# ALL HANDS
THE BUREAU OF NAVAL PERSONNEL CAREER PUBLICATION
FEBRUARY 1971 Nav-Pers-O NUMBER 649

VICE ADMIRAL D. H. GUINN, USN
The Chief of Naval Personnel

REAR ADMIRAL SHELDON H. KINNEY, USN
The Deputy Chief of Naval Personnel

REAR ADMIRAL DAVID H. BAGLEY, USN
Assistant Chief for Personal Affairs

CAPTAIN W. S. BUSIK, USN
Dir. Career Information & Publications

## TABLE OF CONTENTS

### Features
- Profile of a Professional: A Look at Jim Dail, USN ........................................ 2
- DEs Aren’t What They Used to Be ................................................................. 10
- What’s an ARD? They Call Her ‘Dirty 30’ ...................................................... 12
- The Expanding Role of the Navy Advisor in Vietnamization .............................. 14
- Touring Exotic Hong Kong: Liberty Roundup .................................................. 18
- Navy Wives’ Charter Flight: Hong Kong, Here We Come! .................................. 23
- Ecology: A Sampling of Navy’s Efforts and Accomplishments .......................... 24
- Environmental Science at the Naval Academy .................................................. 32
- Da Nang FASU: Walk In, Fly Out .................................................................... 53

### Navy News Briefs
- Liaison for Enlisted Personnel, Class A Schools, Equal Opportunity, Overseas Assignments, Command at Sea, Zero Draft by ’73, Shipboard Civies, Pro Pay for Nuclear NECs, Officer Retirement, PH/JO Training, Fewer Inspections, New EW Rate, Drills for Reservists, Emergency Leave Travel, Sky Marshals, Leave to Study Law, Two Paths to Naval Academy ........................................... 34

### Departments
- From the Desk of MCPON .............................................................................. 52
- Letters to the Editor ....................................................................................... 60
- Tailfurl Talk .................................................................................................... 64

### Bulletin Board
- With Justice for All: Navy Tackles Racial Challenge ........................................ 40
- Pay and Benefits: Legislative Roundup ......................................................... 41
- Travel for Dependents Overseas .................................................................... 42
- Helpful Hints on Travel ................................................................................ 43
- Scholarship Opportunities for Dependents .................................................... 46
- Interest-Free Loans to Navy Juniors .............................................................. 50
- The Navy Motion Picture Service ................................................................. 54
- ONDE: Office of Disability Evaluation ......................................................... 53
- New Ideas in Dental/Medical Clinics ............................................................. 56
- What’s New in the Navy? .............................................................................. 58

John A. Oudine, Editor

Associate Editors
- John Coleman, News
- Ann Hanbury, Research
- Michael Tuffli, Art
- E. L. Fast, Layout
- Gerald Wolff, Reserve

*FRONT COVER: PROFILE OF A NAVYMAN—LT Jim Dail typifies many of today’s young professionals—their wants, their goals and even their indecisions concerning the future. An in-depth study of this young seagoing officer who rose from the enlisted ranks is provided in this issue.

*AT LEFT: SIGHTSEEING IN HAWAII—Three crewmembers from the destroyer USS Carpenter (DD 825) witness a review of native boats from Fiji, Tonga and Hawaii at the Polynesian Cultural Center at Laie.—Photo by Bill Case.*
profile of a professional...

a look at

Jim Dail, USN

Enlisted in 1962 ... took his boot training at San Diego ... attended ET school at Great Lakes ... won a Fleet appointment to Naval Academy ... now weapons officer aboard the guided missile ship USS Talbot ... 

Leutenant JIM DAIL EXHIBITS AN AIR of quiet confidence and ability that complements his professional outlook on the Navy.

At 27, Dail has achieved an impressive enough background to warrant the unintentional aura of confidence, although he's still slightly incredulous of the fact that he is weapons officer aboard the guided missile escort ship USS Talbot (DEG 4), homeported in Newport, R.I.

Jim Dail is typical in many respects of thousands of junior officers in today's surface Navy. He has a top-notch education earned at the U.S. Naval Academy, has solid experience behind him as a division officer at sea, and is well qualified to hold the job he has.

Dail and his attractive wife Donna (they are both from Texas) find many aspects of the Navy appealing. Like most parents they dote on their firstborn son, year-old Brian Robert.

Dail works vigorously and is positively oriented towards making his department function correctly; but at the same time he has not satisfied all the questions in his mind about what he wants to do in the Navy and with his life as a whole.

As WEAPONS OFFICER in one of the Navy's newer ships, LT Dail is directly responsible for all of Talbot's weapons systems which comprise a pretty awesome arsenal—some of the most sophisticated equipment in today's Navy.

To say that his is a full-time job is an understatement. Forty hours a week just gets Dail started into an almost incredible amount of detail that requires a compelling degree of attention on his part for many hours of the day.

It's not unusual for Dail to begin his "day" in the ship long before officers' call in the morning, nor is it a rarity for him to end it late in the evening; whether the ship is at sea or in port makes little difference. Between keeping up with a heavy load of administrative work, giving guidance to four division officers and the 80 enlisted men in his department, and work-
"I can think of very few people my age who are responsible for so many millions of dollars in equipment . . ."

...ing on a variety of other time-demanding projects, little opportunity is left for relaxation either in the ship or, more importantly to Dail, at home.

But make no mistake. There are no complaints about the responsibility of the job from him, indeed it is evident that he not only accepts but seeks this burden as a price to pay for the intangible rewards of self-pride and knowing that the job is being done, and done properly.

Dail is used to work and accustomed to striving for a goal. One of the earliest ones he set for himself in adult life was getting an education in the United States Navy. His stepfather, retired Air Force Master Sergeant William C. Parker, was stationed on bases in the U. S. and overseas, and Dail traveled with his family to many places. After living in South Carolina, Oklahoma, Alabama, Florida, New Hampshire, Texas, and Japan, the old enlistment enticement of "Join the Navy and See the World" did not hold quite the same attraction for Dail that it has for others, but there were additional factors that made him opt for the Navy.

"When it came to picking a service there was no doubt in my mind about choosing the Navy," Dail said. "An uncle of mine, who served four years, related his experiences to me and said that the technical training he received has been especially valuable to him.

"Another factor which influenced my choice was that so many influential men in our country had been in the Navy.

"Also, I believed before coming in, the Navy was a more disciplined organization than the other services in the sense that there was more cohesiveness among the people serving in it," he said.

Following a year of college at the University of Texas at Arlington, Dail decided to enlist in the Navy and seek a commission, completing his college education along the way. He enlisted in August 1962 at Fairbanks, Alaska, while looking for a summer job after his year at Arlington. Why Fairbanks? "I had heard there was a lot of money to be made in Alaska, and since my dad was stationed there I decided to go up and work for the summer." He didn't find a job.

During boot camp in San Diego, Calif., Dail applied for every officer procurement program he could qualify for, including Congressional and Secretary of the

From top down, left: At general quarters station on flying bridge; on phones during exercise; and discussing upcoming weapons inspection with two petty officers. From top down, right: Checking with skipper; officers discussing the plan of the day; and talking over problems with division officer and CPO.
Navy appointments to the Naval Academy at Annapolis, Md.

Towards the end of his basic training he received orders to electronics technician school at Great Lakes. While waiting for his ET class to start he received a SecNav appointment and was ordered to Prep School at Bainbridge, Md., which is the first important step towards the academy. "Anybody on active duty can apply for a SecNav appointment. I didn't think I had much chance of getting it," he said.

Beginning in September 1962, Dail and more than 300 others studied subjects which would prepare them for the academy curriculum which is strongly oriented towards science and engineering. Although only 126 men finished his class at Prep School, Dail candidly admits he did not find the work difficult. "I really didn't have to study hard; I had much of the material in college and knew most of it," he said.

His most significant experience during Prep School was a visit to the Naval Academy with his classmates. "We watched the noon formation, ate dinner with the brigade of midshipmen, and toured the buildings and grounds. It was one of the most stirring experiences of my life." A statement like that these days sounds maudlin, or "gung-ho," but Jim Dail says it with simple and unpretentious sincerity.

Dail entered the academy in June 1963 and graduated in 1967, receiving a general engineering degree. An avid and competent athlete, he played soccer and softball and ran track.

While on 42 days' leave following graduation, Dail met his future wife, at the urging of mutual friends who had been trying to get them together for a long time.

The matchmaking efforts were not in vain: "We met in Fort Worth, Tex., on 17 June, just after Jim graduated from the academy," says Donna with a slight chuckle, "and we were married a month later."

With orders in hand for missile school, and a new wife "in tow," Dail reported to Mare Island, Calif., to learn the intricacies of the Terrier surface-to-air missile.

After missile school he joined the nuclear-powered uss Bainbridge (DLGN 25) the following October and took on several jobs including those of gunnery and missile officer. His ship deployed to the Western Pacific area for six months and Dail got his first taste of at-sea operations while off the coast of Vietnam.

"We spent three months steaming on a search and rescue station off North Vietnam, and the other three months on plane guard duty off South Vietnam," Dail said. He feels some of the things learned during the deployment were of real professional value, and others less so.

"We were on SAR station to rescue pilots who might have to ditch their planes after strikes in North Vietnam, and we had a helicopter aboard to effect rescues." The opportunity never came to fulfill the mission of the ship. In a way it was disappointing. "We once spent 42 days on station, and then transferred the helo detachment to another ship, which had a rescue mission the very next day," he said.
"Some of the benefits we have are very reassuring . . ."

"O"n plane guard we learned the intricacies of working with carriers during flight operations, and also formed part of the antisubmarine screen which was very useful, but the SAR job taught us nothing because we never did have to pick up a downed pilot," Dail continued.

But the cruise did have compensations. Bainbridge made two port calls in Australia—Perth and Bunbury—seldom visited by U. S. Navy men-of-war. The ship also went to Manila in the Republic of the Philippines, and Kaohsiung on the Nationalist Chinese island of Taiwan.

Returning to the states, Bainbridge was homeported first in Vallejo, and later Long Beach, Calif., advantages of being in the sea service. He is very capable of articulating his complaints, just as all good sailors do. And he is equally vocal about the opportunities and experiences he has had in the Navy.

"The undesirable drawbacks of a Navy life are primarily family separations and the time away from home involved during long deployments," said Dail, "along with long hours on the job coupled with all sorts of training and upkeep. Another consideration is the ungodly administrative loads placed on department heads," he continued. "If I did all the administrative work I'm supposed to I'd never get anything else done!"

Dail feels that much of the paperwork he must complete is an unnecessary burden.

"I don't think some of it is realistic—sometimes there simply isn't enough time or resources to comply with all the directives," he said. "Administrative work is necessary of course, but it really needs to be looked at with an eye toward revising it."

where Dail received orders for the Naval Destroyer School in Newport. He finished the seven-month curriculum in July 1970, and was assigned to Talbot, moored scarcely a mile away at the Naval Station destroyer piers.

"I thought I probably would get the job of operations officer, and I really considered it unlikely to get the weapons job. But I guess I was chosen because of my previous missile experience," Dail said.

After eight years with the Navy, Jim Dail is trying to stand back and take an objective look at his career to date and weigh the advantages and dis-

When Jim Dail crosses the quarterdeck of Talbot at the end of a working day, he returns home to a handsome, privately owned apartment complex just outside the station's Gate 17. The newly constructed, red brick buildings are well laid out and have generous areas of grassy space between them, accent by shrubs, and a swimming pool for residents, which is much in use during the relatively short New England summer. The Dails have a second floor apartment that almost, but not quite, overlooks the destroyer piers. Their apartment is roomy and tastefully furnished, and it provides a more relaxed setting for both Donna and Jim.
"I didn’t know much about the Navy before marrying Jim," Donna said, "but I’m happy as long as he’s satisfied—I think my feelings are a reflection of his."

Donna echoed some of her husband’s sentiments about long separations.

"I hate for Jim to miss Brian growing up while he’s deployed," she said, looking down at the toddler who was scurrying at flank speed around the living room floor on all fours.

If Donna and Jim find some aspects of the Navy disagreeable, they also agree there is much that attracts them to a service life. "I enjoy living in different parts of the country; I like the security and the friends from many places we’ve lived," Donna said.

"Some of the benefits we have are very reassuring—like the time we were in Norfolk, when Brian came down with an ear infection and we had to take him to the naval hospital. We went in at 2 a.m. and there was a reliable doctor to treat him. I was impressed that the doctor, who was a pediatrician, chose to remain up past the end of his regular shift without waking his relief. He said ‘My kids (in the ward) still need me,’ and he meant my Brian, too.”

Jim Dail joked that the wives have such an effective “grapevine” among themselves that it seems they know when the ship is returning to port before the type commander does.

It becomes apparent while listening to Jim that he is approaching an important crossroad in his career. Attracted by the opportunities for a fine education, steady advancement and a job he feels is stimulating and challenging, he also finds the separation from his family and the demands of seagoing billets a distinct drawback to a long-term career. His attitude is not a bitter one, because he has much enthusiasm for what he is doing, merely one shared by a large number of naval officers today—whether to make the personal sacrifices involved and go as high and as far as possible in the service—or to leave it for an easier but more mundane job in civilian life that could offer a stable family existence, but little stimulation.

His department’s enlisted men are 70 per cent petty officers and he makes no bones about his dependence upon them. "I have to rely on them; I can’t possibly be everywhere and be as familiar as they are with all the equipment we have."

"And I think they share my feeling of self-pride in having the opportunity to keep all the complex gear we have going right, and even have the chance in some cases to help innovate tactical doctrine—and that extends to junior petty officers, too.”

He cited an example which had occurred that very day, where two enlisted men suggested a way to use a new piece of sophisticated electronic gear which would aid the ship in antisubmarine warfare.

"And you make really close and lasting friends," Donna chimed in, "which I don’t think you’d do as a civilian. I have quite a bit of contact with the other wives when the men are at sea and we are very close to one another. Even when the ship is at sea for short periods we might have several coffees, a bridge party, a potluck supper and a baby shower," she said.

"I just haven’t decided to stay in the Navy or not," Dail said. "There are several things I’d like to do with my life, such as getting away from complexities; perhaps teach high school in rural Vermont or New Hampshire and live in the woods; but then again, I can’t deny yearning for advancement in the Navy and the chance for getting a command of my own.

"Getting a command, to me, is not a question of having more ‘benefits’ or necessarily getting more money—it’s a case of achieving a goal. It’s a job with long, hard hours and lots of responsibility, but it’s something that has lots of prestige attached to it.”
...at the turning point of his career?

Dail obviously values the opportunity of assuming responsibility. He feels it is a trait which cannot be learned from a book or in school, only by assuming and mastering it on a day-to-day basis.

"The level of responsibility handled in the Navy just can't be matched in civilian life," he said. "I can think of very few people my age who are responsible for so many millions of dollars in equipment that I have in my department.

"The job I have in Talbot is a good billet for an officer as junior as I am. I think it's better to be a missile and weapons officer at this point in a DEG than have a billet in an older FRAM II destroyer. I guess I'm here because I was in the right place at the right time."

Dail also feels that responsibility goes hand-in-hand with the discipline found in Navy ships, two attributes he valued when he was considering what service to enter.

"Shipboard routine is the most demanding and most disciplined life I can imagine," he said. "Authority aboard a Navy ship is absolute and there's no room for questioning it at sea; the captain's word is law and that's true right down the line.

"There's more discipline in a ship (than ashore). Any variation from regulations, and unity is torn apart. At the same time, everybody is totally dependent on everybody else. The captain has to depend on the seaman apprentice on the fo'c'sle to drop the anchor when he gives the word, just as that E-2 must depend on the captain to tell him when is the right time," he continued. "The safety of each man is shared by every man in the crew."

One aspect of a service life has never troubled Dail: conformity and discipline.

Through the rigors of the academy and demands made on him in two ships, he says he has never lost his individual personality.

"Yes, you do get restrained as an individual, in the sense that as a very junior officer you keep your mouth shut, out of common sense, until you know what you're talking about.

The wardroom is a place for airing problems as LT Dail talks over weapons inspection with exec, LCDR J. R. Haynes (center) and captain, CDR R. D. Heenan. At right: There's time to think, even while on watch on the bridge.

"The first few years in the Navy as a junior officer you're learning much more than you're giving back. It takes time to learn how to formulate sound decisions. I don't worry about being a conformist. A person makes the basic decision to be in the military or not. An individual has to conform to regulations—in the Navy—but one can also plan much of his career.
"Once having made the decision to join an organization, a person should live by its rules, but I think that's true of civilian life as well.

"If there are things we don’t like, I think there are many legitimate avenues through which we can get changes in the Navy—some that are more responsive than in civilian life."

At sea, particularly during underway exercises, Dail shows an extra measure of concern about his personal effectiveness and that of his department.

During a transit to an exercise in the Caribbean, several gunnery exercises scheduled on the way down from Newport had to be canceled or altered for a variety of reasons, and Dail expressed some worry at this loss of training.

"We're deploying within a few months, and I'm a little concerned at the lack of training I've been able to get in at general quarters," he said.

The deployment he mentioned also intensified the

... in this era of complicated ships and equipment, the Navy needs men with training, motivation, experience ... 

already busy tempo of work in the ship. Added to the efforts required for regular operations were a series of careful inspections of equipment and administrative procedures, plus efforts to ensure that weapons and associated equipment were in top condition.

For Jim Dail then, the U.S. Navy is at once a challenge and the source of a stimulating life, but an enigma as well.

The life at sea provides him the excitement and the chance for an unusual degree of responsibility. It also creates the very problems which make him question whether or not he will stay for a full career.

The question is not an easy one to answer, either by him or the Navy. Faced by a period of relative austerity in its budget, the Navy is cutting down on both the number of ships in active service, and the number of officers and men it can retain. Those that remain must be the best possible, and the service is introducing a host of changes to make the sailor's life one which is more appealing in every sense of the word.

While improvements are being introduced, some of the operational commitments the Navy has been required to meet over the years are being reduced—but they are still numerous and far-reaching.

In this era of complicated ships, aircraft and equipment, the Navy needs men with LT Jim Dail's education, motivation and experience.

Hopefully, the improvements in Navy life that are coming along so rapidly will encourage Dail to stay in the Navy to the same extent that he has been stimulated in his career to date.

The Navy can hardly afford to have it any other way.

—Story and Photos by PHC W. M. Powers, USN.
The ship that Lieutenant Jim Dail serves aboard as weapons officer is a new type of destroyer escort (officially designated as "ocean escort"), and represents a radical departure in design from her predecessors of World War II. The ship is USS Talbot (DEG 4).

Time was when escorts did that and nothing else—they simply were not capable of performing the tasks that larger and faster destroyers did.

Many of the World War II DEs displaced less than 1500 tons. For example, the Edsall class escort (of which 42 were built between August and December of 1943) displaced only 1200 tons. With their small size, living tended to be a bit cramped and austere in the old DEs, and their capabilities were limited.

Early destroyer escorts were designed to destroy or discourage enemy submarines from attacking convoys. The relatively small power plant in the ships did not permit great speeds for long periods, but considering the average speed of merchantmen and enemy submarines a generation ago, this was no serious drawback.

All this has changed today. Average speeds for merchantmen and potentially hostile submarines alike has increased enormously, and to remain effective, escort ships have been redesigned to keep up.

Ships of the Brooke class, of which Talbot is one of the most recently constructed, are the result of the need for more diversified capabilities in escort ships.

By comparison with the DEs of the Edsall class, Talbot displaces 2643 tons, more than twice as much.

Talbot and her sister ships can perform any requirement that an older destroyer can do, and a few things...
Talbot (and the rest of the Brooke class DEGs) is among the first ships of its kind ever designed from the keel up to carry guided missiles. The ship is equipped with only two boilers, as opposed to four found in older destroyers, but can go faster on one than some ships can on two.

Full power can be attained using only 50 per cent of vital auxiliary machinery, leaving the rest for emergencies.

"Older ships must often use every auxiliary in the engine room to make full power. Capable of making more than 25 knots, Talbot can take on a lot of new jobs that older DESs could not perform."

"The purpose of this ship is two-fold," said Commander Richard D. Heenan, commanding officer of Talbot. "The first is anti-submarine warfare (ASW), and the second is anti-aircraft warfare (AAW). We have long range sonar and the ASROC system for ASW, and our Tartar missile system for AAW. Our capabilities are about evenly divided between these two basic missions."

"With our high speed we can also provide a good escort for a carrier strike force and an ASW carrier group," CDR Heenan said.

"The ship is equipped with the SQS-26 sonar, and is stabilized to provide a fairly steady platform for weapons systems."

"As far as habitability is concerned, this ship is spacious. It’s air conditioned and even the engine and fire rooms can be kept considerably cooler than in older ships."

"Another good design feature is the ability to reach all interior portions of the ship without going out on the weather decks."

"For the navymen who comprise the ship’s company, CDR Heenan’s description of his command translates into a far more comfortable ship to sail, and a better one to fight if necessary. Working and living compartments are adequately large to permit easy movement, and most equipment is installed to permit greater access for maintenance. During underway replenishment, striking stores below is facilitated by conveniently placed hatches and cargo handling equipment. The spacious bridge and large combat information center are located to permit the ship’s captain easy access from one to the other while fighting his vessel."

"The engine and fire rooms are more automated and require fewer men on watch; essential controls and instruments are centrally located for easier surveillance. From a purely esthetic viewpoint, Talbot is a very handsome ship. Her graceful, sleek lines, accented by a rakish stem, give the appearance of a very fast ship, as indeed she is. Bigger, faster, more heavily armed with weapons which permit much greater tactical response than ever before, Talbot represents a design variation in a class of ships that has fully proven its worth for almost 30 years. It’s obvious that lessons learned during those years of operating DESs have influenced the design of Talbot, much to the benefit of those who must sail in her for long periods of time."

—Story and photos by PHC William M. Powers, USN.
They Call Her 'Dirty 30'

What's An ARD?

(Ans: Floating Yard)

*uss ARD-30 is a floating drydock located at Pearl Harbor. Operating at Sub Base, it is practically a fixture and, as such, is too often taken for granted by both the local Navymen and by the civilian community.

The most they see is the drydock loading and unloading a submarine during a short period of time. But to the men of ARD-30, each submarine pit stop is a story of long, hard work, beginning sometimes at 0700 and ending occasionally at 1800.

The "Dirty 30," as some call her, is crewed by only 81 men. Given the same workload they produce all the results of any one drydock, if not more. To accomplish this, each person needs to know one rate, besides his own, and part of another.

ARD-30 is a class "C" floating drydock commissioned 24 Jun 1945 in Alameda, Calif. She is different from other ships of the line in that she has no propulsion units of her own and must be taken in tow to be moved.

The first assignment for ARD-30 was Guam, where she repaired damaged ships during the last part of the war. Since October 1948 ARD-30 has been "in-service-out of commission" status in Oregon. In 1958 she was moved from Oregon to Pearl Harbor.

"In my opinion," said MMCS Paul Adkisson, "these men work harder than the crew of any other ARD." Many ARDs have Civil Service workers aboard to work on the interior of ships, but the crew of ARD-30 works on the hull and parts of the interior without these workers.

There are four divisions in the ARD-30 and three are directly concerned with the overhaul of ships:
Deck Division (First Div) works at bringing ships into the drydock and resurfacing the hulls. Fourth Division consists of the damage controlmen who are responsible for cutting large blocks of wood used in supporting the ship while in drydock. The machinist’s mates, shipfitters and machinery repairmen are in Second Division. The MMs and MRs work with the screws, shaft alleys, and at checking bearings and taking readings, just to mention the basic workload. The shipfitters refinish zinc surfacing and do much of the welding, with the exception of pressure welding on submarine hulls.

The work breakdown goes beyond the rating and it is not uncommon to see engineering personnel helping deck force with mooring lines and a varying assortment of ratings sandblasting and refiningishing.

DCC Robert L. Alsphaugh said, “The best description I have heard of the men is that they are the unsung heroes of the Navy, and I agree fully with the statement.” Chief Alsphaugh speaks with seven and one-half years of experience in floating drydocks alone.

The workload is not only demanding when a ship is in drydock, but also unending, considering the number of ships which are scheduled for ARD-30. There have been instances when a ship has returned to the drydock after preparations were made for another ship. One such occasion only gave the crew five hours’ notice prior to docking.

Individual efforts on long, arduous jobs may go unnoticed by the average sailor, but the work done by ARD-30’s crew is more than noticed in maintaining the deterrent force of Pacific Fleet submarines.

—JO3 Tom L. Hedeen, USN.
THE EXPANDING ROLE of THE NAVY ADVISOR IN VIETNAMIZATION

Small craft are now manned by Vietnamese sailors.

U. S. NAVAL ADVISORS HAVE BEEN RIDING Vietnamese junks for nearly 15 years, since they first came to assist the small, 2000-man navy after the French left in 1954. During this decade and a half, their role has changed little. The hours are still long, the bases still isolated and lonely, and the patrols still often consist of hours of boredom marked by moments of fear.

As Vietnamization runs its course, American Navy men are turning over more and more of their combat responsibilities to their Vietnamese counterparts. The advisor stays behind when the combat troops have left. This is his story:

An American advisor to the Republic of Vietnam Navy junk force must be many things—teacher, mechanic, coxswain, cook, weapons man, perimeter defense expert, first aid administrator and goodwill ambassador. To be effective, he must also adopt many local customs and acquire a working knowledge of the Vietnamese language.

Junk force advisors are probably the most isolated Navy men in the country. Some 100 of them serve with 20 Vietnamese Navy coastal groups along 1000 miles of coastline. Each group operates about 10 junks, 50-foot converted wooden fishing craft armed with machine guns and small arms.

There are both officer and enlisted advisors in a coastal group. The officers assist the Vietnamese commanding officer in planning and executing operations and act as liaison when the junks operate with U. S. forces.

ENLISTED ADVISORS, usually boatswain's mates, gunner's mates and enginemen, work closely with Vietnamese senior enlisted men, giving them guidance and advice in seamanship, gunnery and engineering. Many coastal groups also include hospital corpsmen to give medical attention to the remote villages near the bases.

Some 50,000 sampans and other small craft operate in Republic of Vietnam waters every day. Most are engaged in fishing and friendly trade, but some are used by the Viet Cong to infiltrate men and supplies; it is the latter that the junk sailor must intercept. Thousands of craft are stopped and searched each week, making it more difficult for the enemy to transport his war materials.

Junks also provide troop lift and fire support for Vietnamese Army and Regional Force troops. They are used as a blocking force when ground units make sweeps within the group's operating area.

Advisors encourage the Vietnamese to fulfill as much of the tasks as possible without assistance. In most cases during an operation, advisors try to limit themselves to coordinating air and fire support. Camp administration and perimeter defense are totally in Vietnamese hands.

SINCE THE JUNK FORCE WAS INCORPORATED into the Republic of Vietnam Navy in 1965 it has taken on a more military appearance. Junks are now painted in a uniform gray, although they still retain the traditional "eye of the dragon" on the bow. The junk sailors believe the eye wards off evil spirits.

Although the junk sailors still cling to their old way
of life, they have quickly adapted to modern warfare. "They are top boathandlers and some of the best weapons men you'll find anywhere," said one advisor. Many of them are ex-fishermen who grew up in the operating area and know it well.

Supplies continue to be the main problem, but most advisors agree this will eventually be corrected. "After all," said one, "the U. S. Navy would have a supply problem too, if we had more than doubled our manpower in two years, as the Vietnamese Navy has."

Being far removed from normal supply channels, advisors often must depend on Army helicopters, Coast Guard boats, their own ingenuity or the old Navy art of "cumshaws." (The term "cumshaw" originated with American sailors in China during the 1920s and, loosely, means trading something extra you have for something you need.) Engine spare parts are sometimes weeks away, so advisors must become expert mechanics to keep their equipment operating.

But sometimes they do take a few days off for a trip to Saigon, Qui Nhon or Da Nang to pick up spare parts. "We try to mix pleasure with business on these trips," said another advisor, grinning. "You really appreciate the simple comforts and conveniences after a few months in the 'boonies.'"

Advisors live in all kinds of housing, ranging from old French dispensaries to Seabees-built metal buildings. Radios, refrigerators, tape recorders and an occasional TV set in the less remote areas add a touch of home to the "hootches."

Because of the tropical climate and their dislike for cooking, some advisors eat only one meal a day, usually in the evening. (Occasionally, to the delight of all concerned, a new advisor will report who likes to cook and is good at it.) While on patrol they share the food of the junk sailors.

Power usually comes from a generator shared by the entire base. The generator is often operated only a few hours at night to conserve fuel (which must be flown in by helicopter in many cases). Many coastal groups are lucky enough to have Army helicopters bring them movies with some degree of regularity. As soon as it's dark, a screen is set up and Vietnamese Navy men and their families enthusiastically crowd around to watch the flicks. Although they don't understand much of what is said, this doesn't seem to lessen their enjoyment. Obviously, westerns and slapstick comedies are the most popular.

Despite the isolation and inconvenience of the job, many advisors wouldn't have it otherwise. They find the work a real challenge to their ingenuity and resourcefulness. This feeling was well expressed by one advisor, who said:

"Here you can definitely see the results of your..."
efforts; it's all around you, you live with it 365 days and your life depends on how well you can do your job."

Although ACTOY, the Navy's role in Vietnamization, was originally concentrated on the junk forces, the program has been expanded to include almost all phases of the Vietnamese defense network. The success of the brown-water navy in training Vietnamese sailors has set the precedent for establishing U. S. advisory positions in other activities.

_The first phase of ACTOY was completed in December, when the last of the small combat craft once owned by the U. S. Navy was turned over to the Vietnamese Navy. The larger ships are scheduled to be transferred by July of this year, and the logistics support bases by July of 1972._

By all indications, the Vietnamese naval personnel are successfully and effectively operating the turned-over assets and are building additional support capabilities. In the past 20 months, the Vietnamese Navy has more than doubled—making it one of the 10 largest navies in the world—and is continuing to grow. By the spring of this year, U. S. in-country forces will be reduced by about one-third of their original strength, and this trend should continue over the next few years.

So is our Navy's role diminishing? By no means—it's just evolving from an operational stance to a highly successful support and advisory effort.

The Vietnamese Navy is growing rapidly, but it is still young. Half of the officers and men have less than two years' experience, and if Vietnamization is to be successful, we must continue to assist their navy until they can bridge the gap in middle management.

To do this, our Navy has extended its advisory effort to the various type commands operating in Vietnam (see box). Within these commands there are—in addition to operational positions—planning, communications, logistics, and psychological warfare billets in the squadron and division staffs.

_Because Vietnamization is our top military priority, these advisory positions require men of high_
caliber. To ensure the quality of the program, the Navy has revised its selection process with new screening techniques and upgraded its training course. For example, the new language course—given to most of the men—covers 35 weeks of intensive study which is equivalent to 15 hours of college credit.

There is also a new rating substitution plan which allows Navymen who aren't in the usual advisory ratings (like BM, EN, GM) to qualify for a support billet. In other words, anyone—regardless of rate—can volunteer by submitting his request through the normal channels.

What can you expect—besides a challenging and personally rewarding job—if you volunteer for advisory duty? Some of the benefits you'll receive, as specified in BuPersNote 1306 of 14 Jan 1970 and BuPersNote 1306 of 11 Jul 1970, are:

- Hostile fire pay for each month or any six days thereof.
- Total exemption of all wages from income taxation, including reenlistment and variable reenlistment bonuses.
- Special nonchargeable 30-day leave and free transportation to and from any place in the free world, if you agree to extend your Vietnam tour by six months or more (in accordance with BuPersInst 1050.9B).
- Ten per cent interest on savings deposits.
- Transportation of dependents and household goods to any location in the continental United States and, with the approval of the Chief of Naval Personnel, to Puerto Rico, Alaska, Hawaii, or any other territory or possession of the United States (subject to the provisions of the Joint Travel Regulations).
- Field advancement.
- Authorized accumulation of up to 90 days' leave.
- Award of the Vietnam Service Medal and the Republic of Vietnam Campaign Medal with device.
- Free letter mailing and special customs privileges.

In addition, you'll be given reassignment priority after your tour. This includes early outs up to one year, priority consideration of Seavey-eligible personnel for instructor or recruiting duty and—for those not eligible for Seavey—priority consideration for overseas shore duty (after all the Seavey-eligibles have been assigned), sea duty in the fleet of their choice, or priority consideration for advanced schooling (Class B and C) for rated personnel and for assignment to Class A schools for nonrated.

If you volunteer for a second advisory tour that begins within three years of your first tour, and are E-5 or above, you'll qualify for additional benefits. If you're not Seavey-eligible, your second tour—or one-year extension—will count as two years of sea duty for rotational purposes. If you are Seavey-eligible, you'll be granted your choice of naval district.

The expansion of ACTOV has also created a greater need for officers serving in an advisory capacity. The need is urgent, and officers may volunteer immediately, regardless of designator or time in their present duty station.

If the volunteer's shipboard tour is cut, the fore-shortened assignment will count as a complete tour in that billet; and subsequent shipboard billets will follow a natural progression—a higher billet on the same class ship, or a similar billet on a larger ship. Other advantages, as outlined in Z-gram 65, include:

- Expansion of the spot promotion program to include all in-country Vietnam activities for all officer categories. In other words, qualified LTJG volunteers can be assigned to LT billets, qualified LT volunteers to LCDR billets, etc., with commensurate promotion in each case.
- Selection boards are attaching the highest importance to Vietnam tours.
- Reassignment benefits—upon assignment to Vietnam, officers will receive a written commitment from the Chief of Naval Personnel stating that for their next assignment, they will receive the billet type of their choice at sea, ashore or overseas providing it is within range of their qualifications.
- Allowance for 30 days leave before as well as after Vietnam duty.

In recent years there have been three categories of assignments in Vietnam—combat units, logistic and administrative support units, and the Naval Advisory Group. The latter was numerically the smallest group until recently.

**With Vietnaminization progressing so well, advisory billets have become the majority. An advisory billet is one of the most challenging, rewarding, and career-enhancing jobs in today's Navy—today's Navy which is changing its role with the help of men qualified, and willing, to contribute to the transition.**

---

### Advisor Billets Available

The following table indicates the types of billets available to naval advisors.

| Navadgrp Staff—Administrative support, communication advisors, psychological warfare, planning, intelligence, personnel management, and training management advisors. |
| Vietnamese Navy Shipyards and Supply Center Advisors |
| Fleet Command advisors |
| Coastal Zone Advisory Teams—junk force and river assault group advisors, harbor defense advisors. |
| Riverine Area Advisory Teams—RAG advisors. |
| Coastal Surveillance Type Command—Swift boat advisors. |
| River Patrol Type Command—PBR advisors. |
| Amphibious Type Command—river assault and interdiction advisors. |
| General Reserve Type Command—LST/LSM, mine warfare, salvage, and river interdiction advisors. |
| Logistic Support Base Advisors. |
"Let's restore the adventure and fun of being a Navy man."
SecNav John H. Chafee

"We want to improve the quality of Navy life and bring back the fun and zest of going to sea."
Adm. E. R. Zumwalt, Jr.

touring exotic
HONG KONG
Ever since American men-of-war first sailed the South China Sea, the British Crown Colony of Hong Kong has been a favorite port-of-call for U.S. Navymen. Hong Kong, though thrust into the 20th Century, has retained those enchanting qualities which make it "the place" to visit during a deployment to the Western Pacific. With its reputation as a mecca for shoppers, complemented by its numerous fine restaurants, luxurious hotels, scenic vistas, and nightclubs, Hong Kong surpasses most of the entertainment centers of the world as a good liberty port.

The following roundup on liberty in Hong Kong begins with a report from USS America (CVA 66). Captain T. B. Hayward, America's CO, sets the scene in a familygram to dependents of his crew.

"After successfully completing our third line period in the Gulf of Tonkin, Americamen were rewarded with a South China Sea excursion with all the trimmings. We arrived in Hong Kong on a humid, hazy morning and had no sooner dropped our 'hook' than the ship was surrounded by 'walla-wallas,' the ubiquitous Chinese water taxi. "The walla-walla is a small, covered launch used to ferry people and various cargo at a bargain price. "So, with the sounding of 'Liberty Call,' our Americamen loaded aboard and were off for their first look at this exotic city—a curious mixture of modern Western and old Chinese architecture. "On the five-mile boat ride to the Fleet Landing, we passed a hustling, bustling waterfront spattered with countless signs in both English and Chinese characters, while the water itself literally teemed with activity. "There was every imaginable variety of boat . . . hundreds of junks, sampans, barges, ferries, and merchant ships from all ports of the world . . . plus a number of British and American naval vessels."

Inexpensive, organized tours made discovering Hong Kong easy for many of the America crewmembers. Sights-to-see included the famed Tiger Balm Gardens, a maze of gaily painted, concrete Chinese imagery very popular with visitors, and quaint Aberdeen with its sampan city and floating restaurants on Hong Kong Island. "Other popular attractions included the Kowloon peninsula and the New Territories on the mainland," Captain Hayward added, "and some found the nightlife tour a real bargain, while others gave it a go on their own."

America's monthly magazine described more of the port city's appeal: "Hong Kong's commerce and shipping converge on the city of Victoria, set on Hong Kong Island, serving as the seat for this British Crown Colony."

Known to seafarers the world over is Victoria's long-lived Wanchai, or "Suzy Wong" district. "In this district, which adjoins the Fleet landing at Fenwick Pier, America crewmembers began each day's liberty. Most of the men later branched out into other areas of the colony for recreation, sightseeing, dining and shopping."

Discovering Hong Kong begins on Hong Kong Island. Two of the island's most celebrated tourist attractions are Aberdeen and its highest point, Victoria Peak. The former is a teeming village nestled around a tiny cove which protects a sampan city and two floating restaurants. Several of America's crewmembers boarded the cable tram for the lofty peak to gaze at the panorama of the lower island and harbor separating the cities which geminate the colony's metropolis. "Across the narrow strait from Victoria," America's report continues, "the Kowloon peninsula, which is coextensive with the cosmopolitan, twin city bearing its name, juts out into the harbor dividing it in half."

Kowloon's bustling main artery bears a semblance not unlike that of the other great cities of the world; the side and back streets, however, capture much of the age-old civilization of their Chinese inhabitants. From the railway station at the tip of the Kowloon peninsula, the Canton-bound train shuttles through the New Territories, passing by towns, hamlets and rice paddies typical of pre-20th century China, then stops for debarkation at the Red Chinese frontier.

But not all of the New Territories are rural and ancient: new building complexes, including a university, can be seen from the train along the route. Because of its incomparably free economy, Hong Kong has grown into a leading trade center of the East. There are bargains galore: in jade, porcelain ceramics, and especially in clothing. As the crew of America discovered: "Hong Kong is to be more than visited; this tiny, urban enclave on the coast of southeastern China is

Facing page: The Tiger Pagoda, one of the most famous in the Orient. From the pagoda one can look over the entire city and harbor of Hong Kong. Right: U.S. Navymen enjoy the sights while on liberty in Hong Kong.
to be lived and experienced. It remains one of the few places on earth which give to any stranger a true feeling of belonging.”

THE ENTHUSIASM generated by this city, as evident in accounts such as these, is not new, nor has it changed over the years that Hong Kong has been a port of call for American ships. For a Navyman today, liberty in Hong Kong is one of the highlights of a traveling career; combining the attractions of a westernized cosmopolitan center with the mystical allure of the Orient, it is a cultural and commercial crossroads of the world.

However, if your ship had entered the harbor about a century and a quarter ago, you would have found only an abundance of rock, salt water, and pirates.

Lord Palmerston, a mid-19th century British Foreign Secretary, allegedly once remarked, “It seems obvious that Hong Kong will not be the mart of trade.” Lord Palmerston hasn’t seen it lately.

Hong Kong today is a colony of Great Britain consisting of three main areas. They are the island of Hong Kong (acquired 1841), the Kowloon Peninsula (ceded in 1899), and the New Territories (leased from China in 1898 for 99 years). Hong Kong Island includes about 35 square miles, Kowloon three square miles and the New Territories, a rural area of about 350 square miles.

The colony, which has become one of the most densely populated areas in the world, has a population of approximately 3,750,000 people. The largest segment of its permanent residents consists of Chinese, many of whom sought refuge in Hong Kong after the communist occupation of the mainland.

Among the other inhabitants contributing to the colony’s international flavor are large contingents of British, Indians, Portuguese, Americans, and tourists from all points of the globe.

If you’re coming ashore as a member of a liberty party, you’ll be landing at Fenwick Pier. This is a good place to start, because there are many valuable facilities within a short distance to assist visiting Navymen.

You can convert your U. S. currency into Hong Kong dollars at Fenwick Pier. You can also send telegrams, communicate with the U. S. by telephone, check parcels, have a free cup of coffee and get a bite to eat.

The Servicemen’s Guide Association, also located at the pier, can do a much better job of showing you the sights of Hong Kong than any guide who is likely to offer his services on the street.

When you leave Fenwick Pier, you can turn right and walk one block on Gloucester Road to the China Fleet Club. This is a British Navyman’s club, but honorary memberships have been extended to all visiting U. S. Navy Fleet personnel.

In this building, you will find restaurants, bars, lounges, a barbershop, bowling alleys, a theater and a billiard room. You can also get a bunk for about 25 cents a night.

One of the features in the China Fleet Club building is the display center of the U. S. Navy Purchasing Department, located on the third floor. This is an official U. S. Navy office designed to handle all official purchasing which the Navy transacts in Hong Kong, as well as to aid servicemen with their shopping.
Most Navymen visiting Hong Kong are attracted to a ride on the Peak Tramway, which takes its passengers from sea level to the top of Victoria Peak for a magnificent view of the city and harbor.

Another mecca for the visiting Navymen is the garden of the Haw-Par Mansion, once occupied by the late Mr. Aw Boon Haw, whose manufacture of an ointment known as Tiger Balm brought him both wealth and notoriety.

You may also travel by ferry to Kowloon, the City of Nine Dragons. Kowloon has evolved from a walled city, in which the last of China's Sung Emperors took refuge from the invading Mongols, to a bustling metropolis with luxurious hotels, department stores, fine restaurants, and theaters. Here you can see Chinese opera, dine in elegant settings, buy almost anything, and generally enjoy yourself.

If you have the opportunity, visit the New Territories. They will give you an accurate picture of rural Chinese life: numerous duck farms, where an abundant supply of Peking ducks originates, plus some marvels of agriculture created by Chinese farmers who, through sheer determination, have changed seemingly infertile land into productive farms.

Contributing to the enjoyment of the service-men's visit to Hong Kong is a small group of U.S. Navy officers, enlisted personnel, and civilian employees collectively known as the Navy Purchasing Department (NPD).

Until the early 50s, supply officers aboard ships calling in Hong Kong were required to contract and pay for such things as fuel, fresh water, provisions, ship's store stock, tugs and pilots, and other services that are normally provided by a naval shore activity.

In 1954 the Naval Supply Depot, Yokosuka, Japan, established the Navy Purchasing Branch, Hong Kong. Now as a full-fledged department of the Naval Supply Depot, NPD Hong Kong provides contracting and disbursing services for the basic logistics requirements of visiting ships.

Among the many functions performed by NPD, the best known is the operation of the department store type display rooms. Known by various names (Navy Fleet Store, China Fleet Club, PX, etc.), these display rooms are situated on the third and fourth floors of the China Fleet Club building.

Unlike a Navy Exchange or PX which buys and stocks merchandise, adds on a profit margin, and resells it, the NPD display room is comprised of some 75 to 80 concessionaire contractors who display and sell approximately 20,000 items in spaces individually rented from the British Royal Navy.

The merchandise on display is sold directly to the customer by the contractor at “contract” prices without any markup or profit for the Navy. Prices of merchandise, which are negotiated annually by NPD, offer some rather fierce competition between prospective concessionaires. The concept enables authorized patrons to procure merchandise of the highest quality from approved sources at the lowest price.

Because Hong Kong is a free port, most imported items are sold cheaper at NPD than in the country of manufacture. Bargains are available in virtually every commodity area: ready- and custom-made clothing, hardwood furniture, human hair and synthetic wigs, rattanware, leather goods, boots and
shoes, precious and semiprecious jewelry, chinaware, sewing machines, pearls, bronzeware, furs, perfumes and colognes, watches and clocks, musical instruments, stereo and hi-fi equipment, rugs and carpets, cameras, binoculars, Oriental art objects—the list of bargains is almost endless. Over $2,000,000 in goods are sold monthly, with individual purchases averaging about $50.

In addition to this service provided for naval personnel, NPD performs another important function which is not obvious to the Hong Kong visitor. NPD, as a department of NSD Yokosuka, has additional responsibilities as the Joint Procurement Coordinating Board for Hong Kong.

Essentially, this requires NPD to monitor every purchase made in Hong Kong by the Army, Navy, Air Force, Marine Corps and their prime contractors—including purchases made by nonappropriated fund activities such as Navy Exchanges, clubs and messes. This program is designed to prevent:

- Purchases being made from debarred or politically suspect firms or individuals.
- Purchases of supplies or services which originate or pass through communist countries.
- Purchases which could prove to be embarrassing to the host governments, Hong Kong and the United Kingdom.

This monitoring responsibility, at least from a political point of view, is perhaps the most important aspect of the operation of NPD. Hong Kong is one of the most fascinating cities on earth. The Navy Purchasing Department helps Navymen enjoy it to the fullest.
TWO HUNDRED AND FORTY-SIX wives and children of Navy men stationed aboard Long Beach and San Diego-based ships were among the first to leave for Hong Kong to spend Christmas with their sons and husbands under the new air charter program established by the Chief of Naval Operations.

The group departed Los Angeles International Airport on a Thursday morning and arrived in Hong Kong the next night.

Admiral Elmo Zumwalt established the program in his continuing effort to improve conditions in the military and in particular to enhance the opportunity for dependents of Naval personnel in deployed units to travel overseas during periods of the deployment. In this particular event, officials coordinated travel, tours and hotel arrangements.

The program itself is operated at no cost to the government since all costs are absorbed by the travelers. For related info, see the report on page 42.

The program is financially attractive to more military dependents than in the past because of the reduced rates the group travel permits. Round trip rates from Los Angeles to Hong Kong are $380 as opposed to $883 for regular commercial travel. For example, of the 67 families participating in the Christmas program from the amphibious group, over one-half—43 wives—are dependents of enlisted personnel.

Working through government agencies and civilian groups, coordinators from the Amphibious, Cruiser-Destroyer, and Service Force Staffs in Long Beach and San Diego arranged for passports, shots, hotel reservations, busing to and from the airport and liaison services in Hong Kong.

A travel agency in New York handled the travel arrangements. The plane was a charter jet of Trans-International Airlines of Oakland, Calif.
A SAMPLING OF NAVY'S EFFORTS & ACCOMPLISHMENTS

ECOLOGY
In the recent past, the Navy has been presented in the news as a polluter of the nation's environment. News, of course, consists of the current event. It is not always within the purview of the media to report the Navy's past or even all its current efforts to stem the tide of pollution.

It is interesting to note that the subject of ecology and the problems of pollution are not ignored by the Navy -- something is being done about it now and something has been done about it in the past.

Along with the awakening in the rest of the world, the Navy has been alerted to the dangers of pollution. The Chief of Naval Operations has created an environmental protection division and considerable efforts toward pollution control have, in fact, been made over a period of years.

The following story tells of some of those efforts--some of the "good things" the Navy has been doing in the area of ecology.

A few years ago, relatively few people heard the word ecology mentioned frequently. Now, it is the favorite topic of television panels, newsmen and anyone else concerned with what's happening now.

Ecology, of course, concerns the relationship of living things to their environment and to each other. Pollution of the air and water has upset the ecological balance and Americans are becoming concerned--and well they should.

Unfortunately, pollution is a by-product of an industrial society. Unless proper measures are taken to the contrary, the more industrialized we become, the more pollution we must endure.

It has been said that from 30 to 50 per cent of the world's pollution is caused by the United States which has only six per cent of the world's population -- and the citizens of the United States are its major victims.

As one of the larger organizations in the United States, the U. S. Navy is (and has been) directly concerned with ecology. It has also been concerned with saving the public's money.

In the interests of giving the taxpayers a break, the Navy used to dispose of its wastes and burn its fuel in what was considered the most economical manner. Now, however, the definition of "most economical" has changed.

Saving money does little good if the taxpayers, whose money is saved, choke on polluted air and thirst because there is no drinkable water. In 1966, the Navy officially changed its viewpoint but, for some
years before 1966, the Navy had done work of which today's ecologists would be proud.

Long before ecology became a byword in the American vocabulary, the Navy conducted research which was primarily defense-oriented, but which also had an ecological application, including conservation.

For example, during the early 60s, U. S. Navy planes from Puerto Rico made an annual run to points around the Caribbean loaded with thousands of green sea turtles.

The turtle run began in 1961 as part of a program involving the Office of Naval Research, the Caribbean Conservation Corporation, the National Science Foundation and the University of Florida.

The turtle run had two purposes: First, to spread the green sea turtle population around so that the species would be saved from extinction, and secondly, to probe the turtles' remarkable ability to navigate thousands of miles out to sea and then, years later, unerringly return to their hatching place.

The Navy carried newly hatched sea turtles throughout the Caribbean to see if they would return to lay their eggs at the place where they were transplanted rather than to the place where they were hatched.

About 22,000 baby turtles were transplanted annually at 16 locations in Mexico, South America, the West Indies and Florida.

Predatory birds and sea animals eat most infant turtles, leaving comparatively few to return and lay eggs. Thanks, however, to the Navy's interest in studying the species, the green sea turtles may continue to be listed as a living species in the encyclopedias under the letter "T".

Early in 1964, a detachment of 15 Navy men and two helicopters were sent to the Galapagos Islands to take part in the Galapagos International Science Project. The Navy's primary interest in the project was the collection of biological materials and sea life samples and to make meteorological observations.

The two Navy helos transported scientists, who were also on hand, to otherwise inaccessible volcanoes and mountain peaks.

Seabees have shown an interest in ecology, too, by helping state conservationists in Rhode Island in land improvement projects.

They have, for example, helped clear useless areas of the Great Swamp in South Kingstown, R. I., to develop them into wildlife feeding grounds.

Through their efforts, Seabees helped conservationists maintain a proper environmental balance for preserving wildlife in Rhode Island.

A portion of Navy land has also been set aside near Pearl Harbor as a wildlife refuge. There, the Navy works with state and federal wildlife experts in the establishment of a permanent bird sanctuary to preserve the Hawaiian stilt and other endangered species.

For a number of years, the Navy has studied whales and porpoises and has acquired considerable information which has had ecological spinoffs. Numerous recordings of clicks, whistles, squeaks, squawks and groans have been made of porpoises and various species of whales.

The study of whale sounds was put to good use recently when a group of white whales moved into the mouth of Alaska's Kvichak River from which salmon began their swim to their spawning waters. Unfortunately, many of the salmon didn't have a chance to spawn because they were consumed in great quantities by the white whales. This is where the Navy entered the picture.

Again the Navy was called upon for help. It made its recordings of killer whale sounds available and they were used to lure the white whales into open water, thereby permitting the salmon to enter the river and go about their business of perpetuating the species.

Knowledge of sea animals has paid off in many ways for both the Navy and the nation. Take porpoises, as another example.

Although knowledge of how a porpoise swims so fast is still largely theoretical, the porpoise has been man's guide to adapting to a marine environment.

Tuffy, a bottlenosed porpoise used in Sealab II, demonstrated he could function as a rescuer of lost aquanauts and as a deliverer of tools, messages and other oddments between the surface and the underwater Sealab habit.

The study of the porpoise is still going on. One Navy-sponsored effort is to see if man and porpoise can talk to each other. If that ever happens, it will be a real break-through—with ecological offshoots.

Above: Navy study of porpoises and other sea life has produced information of value to ecologists. Facing page from top: Navy diver battled Crown of Thorns Starfish when a colony threatened destruction of Hawaiian coral reef which sheltered fish and other sea creatures. (2) Ecologists believe the Crown of Thorns starfish may have gotten out of hand because of a scarcity of Tritons. Triton is a mollusk and a natural enemy of the Crown of Thorns. (3) Green sea turtles are packed before loading aboard Navy plane for transport to safer area.
LAST YEAR, the Navy joined the war against the Crown of Thorns starfish which, among other activities, has been voraciously devouring the Great Barrier Reef of Australia.

When the starfish were discovered on coral in Hawaiian waters, the state government called upon the Navy for help. Hawaii feared that destruction of coral by the Crown of Thorns starfish would upset the ecological balance in the area by depriving it of fish.

Diver scouts examined an area which extended 760 yards from the infested reef in an attempt to find other concentrations of starfish but, finding only a few, determined that only one reef might have been infested.

Several methods of killing the harmful starfish were tried, but divers solved their problem effectively by carrying two hot-water bottles filled with ammonium hydroxide and a syringe equipped with a spring-loaded plunger which permitted automatic refilling from the hot-water bottles.

USING THIS EQUIPMENT in a highly infested area, the divers were able to kill as many as 400 of the starfish during a 20-minute dive.

By the time they had completed their work, the 15 volunteer divers had disposed of more than 10,000 of the coral-eating animals, thereby removing some of the danger to Hawaii's reefs.

Elsewhere, the Navy was also called upon to help science combat the Crown of Thorns. USS Tracers County (LST 1160) carried an expedition of scientists from the Smithsonian Institution to investigate corals in the Conteras and Secas Island groups off southwestern Panama. No damage to coral reefs in that area was discovered.

Incidentally, ecologists believe the Crown of Thorns may have gotten out of hand because of the zeal of shell collectors.

The Triton, which has a highly prized shell, has kept the Crown of Thorns in check until recent times, but collectors who seek its shell and care nothing for the Triton may have reduced its numbers so seriously that the Crown of Thorns has been left to ravage Pacific reefs unchecked by a natural enemy.

MANY IN THE NAVY HAVE DONE WORK having ecological connotations — hurricane hunters, researchers who study the habits of birds and sea animals, those who probe ways into which man may fit into an underwater environment (Sealab and Tektite) are only a few. But the Navy has more interest in ecology than the incidental activities which we have mentioned here. The Navy has, for a number of years, been striving to reduce pollution ashore, afloat and in the air. What's more, it has achieved considerable success in a relatively short time.

The Navy has given priority to several research and development projects to find a practical solution to the pollution of tidal waters by Navy ships.

For example, a unit to treat shipboard sewage was installed on board USS Fiske (DD 842) and began operation in March 1968.
The system was a mechanical electrochemical process which separated solid and liquid wastes and treated each by appropriate methods including incineration. Systems disposing of liquid waste usually require bacteriological action, but the electrochemical system used in Fiske can be started and stopped at the turn of a switch.

A sewage treatment plant was also tested aboard a tender, but some difficulties were encountered. 

USS Fulton (AS 11) is scheduled to be fitted next year with equipment for the treatment of human waste from the ship. Similar equipment will also be suitable for use in carriers, tenders and LSTs which will come in for overhaul between 1972 and 1974.

Air pollution at sea has also come in for a long, hard look. The Navy has authorized its ships to burn distillate fuels rather than the heavy black oil which has been familiar to Navymen for years, but which produces more smoke.

The distillate fuels, unlike black oil, have a low ash and sulfur content.

Air pollution for Navy aircraft is likely to be reduced, too, for the Navy is considering a new combustion chamber which will reduce pollution by better mixing air and fuel in the hottest part of the chamber. Future Navy plans call for meeting visible smoke emission standards from naval aircraft when the standards are announced by the Environmental Protection Agency (EPA).

Ashore, the Navy, in the past, has used the same methods municipalities and industries have used in coastal areas. And why not? Such methods were both economical and publicly acceptable.

But, as mentioned before, circumstances and attitudes have changed. Naval shore activities have grown since the 1800s when many of them were founded. Many of the waste disposal methods used by shore activities have become antiquated and no longer are acceptable by regulatory authorities working in the field of pollution control.

Economy and public acceptance were also the criteria formerly used in selecting fuel for power. The most economical fuel was that which was burned, but now the definition of what is most economical has changed.

Although the Navy has backed programs having ecological applications for decades, the shore establishment inaugurated its first formal program in 1966 to meet recently established air and water quality standards.

That was the year the Naval Facilities Engineering Command was given the responsibility of identifying shoreside pollution deficiencies and requesting whatever money was needed to eliminate them.

Top to bottom: Naval Research Laboratory scientists check data on a Total Hydrocarbon Analyzer developed at NRL. The Analyzer is used for monitoring organic contaminants in closed atmospheres.

(1) A foreman at the Navy's San Pedro Fuel Depot uses an "oil skimmer" to remove oil from water at the reclamation plant.

(2) Two sailors clean the waters at the San Diego Naval Station.
dentally, the Command has been very successful in obtaining more funds from Congress than any other federal agency has received for such work.)

Rather than installing costly waste disposal plants for its own use, the Navy, whenever possible, discharges its waste into existing public systems and pays the municipality an equitable share of the expense.

In some instances, of course, the public system had to be enlarged and funds were often provided by Congress for the necessary construction.

Public systems for disposal of wastewater are now in use or funded in such areas as New London, Little Creek, Charleston, Yuma, San Diego, Long Beach, San Francisco, Seattle and Pearl City, Hawaii.

At the Great Lakes Naval Base, the outflow of the sewage treatment plant, which formerly met Illinois state standards before being discharged into Lake Michigan, will not meet the more stringent water quality standards set for the lake. To correct the situation, the Navy is negotiating for participation in a $70 million local cleanup program which will eliminate discharges to the lake.

Pearl Harbor was also the subject of extensive water cleanup when additional steps were taken to clean the sanitary and industrial wastewaters generated by the 70,000 people who live and work in the facilities surrounding Pearl Harbor. To give you an idea of what is involved, this effort alone will cost $15 million.

San Diego Bay is a striking example of the benefits of coordinated coastal zone cleanup effort. The aim of both the Navy and the municipality of San Diego was to remove all shore wastewater from the Bay.

The success of the program became readily apparent when, within two weeks after an intercepter sewer went into operation, a colored scexci disk could be seen at depths from eight to 12 feet. Before the cleanup, the disk was obscured at only 18 inches.

Other changes were obvious, too. The gray-brown color of the bay diminished and, as oxygen returned to the bay’s water, fish and other marine life swarmed back.

Treatment of industrial wastewaters from various processes at naval shipyards was another field which needed and received attention. Regardless of whether final treatment of the industrial wastes was given by Navy or municipal systems, it had to be pre-treated by the Navy.

Most of the cost involved in industrial facilities was for the construction of collection sewers throughout expensive real estate. Funds, however, have been appropriated by Congress and the Navy can look forward to having that problem licked, too.

Converting to cleaner fuels has been necessary to meet standards of smoke density, the amount of “particulate matter” and sulfur oxides coming from the stack gas of the relatively small power and heating plants which the Navy operates.

Conversion to cleaner fuels has already been accomplished or is planned at such locations as St. Alban’s Naval Hospital, New York; NTC, Great Lakes, Ill.; Naval Station, Washington, D. C.; and the Fourth Naval District’s Naval Supply Depot.

Another type of air improvement project that helps the coastal environment is the installation of afterburners on certain industrial processes in naval shipyards in San Francisco.

These afterburners incinerate organic vapors from paint bake ovens which would otherwise contribute to the formation of smog.

The Navy also has projects to control the vapors formerly emitted from its fuel storage facilities.

Navymen who have had firefighting training can appreciate air pollution which can result from oil fires set and extinguished inside structures which simulate ship compartments.

To remedy the situation, the Navy constructed a prototype facility to eliminate smoke discharges from the advanced training school at Treasure Island in San Francisco Bay. Smoke elimination measures are also being taken or are scheduled at eight other Navy firefighting schools.

The prototype facility involved a combination of ducts, fans and five afterburners. This combination could simultaneously handle smoke loadings from any two of the four fire test structures.
ECOLOGY

Funds have been appropriated for similar work at Navy firefighting schools located in San Diego, Philadelphia and Great Lakes.

Smoke from other firefighting operations, open tank, aircraft and flight deck fires can also result in adverse criticism from nearby residents. The Naval Training Device Center, working together with the Illinois Institute of Technology Research Institute, has developed a method of essentially eliminating the dense smoke from oil fires burning in open tanks. The method involves injecting a finely atomized water spray just above the surface of the burning liquid. A prototype installation has been made at Great Lakes to determine applicability for advanced firefighting training and for aircraft crash crew training.

Regardless of whether a naval installation is located inland or on the coast, it has a problem in what to do with its solid waste.

Open burning is prohibited to the Navy, but the problem of refuse disposal has often been solved by hauling essentially solid wastes to sanitary landfills.

A very innovative practical solution was reached at Norfolk, Va., with the construction of a salvage fuel boiler plant which features the first completely water-cooled incinerator furnaces built in the United States. The Navy-built project has been in operation since 1967.

The system is capable of destroying 360 tons of refuse daily, thereby eliminating the former open burning method of disposal. During the destruction process, there is less pollution because the system provides better combustion of the refuse and uses less air than conventional incinerators.

Perhaps best of all, the plant recovers the heat of combustion which is often wasted in other burning methods. At Norfolk, the heat is converted to steam and helps meet the requirements of Navy ships and shore facilities in the area, thereby saving fossil fuels which would otherwise be used in the ships.

At San Diego, the Navy was able to cooperate with the community on a solid waste disposal problem.

The Naval Air Station at Miramar, north of San Diego, had about 40 tons of refuse to get rid of daily. The city of San Diego needed a sanitary landfill in which to rid itself of refuse generated in the locality near the Air Station.

The city and the Navy agreed that San Diego would develop some air station land into a sanitary landfill and the city would dispose of the Navy’s trash at no charge.

A similar arrangement may be used at the Newport naval complex on Aquidneck Island, R. I., when the Navy and the surrounding community may share in the construction of one large, more efficient incinerator, thereby reducing costs to both.

Disposal of classified waste has been a problem in many communities where authorized incinerators were not readily available to a naval installation.

Security officers were faced with the danger of hauling the waste over a public highway and risking a spill of classified material before reaching an acceptable burning facility. Another choice was finding another satisfactory method of disposal.

One solution, at the San Diego Public Works Center, is the development of a truck-mounted paper mulcher. It reduces classified waste to a cottony pulp, which can then be hauled to sanitary landfills without any danger of compromise. The system is cheaper and safer than past methods and eliminated the use of fire incinerators.

Not only is the Navy taking action through its central command to control and eliminate pollution, but also local commands and organizations are taking steps of their own and frequently going the second mile in their own conservation and clean-up efforts. Here are a few examples:

• Patuxent River Naval Air Station, which took first place in the Navy’s Annual Natural Resources Conservation Awards competition, has a program which would do credit to the Department of the Interior conservationists.

The air station has an advantageous location for practicing conservation because it is located at the mouth of the Patuxent River and the Chesapeake Bay.

The station has forestry, fish and wildlife programs as well as a soil and water improvement program. It even plants oysters.

The program’s effectiveness is readily observable in the abundance of fish and game in the vicinity of the air station. Both fish and game are protected through hunting and fishing regulations.

• Reservists at Louisville, Ky., observed Armed Forces Day by joining a “fight dirty” campaign to clean up the city.

The Reservists supplied much of the manpower for the work which otherwise would have lain around spoiling the landscape.

In this case, virtue was its own reward for at least one of the Navymen. While participating in the clean-up campaign, he came across his own car which had been stolen and was about to be stripped in a Louisville alley. The car was saved in the nick of time from being added to the junk pile.

• Youth activity groups on Treasure Island in San Francisco Bay joined forces in an anti-litter campaign.

• Los Alamitos Naval Air Station enriched the Navy Relief coffers by $200 when its Navymen and their families picked up aluminum cans and deposited them in a crushed state at strategically located dumpsters. The cans were then sold at 10 cents a pound and the proceeds donated to Navy Relief.

From top: An oil separation tank is lowered into a storm sewer as Patuxent River Naval Station, Md., continues its attack on water pollution. (2) An inexpensive plastic oil removal device is tested in water and oil tanks at the Naval Civil Engineering Laboratory, Port Hueneme. (3) In a special research project, the Naval Civil Engineering Laboratory is attempting to isolate bacteria with the most ravens appetites for oil. This photo, magnified approximately 625 times, shows a single drop of oil apparently being devoured by millions of bacteria.
COs on the Lookout for Oil Spills

To assist in the enforcement of currently applicable laws and executive orders, the Chief of Naval Operations has ordered all commanding officers and aircraft commanders to report to the nearest Coast Guard District Commander the sighting of oil spills which might endanger the coastal waters of the United States.

- The Naval Shipyard at Norfolk has been using a skimmer to remove oil from water in the harbor. It rates special mention because this skimmer has been operating for fifteen years, sucking up oil from around ships and wharfs.

Oil collected by the skimmer (a shipyard employee's invention) is sent to Craney Island for processing and possible reuse by the Navy. The device can pump 1000 gallons a minute but about 90 per cent of the mixture pumped is water.

- Another type of skimmer has been used at the Naval Base at Long Beach. The device floats slightly below the water sucking oil and water down through a hose, pumping the mixture into a tank where the oil is separated from the water.

- NCCEL has a research and development effort aimed at developing an inexpensive but effective oil removal system for naval shore facilities.

- And speaking of oil and oil slicks, the Office of Naval Research has begun research on the control of oil pollution through biological means in harbors and on beaches.

Researchers are investigating the possibility of seeding the oil with mineral nutrients which promote the growth of microorganisms which would literally eat the oil.

- The Naval Undersea Research and Development Center at San Diego has started its own cleanup campaign. It now prohibits the use of paper cups and plastic six-pack holders from the waterfront areas. The plastic gadgets are a menace to wildlife because animals frequently get their heads stuck in them.

For years, the world (and principally industrialized nations) has unwittingly polluted the environment in the belief that the atmosphere and the sea had a limitless ability to cleanse themselves of man's waste.

Now we know differently, and warnings of the consequences of continued pollution come from all quarters. One of the many voices of warning comes from the eminent oceanographer Jacques Yves Cousteau who says, "The oceans are dying. The pollution is general."

Rather than despairing that the trend is irreversible, however, we can realize that, as Philip Wylie puts it, "We are the first people ever to understand that we must live according to ecological and physical and chemical laws — that means, we are the first human beings who ever had a chance to reorganize civilization so that it could endure indefinitely."

—Robert Neil
ENVIRONMENTAL SCIENCE at the Naval Academy

"THE EXCITING PART is that these things have never been done before. There's a frontier of knowledge on our own back doorstep."

The speaker is Professor John Hoffman of the Department of Environmental Sciences at the U.S. Naval Academy. The professor and his band of midshipmen oceanography majors are making significant contributions to knowledge of the Chesapeake Bay through a variety of research projects. (Oceanography is one of the Academy's most popular majors, with more than 500 midshipmen enrolled. USNA offers 16 courses in the field.)

Professor Hoffman and his proteges have tackled such diverse subjects as erosion effects on the Eastern Shore, the tidal wedge and how it affects the biology of the bay, and the significance of the shape of the coastline. A research grant from the Academy last summer allowed Hoffman to undertake a project using seaweed to test for radioactivity. He and his Academy associates have also studied the selection of disposal sites for dredge spoil resulting from projects to deepen the Baltimore harbor.

Last fall Professor Hoffman took his oceanography class to sea, armed with depth finders, core collectors and the like to assemble data which may help explain the existence of a series of deep holes in the floor of the bay. The day's outing promised enough geological action to attract scientists from the U.S. Geological Survey (USGS) and the Maryland Geological Survey.

The hole being studied, the bay's deepest point, is located in a deep channel which extends the length of the bay floor. "This trench is in the channel that carried the Susquehanna River 20,000 years ago, before the sea level rose and drowned the entire river valley, creating the Chesapeake Bay," explained the professor.

ON THE WAY to the site, Hoffman suggested that a seepage of fresh ground water may lie in the bottom of the hole, and that this may contribute to its formation. This situation, if true, would be potentially dangerous; if fresh water were tapped by wells on land, the pressure of the underground water might decrease and allow salt water to contaminate the freshwater supply.

"This phenomenon is known as saltwater intrusion and has been a serious problem in other parts of the country," Professor Hoffman explained.

Findings at the site neither proved nor disproved the "saltwater intrusion" theory. The water at the bottom of the hole was salty, but this could be the result of a variety of other factors and does not necessarily mean that no fresh water is leaking into the bay.
THE MIDSHIPMEN WERE SURPRISED to find sand, gravel and broken shells in core samples taken from the bottom at the deepest part of the hole. (A core is obtained by dropping a long, finned device to the bottom. It spits the soil, holds on to a sample and is then hauled back to the surface.) Hoffman speculated that these findings could have been the result of sediment movement caused by heavy storms.

The scientists on board all agreed that more research would be required before any conclusions could be reached as to the cause of the holes. "In order to make any concrete theories, we'll have to take bigger core samples from the bottom and have a look at the geological makeup of the ground under the bay," said Hoffman.

Facing page: A midshipman labels a bottom sample for later study in the laboratory. This page from top: A Nansen bottle, used to collect water samples at various depths, is prepared before it is sent below. (2) Readings from a depthfinder are relayed to the bridge as midshipmen search for the deepest part of the Chesapeake Bay. (3) Calculations from readings off the salinometer determine the amount of salt in water samples.

Ecology Program in Cam Ranh Bay

When sand at Cam Ranh Bay began blowing into helicopter rotors, jet aircraft, sophisticated communications equipment and lowering morale as well, the military called in botanists from Port Hueneme's Naval Civil Engineering Laboratory (NCEL) to do battle with soil erosion in the Republic of Vietnam.

The problem was formidable and it took 24,000 plants representing 15 species, assorted grasses and seeds to hold the sand in place. Although there have been some setbacks, most efforts of the NCEL botanists meet with success.

The scientists set about to learn what types of plants and seeds would grow on steep slopes of beach sand as well as in areas exposed to salt spray and winds up to 50 miles per hour.

All the plants had to thrive in desert climate for nine months of the year and yet be able to survive three months of torrential downpours.

The plants and seeds also had to be sufficiently hardy to be left on their own after planting. No supplemental care such as watering, weeding or fertilizing was given.

The barren beach in front of the Army's Sixth Convalescent Center was a case in point. The sand there was once so hot that it would scorch bare feet. Now, however, there are stretches of the ocean front which are sprouting a six-inch growth and prospective beachcombers can now walk there barefooted.

Army and Air Force officials in the Cam Ranh area were sufficiently impressed with the Navy's erosion prevention effort to continue after the NCEL botanists returned home.

One of NCEL's last contributions is a "how to do it" manual for use by military and civilian personnel in charge of erosion prevention.
• **ENLISTED PERSONNEL LIAISON -- NEW NUMBERS**

The Pers-P Enlisted Liaison officers have a new telephone number -- Autovon 224-3701 or commercial 202-694-3701. Liaison officers are now at the telephone from 0800 to 1830 eastern time weekdays. These expanded hours are intended to make services more available to people on the West Coast. If you need information or help with a problem, ask your command. If they can't help, they -- or you -- can call these liaison officers.

• **SCHOOLS FOR OUTSTANDING SEAMEN**

The Chief of Naval Operations has encouraged assignments to Class "A" schools on a returnable basis and has urged leading petty officers and division officers to request quotas for their best non-rated Navymen. A recent enlisted retention study group indicated there's a frequent reluctance to do so, because many of the quotas are non-returnable and supervisors naturally like to hang onto their best men. Henceforward, assignment to Class "A" school on a returnable basis will be limited only by the length of the school, which must be less than 20 weeks by billet requirements; and by the availability of TAD funds. Every effort will be made to ensure that such funds are available. See NavOp 01 (2 Jan 71).

• **EQUAL OPPORTUNITY FOR ALL**

Secretary of the Navy John Chafee's recent message calling for Navymen to "work together constructively and openly to solve our racial problems" (see ALL HANDS, Jan 71, p. 38) has brought a quick response from the Chief of Naval Operations. NavOp Z-66 announces concrete measures to ensure fair treatment for all. Among these steps are an in-depth investigation of discrimination in housing, appointment by all COs of special assistants for minority affairs, and efforts by Navy barbershops, exchanges and commissaries to fill the special needs of minority groups. For the whole story, see this month's Bulletin Board.

• **OVERSEAS ASSIGNMENTS**

There's a continuing need for qualified enlisted Navymen to serve in billets overseas with Military Assistance Advisory Groups (MAAGs) and Missions, defense communications agencies, military groups, NATO commands and joint, unified and combined staffs. Navymen may apply by submitting an Enlisted Transfer and Special Duty Request (NavPers 1306/7) in addition to indicating "MAAGs/Missions" as duty preference on Seavey Rotation Data Cards or Duty History and Preference Cards.
To apply for an overseas assignment that is considered shore duty for rotation, you must be eligible for Seavey; Navymen with established tour completion dates (TCD) will not be rotated before that date.

- **COMMAND AT SEA**
  Traditional officer career patterns -- which called for a major command at sea for line captains -- have been changed to spread the Navy's top talents more evenly among the Fleet, the shore establishment and the Navy's weapons acquisition programs. New command selection procedures -- calling for one command tour at sea or ashore for most line captains, instead -- have been set up, beginning with captain command selection boards which met in Dec and Jan. Future flag selection boards will be encouraged to select not only officers who have followed the traditional pattern of command at sea, but also those who have demonstrated their management expertise in the shore establishment.

  Exceptions to the new "one command" concept may be made for aircraft carriers and major shore installations, where previous deep-draft or command experience may be required. Command selectees not yet ordered to duty will be rescreened as necessary, and similar instructions concerning equity, quality and the need for rescreening will be passed on to other command boards as well. The Navy expects to benefit from the stability of longer command tours, improved management of the shore establishment, and better use of individual talents and training. See NavOp Z-69 and watch for more details in an upcoming issue of the Officer Personnel Newsletter.

- **ZERO DRAFT BY 1973**
  The Department of Defense has set a target date for achieving an all-volunteer military force: 1 Jul 1973. "We will move toward zero draft calls as early as we possibly can," DOD Secretary Melvin R. Laird said last fall, "But our goal is to reach that level by the end of Fiscal Year 1973."

  Although the Navy doesn't take draftees, it could be deeply affected by the elimination of selective service. In fact, CNO recently estimated that as much as one-third of those who join the Navy do so because of the draft. With this in mind, the Navy is working on a wide range of service improvements. Proposals for Fiscal Year 1972 include a 20 per cent pay increase for enlisted Navymen with less than two years of service, as well as other programs aimed at making the Navy more appealing to prospective enlistees and more satisfying to all hands.
• CIVVIES AUTHORIZED FOR SHIPBOARD PO'S

Because of enthusiastic response to a pilot program authorizing 1st class petty officers to keep civilian clothing aboard ship for wearing ashore on leave and liberty, the Chief of Naval Operations has extended that privilege to all petty officers on all ships. NavOp Z-63 provides the following examples for determining appropriate civilian attire: coats and trousers, turtlenecks, shirts with ties, ascots or open collars, sports shirts including button-downs, sweaters, crew or V-neck shirts sold as outer garments; overcoats, jackets and windbreakers; levis, "perma press" and bell-bottom trousers in various colors and materials; and well kept shoes and boots of various colors, materials and styles. Ruled out as inappropriate are:
  • clothing which is excessively worn, frayed, soiled or unpressed.
  • athletic clothing, except when proceeding to and from sports activities.
  • distinctive parts of the uniform worn with civilian clothing.

• PRO PAY FOR NUCLEAR NECS

Two new sets of Navy Enlisted Classifications (codes 3361-3366 for submarines and 3393-3396 for surface ships) have been established to identify nuclear trained Navymen who are fully qualified to supervise the operation and maintenance of ship nuclear propulsion plants. Effective this month, those who qualify for the new NECs are eligible for Proficiency Pay (Specialty) of $150 per month. Recommendations for assignment of these NECs are desired by the Chief of Naval Personnel. To qualify, Navymen must meet all standards set forth in BuPers Notice 1221 (24 Dec 70).

The "inactive" nuclear NECs (3359, 3389) will continue to identify enlisted Navymen qualified for active nuclear NECs, but not currently assigned to a submarine or surface ship nuclear propulsion plant operator billet. Effective this month, Navymen with either of these NECs are eligible for pro pay of $50 per month. The award may be continued for 18 months after the NEC is assigned. See Change 5 to BuPers Instruction 1430.121.

• OFFICER RETIREMENT POLICIES CHANGE

The time in grade requirement for establishing retirement eligibility has been revised; the old four years in grade requirement for captains now applies only to those with designators 14XX, 21XX, 25XX and 51XX. All other captains are now required to serve two years in grade before retirement. In another change, lieutenant commanders are no longer required to serve two years in grade to establish retirement eligibility. See SecNav Instruction 1811.3 series.
- **SPECIALIZED PHOTOGRAPHIC/JOURNALIST TRAINING**
  Are you interested? Would you like training in Cinematography, Quality Control of Photographic Material and Processing, Photojournalism, or Motion Picture Script Writing? These courses are offered to Photographer's Mates, Journalists and photography-oriented officers who wish to increase their knowledge in the photographic field. This is an opportunity to attend a college accredited course at a major university while gaining valuable training. Personnel desiring to attend these courses of instruction should submit their applications to the Chief of Naval Personnel (ATTN: Pers B2143) prior to 15 Feb 1971 for the Quality Control Course and prior to 15 Apr 1971 for the other courses. For detailed instructions see your Personnel Officer.

- **CHANGES MEAN FEWER FORMAL INSPECTIONS**
  Schedules have been modified to make command inspections more responsive and productive, while reducing the workload on Navymen involved. The changes are designed to save the inordinate amounts of manpower and valuable training time now used "in preparing for many inspections that often produce relatively meaningless or irrelevant results." The new program calls for immediate unit commanders (next senior unit) to combine unscheduled inspections with ordinary visits and embarkations. In addition, Navymen from sister ships and units will no longer be used as assistant inspectors, mandatory checkoff lists have been eliminated, and all inspections will be graded simply satisfactory or unsatisfactory. Certain inspections, including those involving nuclear power, are not affected by NavOp Z-67, which announced the changes.

- **NEW RATE--ELECTRONIC WARFARE TECHNICIAN**
  The Secretary of the Navy has approved a new general rate, Electronic Warfare Technician (EW). Plans call for establishment of the rate on 1 Sep, involving Navymen in pay grades E-4 through E-9. Those who qualify for the EW rate will be in line for proficiency pay and variable reenlistment bonus in accordance with existing regulations. Navymen eligible for conversion to the new rate must have experience in electronic warfare or possess one of the following Naval Enlisted Classifications: RD-0312, RD-0334, RD-0355, ET-1592, ET-1593, or ET-1595. With the exception of radarmen holding the NEC 0335, Navymen must be in pay grades E-6 and below to be eligible for conversion. Deadline for conversion requests is 1 Oct, except for radarmen with NEC 0334, who should defer their requests until after that date. See BuPers Notice 1440 (30 Dec 70) for all the details.
DRILL REQUIRED FOR MOST 2X6 RESERVES
Faced with a serious shortage of petty officers in the Selected Reserve, the Navy has had to change its policy on drills for enlisted Reservists who have completed their active duty. As a result, most 2X6 Reservists now on active duty will be required to drill and to participate in two weeks' annual active duty for training, after their release from active duty. Among Reserve Navymen exempt from this drill requirement are those who:
- Are not recommended for reenlistment.
- Have places of residence not within reasonable commuting distance (usually 50 miles or 1 1/2 hours of driving time) of a Naval Reserve training activity.
- Have failed to advance to pay grade E-3.
- Have served on active duty in a combat zone and received hostile fire pay, or who were wounded in a combat zone.

For more details, see NavAct 05 (15 Dec 70) and CHNAVPERS message 042041 Jan. See also the February issue of "The Naval Reservist" for a full report.

EMERGENCY LEAVE TRAVEL AT GOVERNMENT EXPENSE
Reports reaching BuPers suggest that some Navymen may not be aware of extended authorization for emergency leave travel at government expense, approved last year by Secretary of Defense Melvin R. Laird. Briefly, transportation may now be provided at government expense, where a Military Airlift Command (MAC) channel exists, for round-trip travel on emergency leave from: overseas to a place within the continental U. S.; within the U. S. to a place overseas; or an overseas station to a place outside the U. S. Travel at government expense cannot be extended from or to the terminus of available MAC transportation, however. See BuPers Manual, article 3020400.

SKY MARSHALS NEEDED
Looking for an interesting job, with lots of travel, after retirement or separation from active duty? The Bureau of Customs needs about 2100 new security officers by this July to replace temporary agents now riding as armed guards on passenger aircraft. If accepted, you'll be eligible for release from active duty up to 90 days early and will complete a four-week training program before starting your new job. You'll be hired at Civil Service grade GS-4, GS-5 or GS-7, depending on your qualifications, with a starting salary between about $6000 and $8000,
plus a cost of living allowance in some areas. You'll receive all normal Civil Service benefits, with ample opportunities for paid overtime and promotion to GS-9, or even higher as a special agent.

To qualify, you must be a male U.S. citizen at least 21 years old, eligible for honorable discharge, without a serious police record and in excellent physical condition. You also must take and pass the Civil Service exam and a rigid physical examination (taken at your own expense), plus psychological testing, background investigation and personal interview by Customs officials. For more information, see BuPers Notice 1910 (22 Dec 70) and contact your base Transition Site Officer or your command's Transition Officer.

**EXCESS LEAVE TO STUDY LAW**

The Excess Leave Program (Law) allows selected Regular officers, LTs and below with between two and six years of commissioned service, to take leaves of absence of up to three years without pay, in order to obtain law degrees. Selected candidates must bear all law school expenses, but retain eligibility for all active duty benefits except pay and allowances. They remain on the lineal list and become eligible for promotion under the same conditions as if they were not in an excess leave status. Before applying, an officer must have a conditional letter of acceptance from a law school approved by the American Bar Association. Application procedures are outlined in BuPers Instruction 1520.99 series. Interested officers are encouraged to apply to the Chief of Naval Personnel (Pers-C312) no later than 15 May.

**TWO PATHS TO THE NAVAL ACADEMY**

Enlisted members of the Navy and Marine Corps, both Regulars and Reserves, now have two paths to seek appointments to the Naval Academy. They may apply to attend the Naval Academy Preparatory School at Bainbridge, or if they have excellent school records and believe they are capable of college work, they may apply for direct nominations to Annapolis. This year, 30 May is the deadline for Preparatory School applications for the academic year that runs from 23 Aug 71 through May 72 for candidates seeking admission to Annapolis in Jun 72. (Recruits may submit applications until 15 Jul.) Although the application deadline was 31 Jan for the NA class beginning this Jun, now is a good time to begin applications for direct nomination to Annapolis in Jun 72. Requirements and application procedures are in BuPers Notice 1531 series and NavOp 02 (5 Jan 71). Look for more on this subject in an upcoming issue.
WITH JUSTICE FOR ALL —
Navy Tackles Racial Challenge

OUrS MUST BE A NAVY FAMILY that recognizes no artificial barriers of race, color or religion. There is no Black Navy, no White Navy—just one Navy—the United States Navy.

There are two keys to the problem of racial discrimination in the Navy, says the Chief of Naval Operations in a message to the Fleet (NavOp Z-66) announcing steps to ensure fair treatment for all Navymen and their families. The Z-gram came in response to Secretary of the Navy John H. Chafee’s call for “specific changes and improvements” in this field. (See ALL HANDS, Jun 71, p. 38)

“First, we must open up new avenues of communication . . . so that we may learn what and where the areas of friction are,” says CNO. “Second, all of us in the Navy must develop a far greater sensitivity to the problems of all our minority groups.”

Admiral Zumwalt cites the discrimination that Black Navy families still experience in trying to find housing as one of the most distressing problems. He urges all Navymen to use existing authority and directives (such as SecNav Instruction 5350.12 series) which protect servicemen’s rights to fair housing.

A N IN-DEPTH INVESTIGATION is also underway which is expected to solve the most acute housing problems.

CNO also calls for concrete measures to help answer the justified complaints and fill the special needs of minority Navymen and their families. Many of these complaints and needs have surfaced during recent retention study group meetings, where Admiral Zumwalt himself says he was struck by “the depth of feeling of our Black personnel that there is significant discrimination in the Navy.” Among these measures are:

- All commanding officers are appointing minority Navymen (officers or senior petty officers) as their special assistants for minority affairs, and will consult them closely on all matters regarding minority groups.
- Navy wives from minority groups will be included in the program which provides dependents a direct channel of communications to COs of shore commands. (See ALL HANDS, Oct 70, p. 30)
- Black grooming aids will be stocked by ship’s stores and cosmetics suitable for minority dependents will be available in Navy exchanges.
- Shore stations will employ at least one qualified Black barber or beautician and will work toward the goal of having adequate numbers of barbers trained in hair care for Blacks.
- All major commissaries will stock foods and produce frequently requested by minority groups, and will solicit recommendations for such foods from their minority group customers.
- Books, magazines and records by and about Black Americans will be available in Navy libraries, ward-rooms and clubs.
- Special Services offices that handle discount tickets will attempt to obtain these tickets for events of special interest to minority groups.

THERE ARE ONLY THE FIRST STEPS. The new Special Assistant to CNO for Minority Affairs, Lieutenant Commander William S. Norman, will be visiting major naval activities in the U. S. to discuss problems with COs, minority Navymen and their dependents. As problems become clearer, further steps will be taken to eliminate “those demeaning areas of discrimination that plague our minority shipmates,” CNO concludes. “There is no place in our Navy for insensitivity.”

PAY and BENEFITS

IN MANY AREAS, the Navy itself has no authority to act in order to reduce retention problems. Authority to raise pay scales and adjust levels of compensation, for example, rests with Congress. Legislative changes to public law, passed by both houses of Congress and signed by the President, can affect your paycheck, your family’s protection in case of your death, and any special compensation for which you may be eligible.

The main “service” bills of the 91st Congress, signed into public law by President Nixon, include:

Special Pay (PL 91-20)—Provides special pay for nuclear submarine officers who agree to remain on active duty for an additional four years. To be eligible for a bonus of up to $15,600, an officer must be qualified in submarines and as engineering officer of the watch on a naval nuclear propulsion plant. Authorization for special pay expires 30 Jun 1973.

Duty Free Gifts (PL 91-180)—Extends existing laws which allow duty-free entry of gifts not exceeding $50 in retail value to Navy men serving in combat zones.

Per Diem (PL 91-183)—Increases maximum per diem rates from $16 to $25 per day, and raises the maximum amount which may be reimbursed when actual expenses are paid from $30 to $40 per day.

Savings Deposits (PL 91-200)—Removes the $10,000 limit on special 10 per cent savings deposits for service men who are prisoners of war, missing in action, or in
a detained status during the Vietnam conflict.

Travel to Home Port (PL 91-210)—During overhaul authorizes round-trip transportation at government expense to home ports for Navymen attached to ships being overhauled away from home ports. Entitlement arises on the 31st, 91st and 151st day after the ship enters the overhaul port. Navymen attached less than 30 days are not eligible, nor are crewmembers of ships being decommissioned away from home ports.

Assistance for Veterans (PL 91-219)—Increases rates paid to eligible veterans for vocational rehabilitation, educational assistance and special training, as well as improving educational programs for veterans and their dependents.

Tax Relief for Pueblo (PL 91-235)—Provides income tax relief to the Pueblo crew by providing that servicemen illegally detained in North Korea during 1968 were serving in a combat zone.

Prisoners of War (PL 91-289)— Grants servicemen held as prisoners of war for any period between 5 Aug 1964 and the official ending of the Vietnam conflict the same benefits as those granted to POWs during World War II and the Korean conflict. Also increases these benefits to $5 per day.

Life Insurance (PL 91-291)—Increases coverage under Servicemen’s Group Life Insurance (SGLI) to $15,000, broadens eligibility, and improves insurance programs for servicemen and veterans.

Special Leave (PL 91-302)—Continues authorization to grant special 30-day leave for servicemen who voluntarily extend tours in hostile fire areas.

Saved Pay (PL 91-484)—Provides that enlisted servicemen who accept commissions will not receive less than the pay and allowances they were entitled to as enlisted men.

Overseas Per Diem—Authorizes payment of two special cost-of-living allowances to servicemen stationed outside CONUS: one per diem based on cost of housing compared to BAQ; and a per diem based on cost of living, including subsistence and incidental expenses other than housing. This applies also to Alaska and Hawaii.

FSA Without Household (PL 91-529)—Provides that family separation allowance will be paid to eligible servicemen, even though they do not maintain separate residences or households for their dependents.

FSA in Government Quarters (PL 91-533)—Authorizes payment of family separation allowance to eligible servicemen (PO3s over four, and above) who reside in government quarters.

FSA, POW/MIA (PL 91-534)—Provides that a family separation allowance of $30 per month shall be paid to any member of a uniformed service who is a prisoner of war, missing in action, or in a detained status during the Vietnam conflict.

Extension of Benefits (PL 91-584)—Authorizes educational assistance to wives and children, and home loan benefits to wives of members of the Armed Forces who are missing in action, captured by a hostile force, or interned by a foreign government or power. These benefits are available through the GI Bill of Rights and do not decrease the benefits available to the member upon his return.

Federal Pay Comparability Act of 1970 (PL 91-656)—gives authority to the President to annually adjust the salaries of Civil Service classified employees and Military Personnel based upon comparable salaries of private industry. An increase for Civil Service employees results in a corresponding increase for military personnel. The pay increase announced by the President is for 7.9 per cent for military personnel retroactive to 1 Jan 1971.

Rent Supplements (PL 91-609)—Housing and Urban Development Act of 1970. This Act includes low-income military families in category eligible for rent supplements. Also provides authority for a preference or priority of occupancy for low-income military families in housing projects assisted under the National Housing Act.
NAVY FAMILIES ARE TRAVELING MORE TODAY than ever before—some accompany their Navymen for an overseas shore tour, some meet his ship in an overseas port, and still others reside in a foreign port city for the duration of his ship's deployment.

In each of these cases, there are many things to be considered—things which, if neglected, can lead to much difficulty and inconvenience for the Navy family.

If you are assigned to an overseas shore activity, or your ship will be officially homeported overseas, you'll receive a thorough indoctrination from the command to which you will be attached. However, if you are aboard a ship that is still officially homeported in the U. S. and wish to bring your dependents overseas to meet you—for two weeks or two years—there are some important things that you should know.

A dependent's trip overseas means a lot of advance planning—coordinating the visit with leave periods, getting a passport and the required immunization shots, financial considerations, etc. It is virtually impossible for the family to know all the details of planning, especially if this is its first trip of this kind. What must be known is where to find this information.

IN GENERAL, YOU CAN GET ANY INFORMATION YOU'LL need from sources—usually starting with the personnel office—within your command. However, many valuable references are available to your dependents at home.

In addition to the popular guidebooks which may be purchased, and references in the library, there is free—and possibly the best—travel information offered by the tourist divisions of the various embassies and legations in Washington, governmental tourist offices in the various countries, and the Chief of Naval Personnel (Pers-P511). These agencies send brochures upon request.

A MUST FOR YOUR WIFE'S TRIP OVERSEAS is the passport; and in some cases—depending on the countries involved and the duration of her visit—a visa may also be required. The visa, issued by the foreign country to which you are traveling, is an official seal stamped inside the passport before entry into the country.

Your wife can get a passport application and all the information she'll need at the local post office, the passport office, or an American consulate. The passport—which costs $12—is usually received within approximately two weeks after the application is submitted, but if there isn't that much time, it's possible to obtain it in a shorter period at the State Department in Washington—sometimes as fast as one day, if the matter is sufficiently urgent.

The passport—with required visas—is the most im-
portant document for foreign travel, and your wife should keep it with her at all times. If it is lost while abroad, report the loss immediately to the nearest embassy, consul, or naval attaché.

If you’re going to travel outside the port city, you should check to be sure that your I.D. card is a sufficient “passport.” In some countries, you’ll be required to have an actual passport. Also, your leave papers must include every country you expect to visit.

Your wife should also visit the dispensary—or the local office of the Public Health Service—early to bring her immunization record up to date. A valid certificate of vaccination against smallpox no more than one year old is required to get back into the United States, and medical personnel will give her advice on other inoculations needed or suggested.

One of the most exciting parts of your wife’s overseas trip may be the actual travel, but making arrangements for the trip can, to say the least, be somewhat challenging. Knowing what to do and where to look for the answers to questions will make it a great deal easier. It is rarely possible to travel by commercial ship or even freighter (unfortunately, this kind of travel is almost a thing of the past). In any event, time is usually limited and she’ll probably want to fly.

International regulations require all airlines to charge the same fares and provide comparable facilities and food. If there is ample time to make arrangements, your wife can fly less expensively on a chartered flight. These flights are sponsored by various groups, and are usually much cheaper than regular rates.

One of these charter clubs for military personnel and their dependents is the United Service Club, which sponsors flights from New York and Los Angeles to Frankfurt, Germany. The one-way fares for these jet flights are about $70 and $100, respectively. Further information is available if you write to the address listed in the box accompanying this article.

Another well-known organization of this type is the Davis Travel Agency (see box for address). Its round-trip fares between New York and Frankfurt vary with the season, but are very reasonable.

In some cases, the ship-sponsored wives’ club will, with the help of such an agency, organize a charter flight if there are enough interested wives. This is usually a good way to go; the price is reasonable—and sometimes includes “holiday specials”—and the flights are scheduled on the basis of information available from the command about its activities during a given period.

After travel arrangements have been made, the passenger should confirm the flight at least 72 hours in advance of takeoff time to ensure its departure.

If you have enough time, you’ll probably want to do some traveling after she arrives. In most countries, you can buy, lease—for the duration of your time overseas—or rent (for short periods) a car. Special insurance coverage must be arranged by the dealer, and you’ll need an International Driver’s License; so plan well in advance. Gasoline and oil are generally more expensive overseas, but reduced rates are available at most U.S. installations.

In most countries, travel by train is the most economical and efficient. If you’re going to travel in Europe, your best bet is to buy a Eurailpass before you leave the States. The cost of these passes varies with the class of travel and the length of time that it may be used.

One word of caution: water aboard trains is never drinkable.

For a change of pace at a reasonable price, you can travel between port cities by ship. Large cruise liners often accept passengers for short trips, and some passenger-carrying freighters will even carry your car.

If you’re meeting your wife for R & R, there will be some special arrangements to be made. After your period of R & R has been verified, you should send her three copies of your orders stamped with a facsimile of DD form 1580. This will enable her to get an airfare discount (to Hawaii only) on some commercial airlines. You should make airline and hotel reservations well in advance, and it would be wise to request information brochures from the Armed Forces Recreation Center and the Hawaii Visitors Bureau (see box for addresses).
When you're planning the trip, use all the information you can get—it may save you time, money, and frustration.

If your ship is homeported in the U. S., but will be spending a lot of time in one particular overseas area, you may, at your own expense, bring your dependents to that area for the duration of your deployment. However, this is discouraged, mainly because it may result in some unexpected complications.

For instance, in some overseas areas, personnel in this situation are not legally eligible for base housing, and even if they are, it may not be available. The Navyman must then look for civilian-owned housing, which is often of low quality and at a premium price.

Another area you should explore is the use of commissary and exchange privileges, as well as related facilities normally available on stateside military installations. If you are not attached to the overseas activity, your dependents may not be able to take advantage of these services unless you accompany them.

If you have children, one of the most important things to consider is their schooling. Most U. S. activities overseas include a normal school system for dependents. But again, if you are not attached to the overseas activity, your children may not be able to attend these schools except on a space-available basis and for a substantial tuition fee.

In this respect, if you wish to ensure your children's continuing education, you may want to inquire about schooling by correspondence or tutorial service.

The Calvert School gives courses for children in grades one through eight, as well as a child training course for four- and five-year-olds. High school correspondence courses are also available, and even a two-year liberal arts college—run by the University of Maryland—is available for dependents of personnel stationed overseas (see box for addresses).

The regulations governing these and other areas which may affect the personal lives of servicemen overseas are based on the Status of Forces Agreement and similar contracts with foreign countries. These pacts were created to define the rules and regulations which apply to military personnel stationed in overseas areas.

In general, base policies are set up to comply with the policies of the host government—as long as they don't violate any rights of the U. S. They must protect the interests of both the U. S. and the country in which the activity is located.

For instance, military personnel and their dependents who are "command-sponsored" by a U. S. activity in a foreign country are usually eligible for the same benefits (commissary and exchange privileges) as a member of that country's military component.

This, however, does not include Navy men deployed on ships which are still homeported in the States. This is the policy of the host government, and the Navy is obligated to comply with it.

In most cases, commanding officers of units deploying to overseas areas where families might want to follow conduct extensive briefings and distribute literature to provide the Navyman with pertinent information.

You should also consult the senior command in the area to be visited, especially in regard to Military Base Agreements and the regulations of the specific command of your interest.

If you're planning to bring your dependents overseas to meet you, leave yourself plenty of time to prepare. And whatever you do, make sure you check everything thoroughly with authentic information from an authorized source.

—JO2 Jim Trezise

---

**Some Tips for the 'Lone' Navy Traveler**

The following example illustrates the hardship you may encounter if, in planning to bring your dependents overseas at your own expense for an extended period of time, you do not thoroughly investigate all of the factors involved:

A Navy commander attached to a ship homeported in the U. S. decided to move his family, at his own expense, to an overseas port. His ship was scheduled to spend most of its time at the overseas port, and there was a six- to eight-month waiting list for base housing at the home port.

Although he and his family were familiar with the area, he requested and received—well in advance of the moving date—an information booklet from the activity of his interest. This booklet, however, was designed for personnel officially attached to the overseas activity, and did not include the regulations—as governed by the Status of Forces Agreement—concerning ship-based personnel and their dependents (that is, ships homeported in the U. S.).

After the commander had moved his family overseas, he learned that they could not use the post exchange, commissary, or post office—and that, although there was space available in the base school, his children could not attend except for a $700 tuition fee.

If he elected to stay in the overseas area, the monetary loss would have been over $2000 a year; if he moved his family back to the states, the cost of traveling would have been equally damaging. And while he was trying to resolve the situation, his children were losing time in school.

The commander pleaded his case to the cognizant authorities, but because these regulations involved the policies of other nations, he could not be granted exception to them.
Sources of Information

Planning to bring your dependents overseas? The agencies listed below can be very helpful. Keep in mind also the local chapters of various service organizations such as the U.S.O., the YMCA and the Navy Relief Society.

For travel:
- United Service Club, Room 122, Aerial Port Hotel, Rhein-Main Airbase, Frankfurt, Germany.
- United Service Club, Post Office Box 1722, New York, N. Y. 10001.
- The Davis Travel Agency, 6 Frankfurter Main, Niedenau 10, Frankfurt, Germany. State-side addresses:
  - Military Travel Service, Inc., P.O. Box 127, Cookstown, N. J. 08551.

For schooling, check with any of the following:
- Calvert School, Tuscany Road, Baltimore, Md. 21210.
- University of California Extension, Berkeley, Calif. 94720.
- University of Nebraska, University Extension Division, Lincoln, Neb. 68508.
- University of Maryland, College Park, Md. 20850.

For general information:
- Armed Forces Recreation Center, Fort DeRussy, APO San Francisco 95368.

Helpful Hints on Travel

You may benefit from these do's and don'ts on overseas travel, which are drawn from the experience of veteran travelers.

Do
- Leave yourself plenty of time to prepare.
- Plan your budget carefully, with an eye for hidden expenses.
- Use travelers' checks, preferably in $10 and $20 denominations. They're safe, replaceable, and always negotiable.
- Convert your money at military installations whenever possible.
- Always carry a current I.D. card.
- Check on mail service via American Express.
- Get an International Driver's License with the help of the American Automobile Association.
- Pack light—take only what you need, and not more than you can carry. It will take a load off your mind.
- Take a good supply of items that you need—such as prescription medicines—which may not be readily available overseas.
- Make all reservations well in advance, allowing plenty of time for confirmation.
- Try to communicate. Small language books—offered by the Bureau of Naval Personnel (Pers-C)—can be very helpful.

Don't
- Don't carry a lot of cash. It is convenient to carry a number of dollar bills, but the bulk of your money should be in a form negotiable only by you.
- Don't become involved in the black market. The illegal exchange of currency is a serious problem to American and international authorities.
- Don't leave your passport in your suitcase, a hotel room, or any place where it could be stolen or lost.
COLLEGE FOR DEPENDENT CHILDREN of Navy and
Marine Corps people is not the impossible dream
—the financial burden can be eased and a good place
to start checking is the various scholarship programs
which are available this year as in past years. There's
a solution to every problem but the key to the
situation is advance planning.

Sending one's youngsters off to college requires
hard work and cooperation on the part of the entire
family, but it can be achieved. In addition, your
position as a member of the armed services will fre-
quently be to your advantage.

Part-time work by the college student and summer
employment offer a partial solution. Scholarships will
help carry the balance of the load.

Almost all colleges and universities, especially those
in large urban areas, have provisions for after-hours
student employment. Before your son or daughter en-
rolls, they can probably line up a guaranteed job for
as many hours as they can manage. The pay isn't
great, but it helps.

SCHOLARSHIP OPPORTUNITIES

For Navy
Dependents

A large number of the scholarships mentioned
in this article are handled through the Bureau of
Naval Personnel. In the case of scholarships
which are so indicated, for information and ap-
lication forms write to this address:

Chief of Naval Personnel
Dependents' Scholarship Program (Pers-P511)
Navy Department, Washington, D.C. 20370

A note of advice: start early, and remember
that the completed applications must be in the
Bureau by 15 May.

A number of the scholarships are handled di-
rectly through the individual activities or agen-
cies which sponsor them. These activities and
their addresses are included in the information
concerning the scholarship involved.

To save time and meet deadlines, write only to
the address indicated.

Freshmen are usually cautioned against overloading
themselves with part-time employment. Many find
there is a considerable difference between the ac-
dademic demands of high school and college, and some-
times overestimate their capacity for off-duty employ-
ment. Most, however, can manage a few hours of
income-producing work each week.
Your young college student can also finance part of his education by putting off until tomorrow what he can’t do today. In other words, he can apply for an education loan. Such loans are payable after graduation and interest, if any, is not charged until the education is completed and the student presumably begins to earn his own living.

The Office of Education in the state in which you live usually is the best source of information on this subject. You may be surprised to learn how many education loans are available to students in your community. Other sources available to naval personnel are listed later in this article.

Another source of financial help for your children’s college education is a grant-in-aid, or a scholarship. Frequently these two terms are included under the term “scholarship,” but there is a difference between these two types of aid.

Technically, a grant-in-aid is a stipend paid for the possession of a special talent in the fields of music, art or athletics, for example. A scholarship, on the other hand, is a grant of money or tuition to a student who is expected to maintain a specified grade average, although frequently other conditions are also attached.

There are a number of scholarships available locally and offered at the college your child chooses to attend. If your son or daughter is still in high school, the school guidance counselor probably will have a list of scholarships available to local students and those offered by the school of his choice. Frequently information of this nature is also available in the school catalog.

The terms under which scholarships are awarded often specify need as one of the conditions. This is a misleading term implying that the student must be a charity case before he is eligible.

Parents are considered to be responsible for educating their children but they are not expected to do so at the expense of incurring large debts.

The boards which award scholarships consider the student’s personal income, if any, then add the income he has from part-time employment and the amount his parents can provide for his education. If the total reached in this calculation does not equal the amount required to send him to college, then he is in need of assistance. This can happen even though the annual income of the student’s parents might reach well into the five-figure bracket.

There are thousands of scholarships available to the general public, and even listing all those available only to children of military personnel is out of the question. Here, however, is a partial list of scholarships offered to children of active duty, retired and deceased military personnel.

Clausey Medal of Honor Scholarship Foundation—Makes an outright grant of not more than $500 to the child of a Navymen or Marine who was killed in action or died as the result of combat injuries during World War II, the Korean conflict or the Vietnam era.

It is also awarded to the children of Navymen and Marines who died in service or of a disability incurred or aggravated during World War II, the Korean conflict or the Vietnam era, but not officially recognized as such.

The applicant must need financial assistance and be a graduate of an accredited high school or its equivalent, or one who will qualify for graduation before the beginning of the next academic year.

High school scholastic record must be reasonably sound, and the applicant must be physically capable of undertaking the academic work required of him and be of good moral character.

For information on this scholarship, write to the BuPers address listed at the beginning of this article. Deadline for receipt of applications is 15 May.

Dolphin Scholarship Foundation—Established for the sons and daughters of members and former members of the silent service.

Parent must have been qualified in submarines and have served in the sub force for at least five years after qualification. He may also have served in submarine support activities for at least six years. These qualifications do not apply insofar as time is concerned to the children of submariners who died on active duty.

Awards are made on scholastic proficiency, character, all around ability and financial need. Applicants must be graduates of an accredited high school and intend to work toward a BS or BA degree.

For information and application forms write to the BuPers address listed at the beginning of this article.

The Fleet Reserve Association Scholarships—The Schuyler S. Pyle Scholarship is awarded annually in the amount of $500 to the children of Fleet Reserve Association member in good standing. The member may be active, receiving retainer pay, retired or deceased.

The award is made on the basis of need, scholastic standing, character and leadership. The money must be used for educational expenses at an accredited college during the academic year in which the award is made.

The Fleet Reserve Association also offers a $500 tuition scholarship to the children of Navymen (active, retired or deceased) to be used at the accredited college of the recipient’s choice.

Ladies Auxiliary of the Fleet Reserve Association Scholarship—An award of $250 (possibly more this year) is made to a daughter of a Navymen or Marine who may be on active duty, in the Fleet Reserve, retired with pay or deceased.

Another scholarship amounting to $500 is awarded annually to the son or daughter of a Navymen or Marine as mentioned above.

For information and application forms write to the BuPers address listed at the beginning of this article.

Marianas Naval Officers' Wives' Scholarship—Provides $750 which is awarded annually for education at the undergraduate level to one or two applicants showing the most scholastic promise.

Applicants must be dependents of Navymen or Marines on active duty, retired with pay or deceased in
line of duty or after retirement. They must also be high school graduates (or the equivalent). Qualifying students already attending college may also apply for the scholarship which may be renewed from year to year.

For information and application forms write to the BuPers address listed at the beginning of this article.

**Naval Academy Women's Club Scholarship**—Awards a four-year scholarship which provides the recipient $1000 per year for four years.

The recipient must be the daughter of a Naval Academy faculty member, a Regular Navy or Marine Corps officer on active duty or retired with pay, or the daughter of a deceased officer of one of the former categories.

Scholarship, character and need are the basis for awarding the grant which is renewed annually if the recipient maintains her scholastic standing and as well as meeting other requirements.

Applications can be obtained from the BuPers address listed at the beginning of this article or from the Scholarship Chairman of the Naval Academy Women's Club, Annapolis, Md.

**New York Council Navy League Scholarship Fund**—The New York Council Navy League offers an unspecified number of annual scholarships starting at $750 each.

The recipients must be the dependents of Regular Navymen or Marines serving on active duty, retired with pay or who died in line of duty or after retirement. Preference is given to children of Navymen or Marines who are or have been stationed in the Third Naval District. Eligibility requirements specify that the recipient be a high school graduate and that student already enrolled in college may apply.

Award is made on the basis of scholastic standing, character, leadership and need.

For information and application forms write to the BuPers address listed at the beginning of this article.

**Navy Wives Clubs Scholarship Foundation**—Qualifications specific that the recipients of these scholarships be the child of an enlisted Navymen or Marine or a member of the Coast Guard. The parent must be on active duty, retired with pay or deceased while on active duty or following retirement. Dependents of discharged personnel are not eligible for consideration.

The applicant must be a graduate of an accredited high school or its equivalent or one who will qualify for graduation before the next academic year begins. Students already in college may also apply. Applicants must have reasonably sound scholastic standing, be physically capable of completing their studies and be of good moral character.

The Foundation makes an outright grant during the freshman year and the grant may be renewed for subsequent years if the student's work is satisfactory.

For information and application forms write to the BuPers address listed at the beginning of this article.

**Submarine Veterans of World War II Scholarship**—Annual scholarship awards of $350 are made to sons and daughters of submariners who were paid-up members of U.S. Submarine Veterans of World War II.

Applicants must be seniors in a secondary school or have graduated not more than a year before they apply. They cannot be married or ever have been married.

The award will be made on the basis of need and scholastic standing in high school and renewal of the scholarship will depend upon the student's progress and conduct.

Application forms may be obtained from Submarine Veterans Chapter Presidents, State Commanders or BuPers address listed at the beginning of this article.

**Stanford F. Zimet Memorial Scholarship**—Awarded annually to the son or daughter of a Navy Supply Corps officer, supply clerk or enlisted man whose path of advancement leads to supply clerk.

The scholarship in the amount of $700 is awarded for the freshman year only on the basis of character, need and leadership qualities as well as scholastic ability.

For information and application forms write to the BuPers address listed at the beginning of this article.

**Levin M. Powell Scholarships**—Awarded annually to outstanding members of graduating classes of secondary schools and to incoming freshmen who wish to prepare for entrance into the U.S. Naval Academy.

Applicants must have been accepted for enrollment at the George Washington University, Washington,
D. C. Enrollment applications may be obtained from the Office of Student Financial Aid.

The Powell scholarships are awarded in equal parts for each semester and the recipient must carry a full schedule of academic work while he is receiving the grant.

Scholarship application should be made in writing before 1 February for the following academic year to the Office of Student Financial Aid, The George Washington University, Washington, D. C., 20006.

Society of Sponsors of the United States Navy—Offers scholarships to Navy career-motivated students entering preparatory schools to prepare them for entrance to the U. S. Naval Academy. There are three categories of eligible and choices are made in descending order: Category I includes the sons of deceased, retired and active Navymen and Marines. Category II includes the sons of personnel of other military services and Category III takes in the sons of civilians.

Award will be made on the basis of character, aptitude for the naval service, scholastic standing, physical fitness, and financial need.

Application blanks may be obtained from Mrs. Edward Cochrane, Jr., 9814 Lynnhurst Drive, Fairfax, Va. 22030.

Daughters of the Cincinnati—Offer scholarships only for the daughters of Regular Navy, Army, Air Force or Marine Corps officers.

The applicant must have a high scholastic record and submit a transcript of recent grades. She must also have three letters of recommendation from teachers and one character reference.

The parent of the applicant must submit a statement showing need for financial aid.

In most cases, the annual scholarships are elective to a four-year course in a college of good standing. However, the applicant's record will be reviewed each year by the Committee.

Further information may be obtained from Daughters of the Cincinnati, 122 East 58th St., New York, N. Y. 10022.

Massachusetts Institute of Technology, Cambridge, Mass.—Sons and daughters of Regular Army, Navy, Air Force, Marine Corps and Coast Guard officers who are admitted as undergraduate students to the Institute may receive half the regular tuition upon the recommendation of the Student Financial Aid Committee on undergraduate scholarships. The total number will not exceed 10 each year.

Applications should be addressed to the Director of Student Aid and should be accompanied by documentary evidence that the applicant's father is a commissioned officer in the regular Army, Navy, Air Force, Marine Corps or Coast Guard.

The award is renewable upon recommendation of the committee during the succeeding undergraduate years.

The Grace Moore Brewer Memorial Scholarship—Established at the Medical College of Ohio State University, is awarded annually by the Dean of the College of Medicine, Ohio State University.

The amount is determined by the earnings of the endowment fund when completed. It is usually in the vicinity of $1000. Preference is given to a direct descendant of a veteran of WWI, WWII, the Korean conflict, or any future war.

The veteran must have been permanently disabled or lost his life as the result of his service.

The applicant must also meet the requirements for admission to the College of Medicine and must be in need of financial assistance. The award begins with the premedical year and continues through the medical college until the degree of M.D. is earned, provided the student is enrolled as a full-time student.

The recipient of the award must attend the Medical College of the Ohio State University but he does not have to be a resident of Ohio. He is expected to specialize in the field of research or treatment of cancer until the disease has been conquered. This, however, is not a fixed requirement.

AMVETS Memorial Scholarships—Are available to high school seniors whose fathers (or mothers) are deceased or totally disabled veterans of military service during World War II or the Korean conflict. Service must have been honorable and with the U. S. armed forces.

Parent's death need not have been service-connected. Disability, however, must be service-connected and in addition must be rated 100 per cent by the Veterans Administration.
**Interest-free Loans Available to Students**

Interest-free loans to student dependents of members of the naval service, who hope to attend college or other institutions of learning, are available from the Navy Relief Society. Loans may range up to $1250 per year per student, depending upon individual needs and family circumstances such as size, assets and income.

Those eligible are dependents, under age 23, of Regular Navy and Marine Corps personnel, active duty or retired. Also eligible are dependents of Reservists on continuous active duty, retired for physical disability, or retired with 20 years of active duty.

Types of schools to be attended include accredited colleges, vocational schools or prep schools for service academies.

Loans are made directly to the dependents, with the stipulation that repayment begin six months after graduation.

The annual application deadline is 15 March.

For complete information, write to the Navy Relief Society, Suite 1228, 801 No. Randolph St., Arlington, Va. 22203.

Scholarships provide financial assistance for undergraduate study at any accredited college and grants range from $500 to $2000 for four years.

Selection is based upon competitive college aptitude examinations given in the applicant's high school; the applicant's high school academic record and his financial need.

Application forms are available during January and February from any AMVETS post, National Service Officer, AMVETS National Scholarship Program, 1710 Rhode Island Avenue, N.W., Washington, D. C. 20036.

Deadline for return of applications is 25 February.

**American Legion Auxiliary Scholarship Fund**—In varying amounts up to $3000 for daughters and sons of honorably discharged World War veterans who have lived in Florida at least five years before application.

Applications should be made to the Department Secretary-Treasurer, P. O. Box 4573, Jacksonville, Fla. 32201.

**Knights of Columbus**—Maintain a one-million dollar educational trust fund as a memorial to members of the order.

The scholarships are for four years and include allowances for tuition, board and room, books, laboratory fees and other incidental charges at a Catholic college or university.

In addition, many state and local councils of Knights have scholarship programs with varying eligibility requirements and benefits for the applicant.

Scholarships are available to the sons and daughters of Knights who were killed or became totally or permanently disabled as the result of World War II, the Korean conflict or Vietnam era.

Further details may be obtained from local or state councils of the Knights of Columbus or by writing to Director of Scholarship Aid, Knights of Columbus, Drawer 1670, New Haven, Conn. 06507.

**American Legion Scholarships**—The National High School Oratorical Contest provides an opportunity for the four finalists to receive scholarships to attend any college or university in the United States. The amount awarded to the winner is $4000, the runner-up receives $2500, third-place winner receives $1000 and the fourth-place winner receives $500.

There are an estimated several hundred scholarships for oratorical contest participants awarded at post, district and state levels. Rules can be obtained from principals in those schools which participate in the contest or from the local Legion post or from the state department headquarters of the American Legion.

The National President's Scholarship awards $1500 each, one in each of five divisions. Candidates must be daughters of deceased veterans who served in World War I, World War II, the Korean conflict or the Vietnam era, are in their senior year or graduates of an accredited high school, but have not yet attended an institution of higher learning. They must be in actual need of help to continue their college education.

Information and applications may be secured before 15 March from the educational and scholarship chairman of the auxiliary unit in the applicant's own community or from the department secretary.

The Forty and Eight Nurses Training Program sponsors nurses' training through its local units.

**The Defense Supply Association (New York Chapter)**—Has established an annual $500 college scholarship award for the children of military personnel in the New York area.

Sons and daughters of active, retired or deceased members (officers or enlisted) of the military establishment in the New York City area are eligible. The New York area is defined as the area within the radius of approximately 100 miles of New York.

Besides scholastic standing, other criteria will include leadership qualities and financial need.

Navy dependents may request applications from Commandant, 3rd Naval District, 90 Church Street, New York, N. Y. 10007.

As mentioned before, loans are available under the United Student Aid Funds program to students attending college. Most of these loans are available at a low rate of interest which begins upon graduation and no amortization of the principal is expected until after graduation.

Two programs under which loans are granted to Navy dependents are listed here:

**Retired Officers Associations Scholarships Program**—Offers an honor loan, interest-free, not to exceed 15 months 28 days after graduation.

**American Legion National Scholarship Program**—Has established an annual college scholarship award for sons and daughters of deceased veterans who served in World War I, World War II, the Korean conflict or Vietnam era.

Scholarship applications are available from any AMVETS post, National Scholarship Director, AMVETS National Scholarship Program, 1710 Rhode Island Avenue, N.W., Washington, D. C. 20036.
$400 yearly for four years to help defray expenses in institutions of higher learning.

Loans will be authorized on a basis of character, scholastic aptitude and financial need.

First year students must furnish a transcript of their high school records together with a statement that they are accepted for, and qualified, to pursue college or university work at the institution selected.

For following years, a transcript of the candidate's record for the year preceding his or her application must be furnished.

Also required is a statement that the candidate is without adequate means to engage in higher education, supported by a separate statement from the parent or guardian that the latter is unable, without hardship, to provide the necessary expenses.

Character references from at least two reputable persons are desired and an assurance that the candidate will sign a statement promising to repay in full, without interest, any loan as soon as possible after graduation.

Specific questions will be answered by the Secretary of the Scholarship Committee, 1625 Eye Street, N.W., Washington, D. C. 20006.

Benjamin Franklin Hutchison Fund—Derived from a bequest to the Navy Relief Society, this scholarship became available in 1968. Income from the fund will produce about $550 per annum and will be used to support a Naval Academy Prep School student (or students).

Applicants must be the sons of Navy or Marine Corps officers (active or retired with pay or deceased) who are preparing for entrance to the Naval Academy by attending a Naval Academy Prep School.

Full details and applications can be obtained from the Naval Academy Foundation, Inc., 48 Maryland Avenue, Annapolis, Md. 21401.

Robert Crown Memorial Scholarship—The Robert Crown Memorial Scholarship has been established to provide educational assistance to NROTC College Program (formerly called Contract) students who are the children of Navy and Marine Corps enlisted members and to foster interest in the NROTC college program. The scholarship consists of two annual awards of up to $2000 each, which are renewable for the full four years of college. Application may be made by students already participating in the program or by an applicant in the last year of high school. The award will be made only to students who are accepted and will continue while the recipient remains in good standing.

Applicant must be the son of a Navy or Marine Corps enlisted member, Regular or Reserve, who is serving on active duty, entitled to retired or retainer pay, or deceased (while on active duty or entitled to retainer pay). For information and applications, write to the BuPers address listed at the beginning of this article.

Awards will be on the basis of scholastic merit, character and financial need. The awards of up to $2000 per year are for tuition, and normal expenses for room and board.

Oceana Officers' Wives' Club Scholarship—The members of the Oceana Officers' Wives' Club, NAS Oceana, Virginia Beach, Va., announce the establishment of an annual scholarship award to the dependent son or daughter of an officer or enlisted man stationed at or attached to NAS Oceana. Also eligible is the dependent son or daughter of an officer or enlisted man who was attached to a NAS Oceana unit at the time he was declared to be missing in action or a prisoner of war.

Application forms may be obtained from the address mentioned at the beginning of this article or the Scholarship Committee, Oceana Officers' Wives' Club, Naval Air Station Oceana, Virginia Beach, Va. 23460.
A Matter of Attitude

JOIN THE NAVY and see the world!

These are the words which once inspired adventure, exciting duty, travel and the discovery of mysterious ports-of-call in foreign lands. This call led me to a Navy recruiter's door as it did many others seeking the fun, zest and adventure of the Navy.

But can it still be today, that a young man can hope to find what may have been missing from his boyhood and his hometown by joining the Navy? Or has the world become too small now, having been made too accessible by satellites, television and jumbo jets? And is joining the Navy to see the world a reason which is still valid and acceptable in a society where training, profession and accomplishment are stressed and considered more important reasons for joining the service?

I think we as professional sailors may tend to overlook the "sailors" part and tend to stress the "professional" aspects of our duties. And sometimes, perhaps, we lose sight of what the Navy is—a seagoing service—and that the manning of ships will always be first on our list of priorities above the manning of office buildings. We tend to think of ourselves as accomplished, well trained and experienced professionals, working with the most highly sophisticated technology produced by mankind. Yet all this somehow seems devoid of the fun, zest and adventure inherent in the summons to "Join the Navy and see the world!"

Admiral Zumwalt, in a recent CNO Action Sheet, indicated that stressing the adventurous and exciting parts of Navy life might make the Navy more appealing to present and future Navymen. Perhaps recruitment and career retention programs would be heightened by such a move.

Also, I believe that the CNO is attempting to put fun and excitement back into being a sailor through his recent directives eliminating demeaning and abrasive, chicken and "Mickey Mouse" regulations which admittedly chased many fine men out of the service. I don't think, however, that these actions can be construed as a return to the days of iron men and wooden ships but, basically, a recognition, long overdue, of the worth of the sailor as an individual, capable of performing in an exceptional manner without stringent and unnecessary bonds put on his actions. It's not a return to an earlier age, but a step forward; a modernization of a tradition-bound service, with a hope of making it more appealing to everyone. I think this plan is working and will continue to work.

Even in the light of a slimmer defense budget and fewer men and ships, I see greater days ahead for the Navy. But what is particularly important at this time, is that everyone join in this movement; that all the Action Sheets in the world cannot help the Navy, its people and its future if the individual is not convinced that he can take part and make the Navy better tomorrow.

This participation by all hands, I'm afraid, is the most difficult part.

Basically, it is a matter of personal attitude. Perhaps we should all take time out to think about the Navy as a whole and our relationship to it. Rather than serving in a manner which is best for us, individually, perhaps we should turn toward serving in a way which first has the Navy in mind. This approach could be incorporated into every level of the petty officer structure.

But don't ask me to define this attitude, this new way of looking at things, because I cannot do it. Every man and woman must decide for himself what he or she can do to make the Navy a more interesting and motivating experience. If you don't know where to start, just read the Z-Grams as they come out and you'll see what I mean about a new attitude. Then maybe there will be more people wanting to join the Navy to see the world.
Most Navymen who have been there will agree that the Fleet Air Support (FASU) passenger terminal at Da Nang has little in common with the glass and chrome air terminals in some other parts of the world.

It is, in fact, a barn-like metal building at the end of a runway and its interior decor runs to the spartan, with picnic-type benches and bare concrete floor.

The passengers who look to FASU for further transportation, usually appear at any time of the day or night clad in blues, dungarees, combat green and even whites. Most are travel-weary and all want to go someplace else, and they invariably do, although it frequently takes a combination of wheeling, dealing and squeezing to move FASU passengers to their destinations. Most are bound to or from Seventh Fleet ships off the coast of Vietnam.

Passengers bound for the Fleet reach their ships in a twin engine C1-A aircraft or in an unscheduled helicopter launched and recovered aboard an aircraft carrier in the area.

The C1-A, when it is configured for passengers, can carry only eight persons. If it is configured for mail and cargo, there usually is room for only one passenger.

Consequently, if the terminal has 25 or 30 persons waiting for transportation to one ship, it may take a day or two before everyone reaches his destination.

To move passengers to Saigon, Cubi Point, Japan or the United States, the terminal crew doesn’t stick to any one service’s aircraft. The Marines and Air Force cooperate by letting the Navy know when they have space available. The Navy, of course, reciprocates.

The FASU crew often has to be on its feet up to 18 hours a day to keep abreast of its workload, most of which is on a feast-or-famine basis. It’s impossible to predict the number of passengers there will be from one day to the next. FASU, Da Nang, they maintain, is the only place in the world where the passenger backlog can jump from 10 to 100 in the space of an hour.

Men on the FASU crew agree that they are overworked and they are reconciled to the fact that their terminal may never win an interior decoration award.

Such things, however, are immaterial to them. What’s important, they say, is that everyone who walks in, flies out.
Public Works Center at San Diego Develops Platform to Carry Out Pierside Work

The Navy public works center at San Diego now has a safer and less expensive method of doing pierside jobs which require scaffolding.

The new system employs a platform on which workmen can stand, using their own weight to drive the platform's weight to drive a steadying spike into the piling's wood. When used on concrete pilings, a rubber boot was substituted.

Vertical members extending downward from the platform's support saddles, like the upper saddle supports, have concave supports which brace themselves against the pilings.

The vertical members which extend downward from the saddle supports can be forced into a position parallel to the pilings by a screw in the concave clamps. As the vertical members are forced into a parallel position, the weight increases on the concave clamp, driving two steadying spikes into the wood.

The weight of the platform serves to secure the platform bracket to the pilings and the weight of men bracket adhere to the pier pilings. This was done by attaching the saddle supports to the pilings by means of a cinch chain on the saddle supports and using the platform's weight to drive a steadying spike into the piling's wood. When used on concrete pilings, a rubber boot was substituted.

Vertical members extending downward from the platform's support saddles, like the upper saddle supports, have concave supports which brace themselves against the pilings.

The vertical members which extend downward from the saddle supports can be forced into a position parallel to the pilings by a screw in the concave clamps. As the vertical members are forced into a parallel position, the weight increases on the concave clamp, driving two steadying spikes into the wood.

The weight of the platform serves to secure the platform bracket to the pilings and the weight of men bracket adhere to the pier pilings. This was done by attaching the saddle supports to the pilings by means of a cinch chain on the saddle supports and using the platform's weight to drive a steadying spike into the piling's wood. When used on concrete pilings, a rubber boot was substituted.

Vertical members extending downward from the platform's support saddles, like the upper saddle supports, have concave supports which brace themselves against the pilings.
TEN SQUARE FEET OF CROW—Nearly 20 per cent of the 1000-man crew of USS Samuel Gompers (AD 37) were advanced in the petty officer ranks as a result of the August Navywide advancement examinations. With advancements spread out over six one-month increments, Gompers saw 107 of the newly appointed Petty Officers advance in November alone.

on the platform only increases the bracket’s adherence to the pilings.

This is quite an improvement over the former method. The old system called for a wooden scaffolding to be erected on floating platforms. The platforms were not only difficult to put in place, but also the scaffolding was at the mercy of the wind, tides and waves often making it necessary for workmen to hold onto the pier with one hand while working with the other.

The invention of the new pier platform wasn’t the only solution the Center has found for vexing problems. When the advisability of dumping garbage at sea was questioned, the Center’s men designed and built a garbage cooker, which is now in use to process organic material, later taken to a sanitary landfill.

They also invented a “yellow turkey.” The turkey eliminates air pollution which formerly resulted from the burning of classified waste. The turkey converts the waste from sheets of paper into a wet pulp which is later taken to landfills in the local area. It is portable and provides door-to-door service at several San Diego area Navy commands where it gobbles up classified material with considerable relish.

—Gerald R. Boling

INTRODUCING ONDE—A NEW ACRONYM

Disabled Navymen should benefit from a recent streamlining of the Naval Disability Evaluation System, designed to insure faster, more equitable service. The new organization will continue to use many existing facilities and procedures. But certain key changes have been made. For one thing, almost all members will now be working full-time on disability cases; in the past the system relied on part-time help from collateral duty personnel.

Another significant advantage of the new system is centralized control. Previously, there was no central headquarters below the level of Secretary of the Navy. Now an Office of Naval Disability Evaluation (ONDE) has been set up in Washington, D. C. Directorship of the office, initially held by Rear Admiral Norman C. Gillette, Jr., will be rotated every three years between a Navy flag officer and a Marine Corps general officer, since ONDE handles cases involving both Navymen and Marines.

Also in the interests of greater efficiency is the reduction of the previous 12 physical evaluation boards to only four—located at Navy hospitals in Bethesda, Great Lakes and San Diego, plus a new board at the system’s headquarters in Washington. The Washington board will handle all “informal” cases, leaving “formal” hearings to the three field boards. In addition, the Physical Review Council, also in Washington, will continue to have the power and responsibility to review all board actions. Officials expect centralization to result in greater fairness and faster handling of cases.

Disability advisors at Navy hospitals remain at the heart of the system. Full-time counselors are now stationed at 12 of the larger facilities; all are carefully selected, highly motivated senior enlisted men, knowledgeable in both disability benefits and the problems facing enlistees, who make up 80 per cent of the cases. At the other 25 hospitals, collateral duty counselors will remain—but they too will receive additional training.
New Ideas In Dental/Medical Clinics

USS Isle Royale (AD 29) can now provide additional dental care to the Fleet thanks to the efforts of Navymen from the Development and Training Center in San Diego.

A Trailer With Teeth

One badly damaged trailer about to be surveyed and equipment from decommissioned ships, plus some hard work, have made dental service to COMCRUDES PAC Navymen in the Long Beach area even better.

After the Force Dental Officer obtained the old trailer, Navymen from the Development and Training Center in San Diego took on the job of salvaging it. They realigned and strengthened the frame, then laid carpet tile and formica inside. New dental chairs and older fixtures from the ships being decommissioned were installed.

When repairs were completed, the new dental trailer was hoisted on a Navy flatbed truck, shipped to Long Beach Naval Shipyard and turned over to the tender uss Isle Royale (AD 29) for Fleet use.

The Navy is testing a van-type dental “operatory” which can be transported to practically anywhere in the world. After it was unveiled at Great Lakes recently, it was scheduled to be field tested at Camp Lejeune, N.C.

The van’s principal goal, of course, is to provide dental health care which can be delivered to Marine Corps and Navy task forces in the field.

The van can be used at dockside as a support dental operatory for ship squadrons which don’t have extensive dental facilities. This would lessen the load on base facilities and make dental care more convenient for the patients.

The experimental van measures 20 feet by eight feet by seven feet and, fully equipped, weighs 5500 pounds. It contains two patient chairs and requires a team of two dentists and three assistants.

It can be used in almost any terrain and has an electrical system that can be operated either by portable field generator or base hookup.

It is both air-conditioned and heated and its occupants can be comfortable when outside temper-

Good Show Aboard Albany

All Navy ships offer their men entertainment of one kind or another. Some of them have made great improvements in entertainment recently — and made shipboard life a little bit more pleasant.

uss Albany (CG 10), for instance.

A year ago, when the missile cruiser made her shakedown cruise, her entertainment system was rather primitive.

WALB, the shipboard radio station, consisted of one turntable, one tape recorder and two amplifiers, all crowded into a 7-by-6-foot space. Prerecorded tapes, with no attempts at scheduling or programming, were its offerings.

The closed-circuit TV station, WCG-TV, was limited to monitoring movies shown on a screen in the ship's meeting room and piping them to 15 receivers in various parts of the ship.

There have been some changes made.

Today WALB broadcasts American Forces Radio and Television Service preprogrammed material, varied music and live programming on two channels. Feature shows, special announcements, information on the ship’s operations and similar matters of interest to the crew are offered.

The equipment has been improved too. Now WALB has a
atures are 40 degrees below zero or more than 120 degree Fahrenheit. Leveling jacks at each corner of the van permit its removal from the undercarriage used to tow the van overland. It can also be transported by cargo aircraft (C-130) or airlifted by helicopter.

The van was developed by the Navy’s Dental Research Institute at Great Lakes, which is also working to prevent tooth decay.

Left: the end of waiting in long lines to see a doctor is a pleasure, as seen by the smile of this dependant. Above: A young patient receives an examination by a volunteer doctor from Destroyer Squadron Three.

Wives and children of CruDesPac Navymen are presently enjoying personal medical care on an appointment basis in the San Diego, Long Beach, Pearl Harbor areas.

More than 4000 patients have been treated since the dependents’ clinics were set up in summer 1969. Force medical officers are voluntarily staffing the clinics and have contributed more than 2000 manhours thus far toward making better medical care available for dependents of seagoing Navymen.

The clinics were set up when it became obvious that shore-based dispensaries and hospital facilities in the area needed help to handle the record numbers of patients desiring treatment. Officials say the clinics have helped spread out the workload, particularly in the densely populated San Diego area. For dependents, they’ve made waiting lines shorter and reduced time delays for appointments at specialty clinics.

Services available are similar to those a Navy wife or child might find in a family physician’s office: medical care for minor health problems, annual physicals, inoculations for children, prescription renewals and family planning.

Console with two turntables, a cassette player, a stereo tape deck and a professional-quality control panel.

WCG-TV still shows movies—but now it does it better, through a film chain apparatus directly from the projector, and the signal goes to 40 sets in all berthing and mess areas of the ship.

And now the TV programming includes popular TV series, a live news, weather and sports half-hour show, and lectures on subjects of interest.

In the near future, even more improvements are due: videotaped TV programs, a mobile camera unit to use in producing features on board, and more hours of broadcasting.

Albany men can look forward to good entertainment after a hard day’s work. In one short year, their radio and TV stations have come a long way.

Nice Mess at NAS Saufley

At Saufley Field Naval Air Station, Pensacola, Fla., flight instructors, students and support officers frequently had difficulty grabbing a square meal during working hours.

But things have eased up a bit. Not that anyone is working less—the dining room is open more.

Early birds can have their breakfast at five o’clock in the morning and the dining room remains in operation until seven o’clock in the evening when the last setting for dinner is served. The mess is then closed for half an hour and reopens to serve a snack bar menu until 10:30.

Not only are there increased service and convenience for mess patrons, but also improved training opportunities for the stewards assigned to duty there.

With less pressure to serve most of their meals, the junior men have more time to learn and develop the skills of their rates. Shorter working hours resulting from the staggered work schedule also give the men more time off.

Everyone who eats and serves the mess’s 800 meals finds Saufley Field a more pleasant place to live and work.

—JO2 Mark Brown

February 1971
What's New in the Navy?

Measure of Magnetism

A completely automated geomagnetic survey system is being developed for the Naval Oceanographic Office for installation in a modified P-3C long-range, patrol type aircraft.

With the help of stationary platforms and satellite navigation, the system is expected to provide precise measurement from the air of the direction and intensity of the earth's geomagnetic field. Later this information will be refined and incorporated into magnetic maps.

Such data is important to the Navy's navigators because the magnetic field affects their compasses.

When the earth's rotation interacts with its molten core, the resulting dynamo effect produces the geomagnetic field. This makes correction of the navigational equipment necessary.

Conversation with a Computer

A robot to man the helm or help cook dinner for the crew? It's in the works, the Navy is studying the possibility of a computer that will respond intelligently to spoken commands.

Unlike the conventional digital computer (which simply adds up numbers at tremendous speeds), the system under study is patterned after the human brain. It uses artificial nerve cells or "neuronimes" - electronic circuits interconnected into a network. Such a network can be programmed or "trained" to respond as desired through "punishment" and "reward" signals. It's not too different from teaching your dog to retrieve a stick. Here's roughly how it works:

A spoken message will cause some of the neuronimes in the network to fire. If their response is not desired by the trainer, he

Since man has become capable of working for long periods under water, he has needed a machine for lifting heavy loads in a watery environment.

Recently, the Naval Undersea Research Center (NURC) developed an underwater forklift capable of lifting and transporting loads weighing as much as 1000 pounds.

The machine is called the Buoyancy Transport Vehicle (BTV) and can be operated by two men at depths of 850 feet. The vehicle contains its own power, lighting and propulsion system and generates buoyancy for its lift capability.

It can be used in underwater construction, salvage, ordnance placement and retrieval, oceanographic and test range work. It can also be applied to civilian offshore oil operations.

The BTV can also transport as many as six divers and be used as a portable power source for hydraulic tools.

The 1670-pound Buoyancy Transport Vehicle looks rather like a ball in a box frame. It is 5.5 feet high, six feet wide, and 8.3 feet long. Its frame is constructed of aluminum pipe which encloses an aluminum buoyness sphere 42 inches in diameter.

There are two aluminum cylinders running the length of the frame which provide auxiliary buoyancy and house the silver zinc batteries which provide 10-hp electrohydraulic power for the underwater forklift.

Two horizontal and two vertical thrusters fastened on the lower starboard side of the vehicle drive it. They give the vehicle four degrees of freedom and a three-knot forward speed. Outlets from the electrohydraulic power supply provide for various tools.

The BTV can be made buoyant by converting hydrazine fuel to gases which displace the water in the 42-inch diameter buoyancy sphere. A 15-gallon hydrazine fuel bag is housed inside an aluminum cylinder on the lower port side of the frame.

When seawater is pumped into the cylinder, the hydrazine fuel bag is compressed, forcing the fuel through a catalyst bed which decomposes the fuel into hydrogen, nitrogen and ammonia gases.

These gases pass through a heat exchanger before being injected into the sphere. Hydraulically actuated butterfly valves on the top and bottom of the sphere control its buoyancy.

Of the two-man team which is required to operate the BTV, one is a driver-operator while the other monitors the control panel located at the lower aft end of the vehicle.

The panel, flooded with silicon oil, also displays battery voltage and current drain, load weight, power consumption, hydrazine fuel level and depth.

An emergency depth ceiling control operates a relative depth gauge to prevent the vehicle from rising above a predetermined height above the reference depth selected by the diver.

This is important for saturated divers who are in danger if their excursion carries them too far above the level for which they are pressurized.

The ceiling control, however, can be overridden and the BTV can be used for surface-to-bottom excursions and vice versa.

Warning lights come on if water leaks into any of the key systems.

The BTV has a swinging yoke, pivoted on each end of the buoyancy sphere. This serves as a support point for lifts and the second diver of the operating team performs all the rigging tasks which include securing the load to be lifted to the yoke.

The Buoyancy Transport Vehicle has been tested in shallow water (no more than 75 feet) and performed extremely well. All systems functioned flawlessly and its control capabilities exceeded expectations.

Operators with less than one hour of training had no difficulty positioning the vehicle within two feet of any desired location.

A future BTV may incorporate such modifications as an integral breathing gas supply for the operating team, a gas welding unit for shallow operation and an increased lifting capacity.
can “punish” individual cells by preventing them from firing. This makes the whole network try another response.

At the same time, those neuro-mimes which respond correctly are “rewarded” with strengthened signals. This process is repeated until the desired response is obtained from all the cells in the network.

The machine could even be trained to respond, “Aye, Aye, Sir!”, before carrying out an order.

Preliminary tests with a network of 16 cells have given encouraging results. The current study, sponsored by the Office of Naval Research, is intended to produce a design for a workable, economical prototype system of 3000 neuro-mimes. But we’re still a long way from the perfect seaman (FSN 4110-255-8760); there are billions of nerve cells in the human brain and nervous system.

Communications Via Satellite

A small carrier-based tactical aircraft was recently launched from uss Independence (CVA 62) against a simulated target, yet maintained nearly interference-free communication with its floating base.

In a tactical situation, such communication might be of considerable value because it could improve target selection and weapon use and make recall or post-strike reporting more reliable.

The test was conducted off the Carolina Capes and used the LES VI satellite which was orbiting the earth at the equator. Ultra high frequency was used because it is less subject to atmospheric disturbances than very high frequency.

Ultra high frequency is confined to line-of-sight communicating but, since satellite communication is possible over half the earth’s surface, this limitation would be negligible in most tactical situations.
Per Diem and 'Travel Status'

SIR: I have a question regarding entitlement to per diem which my shipboard disbursing office has not answered to my satisfaction. Here's the situation:

I belonged to a Reserve unit for four years, and then attended 18 weeks at Officer Candidate School, Newport. During the 15th week, I received orders to my ultimate shipboard duty.

Before reporting to my ship, I was ordered to a 17-week communications school at Newport. Government quarters were not available.

One day, during the 10th or 11th week at the school, each man in my class was handed a check for approximately $1000 as "interim" per diem payment. But wait. Before the day had ended, nearly all the checks had been retrieved because the majority of class was declared ineligible.

What confuses me is that many officers with orders reading exactly as mine were eligible for per diem, and did receive the payment. My question, obviously: How come I did not?—LTJG R. D., USNR.

• Joint Travel Regulations (paragraph M-3090) allows you per diem only while you are in a travel status away from your permanent duty station on public business under travel orders.

The Comptroller General has consistently held that "travel status" does not exist in cases such as yours in which there is no designated post of duty away from which the travel is performed. In other words, the orders which directed you to proceed from your home to OCS for indoctrination and further assignment did not place you in travel status at Newport.

Next, when you received orders "for further instruction" at the communications school, Newport, in effect, became your permanent duty station by virtue of the duration of your assignment there. If the length of combined courses (OCS and communications school) covers 20 weeks or more, the station must be regarded as a permanent station and per diem, therefore, may not be paid.

Short of reviewing the individual cases, we couldn't say why some of your classmates received per diem and others did not. Were any of them enlisted men on active duty before selection for OCS who proceeded to Newport from a permanent duty station elsewhere? If so, there would be a travel status as defined above, since they would be away from a permanent duty station.

Per diem might also have been paid to officers who attended the communications course on TAD from a permanent duty station, and to those on temporary duty while en route from one permanent station to another.—ED.

Origin of Three Naval Terms

SIR: Please give me the origin of the following terms: Geedunk machine, Charlie Noble and Dempster Dumpster.—W. A. S.

• There are a number of theories concerning the origin of the word "geedunk." In the comic strip of the 20s, Harold Teen and his friends went to a drugstore called the Sugar Bowl. The teens, however, referred to it as the geedunk.

Some say, geedunk is a corruption of a Chinese word meaning a place of idleness. In Chinese, the word sounds something like "gee dung." Others say "geedunk" is the sound made by a vending machine when it dispenses a soft drink.

A naval terms dictionary defines the word as "Any product of the ship's soda fountain."

Lowry, in his book, "The Origins of Some Naval Terms and Customs," says that a merchant captain named Charley Noble gave his name to the galley funnel when he discovered it was made of copper and ordered it to be kept bright.

The origin of Dempster Dumpster is completely prosaic. It's called a dumpster because of its function as a refuse handling system. An equipment catalog lists it as the product of Dempster Brothers, Inc.—ED.

Excess in Steward Rating

SIR: I recently heard that the steward rate is "frozen," and would like to change my rate. If this is possible, could you tell me which rates are open, and what are the chances of

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to Editor, ALL HANDS, Pers-P31, Bureau of Naval Personnel, Navy Dept., Washington, D. C. 20370.
CORRECTION

The article in the January 1971 issue concerning the careers of three naval officers (page 9) contained a report on CDR G. Thompson, USN, which identified him as captain selectee. His name was mistakenly identified with that of another officer whose promotion to captain had just been reported. CDR Thompson himself was not in the promotion zone during this period for consideration for selection for captain. ALL HANDS regrets the error.

USS San Francisco Revisited

Sirs: I have about 100 copies of uss San Francisco's (CA 38) "Ship's Book" to which former crewmembers are welcome. Many served with honor and pride in the grand old ship and would undoubtedly want a copy. I served in that great ship from 1940 to 1945.

All I ask in return for mailing the "Ship's Book" is a shipmate's friendly "hello," and a letter requesting a copy to: Mr. Edward A. Zierzbowski, 533 Home Avenue, Trenton, N. J. 08611.

-E. A. Zierzbowski, ex-MM1, USN.

ANTARCTIC DEVELOPMENT SQUADRON SIX—With the aircraft the squadron will be using during Deep Freeze '71, the men of the operations "air arm" prepare for departure.
middle of a Japanese fleet having far superior firepower and, in the light of searchlights and star shells, crippled the Japanese battleship Hiei so badly that she was overtaken and sunk by U. S. planes the following day.

But the battle had exacted a heavy toll from San Francisco too. She had been hit by 45 shells, 15 of them being 14-inches. A hundred and seven of her crewmembers lost their lives during the fight.

Besides crippling the battleship Hiei, San Francisco was also credited with sinking one heavy cruiser and four destroyers as well as helping to sink a cruiser and damage two others. She also destroyed 13 planes and numerous small craft.

San Francisco was taken out of commission and placed in reserve in February 1947. She was stricken from the Navy list on 1 Mar 1959, after which she was sold for scrap.—Ed.

He Rode the Rainbow

Sir: I was going through some back issues of ALL HANDS and saw a picture of uss Rainbow in the November 1966 issue. I served on board the sub tender from June 1920 until January 1923. You may be interested in what it was like a half-century ago.

I recall, among other things, that it took us 14 months to move from Boston to Manila. We made stops all along the East Coast, went through the Panama Canal, up the West Coast, and then on to Pearl Harbor where we spent eight months waiting for the rest of our division. We next moved on to Guam and finally arrived in the Philippines in December 1921.

We tied up at Machina Wharf near Cavite (for what seemed to be a long time), and then went into drydock at Okinagpo. We next went on maneuvers and then returned to Cavite.

At this point I went to the Naval Hospital at Canacao for an operation, after which I returned to Rainbow. I then transferred to uss Ajax (ACC 15) to await transportation back to the United States. I finally returned to the U. S. in the old uss Vega (AK 17), and was discharged in March 1923.

Last time I saw Rainbow, she was tending S-boats in the Philippines. I haven’t heard much about her over the years, and until I saw her picture in a copy of ALL HANDS, I was beginning to think that no one in today’s Navy remembered her.—Charles O’Connell, Brooklyn, N. Y.

Sure we remember Rainbow. In addition to the historical sketch to which you refer (ALL HANDS, November 1968), we can recall as far back as April 1968, when these pages contained a more detailed history which apparently got by you. In essence, here’s what was said:

Rainbow was constructed at Sunderland, England, in 1890, and first was known as the merchantman Norse King. She was purchased by the United States on 29 Jun 1898 (during the Spanish-American War), and was fitted out at the New York Navy Yard.

Rainbow, the sub tender, commissioned on 2 Dec 1901, was 351 feet, 10 inches long and measured 41 feet at the beam. She displaced 4360 tons and had a top speed of 12 knots. Her armament consisted of six 6-pounders and one 1-pounder. She had a crew of 289.

Rainbow joined the Asiatic Fleet in April 1902; she served in the waters off China and in the Philippines to show the flag and protect the United States’ interests against the periodic turmoil which characterized the times.

Once each year, Rainbow circuited among various ports in the Philippines, and occasionally visited Hong Kong and ports in Japan. She also periodically served as flagship for the Commander, Philippine Squadron, Asiatic Fleet (under whose orders she sailed). An early highlight of Rainbow’s career came in the fall of 1907 when she carried the U. S. Secretary of War, William Howard Taft, on a goodwill tour to Vladivostok, Siberia. Mr. Taft, of course, became President one year later.

In July 1914, after 12 years with the Asiatic Fleet, Rainbow visited Hawaii briefly, and then continued to San Francisco. She was placed out of commission at Mare Island in December 1914.

Rainbow was recommissioned in January 1916, and then was assigned in a reserve status as receiving ship at San Francisco. She began her final active commissioned service in March 1918, and during World War I operated as a convoy ship, transport, and, as you will know, a mother ship for submarines in the Philippines.

Your old ship moved out of the Philippines in 1925. She was decommissioned at the Philadelphia Navy Yard and sold for scrap in September 1928.

Thanks for your first-person color. —Ed.
"Frankly speaking, I'm a little worried about the new CO."

"Isn't there something else for Tiny to do besides chip paint?"

"I'm going to make a great, big, handsome, adorable, lady-killing man out of you, Martin!"

"Go tell the Bosun that he knows the chow line isn't stowed here on Mondays!"
IT SOON MAY BECOME possible to carry your lunch in a wallet if production tests directed by Philadelphia’s Defense Personnel Support Center are successful.

A process is being used under which subsistence items are first cooked, then dehydrated by air or freeze-drying. The food is then subjected to as much as 3000 pounds per square inch of hydraulic pressure.

The result is a 15-to-one reduction in the food package’s size. When the user is ready to reconstitute his compressed meal, all he needs is hot water. Even cold water will do.

Enough cherries for a pie can be compressed into a disk about three and one-half inches in diameter and three-fourths of an inch thick.

A container of green beans the size of two packs of chewing gum will yield a half-plate of vegetables.

The Defense Personnel Support Center has monitored production tests of cherries and peas, onions and green beans will be tested soon. Recently 6000 pounds of compressed cherries were delivered to the four services.

Future plans include test production of compressed pork link sausage, corn, diced beef and blueberries.

The new process promises considerable economy in packaging, storage, refrigeration and shipping costs.

Z-GRAM (Far East Style): The Associated Press reports from New Delhi that the Indian Navy has broken one of its oldest traditions: It has allowed its sailors to grow whiskers, provided they are well-groomed.

WHAT’S your hobby? AQF2 Doug Hilty’s hobby is shipbuilding—a 38-foot-9-inch ferro-cement ketch, to be precise—and his “shipyard” is a farm near Oak Harbor, Wash., where he spends his spare time.

The avionics technician assigned to VA-128 at NAS Whidbey Island started his unusual hobby last April, and when finished, he will have a two-masted sailboat with auxiliary diesel engine capable (he hopes) of sailing anywhere in the world.

The construction of ferro-cement boats has become increasingly popular. For Hilty, the process meant building a light wooden hull form, which he covered with eight layers of chicken wire and one layer of 3-inch steel rods. He will plaster all this with special cement, and the finished hull should be strong, waterproof and seaworthy.

This procedure is not particularly complicated. Special tools are not required. However, as Hilty has found, building such a boat is time-consuming and insists on stick-to-itiveness.

Hilty estimates that his boat will be ready for launching in the spring. First, he must finish the hull, make and fit the rigging, install a rudder and then move the boat by flatbed truck to the sea.

He estimates that by the time it’s finished, the ferro-cement boat will have cost him between $7000 and $10,000, but that it will be worth as much as $30,000. Hilty eventually hopes to call the boat his home and use it commercially for charter cruises.

The All Hands Staff
tune in the NOW NAVY

...see your career counselor ...be a career counselor