sea tour. Areas in which ships are currently based are the Mediterranean, Western Europe, mid-and western Pacific. Officers applying for such overseas assignments should indicate it on their duty preference cards. Enlisted personnel should submit a special request chit to the Chief of Naval Personnel (Pers-B217) and indicate a preference for at least two of the four

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available geographic areas. The request should be endorsed by the command and should contain the birthdates of all dependents and any special medical or dental requirements.

o INFORMATION AVAILABLE FOR NEW NAVY WIFE

The Navy Wifeline Association is now making available to commands a collection of pamphlets and booklets welcoming the new Navy wife into the organization. The collection contains information describing naval customs, traditions and social practices. There is also a simple but comprehensive handbook of information designed to acquaint her with the varied aspects of Navy life. Topics include assignments and promotions, privileges and activities for Navy wives, assistance available to the Navy family, sea duty, and overseas tours. The booklets may be obtained, free, from the Navy Wifeline Association, Building 210, Navy Yard, Washington, D. C. 20390.

o AMTRAK DROPS UNIFORM REQUIREMENT FOR TRAVELLING SERVICEMEN

The National Railroad Passenger Corporation (Amtrak) has announced that active duty military men no longer have to wear their uniform while purchasing reduced-rate, coach-class railroad tickets, or when travelling. At the request of ticket agents or conductors, military personnel must show their ID cards and their leave papers. Amtrak, which controls the nation's inter-city passenger service, added that one-way and round-trip coach fares are normally discounted at 25 per cent for servicemen travelling on leave.

o Z-GRAM 110: HUMAN RESOURCE DEVELOPMENT PROJECT MANAGER

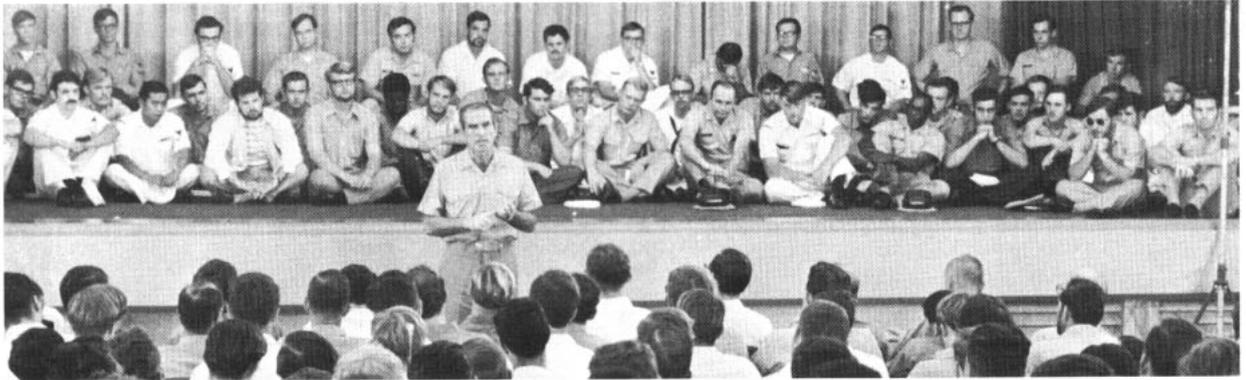
In order to provide support to all naval units in meeting the challenges of the 1970's in the areas of command development, race relations, intercultural relations and drug control, Z-gram 110 has established and outlined the duties of the Project Manager for Human Resource Development.

While all members of the Navy will be involved with these programs to some extent, opportunities are now opening up for those who want to devote full time to these projects. Educational or practical experience will be considered but is not essential in these assignments. Officer and enlisted personnel desiring to serve in these programs should indicate it on their duty preference cards. Officers should initiate a letter to the Chief of Naval Personnel (Pers-Pc), and enlisted members should submit a transfer and special duty request (NAVPERS 1306/7) to the Chief of Naval Personnel (Pers-B2, copy to Pers-Pc) if they desire such assignments.

o INTRODUCING DRIVER MAGAZINE

June 1972 will mark the debut of a new, Navy periodical entitled Driver Magazine. This monthly periodical is oriented to the 18- to 25-year-old military driver. It is being cosponsored by the Air Force and Navy Safety Centers. The feature article in the June issue will be "Safety at Sea" which deals with the highway safety education program being conducted aboard USS Enterprise. Distribution of Driver Magazine will be made to all Navy and Marine Corps activities on the basis of one copy per 10 members. Read it, you'll like it.

ADMIRAL ZUMWALT : 'EVERY NAVYMAN A RECRUITER'



Chief of Naval Operations Admiral Elmo R. Zumwalt, Jr., has given the Navy's recruiting effort "top priority" in Z-gram 109 (29 Apr 1972), which cites the need to revitalize Navy recruiting in response to the move toward an all-volunteer force. The Navy's recruiting goal for the fiscal year ending 30 June is 97,000, and will be increased to 131,000 in FY 73 because of the large number of enlistments during the 1968 Vietnam buildup that will be expiring. Stressing quality—of recruiters and prospective enlistees—the text of Z-gram 109 is given below:

THE SMALL and decreasing number of men being drafted has placed us in a virtually all-volunteer force situation. This fact is clearly evidenced by our failure in recent months to attract sufficient quality personnel. It is perfectly clear that now, more than ever, we must not only increase retention by continuing emphasis on upgrading the attractiveness of a Navy career, but also we must revitalize our recruiting efforts.

I have recently declared that recruiting is my top priority. Specifically, the following objectives are established in support of recruiting goals:

- Officer and enlisted personnel nominated for duty in recruiting must be highly motivated and meet the highest professional and personal standards. Commanding officers should consider members of their commands who display exceptional abilities at effecting increased retention when nominating personnel for recruiting duty. Young, dynamic leaders who possess enthusiasm, pride and military smartness are most desirable to present the Navy image to today's youth. It is a matter of urgency that these people be identified and assigned to recruiting duty. Excellence in the performance of recruiting duties will be recognized in the same manner as top performance in other fields. Openings are available in pay grades E-4 through E-9 and O-2 through O-6. There are recruiting billets in virtually every section of CONUS.

- In seeking to attract officer and enlisted candidates to join the Navy or Naval Reserve, we must ensure that quality standards are maintained. If there is to be a compromise, I will accept fewer people

to meet those standards rather than achieve manpower goals at the expense of quality and future potential! However, I believe we can do both, and we must strive to do so. Although our recruiters must bear the major part of the task to recruit men and women for our Navy, all of us can contribute our share. I ask that each man, active, Reserve and retired, consider himself a recruiter, tell others of his Navy experience, and encourage interested young people to contact a recruiting office. In CONUS, starting 1 May through 31 August 1972, they can learn where the nearest recruiting office is by calling this toll-free number: 800-424-8880.

I cannot overemphasize the importance of attracting motivated personnel to join us. It must be an all hands effort, and I want you all to know that I need your help.

—E. R. Zumwalt, Jr., Admiral, U. S. Navy,
Chief of Naval Operations

RECRUITS AS RECRUITERS

ACTIVE DUTY ENLISTED PEOPLE are participating in two new programs aimed at boosting the Navy's recruiting effort in hometowns across the United States. Under the Recruiting Assistance Program, selected recent reenlistees are being sent to their hometowns for 10 days of temporary additional duty to talk to high school and other youth groups.

The Recruit Feedback Program enables selected boot camp graduates to return to their hometowns for five days' TAD, after which they're authorized to take their normal boot camp leave. Reenlistees may take up to 10 days' leave after their TAD.

Participants in both programs are selected on the basis of their ability and desire to tell the Navy's story to their peers. In general, participants in the Recruiting Assistance Program are selected by type commanders from among first-term reenlistees because their hometown ties normally are stronger than those of other reenlistees.

First Step Up Navy's Promotion Ladder Can Be Taken by Top Recruit Graduates

ALL NAVY RECRUITS who finish in the top 10 per cent of their recruit training class will now be advanced to the grade of seaman apprentice four months before the others. And, with this first promotion, the new Navyman's salary increases from \$288 to \$320.70 a month.

A man or woman becomes eligible to take the test for the next step up the promotion ladder—to pay grade E-3, and a pay increase to \$333.60 a month—after he or she has served six months as seaman apprentice. Then after another six months—and if he meets the professional qualifications of his particular rating—the man is eligible to take a test for one of the biggest steps in his naval career—advancement to the first of the petty officer ratings. It is now possible to become a chief petty officer in eight years, and a master chief petty officer (or pay grade E-9) in less than 20 years.

A master chief petty officer with more than 20 years of service earns a monthly salary of \$908.80—plus allowances for quarters, rations and maintenance of his uniforms. An 18-year-old who enlists in the Navy would be eligible to retire at age 38 and, assuming that he had managed to reach pay grade E-9, he'd receive a retirement income of \$542 a month for the rest of his life and still be young enough to start a civilian career. In addition, he'd continue to be eligible for benefits such as commissary and exchange privileges and free medical care, along with Veterans Administration education and loan benefits.

New System Reconstructs Exercises From Info Contained in Nav Logs

A COMPUTER-AIDED SYSTEM to reconstruct large-scale Fleet antisubmarine exercises has been devised by analysts of the Naval Undersea Research and Development Center at San Diego. It has been used in ASW exercises involving up to 15 surface ships and submarines operating for 168 hours in a circular area over 200 miles in radius.

Previously, exercises had to be laboriously reconstructed by teams of Navy men from participating ships who used manual techniques and had to make arbitrary decisions based on uncertain memory. The new computerized system, however, can reconstruct a complete exercise in four days from information on positions and navigation logs which is keypunched into a computer. This provides a listing of the time, latitude and longitude of each ship throughout the exercise. After known fixes and other operational information are given to the computer, data on ships' courses and speed during the period is drawn onto graph paper by the computer to develop a set of tracks relatively consistent with each ship. Color-coded plots track each ship on a single sheet of graph paper and relative range and bearing listings between all participants are prepared. This gives Fleet commanders a picture of what happened during the exercise shortly after the action takes place.

INTRA-FLEET TRANSFER

IF YOU'RE A MACHINIST'S MATE or boiler technician with at least 13 months' obligated service remaining and you've completed the minimum prescribed tour on board your present ship, you may be eligible to cash in on a transfer to a different ship—and a different type of power plant—under a program which recently became effective. The new policy regarding Intra-Fleet Engineering Proficiency Transfer is aimed primarily at first-term Navy men, and has been established to provide BTs and MMs with the opportunity to obtain experience in the different propulsion systems used in today's Navy.

Steam systems encountered in Navy ships range from 450 to 1200 pounds per square inch (PSI), and some Navy men have not had the opportunity to broaden their knowledge or be challenged by new and more sophisticated steam propulsion systems such as the 600 PSI ACC/APS or 1200 PSI plants. The new policy was established to allow BTs and MMs, who are already familiar with one type of surface/conventional propulsion system, to broaden their experience by working with another type of power plant.

Transfers may be requested by MMs and BTs of all paygrades, provided they've completed the minimum tour on board and they have at least 13 months' obligated service remaining. Transfers may be made through swaps (in accordance with Chapter 16 of the Transfer Manual) or normal sea-to-sea rotation at the established PRD.

INDIVIDUALS with a 1200 PSI NEC will continue serving in a billet requiring this NEC, although on a differently configured 1200 PSI ship (for example, NEC BT-4517). Those coded with NECs for work on ACC systems of either 1200 PSI or 600 PSI power plants may be permitted to transfer to a ship with a similar ACC system. BTs and MMs desiring transfer from a 600 PSI ship to a 1200 PSI ship may request 1200 PSI training—and ultimate assignment to a 1200 PSI ship—provided they meet all prerequisites for this training, including any obligated service incurred as a result of the training.

Reassignment under this program is made in accordance with established fleet personnel requirements and priorities, and people interested in such a transfer should use the following procedures.

- BTs and MMs (E-6 and below) under the Atlantic Fleet's Phasevey Program should enter, as an additional remarks item on their Phasevey listing, "Desire assignment to (Bailey), (Hagen), (General Regulator) System." Persons qualified in 600 PSI systems who desire transition to 1200 PSI systems should indicate, "Desire 1200 PSI System."

- Pacific Fleet personnel (E-6 and below) should submit transfer requests on NavPers 1306/7 to the Chief of Naval Personnel via EPDOPAC.

- For BTs and MMs (E-7 through E-9) who are currently under centralized distribution by ChNavPers,

from the desk of the **Master Chief Petty Officer of the Navy**

Building Toward an All-Volunteer Navy



MCPON JOHN D. WHITTET

LET'S FACE IT, the hunt is on. The Navy is looking for promising young men and women who are looking for a challenging and rewarding career. As we build toward an all-volunteer Navy, the need for talented and dedicated young volunteers will intensify.

Today's young people want meaningful and purposeful jobs. As a Navyman or Navywoman, you can meet these young people on their own terms by describing the meaningful Navy life by amplifying Navy job opportunities. The all-volunteer Navy just will not happen. It will have to be built by people like ourselves. Each of us has a stake in the growth and development of our Navy. As Admiral Zumwalt has said, "Every career officer and enlisted man in the Navy is a recruiter."

When you think of it, what better way is there to recruit men and women of good character and

promise than by individual contact and attention? Our own initiative and experience could be an invaluable recruiting asset.

Navy men and women are masters of their trade—professionals working at the watch, quarter and station bill of freedom. It is hard to find greater meaning or better opportunity than the Navy has to offer. Our Navy is alive. Alive with opportunity and open to all who have the vigor and vision to reach for a challenging and rewarding career.

AS NAVY MEN AND WOMEN, we have a unique and ongoing opportunity to benefit and develop our own lives while in the service of our country. Look back on your own career. Consider your own growth and your own reward. Secure and reliable income, equitable advancement, responsibility, vacation, medical and dental services, survivor's benefits, technical training, the broadening and deepening experience of travel, practical experience, professional development, educational opportunity, new people, new places, new and challenging assignments and an excellent retirement program, the Navy is all of these and more. This is the Navy message that each of us can communicate through his own contact.

In the months and years ahead, our Navy must do an even better job of recruiting. There are new opportunities to be grasped, new and exciting places to go, and challenging new things to be done. This is the Navy way. The United States Navy is a dynamic organization going places and doing things.

Navy men and Navy women are professionals in an honored calling of strength and purpose—professionals with a creative and satisfying opportunity to share in the growth and wealth of a meaningful and long-standing tradition of strength and purpose.

If ever a time for pride and professionalism, then surely it is now. Be proud! Sound off! Make a contribution by influencing others to consider the Navy. It is apt to be good for you; it has certainly been good for me and it is getting better every day!

desires for different plant experience should be indicated on their Duty History and Preference Cards.

Transfers can normally be expected to occur on established PRDs.

Crew Films Pacific Airfield Approaches As Aid in Pilot Familiarization

NAVY PILOTS AND FLIGHT CREWS should be glad to know that, thanks to the efforts of Patrol Squadron 22 (VP 22), coming into an unfamiliar airfield in the Pacific is now a thing of the past. During a total of 16 days—and 57.1 flight hours—Patrol Plane Com-

mander Lieutenant Commander Dick Wilson, five other officers and a full crew shot 16mm movies of actual approaches and landings at various airfields, including: NAS Barbers Point; NAS Agana; NAS Guam; Cubi Point, R. P.; Hong Kong International; Utapao, Thailand; NAF Naha, Okinawa; NAF Futima, Okinawa; MCAS Iwakuni; NAS Atsugi, Japan; and AFB Misawa, Japan.

Complete IFR, GCA, circular, and missed approaches are now available on film with surrounding topography for these airfields. Before this film was made, pilots flying into unfamiliar fields were unaware of many of the hazards and obstructions characteristic of the surrounding area.

Home, Sweet Home—The Facts About 'Legal Domicile'

NOT TOO LONG AGO, you paid your income taxes and, at that time, you probably gave a passing thought to your domicile, meaning your legal residence. After all, that's where you file your state return. If you have maintained your domicile in the state of your birth, you have no problem but for most Navymen, the matter isn't that simple. Some, in fact, find their domicile isn't what they thought it was. If you find yourself in such a situation, you could stand to lose a substantial amount of money in benefits.

Here are a few of the instances in which the question of your domicile might arise: eligibility to vote, right to claim homestead exemption, eligibility for resident tuition fees at a state university, liability for taxes, guardianship, divorce, separation, adoption, probate, eligibility for state benefits and myriad others.

Your domicile may have been assigned to you and to members of your family in one of three ways. You might have a domicile of origin which, as its name implies, was acquired because you were born there. If, however, you were born outside the United States and never remained in one place long enough to acquire a domicile, the court might assign you a domicile of origin—your father's, if he was born in the United States. Incredible as it seems, you may never have seen your domicile or have any intention of seeing it; nevertheless, you would be stuck with it.

You or a member of your family might have a domicile through operation of law. Your wife automatically assumes your domicile on marriage by operation of law. It is often assigned to a person who lacks the legal capacity to acquire a domicile of his own.

PROBABLY YOU ACQUIRED your domicile because you were stationed in a state you liked and decided to call it home. More, however, is necessary than that. You must actually be there, of course, and you must also sink some roots—such as they are. Here are some of the things you can do to let the authorities know that you intend to make the state of your choice your domicile of choice: You can own property, register your automobile, obtain drivers' licenses for yourself and members of your family, open checking and savings accounts, rent a safe deposit box, transfer securities and investment accounts to banks in the locality and have all national charge accounts transferred to a local branch office for service, give the name of the state on your federal income tax return, get involved in community organizations, make a last will and testament (or codicil) mentioning the state in which you are domiciled, pay taxes.

You may not have to do all these things, of course, to prove that you want to be domiciled in the state of your choice. You should, however, do enough of them to establish roots acceptable to the law. That amount, of course, varies and you would do well to consult a legal assistance officer before you get underway. He can tell you whether it is feasible for you to change domiciles by studying the situation in both the

state you are leaving and the state you plan to make your home.

PERHAPS getting rid of your old domicile is as important as showing you have acquired a new one. Many Navymen make the mistake of neglecting a lingering tax liability at their former domicile. To avoid this, you should write to the state and county tax officials at your former residence soon after your new domicile has been established and put them on notice of the change of legal residence.

This should be followed by timely filing of tax returns to the old state to settle tax liabilities for the appropriate fraction of the year in which the change occurred. The returns should be accompanied by evidence of payment of applicable taxes to the new domicile for the remaining fraction of the year in which the change occurred. Formal notification to the tax authorities should be made even if you don't owe taxes because you were absent from the state.

But taxes aren't the only tie with your former domicile which you should sever. It is generally advisable to write letters cutting ties with your old residence in all official matters. To make your new domiciliary intent clearer, you should write to voting registration officials requesting that your name be stricken from the rolls. A similar letter might be used to cancel your automobile registration for the balance of the year and sever other formal connections.

Also, very important—make sure that your new "home address" is made a matter of record in your Navy personnel file. See your Personnel Officer for details about making this change.

ALTHOUGH no mechanical checklist can assure anyone that his domicile will be recognized in a court or by administrative agencies, doing these things will go a long way toward showing the authorities that your domiciliary intentions are sincere. Such sincerity is particularly essential when you are taking up residence in a state which has no income tax or which provides tuition benefits for your children.

Be it ever so humble, there's no place like home—just be sure you can prove that you live there.

VP-22 Wins CNO Safety Award

PATROL SQUADRON TWENTY TWO (VP-22) was recently awarded the Chief of Naval Operations Aviation Safety Award for 1971, one of the most coveted awards an operational squadron can receive. The award culminated 216 accident-free months for VP-22. A total of 84,042.5 accident-free hours was amassed in SP-2s before the squadron's transition to P-3s in 1964. Accident-free hours since the transition total well over 67,000 — and still climbing. VP-22's cumulative total of more than 150,000 accident-free flight hours is a most enviable safety record.

Exchange & Commissary Aim: "Lowest Practicable Price"

RECENT Cost of Living Council rulings have exempted military exchanges and commissary stores from further price controls under Phase II of the Economic Stabilization Program. Stressing the need for continuing to "follow the spirit and intent" of the price stabilization program, the Navy Resale System Office sent a message to Navy exchanges and commissaries outlining the general policy to be followed: "All Navy Resale activities will continue to conduct a conscientious campaign to assist in achieving the objectives of the Economic Stabilization Program. Cost increases should be held to a minimum and passed along (to the customer) only when necessary."

In addition, all purchase orders and contracts placed with vendors will contain a provision certifying that vendors are in compliance with Executive Order 11627, which established Phase II of the program.

Navy exchanges and commissaries will post at least one sign advising customers that "every effort is being made to keep prices of all merchandise and services

sold at the lowest practicable selling price in consonance with the President's policy of curbing inflationary trends." Customers are invited to direct any inquiries concerning the price of any item or service to their local Navy Exchange Officer.

Improved Method for Measuring Pollutants Is Considered to Be Fast and Inexpensive

AN IMPROVED METHOD of measuring pollutants in air and water has been developed by Naval Research Laboratory scientists working under an Environmental Protection Agency contract. The new technique, which uses advanced X-ray spectrometry, is reported to be fast, simple and inexpensive.

Particulate or precipitate specimens used in the new method need no preparation before they are placed in the X-ray equipment which measures harmful elements. Detection is more than 10 times easier than was hitherto possible.

The measurement method does not destroy the particulate or precipitate samples used in making the measurements and therefore they can be used as evidence for legal prosecution of pollution cases.

Seabee Museum



FOR MORE THAN 100 YEARS, officers of the Navy Civil Engineer Corps have maintained a proud history. And, since their beginnings early in 1942, the men known as U. S. Navy Seabees have also been busy making their own special brand of historical news.

Much of the memorabilia of these two military organizations is maintained at the Port Hueneme Naval Construction Battalion Center's CEC/Seabee Museum. The museum is open to the general public, and each year approximately 250,000 people visit it for a walk along historic routes built by Seabees.

The idea of a museum to depict accurately the history and serve as a warehouse of historical artifacts for the Civil Engineer Corps and Seabees was conceived by Commodore B. W. Fink, CEC, in 1946. One of his staff members began the initial search for museum artifacts and materials at that time. Today that search continues, as souvenirs and documents are received from throughout the world.

In the main building are such souvenirs as German battleflags, Japanese swords, and a wide assortment of Viet Cong weaponry. The museum also features dioramas depicting some of the Seabees' large construction feats.

One of the most prized possessions in the museum is a six-foot mahogany crucifix which was hand-carved by CMI H. M. Coe. It is displayed in a small room set aside as a chapel dedicated to the memory of Seabees who have lost their lives while serving their country.

Many sculptures by Felix de Weldon, worldfamous creator of the Iwo Jima monument, are also on display at the museum. De Weldon has been commissioned to create a Seabee Memorial, and plans are now being considered for further expansion of the museum.

Admiral Boone Clinic Opens

THE ADMIRAL JOEL T. BOONE CLINIC was recently dedicated at the Naval Amphibious Base, Little Creek, Va. It will serve as a primary outpatient facility for dependents and retirees in sections of the Norfolk area and provide specialty care for active duty Navymen.

The clinic is expected to play a key role in the Navy's regional approach to health care by taking health service to the patient. The center schedules visiting specialty teams from the Naval Hospital at Portsmouth, thereby providing services not otherwise available at Little Creek. The schedule is determined by appointment requests and other considerations.

Appropriately equipped space has been set aside to accommodate the specialty teams from Portsmouth which include medical and para-medical members and back-up personnel such as technicians. Services available include pediatrics, obstetrics/gynecology, general medical, X-ray, medical laboratory, optometry, immunization, pharmacy, ambulance and emergency rooms.

The new facility contains 36 doctors' offices, 56 examining rooms, and special medical and support rooms such as administrative offices. The center is equipped with X-ray unit, fluoroscopy, an audio booth and there is a conveyor belt system in use in the pharmacy.

Vice Admiral Joel T. Boone, MC, USN (Ret), holds the Congressional Medal of Honor for extraordinary heroism during World War I while serving with the Marines in France. He was physician to Presidents Harding, Coolidge and Hoover. As a member of Admiral Halsey's staff in 1945, he was selected to be one of three officers to assist in the liberation of allied prisoners of war in Japan before the military occupation began.

Vice Admiral Boone was also the Navy Medical Corps representative at the Japanese surrender aboard *USS Missouri* on 2 Sep 1945. Later he became the Medical Inspector General and, when he retired in 1960, was Chief of the Joint Plans Division, Office of Medical Services in the Department of Defense.



Top: Artist's conception of ADM Joel T. Boone Clinic, Little Creek, Va.

Above: Mrs. Boone unveils a portrait of her husband with the help of VADM G. M. Davis, Jr., Surgeon General of the Navy.

Below: Exterior of the newly erected ADM Boone Clinic.



Part-Time Eye Clinic Opened At Yorktown Weapons Center

EYE EXAMINATIONS for persons needing corrective lenses are now available at the Naval Weapons Station in Yorktown, Va. The part-time service is provided by the Virginia Tidewater area's Naval Regional Medical Center (NRMC) at its branch dispensary on the weapons station.

The new facility at Yorktown is manned once a week by an optometrist from the Portsmouth Naval Hospital who examines patients by appointment. Before the unit was installed, patients needing eye

examinations in the Yorktown area had to travel to the hospital. The trip cost patients valuable time and \$1.80 in bridge tolls.

The Yorktown optometric service is the result of the 1 Jul 1971 consolidation of Navy outpatient dispensaries and medical personnel from the Virginia Tidewater area into the Naval Regional Medical Center. The NRMC's structure permits Navy medical officers and corpsmen from one facility in the Tidewater area to work part time at other Navy medical facilities in the area when needed. This is part of the rapidly emerging philosophy of naval health care—"take the service to the patient."

Cook Aids Burning Cargo Ship

THE NEWLY COMMISSIONED USS *Cook* (DE 1083) was barely in the water on her first major cruise when she was able to render lifesaving assistance to a Brazilian cargo ship which suffered a fire at sea off the coast of Aruba in the Caribbean.

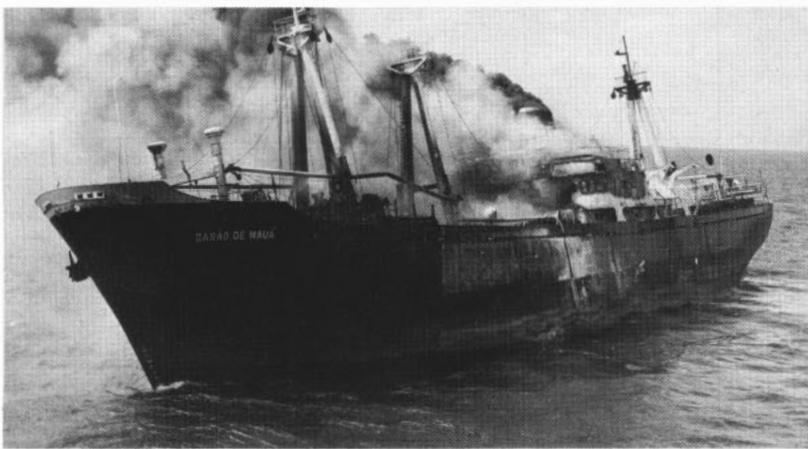
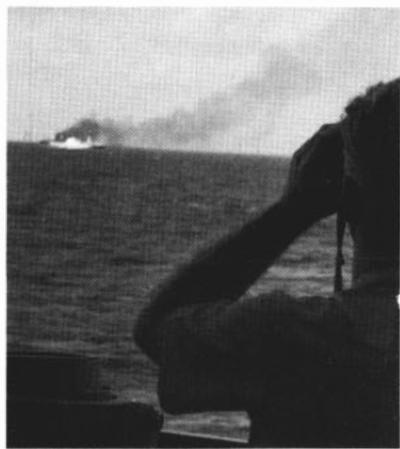
On her way around Central and South America to join Destroyer Squadron 13 in Long Beach, *Cook* departed from her schedule upon hearing distress signals from M/V *Barao De Maua*, a 5000-ton Brazilian cargo ship. Also answering her call for help were a U. S. Coast Guard seaplane and a Swedish container ship, M/V *Antonia Johnson*.



The Brazilian ship had suffered an explosion in a hold, and by the time *Cook* arrived, she was burning badly. The Swedish ship, first to arrive, asked for members of *Cook* to provide medical assistance for the Brazilian crew, which had abandoned the ship. Six of *De Maua's* crew had been killed during the explosion and subsequent fire, and two died while abandoning ship. Four were badly burned, and others of the 26 survivors suffered cuts and bruises. One man was missing.

Cook's corpsman, HMC Jerry Van Tassell, was dispatched to the Swedish ship to lend aid and give medical supplies to the survivors. When the injured had been treated, the corpsman and the crew of the launch returned to the ship, and the Brazilian crew was taken to the island of Aruba by the Swedish ship for further assistance.

Meanwhile, *Cook* spent the remainder of the afternoon circling *De Maua's* burning hulk searching for the missing crewmember. The man was not found. After completing the search, *Cook* returned to her regular schedule.



Controlled Environment Employed In Study of Navy's Noise Problems

THERE'S NO DOUBT ABOUT IT—from the shrill music of a boatswain's pipe to the roar of large guns, the noise of a ship is something with which sailors have had to deal since the Navy was born. Deal with it they have, with everything from cotton wads, through the ear plugs of World War II, to the noise suppressors—popularly known as "Mickey Mouse ears"—of the present.

Does all this clanging, banging, shrieking and booming affect the crew and its performance? Can anything be done to lessen this racket?

The answers to these questions, and dozens more like them, are being sought by Navy doctors and scientists in California during "Project Ping." The operation gets its name from the sound made by a ship's sonar. Sonar "pings" are just a small part of a collection of tape-recorded shipboard sounds played continuously to enlisted volunteers during phase two of the project.

The men were isolated for two months in a specially constructed laboratory during this phase. The controlled environment enabled scientists to gauge more accurately the effects of nautical noise on the eating, working, relaxing, and sleeping habits of the volunteers. The health and safety of the men, particularly

their hearing, were of utmost importance to the project officials, who were constantly alert to any change in the behavioral patterns of the volunteers.

Next phase of the project is to evaluate the volumes of data accumulated during the first two stages of the operation. This will make possible the achievement of more acceptable noise levels on Navy ships. The project is a joint venture of the Naval Undersea Research and Development Center, Navy Medical Neuropsychiatric Research Unit, Naval Electronics Laboratory, and the Naval Hospital, all located in San Diego.

Navy Chief Is an Expert on This Subject: How to Train Your Relief

THE ABILITY OF MEN TO TRAIN THEIR RELIEFS has become an important part of the curriculum of Instructor Training School, NATTC Memphis, and the special concern of at least one chief petty officer assigned there.

Chief Aviation Machinist's Mate Raymond J. Wolf of the Quality Assurance Branch of the school has formulated a paper called "Train Your Relief? How?" which he uses as a teaching aid when he goes about his regular job of observing instructors, methods and materials at the Naval Air Technical Training Center.

"Certainly every career petty officer at some time or another has been confronted with the obligation to train his relief," the chief says. "This obligation exists not only at the time of transfer or changing jobs in the Navy, but the petty officer also is responsible for training his relief, the junior Navyman, continuously through his Navy career."

Chief Wolf feels that the key to successful training is to find out how and under what situations people will learn.

One of the places a petty officer can find the answer to these kinds of questions is at the Instructor Training Schools, located in San Diego, Great Lakes, Norfolk, Newport and Memphis. Completion of this course will give him a "golden opportunity" to train his relief in a more formal manner.

Space Systems Activity Notes Its 6th

This summer, the Navy Space Systems Activity at Los Angeles celebrates its sixth birthday as the Navy's only command devoted exclusively to engineering and management of space systems development.

In the fields of navigation, meteorology, oceanography and communication, it supplements the efforts of other government agencies. In this way, it can exploit the technologies of space in support of naval requirements.

The Space Systems Activity keeps an eye on weather and sea conditions and provides accurate positioning of ships and aircraft as well as accurate sea communications.

Consumer Info for Navy Families

THE MILITARY COMMUNITY constitutes one of the country's largest groups of people with common or characteristic consumer interest, and keeping military families well informed in various areas of consumer affairs is thought to be an important factor in relation to morale and attitudes about military life—for the first-termer and career man alike.

In cooperation with the Consumer Product Information Coordinating Center, the Department of Defense is now making available, at commissaries, exchanges and similar distribution channels, copies of a consumer reference handbook. Officially titled *Consumer Product Information Index*, this publication is produced by the center in cooperation with the White House Office of Consumer Affairs. It is revised about four times each year so new publications can be incorporated into it on a continuing basis.

Each edition lists approximately 200 selected consumer product publications representing more than a dozen federal agencies. Many of the publications listed are free, and about 75 per cent of them cost 20 cents or less. Subjects covered in these publications include a wide variety of topics, from household appliances, child care, health and housing to landscaping, gardening and pest control.

The *Index* is free to all who request it. Commanders wishing to know more about local availability—or how to obtain additional copies for their commands—should inquire through normal publications channels.

Moon Soil Studies by Research Lab Show Possible Presence of Oxygen

SCIENTISTS at the Naval Research Laboratory, after studying moon soil samples, believe they have proved that lunar soils have been exposed to oxygen although there is almost no atmosphere on the moon.

All lunar soils returned by *Apollo* astronauts have displayed a "characteristic" resonance when examined by electronic spin resonance spectrometry. Scientists felt that the "characteristic" resonance could arise from either oxidized iron or from iron metal. Since metallic iron had been found in lunar soils with little evidence of high oxides, the investigators believed the iron metal must have caused the resonance.

Now, however, the Laboratory's moon scientists have oxidized a powder of simulated lunar glass and produced a resonance resembling that which is characteristic of lunar soils. They compared their data with the chemical analysis of other investigators and discovered a positive correlation between the spectral linewidth of the resonance characteristic of the amount of titanium dioxide in the soil. This convinced the NRL men that their findings show conclusively that the "characteristic" resonance arises from chemical compounds involving titanium dioxide and ferric oxide which were produced by oxidation of fine soils in the lunar environment.

LAMPS

A SHIPBOARD HELICOPTER is nothing new; the helicopter has been in the fleet for two decades. However, when the speedy, versatile, manned helicopter and the durable, multipurpose destroyer are combined, a new team of great significance is born.

The concept of manned helicopters operating off destroyers was evolved as a result of two concerns. First, the ability of submarines to launch offensive weapons beyond the sensor range of our destroyer detection systems, combined with the limited range our destroyers were capable of delivering an ASW weapon, required a system that could redetect, classify and attack submerged submarines whose presence had been established by other means.

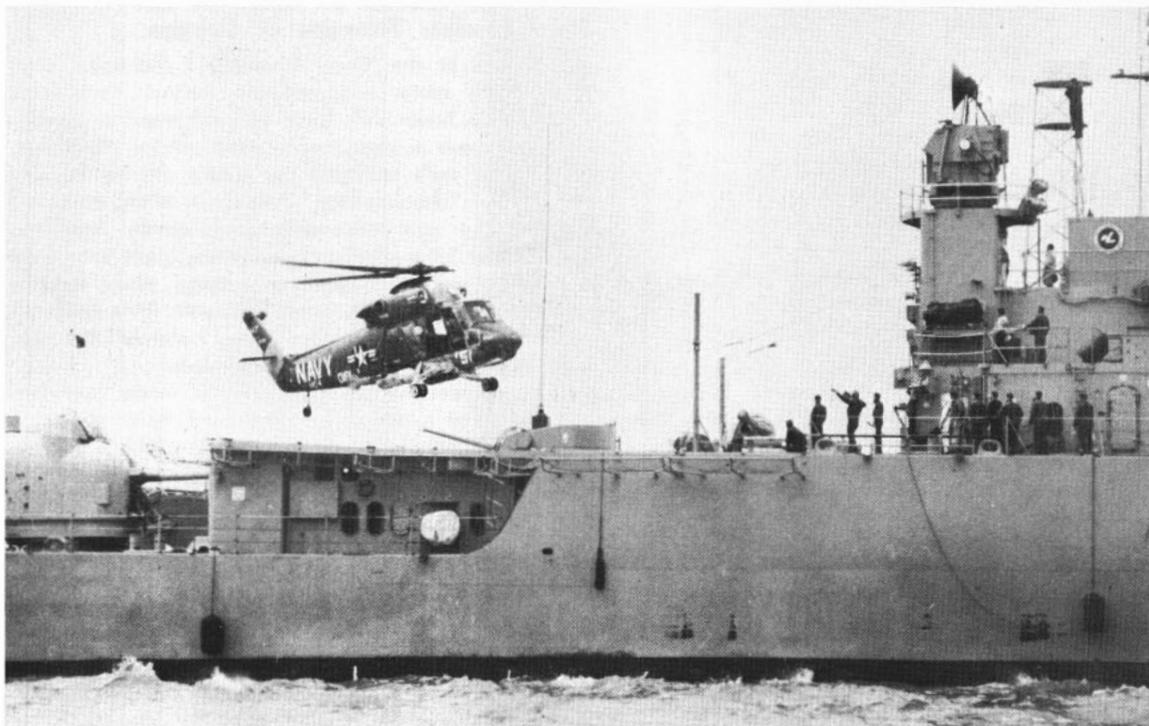
Second, employment of the cruise missile as an anti-ship weapon emphasized the need for a system that would provide increased warning of an attack, and provide countermeasures against an incoming missile.

From these two concerns evolved the concept of the

Light Airborne Multi-Purpose System—LAMPS. This revolutionary tactical system is a major step forward in the Navy's continuing attempts at improved capability. LAMPS presents a unique and important advantage to the destroyer by extending her detection capability to approximately 100 miles. Not only can the LAMPS-equipped destroyer deliver weapons to the range of her sensor detection capability, but also LAMPS has extended the destroyer's detection capability.

THE ADDITION OF LAMPS also enhances the destroyer's capability to classify submarine contacts, due to the helo's magnetic anomaly detector (MAD) and sonobuoy capabilities. The LAMPS data relay, from sonobuoy via aircraft to the destroyer's CIC, will assist in classification when used in conjunction with shipboard sonar inputs. The helo is *not* a separate unit, but an extension of the ship's information center.

LAMPS will be sent aloft in reaction to indications



- A BRIGHT FUTURE

of threats from other shipboard sensors, or intelligence from outside the ship. In an ASW scenario, the LAMPS would be launched to assist the destroyer in submarine detection and classification through the use of active and passive sonobuoys, or MAD—equipment that detects submarines by sensing a change in the earth's magnetic field created by their metallic hulls—and radar. These three sensors, as well as the "Mk 1 eyeball," enable the LAMPS to localize, classify and attack the lurking submarine.

In the antiship missile defense (ASMD) situation, the LAMPS will contribute to the defense of the destroyer. LAMPS will be airborne and positioned along the axis of probable attack; it will act as a sensor—it could see the launching platform—thus providing increased warning time on inbound antiship missiles. This increased warning time will give an opportunity to use various electronic devices or decoys, and greatly enhance the effectiveness of the destroyer's antiair mis-

sile system or rapid-fire five-inch gun battery. Still under evaluation, LAMPS may employ the capability to deploy chaff to cause certain antiship missiles to abort and run an erratic course off target.

The LAMPS helo also has capabilities normally expected of a manned helicopter:

- Search and rescue (SAR);
- Medevac;
- Reconnaissance;
- Personnel transfer; and
- Vertical replenishment.

LAMPS is operating in the fleet today; the first fully operational helo and detachment have been operating aboard USS *Belknap* (DLG 26) in the Med since last December. Approximately 20 more destroyers will

Below: Takeoffs and landings in various stages including spreading the helo's tail rotor in preparation for flight. Pictured is the HH-2D, the nonconfigured helo for LAMPS, on board USS *Belknap*.



receive LAMPS installation before this July. By the end of this decade, there may be as many as 200 LAMPS operating in the U. S. Navy.

THE AIRCRAFT is a *Seasprite* helicopter, and when configured to a LAMPS helo it is known in Navy lingo as the SH-2D. The *Seasprite* is already on the shelf in the Navy's inventory; configuration of the *Seasprite* to a LAMPS helo makes it one of the most nearly unique in the world.

The operating dimensions of the SH-2D are 52½ feet long, 12¼ feet wide and 15½ feet high to tail rotor tip. When LAMPS is prepared for stowage in the destroyer hangar she is 38 feet, 4 inches by 12 feet, 5 inches, by 14 feet, 10 inches. She weighs approximately six tons, twice the weight of DASH.

The helo has a single main rotor, an antitorque tail rotor and is powered by two turboshaft engines mounted above the cabin aft of the cockpit. Pitch control is obtained through blade flaps mounted on the main rotor blades. The helo is equipped with automatic stabilization equipment, retractable main landing gear and a full swivel nonretractable tail wheel.

Left to right: Looking over the copilot/TACCO's shoulder in the LAMPS helo. A view of the SH-2D showing some of the sensor and weapon equipment. The LAMPS in-flight refueling rig. Landing aboard Wainwright.

She can fly at speeds in excess of 100 knots and remain airborne for over three hours. Of course, the actual time on station will vary with each of her operational tasks. The addition of this aircraft to the destroyer has extended her fighting arm to an "over-the-horizon" range.

THE CREW CONSISTS of three: the pilot is seated on the right side of the cockpit, the copilot's seat and dual flight controls are on the left, (he is responsible for navigation, communication, electronic support measures and the launching of various items), and behind the pilot and copilot is the ASW/ASMD sensor operator. His responsibility is the monitoring and interpreting of signals received from sensors.

Under the nose of the aircraft is a radome, housing the antenna for a surface search radar. This radar will provide small craft detection ranges of 10 to 15 miles, with periscope detection somewhat less. Through a data link system, the ship is constantly aware of radar contacts LAMPS is making. Thus, if LAMPS is 30 or 40 miles from the ship and makes a radar contact, the ship is instantly aware of it, though it is over the horizon from the ship itself. This forewarning of possible danger is an added protection for the ship and the task force she is screening. Thus, a task force has "over-the-horizon" visibility in as many directions as there are LAMPS-equipped escorts.

On the starboard fuselage a pylon has been installed



which contains a winch used to deploy and retrieve its detector MAD. On each side of the fuselage are mounts that can carry an auxiliary fuel tank to extend flight time or a launcher for an ASW torpedo. The aircraft also has a rescue sling, hook and hoist for transfer of people and supplies.

A BACK FOR 15 SONOBUOYS is located on the aft part of the cabin, on the port side. Sonobuoys are shot straight out—their four-bladed propellers unfold as they descend to the water. The buoy must hit with impact to release hydrophones. Smoke markers have been located in flotation fairings just ahead of the retractable landing gear. Other antennas and sensors are located on various parts of the fuselage. These include equipment for:

- Electronic support measures (ESM).
- TACAN, which interrogates a transponder on the destroyer that in turn provides range and bearing from the ship to the helo.
- A UHF direction finder.
- Doppler navigation that provides zero velocity hover control by accurately measuring drift and vertical velocities.
- Radio telephone equipment.
- A sonobuoy receiver.
- An on-top position indicator that homes on the sonobuoy indicating when the aircraft is directly above it.

- An identification friend or foe selective identification feature (IFF/SIF).

The minimum flight conditions for the LAMPS helo is a 300-foot ceiling and three-quarter-mile visibility. The acceptable launch/recovery sea states are not yet established and will be determined by operating experience, but the helo will be all-weather and will be capable of operating up to a heavy storm level. It is capable of overwater flights up to 50 miles from the destroyer, or a point of land; that is, the helo is capable of making a 98-mile flight from the destroyer at sea to a point of land or another destroyer.

THE TERM LAMPS DOES NOT mean just the helicopter and the detachment. LAMPS is a system designed to encompass and optimize the inherent capabilities of both the destroyer and the manned helicopter. The helo will react to intelligence collected by the destroyer, and when airborne will supplement the detection, localization, classification and weapons systems of the destroyer.

In order to better understand this inter-face let's look at a typical day of LAMPS operation.

To prepare for a flight, the maintenance personnel of the detachment must be in the "barn" 90 minutes before launch time. Preparation that follows is very meticulous.

First the aircraft is rolled out onto the helo deck to enable the main and tail rotors to be spread and



to start servicing the 80 "zark" fittings which must be greased before flight. The fuel level is checked and the fuel is tested for purity.

In addition, the previous day's "gripes" (minor equipment discrepancies) are rechecked to ensure that repair has been accomplished. Each system is completely checked before the helicopter has her final pre-flight examination by the pilot and copilot.

ONE HOUR BEFORE LAUNCH is the brief. This covers environmental data on the day's weather and water conditions. The destroyer operations, CIC and ASW officers discuss the exercise to be conducted, summarizing objectives and expected results with the LAMPS detachment officer in charge, the pilot, copilot, and aircraft sensor operator. These men examine each exercise with pride and meticulousness typical of experts in a new, high priority system.

"Flight Quarters, Flight Quarters, man all flight quarter stations, Blue Team;" the announcement commences the final action prior to launch.

A six-man flight deck crew consisting of a Flight Deck Officer, Landing Signal enlisted and a crew of four chock men move into position. Normally, the two LAMPS pilots and the equipment operator will have already begun the 30-minute preflight check. Along the port side forward of the flight deck, the 13 members of Repair Three's Helo Crash Rescue Team briskly make safety preparations.

Simultaneously, the destroyer's boat crew musters

beside the boat davits to stand by for an emergency rescue. Intra-ship sound-powered phone communications connect the JOOD, CIC, Main Engineering Control, Damage Control Central and flight deck.

In combat, the Antisubmarine Air Controller (ASAC) establishes communications with the pilot and Flight Deck Officer on the launch/recovery control net. In addition, it is necessary to radio check on another circuit which will be used by all other destroyers present as a Helo Control net.

AT THE SHIP'S BRIDGE and in CIC, men recheck their constantly updated true wind and helo launch course. Experiments with innumerable wind speed bearing combinations aboard the destroyer seem to imply that the need for the proper apparent wind outweighs that for wind velocity. Ideally, the OOD will try to get the wind from a select position off the port bow, at a velocity between 15 and 25 knots.

At the heart of the shipboard LAMPS system, CIC quickly mans the proper station for plotting the ASW picture, interpreting the data received from the LAMPS vehicle. In other words, it coordinates the air/surface "interface."

Damage Control Central carries on sound-powered communications with Repair Three on the flight deck. The team is maintained in a ready status during all launch and recovery operations.

After the destroyer has come to launch course and the *Seasprite's* engines are started, the helo's crew



goes over last minute checkoff lists. The rotors are engaged—the crew disconnects the six chain tie-downs—the launch signal has been received from the landing signal enlisted—and the pilot gets a feel for the ship's movement of the flight deck with optimum opportunity for flight.

At last—takeoff.

LATER THE CRUCIAL EVOLUTION of recovery begins. Since wind conditions are of paramount importance, the course of the maneuvering ship is significantly restricted.

The relative lightness of the aircraft makes it rather susceptible to wind variations caused by the higher freeboard of the newer class destroyers.

If you want to know what it's like, picture yourself at 50 feet in a 30-knot wind, making an approach on a lighted postage-stamp-sized deck, rolling 20 degrees above 8000 tons of metal—and at night.

Following a return aboard a DD, a 12-16 point tie-down is applied to the helo and the aircraft is refueled. Then the main and tail rotor assemblies are folded down and secured. This completed, those same 80 odd grease fittings are again attended to; then the two gas turbine engines are washed out with fresh water (helos don't have water hours!) and flushed with an anti-corrosion compound.

In order to preserve the magnesium and aluminum in the helicopter's frame and body, the *Seasprite* receives a complete freshwater "bath."

Now, the gentle process of coordinating 13 pairs of pushing human legs and a rolling ship to move a six-ton vehicle into the "barn" with less than two feet of clearance on either side. Next, the helo's entire outside skin is wiped down. Once a week the helo is waxed with a hard-finish car wax.

IF YOU'RE A MEMBER of the helo crew, you have now earned yourself the right to repair today's "gripe." In all, the day ends about three or four hours after the last flight quarters is secured, and the schedule again will resume in the morning. This is how the 25 man hours are spent in preparation for each hour of flight time.

LAMPS helo copilot Bob Schmidt of HC-4 out of Naval Air Station, Lakehurst, N. J., remarked after an at-sea work-up aboard *uss Wainwright* (DLG 28), "It has been a tremendous challenge to operate the SH-2D from the relatively small deck on *Wainwright*. The operation is difficult, demanding and rewarding. However, it is apparent that we are on the horizon of a great ASW combination."

—LCDR Terry Johnson, USN

Left to right: Touching down during landing evolution on *Wainwright*. Tying down the helo after a sunset touchdown. Sunset landing aboard *Wainwright*. Wipedown after a flight.



"It's SOP"

*Job of Carrier Air Controlmen:
Think, Talk, Listen, React - -
Fast, And Without Mistakes*

USS INTREPID (CVS 11) makes the work of her air controlmen strikingly different from that of their counterparts at naval air stations ashore. She dips and sways, she turns and circles and, like a lady, she often gives them faint hearts and frayed nerves. But, in their terminology, "It's SOP (standard operating procedure)."

Armed with the knowledge of the strange ways of carriers gained through Navy schools, *Intrepid's* ACs report to CATCC—command air traffic control center—for duty. Here, unlike in a school environment, they must think, talk, listen and react all at the same time—with no mistakes. In the critical area of flight operations there may not be time to think, their actions must not only be as reflex motions, but also they must be correct the first time.

Air traffic control could just as easily be known as air traffic coordination. Coordination is the name of the game—and for them it is the only game in town. Their purpose is to "promote the safe, orderly, and expeditious flow of air traffic." Translated into everyday terms, they must get the planes on deck on time, as quickly and safely as possible.

UNLIKE a shore-based ground control approach operation, where one controller and one pilot are alone on a single frequency, a carrier approach requires the use of three controllers, the island, and a landing signal officer with as many as 10 aircraft sharing the same frequency. The whole operation takes coordination.

The pilots are all experienced, well briefed and everyone is familiar with the procedures. Each recovery should be routine. After all, everyone is playing the game by the same rules and there should be no hitches. Here's what CATCC looks like from the inside on a "typical" day.

The CATCC supervisor fills his coffee cup, lights a cigarette, and turns off the overhead lights.

The stat board keeper puts on his split earphones

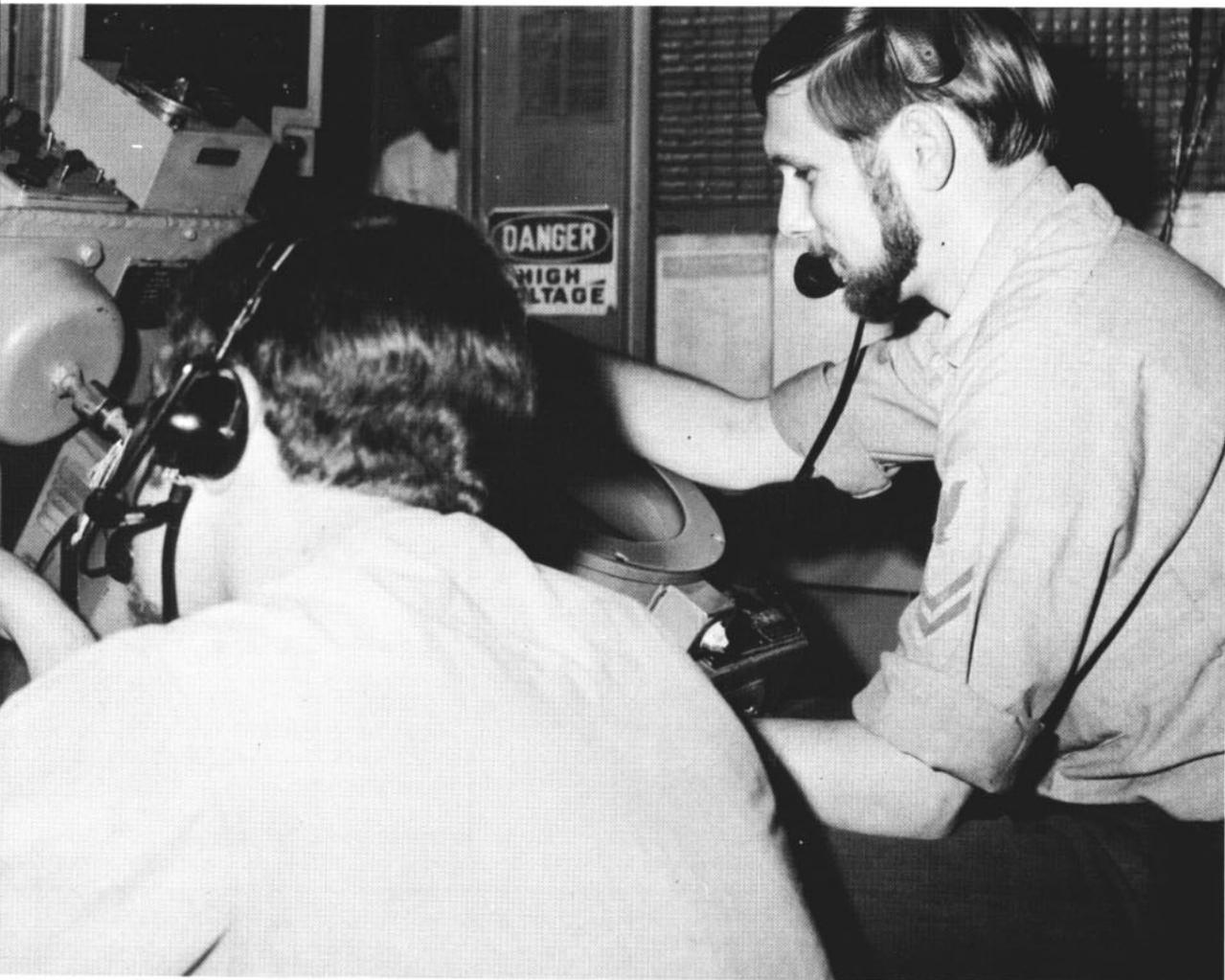


—one ear for the ship's sound-powered phones and the other for the proper radio frequency—and begins to write. He keeps tabs on the lineup of planes to be recovered, the current weather, altimeter reading, heading, other landing fields available and fuel information if a plane has to be diverted.

In order to keep the view of the controller unobstructed, the stat board keeper stands behind the plexiglass board and prints the incoming data backwards. He keeps track of the various simultaneous transmissions and conversations coming in over his headset as the recovery progresses and records the essential data to keep the controllers and the supervisor informed of each plane's progress.

Three controllers untangle headphone cords and warm up their radarscopes. The airborne aircraft will be handled by these three controllers—marshall, approach and final.

THE MARSHALL CONTROLLER sets the craft in holding patterns according to their type and safely sep-



arates them by altitude and distance to prevent "aluminum showers." The approach controller takes them out of the holding pattern at specified times and lines them up directly behind the ship some six to 10 miles away. The final controller keeps them lined up—hopefully with only minor corrections—on a special split scope that tells him when the planes are right or left of course and above or below the standard descent angle that will bring them safely on deck.

It all works fine on paper, with each plane departing the holding pattern at just the correct time and each handed uneventfully from one controller to another, until it lands. It's a simple equation, with a few variables.

A million or so vacuum tubes, transistors and electrical circuits can easily cause problems. Radios quit working. Navigational instruments break down. Radar becomes erratic, slows down, or performs erotic dances. It becomes difficult to give a pilot directions if he can't hear you because of a communications breakdown.

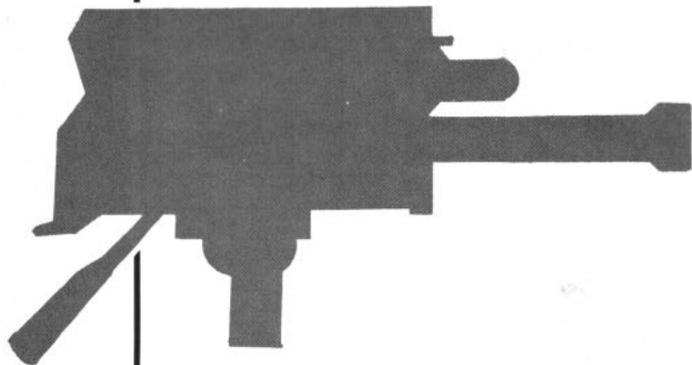
AIRCRAFT EMERGENCIES may require that they be brought back out of order, thus creating a hole in the traffic pattern. Two clocks that are not synchronized can cause two planes to begin their approach at the same time and possibly try to occupy the same air space. And planes hot on a submarine contact don't always make it back on time or occasionally turn up in unexpected places.

Bad weather can be "fun" too. Just when a pilot would like to sit back and relax with the knowledge that he is under radar control, the controller loses him on the scope because waves, clouds and rain have combined to obscure his tiny "blip."

To get the whole picture, *Intrepid's* ACs have to take all the variables, compute the combinations and possibilities, pick at least two they want to happen on any given approach, and that becomes a "normal" approach.

But, it is all routine for *Intrepid* ACs . . . as they say, "It's SOP."

—Story by AC2 David Schworm



Ready on

WHEN A LONG DAY of flight operations from a carrier in the Tonkin Gulf ends, so does an unusually long TV program. But it is different from the usual televised programs. Cameras are not zeroing in for closeups of Willie Mays or Vida Blue, but of F-4 *Phantoms*, A-7 *Corsairs*, A-6 *Intruders* and A-5 *Vigilantes*.

One such TV performance is broadcast from the Pilot Landing Aid TV (PLAT) control system onboard the carrier *uss Midway*, and lasts as long as flight operations. In addition to the PLAT control room, the system has four cameras strategically located on the ship.

The island surveillance camera is in a small booth that juts out from the superstructure, six stories above the flight deck. The two men who man the camera can cover every launch and recovery on the huge deck.

Information on a data board is recorded by a second camera, located in PLAT control. The information includes time, date, aircraft approach speed and wind velocity.

The most important cameras in the PLAT system are two centerline cameras. Peeking through one-half inch by two-inch holes in the centerline of the deck, their main purpose is to get the pilot safely back on the 4.47-acre deck. At least one of the cameras is in operation during all recoveries.



Above: In the PLAT control room, one of the nine assigned personnel watches over the PLAT tape as it records information.

EACH CENTERLINE camera is equipped with cross hairs on the lens to coincide with the correct

BEND THE YOUNG TWIG while it's still pliable; strike while the iron is hot; start them out right and they'll stay right.

Common exhortations, but when the twig or iron happens to be a prospective air controlman getting his initial start in the business—a task that would ultimately see him personally involved in the safety of pilots and sophisticated aircraft of today's modern-day Navy—then the exhortations cease to be trivial and commonplace. They become necessities, essential factors for the potential air controlman's performance in the later stages of his career.

That, in effect, sums up the philosophy and the mission behind the Air Controlman Class "A" School, Naval Air Technical Training Center, Glynco, Ga.

The 13-week AC "A" course administered by 29 top Navy and Marine instructors serves as the medium in translating this philosophy into reality.

A two-week orientation and familiarization course in Aviation Fundamentals sets the stage. From this takeoff, the students then go through nine weeks of intensive classroom instruction when, through the use of charts, publications and equipment, Navy, Marine and Coast Guard students acquire knowledge of air operations office procedures and the generalities of the air traffic control radar. During this time, too,

School Trains

the men and women students become familiar with the associated equipment and procedures needed effectively to carry out their duties assisting pilots in takeoff and landing procedures, and with weather, navigation and general en route services.



the PLAT

approach pattern for incoming aircraft. Using the cross hairs, the landing signal officer (LSO) can tell if the plane is coming in too high, too low, or to one side of the centerline.

PLAT also has a radar unit near the island surveillance camera that measures the approach speed of the aircraft.

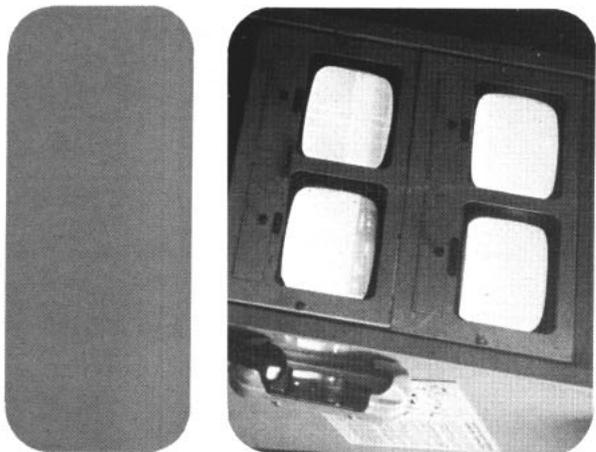
All information gathered by the cameras and the radar unit is fed into the PLAT tape, along with voice communications between ship's controllers and plane.

The main purpose of the PLAT system is to play back a good or bad pass or landing. The tapes are shown during debriefings and also act as instant training devices, especially for the new LSO. He can tell by looking at the screen whether the aircraft is making a good approach. After a while, he can tell by sight alone.

In a recent incident on *Midway*, an aircraft touched down on deck and—according to eyewitnesses—the nose gear collapsed and swung back, knocking out the main gear. Replaying the PLAT tape showed that the main gear had collapsed and was thrown forward, breaking the nose gear. "Proves that PLAT is quicker than the eye," observed one Navyman.

By the use of the PLAT system, human errors can be avoided or corrected. It is one reason pilots today enjoy safer conditions aboard Pacific Fleet carriers than ever before.

—Story and photos by JOSN Mark Wilson



Top: A Midway sailor operates the radar unit, keeping it locked in on an incoming plane. Above: Cameras feed their pictures into this unit in PLAT control.

Air Controlmen

A two-week practical application follows the theoretical phase. Under the watchful eye of an instructor, the student develops basic techniques of controlling air traffic by operating a mockup of an air control tower under simulated landing and takeoff



conditions. It is at this stage of training that the student is confronted with actual situations and problems he'll encounter in air control operations with the fleet and air stations.

THE SCHOOL graduates approximately 1200 students every year, with classes of about 48 enlisted men and women convening every two weeks. As of last November 14,000 students had been graduated. The training dates back to 1948 when the AC "A" and GCA "A" Schools were united in one organization with the commissioning of a unit at Olathe, Kan.

Transferred to NATTC Glynco in the spring of 1962, the school has two distinctions: it is the largest single school among the numerous technical schools at the command; and it is the only Navy school in which students must pass a rigid examination for their Control Tower Operator's license by the Federal Aviation Administration. This must be accomplished before they are allowed to graduate.

THE STUDENT leaves Glynco for his next assignment and on-the-job training; he leaves not only with a certificate of successful completion in one hand, but also with a federal license in the other.

—Story and Photos by JO3 A. Y. Martell



Above: Master Chief Avionics Technician Brackett discusses personnel problems with EPDOLANT. Right top: ATC Bagley explains training progress to AT3 Neff.

FLEET REPLACEMENT AVIATION

EVEN AIRDALES go to finishing school—this one is the Fleet Replacement Aviation Maintenance Program, or as a quickie, FRAMP.

FRAMP operates behind the scenes to avoid a gap in training for aviation maintenance personnel between service schools and operational squadrons. Each readiness training squadron—regardless of the type aircraft involved—is authorized a FRAMP department, and each FRAMP has the same basic mission: teach aviation maintenance personnel the skills they will need to support a particular type of aircraft.

Training at service schools provides the theory and background required to understand an aircraft system and related equipment. FRAMP training also provides the practical skills required to operate, troubleshoot, and maintain the aircraft. It is the end of the training pipeline, or the aviation maintenanceman's finishing school.

For example, Carrier Airborne Early Warning Training Squadron 120 (RVAW-120) at Norfolk established a FRAMP department in October 1970 and began concentrated, full-time training of replacements to maintain E-18 and E-2 aircraft and related systems. Experienced petty officers of the various maintenance ratings received instructor training and were assigned to the FRAMP department, along with administrative personnel.

NOW IN BUSINESS, FRAMP was ready for its first trainee, ADJAN Sam Brown, who was being graduated from ADJ "A" school and would ultimately report to VAW-127 in the Mediterranean.

The "drop" card sent to RVAW-120 from BuPers showed that Brown would attend "C" school in E-2 power plants at NAS North Island, and then would report to RVAW-120 for eight weeks of FRAMP before moving on to his new squadron.

Upon receipt of the transfer information card, FRAMP started a training file on Brown and wrote to VAW-127 to ask how he should be trained to meet the squadron's needs. The squadron replied, and FRAMP outlined a tentative individual training schedule.

Checking in at RVAW-120, Brown was interviewed by the FRAMP scheduling chief. The chief checked Brown's record for information on training background, and explained the purpose and scope of FRAMP.

THE CREW of a Navy C-130 *Hercules* attached to the Cubi Point Detachment of Air Transport Squadron 21 took off recently, before daybreak, just as though it were another routine mission. But, it wasn't.

The pilot, Lieutenant David Milligan, and his crew were playing the final role in mission "Chicken Lift." They were airlifting a plane load of baby chicks to the Republic of Vietnam for the animal husbandry project of Operation Helping Hand (OHH). Hours later, when LT Milligan set his aircraft down on the runway at DaNang, it marked the end of over two years of flights U. S. Navymen have made in connection with the project.

"It was my first chicken lift," LT Milligan said, "and it was also the first such mission for VR 21." But there were men on board the C-130 that day who

CHICKEN LIFT

had participated in every pig and chicken flight before, when the same aircraft had been part of the Atsuki, Japan-based Air Transport Squadron 50 (VRC 50). In June 1971, VRC 50 became VR 21, homeported at Barbers Point, Hawaii, with a detachment at Cubi.

"This was my eighth chicken run," voiced the aircraft's navigator, Lieutenant Frederic Fiola.

He said, "It was an unusual mission. It was different and amusing, yet one of the most efficiently planned missions I've ever made throughout the Western

MAINTENANCE PROGRAM

A firm training schedule was outlined to include classroom and practical training, aircraft firefighting school, ground support equipment school and other training VAW-127 had specifically requested for Brown.

After four days of "I" division indoctrination on general subjects such as base facilities, educational services, duty sections, etc., Brown met his instructor and began to get involved in practical, "hands-on" training.

Classroom training in FRAMP usually involves only a review of previous training and safety precautions, and an explanation of procedures to follow while attending practical training sessions on the aircraft of interest.

Brown's instructor follows a prescribed syllabus which covers all phases of routine inspections, operation, basic troubleshooting and routine maintenance. Since Brown's aircraft-of-interest is the E-2, he is introduced to the Personnel Qualification Standard (PQS) for E-2 power plant mechanics.

IN THE COURSE of the training, Brown's instructor maintains a training progress record which also includes notes on general military and leadership observations. Toward the end of the training, the instructor initiates an evaluation report (if one is due) and notifies the scheduling chief of Brown's expected training completion date.

The RVAW-120 personnel officer is notified that Brown is recommended for an appropriate NEC based on his training, and that he is ready for transportation to his new squadron. The NEC recommendation and transportation request are sent to BuPers.

Brown reviews his training records to make sure they are complete and accurate, and checks out of RVAW-120.

Reporting to VAW-127, Brown is interviewed by his new division officer and hands over the training records which indicate his level of qualifications.

Brown is able to go right to work on inspections, operation, troubleshooting and maintenance of E-2 engines, props and related systems. He is able to take over an important part of the squadron maintenance effort. Thanks to FRAMP, he is not just another "new man."

— Ensign R. W. Gates



Above: FRAMP students are shown receiving classroom and on-the-job instruction during their training for the support of a particular aircraft.

NAVY STYLE

Pacific. People were there to meet the plane at every stop and they were nice to work with. The entire mission went like clockwork."

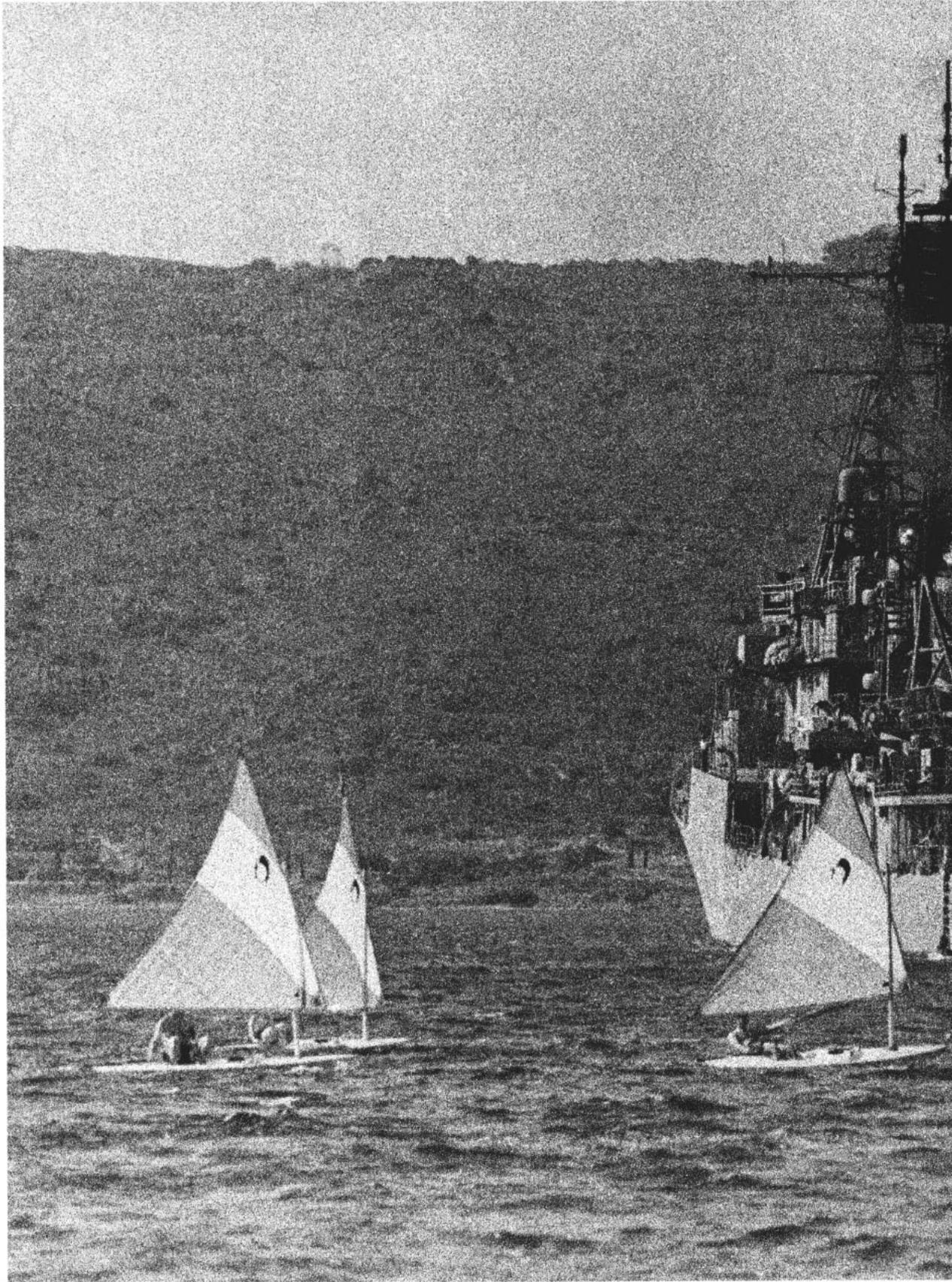
THE FINAL SHIPMENT of 23,000 baby chicks from the Republic of the Philippines contained 20,000 broilers or meat type chickens and 3000 brown egg-laying chickens. The birds were packed 100 to a box, 72 boxes to a case.

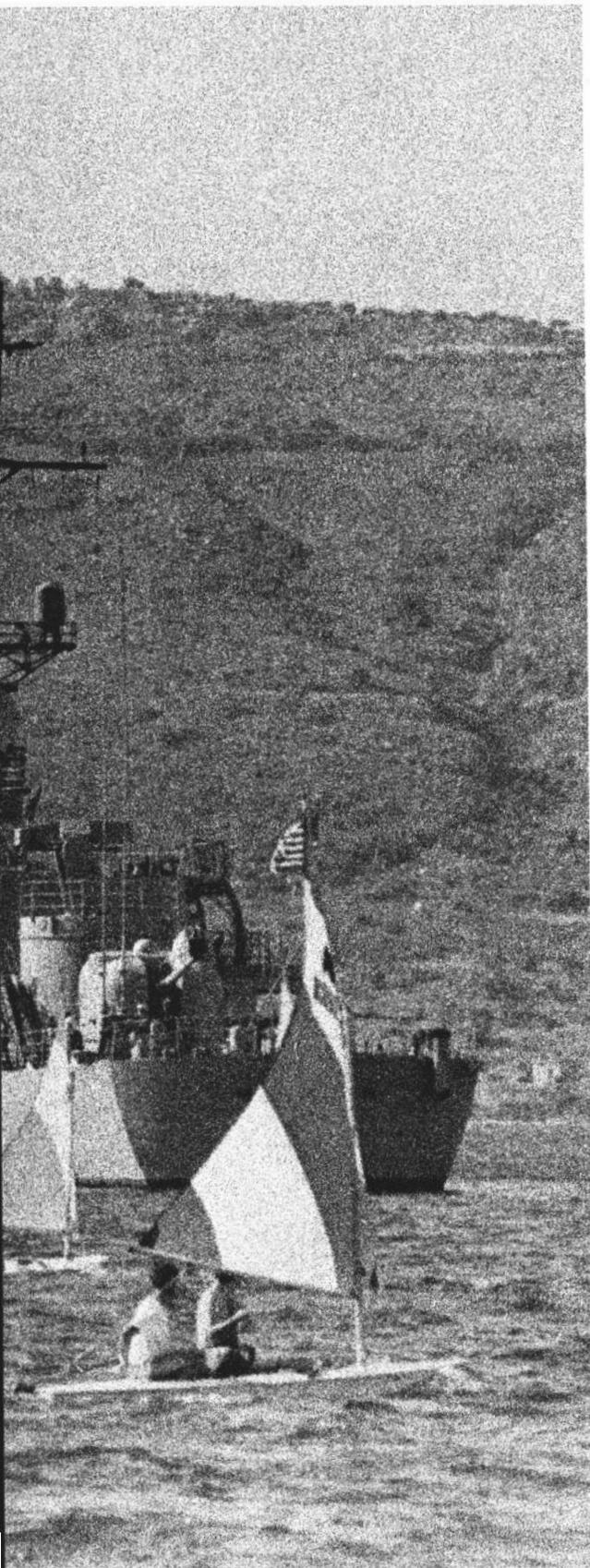
"Distributing the chicks makes for a good hardwork-day," says the plane's loadmaster, Petty Officer

2nd Class James Hart, Jr. The chicks were unloaded at Vietnamese naval units at Binh Thuy, Tan Son Nhut, Nha Trang and DaNang. Hart says, "I'd rather handle those chickens than some of the other types of cargo we haul. But those birds are a little noisy," he adds with a smile, "they chirp constantly during the airlift."

Raising chickens isn't new to the Vietnamese. However, U. S. Navy advisors, by using this special breed of quality chicks, have taught Vietnamese Navymen how to raise larger and stronger chicks, and how to decrease the death rate. The Vietnamese are also taught what kind of medicines to use in treating and preventing common poultry diseases.

— JOC Dick Graddick, USN





SAILING

IN A MOVE TO ADD A LITTLE MORE ZEST to the lives of professional sailors, the Navy is putting more emphasis on recreational sailing that will sharpen up ship- and boat-handling skills. During the past year, the Chief of Naval Personnel has enlisted the help of several distinguished civilian yachtsmen, from areas with large naval shore concentrations, to serve on a Navy Sailing Advisory Committee (NSAC).

These civilians, all with impressive "credentials" in the world of sailing, are assisting in the development and administration of Navy sailing and recreational small craft programs similar to those outside the military domain.

Except for a continuing program at the Naval Academy, organized sailing programs in the Navy were almost nonexistent as late as the early 1960s. Since that time the program has become worldwide—the volunteer U. S. Navy Sailing Association now has some 5000 members in 30 branches around the world, extending from stateside clubs to the Club Nautico de Rota in Spain, and the Yokosuka Yacht Club in Japan. These branches have about 400 sailing craft, acquired and maintained with recreation funds at no expense to the government.

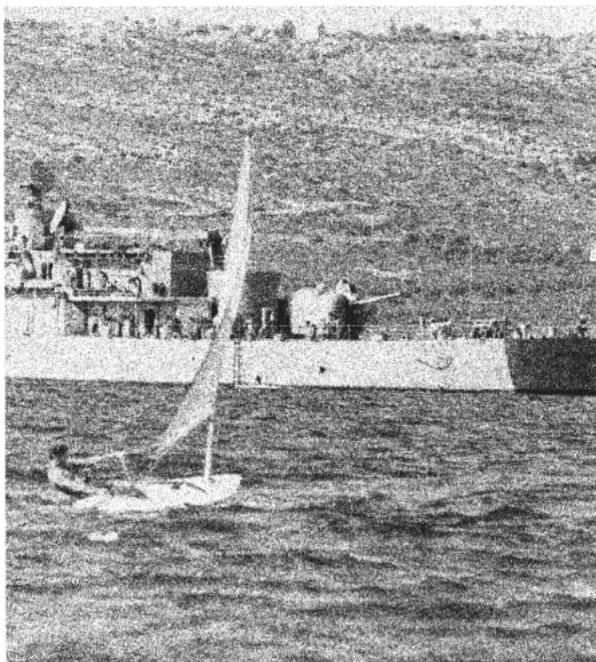
The NSAC Executive Board nominates distinguished yachtsmen for appointment as NSAC Area Members, coordinates their activities, and formulates recommendations to improve Navy sailing. NSAC Area Members serve as an official bridge between local Navy commands and the civilian sailing community. They also solicit the aid of other well-known yachtsmen to share with Navy clubs their knowledge and skills in sailing, cruising and racing.

In addition to local competition, the Chief of Naval Personnel has instituted three regattas which ultimately decide the All-Navy champion. During the period 21-25 August, east coast Navymen will compete at Annapolis, Md., while west coast sailors will meet at Coronado, Calif. Finalists in these two elimination regattas will meet at the Naval Training Center, Great Lakes, Ill., between 30 Aug and 1 Sep to determine the All-Navy Champion.

SAILING

WHEN USS MITSCHER (DDG 35) drops anchor in calm seas, within minutes she usually gives birth to a small fleet of sailboats. These vessels are part of *Mitscher's* recreational sailing program recently encouraged by actions of the Chief of Naval Personnel.

The sailing program on *Mitscher* has been going full scale for some months and includes three phases: instructions, recreational sailing, and organized races. The instruction activity is generally given priority



over the other two phases and is conducted by crewmembers who have had previous experience in sailing.

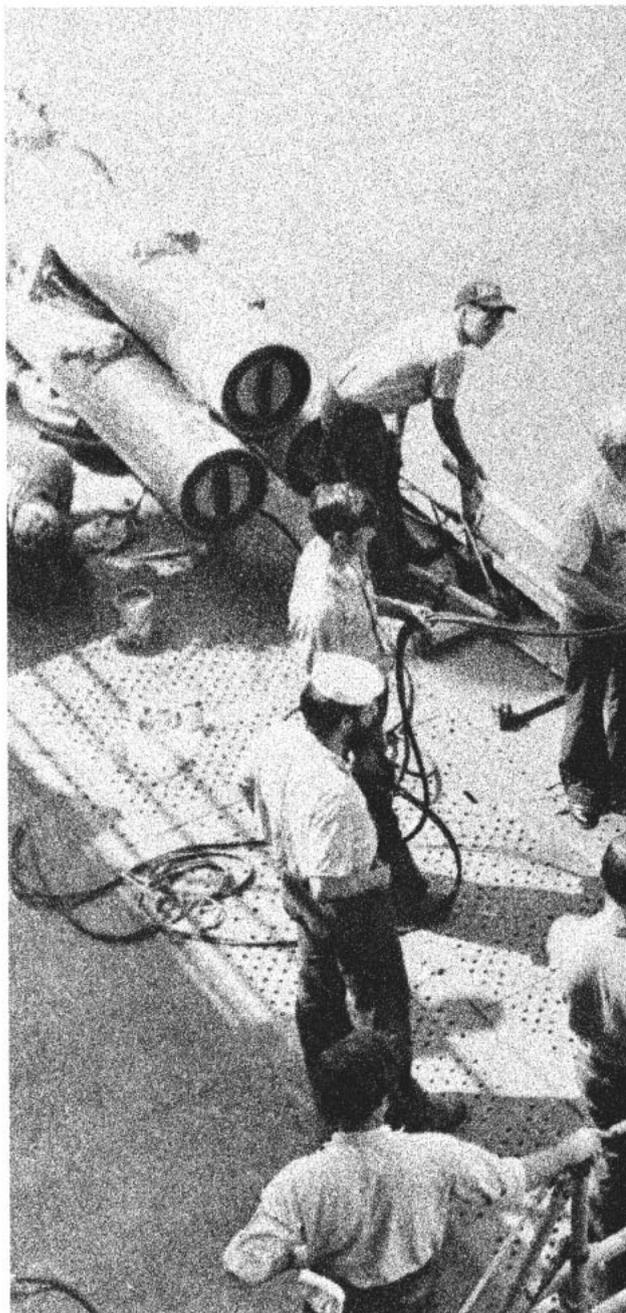
For the first portion of the instruction, men read and study the American Red Cross pamphlet "Basic Sailing." Complementing this booklet, instructors conduct formal classroom sessions using chalkboards and diagrams for answering questions which the men may have. At the end of this phase of instruction, those interested in actual sailing must pass a written examination on the rules and the nomenclature of the activity. Instruction in actual sailing is usually set up on an appointment basis with the instructor and the student. It generally doesn't take long for the student to learn, but care is given so that he learns properly.

RECREATIONAL SAILING usually commences at the end of the workday when *Mitscher* is moored or at anchor. The boats are checked in and out from the quarterdeck watch officer, and all sailing ceases at 1900 or whenever the CDO or QWO decides conditions warrant a general recall. This decision may be made on account of weather or other sea conditions,

or the possibility of unusual shipboard procedures. Recall is made by hoisting signal flags Q, p6 from the mainmast in accordance with HO 119.

Mitscher has sponsored at least one sailing regatta this year and plans to hold more before the season is finished. While anchored in Patras, Greece, teams of sailors were selected from each department, the wardroom, and the chief's mess to compete in the three-race series. Despite the wet, cold weather, most of the crew turned out for the competition and cheered on the craft as they were blown around the triangular course.

The boats used by *Mitscher's* crew are of two types:



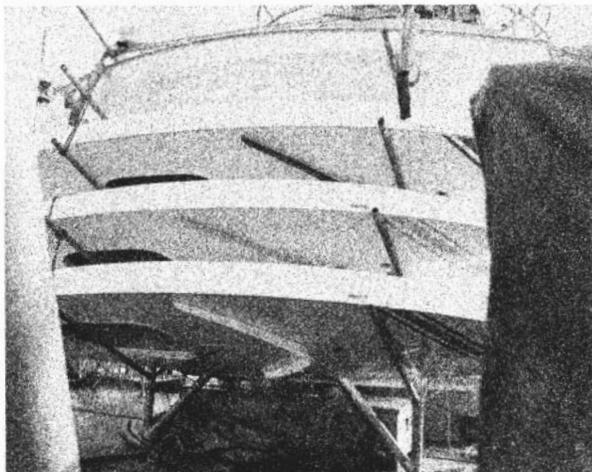
a 14-foot length with 75 square feet of sail called *Sunfish*; and a 12-foot length with 65 square feet of sail called *Minifish*. They were purchased from a yacht dealer in Norfolk just before *Mitscher* commenced her current Mediterranean cruise. *Sunfish* cost \$500, and *Minifish* was \$340. They both have plastic foam flotation, which adapts them for use by both beginners and experienced sailors.

IN SETTING UP THE SAILING PROGRAM, some difficulties were encountered at several points along the way. Initially, some crewmembers expressed opposition to spending the ship's recreation money for such a proj-

ect. The response of the crew to the program overcame many of these doubts, however. Some 40 men have qualified as sailors so far, and many others have either expressed an interest in the program or have spent time watching the sailboats from the deck.

Probably the greatest problem encountered was the storing of the eight boats on the ship. Even with the boats dismantled, finding adequate space was at first difficult. Eventually, one of *Mitscher's* shipfitters designed a rack which takes up minimal space, secures the boats without damage from sea, and provides for expansion of the fleet.

Another major difficulty came with launching the



Left: *Mitscher's* sailors enjoy recreational sailing while the ship is anchored. **Center:** Launching of the boats from their stowage area is handled easily with the construction of a four-point cradle. **Above:** Storing of the eight boats on *Mitscher* is secure and takes up minimal space.

boats from their stowage area on the 02 level aft. Finally, one of the crewmembers designed and constructed a four-point cradle which lowers the boats to the water and raises them back on deck at the end of the sailing day.

MITSCHER HAS BEEN ACCEPTED for branch membership with the U. S. Naval Sailing Association, in which she joins *uss Providence* (CLG 6) and *uss Holland* (AS 32) as pioneer afloat branches of the association. Consequently, all of her crewmembers who qualify in the ship's sailing program will have their names submitted for Basic Sailing Certificates by the American Red Cross.

Then, of course, there is the unexpected usefulness which having a few sailboats along can provide. For *Mitscher*, the situation arose in Soudha Bay, Crete, when an officer and a needed repair part had to be brought on board and the powerboats were unavailable. The officer and the part literally sailed across the bay, and the repair was made.

Reducing Uniform Stocks

SIR: Realizing that all hands will be in the new uniform by July 1973, is there any chance that we might be able to purchase and wear them sometime this year?—YN1 M.W.D., USN.

•The 1 Jul 1973 date is when the Navy's stock of bell-bottomed uniforms should be low enough to meet DOD guidelines for implementing the new uniform. After that date, the coat and tie may be introduced. In order to reduce stocks as rapidly as possible and to meet the 1973 goal, it is necessary to limit the wearing of the double-breasted uniform to prototypes issued in a testing program.—Ed.

Return to Active Duty

SIR: I served 10 years in the Navy before I was honorably discharged two years ago. I've decided that I would like to continue my Navy career, and would like to know if I am eligible for reenlistment.—Mr. L. L.

•You should contact your nearest Navy recruiter. He will assist you in preparing your application for reenlistment and will forward this application to the Bureau of Naval Personnel. Your record of prior service will then be reviewed by the Reenlistment Quality Control Review Board which will determine your eligibility for reenlistment. Upon such determination, you'll be promptly notified of the outcome.—Ed.

Retirement Pay

SIR: I'm a naval recruiter and having completed PNC-1 School, thought myself pretty savvy on retirement benefits. However, a Marine recruiter informs me that he will retire with 50 per cent of 26 years' longevity after 20 years' active duty and six years of Reserve time. How so? I thought that we all got paid out of the same pocket.—G. J. S., DCCS, USN.

•Inactive time is also creditable for longevity pay (base pay) under the provisions of Navy retirement. A Navyman with the same type of serv-

ice as a member of the Marine Corps would receive retainer pay based on 26 years' longevity and 20 years' percentage multiple.—Ed.

Chiropractor Fees

SIR: I recently went to a chiropractor for treatment of a back ailment which had been troubling me some time. Is there any way I can be reimbursed from the Navy for the cost of this treatment?—RM1 F. W. D., USN.

•The regulation which sets forth the conditions under which authorized personnel may be provided medical and dental care at non-naval sources defines a physician as a person who is legally qualified to prescribe and administer drugs and to perform surgical procedures in the geographical area where the service is performed. A chiropractor does not meet this definition and, in view of this, services provided by chiropractors are not payable by the Navy. The foregoing definition and exclusion is consistent with the public laws which govern the Social Security Medicare program and the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS).

Additionally, current regulations require that active duty Navy members obtain the approval of the district commandant prior to obtaining medical care from civilian sources, except in emergency conditions. In the absence of such prior approval, no payment can be authorized.—Ed.

Continuing Education

SIR: I recently read an article which said that the Navy is considering the possibility of starting a new type of educational program for its enlisted people. Basically it provided that Navy men or women who have two years of college work and more than 10 years of active duty would be given the chance to complete requirements for their bachelor degrees. The article also stated that a group of enlisted people would be appointed to do a year's study under this program to test its feasibility for Navywide use. Could you bring me up to date on any

recent developments in this area?—AT2 D. E. E.

•There is currently an enlisted college degree completion program under development that would provide an opportunity for selected enlisted career people who have sufficient college credits to obtain a baccalaureate degree in a period of two years or less. Under project All Voluntary Force (AVF), tuition, books and fees would be paid by the Government. Upon graduation the individual will attend Officer Candidate School prior to duty assignment.

Implementation of this program would require an increase in Navy end strength in order to provide billets and funds. Therefore, in PBD 319 of 23 Dec. 71, this project was not approved for implementation and was carried forward for further consideration at a later date.—Ed.

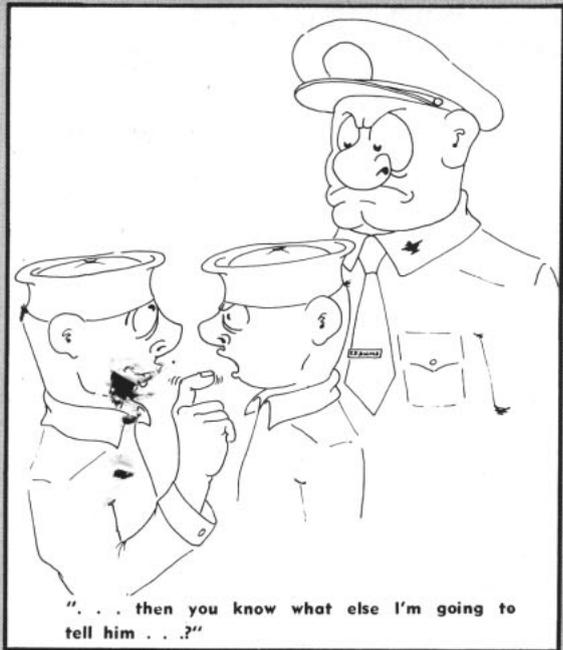
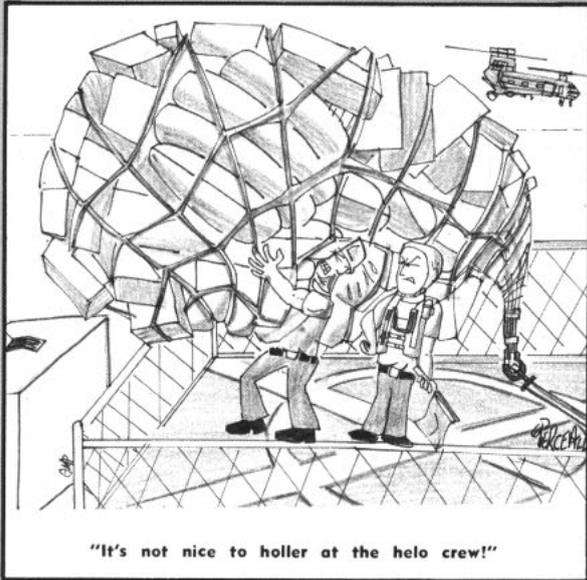
Veteran Offers Help

SIR: I read with great interest the article in ALL HANDS concerning veterans returning to the Republic of Vietnam to help disabled Vietnamese military men. Having served 18 months in country as a naval officer, I couldn't agree more with the sentiments expressed by Mr. Maupin. I am writing this letter because I am interested in participating in a program of this sort. Could you send me further information as to how I can go about accomplishing this?—H.R.M.

•It does not appear that a volunteer veteran project, similar to the one conducted this past summer, will be repeated in the near future. The group of former servicemen who returned to Vietnam were under the sponsorship of the Department of State. The volunteers were flown to Vietnam by the U. S. Air Force and they received in-country logistical support from the U. S. Navy.

Because the volunteer programs of this nature are conducted by the Department of State, the Navy can provide assistance only upon request. Should the Department of State desire to sponsor a similar endeavor sometime in the future, we will be happy to inform them of your keen interest in advancing the efforts of Operation Helping Hand.—Ed.

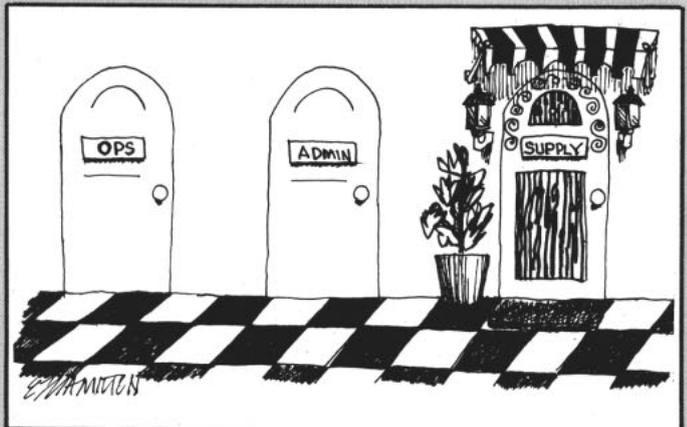
QM2 Gregory M. Pierceall



GMG3 Gary W. Sams

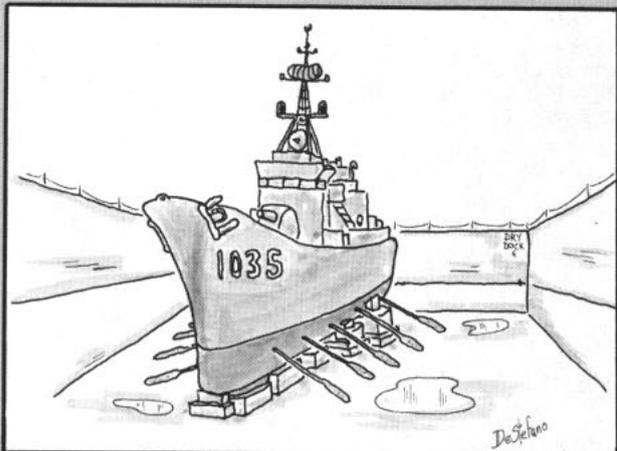


PN2 Eugene L. Hamilton



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STG3 Michael E. DeStefano



HM2 Raymond Moses, Jr.



TAFFRAIL TALK

WHEN ALL HANDS visited the huge training complex at NTC Orlando under the command of Captain Stephen L. Rusk, USN, we were properly impressed not only by the fine appearance and the superior facilities of the center but also by the growth of the training program for recruits, petty officers and officers in a relatively short period of time. CAPT Rusk had an important role in this development not only as Commander of the Naval Training Center but earlier, as the commanding officer of its component and tenant, the Recruit Training Command.

Shortly before ALL HANDS went to press we were saddened to hear of CAPT Rusk's death after a brief illness. A veteran of 28 years of naval service, he prided himself on being, first and foremost, a destroyerman, but he was also an amphibious sailor, having participated in three amphibious landings in Europe in World War II. During his years in the Navy he served as a destroyer skipper, and commanded a destroyer division as well as Destroyer Squadron 14.

His numerous duty assignments, plus extensive work in the field of training at the Naval Destroyer School, the Underway Training Group, and as an NROTC professor, gave him an understanding of the responsibilities of his last command, from which all Navymen at NTC Orlando have profited.

A FAMILY TRADITION has continued aboard the attack carrier USS *Forrestal* (CVA 59) by Seaman Apprentice Kerry Barfield becoming the fourth Barfield brother to serve aboard the carrier. When he reported a few months ago, SA Barfield was greeted at the ship's quarterdeck by his brother, BM2 John A. Barfield.

BM2 Barfield was the first of his family to serve aboard *Forrestal*, and in his 10 Navy years has served with all of his brothers aboard that ship. It was November 1961 when then-SA John Barfield first reported aboard. A little over two years later he was joined by his brother, SN Don Barfield, and in April 1965, BT3 William Barfield joined John and Don as *Forrestal* crewmen.

Don, the second Barfield to arrive, was the first to leave, when he was discharged in early 1967 after two Mediterranean cruises. John stayed on, reenlisted, and attained his present rank of BM2. He was transferred to Roosevelt Roads, P. R., in 1967, leaving William as the only Barfield aboard *Forrestal*. William left *Forrestal* without a Barfield temporarily when he was separated in May 1968, following WestPac and Med cruises.

In January 1971, BM2 John Barfield returned to *Forrestal* for another tour and, 10 months later, was able to relive part of the past as his brother Kerry reported aboard.

The All Hands Staff

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• AT RIGHT: NO SAILS IN THE SUNSET—A special effects view of the masts and rigging of the frigate USS Constitution, permanently berthed in Boston, Mass. (Photo by PH1 Richard Pennergist.)

Back cover photos by PHCS William M. Powers.





in this issue...
"Squadron
Commander"

