

ALL HANDS

APRIL 1980



in this issue:

P-3 Orion Flight Engineer



Proud to be in for another hitch—Chief Operations Specialist Richard L. Morgan and his wife, Sheila, beam their approval after the chief was reenlisted for another four years by Air Force Brigadier General William E. Thurman, Commandant of the Defense Systems Management College, Fort Belvoir, Va. Chief Morgan is the senior Navy enlisted person at DSMC, and has seen service in several ships both in the Atlantic and Pacific. The Morgans have four daughters ranging in age from 10 to 16.

ALL HANDS

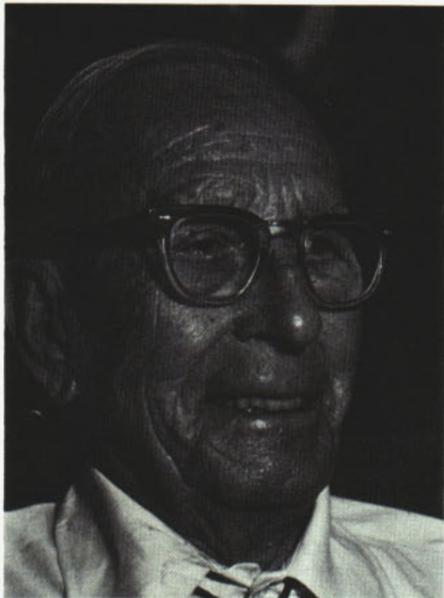
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Features



Page 22



Page 38



Page 44

- 4 MAN WITH A MISSION**
P-3 flight engineers get used to long days, demanding tasks
- 12 AN ARTIST'S VIEW OF THE "IKE"**
Peter Cook paints his impressions
- 16 FINDING THE RIGHT CAREER**
A supply corps lieutenant on her way up
- 19 GETTING MORE FOR THE MONEY**
New LSD 41-class dock landing ship is energy conscious
- 22 A DIESEL BOAT NAMED TANG**
The story of two subs and the men who served aboard them
- 33 RETURN VISIT TO CHINHAЕ**
South Koreans captivate *Edison* sailors
- 36 SAMPLING THE BEST OF THE SOUTH PACIFIC**
Three ships on a mission of good will
- 38 AN INVALUABLE EXPERIENCE**
91-year-old veteran still feels the roll of a ship
- 44 IT'S NOT EASY BUT IT'S BEST**
Navy tries a new kind of training

Departments

2 Currents **30 Bearings** **48 Mail Buoy**

Covers

Front: The day is just beginning for some, but for P-3 Flight Engineer AD1 Tom Beaman, it's the end of a long 11-hour night mission. Photo by PH1 Jim Preston.

Back: LT Nan Benson-Schlax and her boss, Captain M. K. Caverly, commanding officer, Naval Supply Center, Pearl Harbor, Hawaii. Photo by JOCS John D. Burlage.

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Currents

New Crews In Spring For 23,641

More than 23,000 sailors will be advanced to paygrades E-4 through E-7 during March, April, May and June 1980. The advancement—to be fair shared among the ratings—will complete promotion to CPO for those in cycle 82 and for E-4, E-5, and E-6 personnel in cycle 84.

Advancements are scheduled as follows:

	E-4	E-5	E-6	E-7
March 1980	2,694	2,428	1,524	620
April 1980	1,859**	3,349	1,042	757
May 1980		3,376	1,045	312**
June 1980		2,661**	1,614**	

(**) Denotes completion of advancements for this authorization cycle.

New Ship Activity On Three Coasts



A flurry of activity swept through shipyards on the East, West, and Gulf Coasts when two new Navy ships were launched and another was commissioned on Feb. 16. The submarine tender *McKee* (AS 41) was launched in Seattle, Wash., while launching of the guided missile frigate *Clifton Sprague* (FFG 16) took place in Bath, Maine. Additionally, the *Spruance*-class destroyer USS *Thorn* (DD 988) was commissioned in Pascagoula, Miss.

McKee (AS 41) is named for the late Rear Admiral Andrew Irwin McKee. RADM McKee was a key figure in submarine development from the age of diesel boats to today's newest ballistic missile submarines. Mrs. McKee, widow of the late rear admiral, sponsored the new ship named after her husband.

Clifton Sprague (FFG 16) honors the name of the late Vice Admiral Clifton A. F. Sprague of World War II fame. VADM Sprague gained the reputation as one of the boldest and most skilled escort carrier admirals of that conflict. Commanding officer of a seaplane tender which shot down three of the Japanese raiders at Pearl Harbor on Dec. 7, 1941, VADM Sprague took part in many actions, including raids on Marcus and Wake Islands, and the Marianas Campaign including the crucial air battles fought in the Philippine Sea. Mrs. Courtney Sprague Vaughan, daughter of the late vice admiral, sponsored the new ship.

The *Spruance*-class destroyer USS *Thorn* (DD 988) is the second Navy ship to bear that name, the other being the destroyer USS *Thorn* (DD 647). The ship honors the name of Lieutenant Jonathan Thorn, who distinguished himself while serving under Commodore Stephen Decatur during the Tripolitan Wars. He was a member of Decatur's daring volunteer group who entered the harbor at Tripoli in 1803 to board and burn the captured U.S. warship *Philadelphia*. Mrs. Charles H. Ansley christened the new ship. She is the great great niece of LT Thorn and daughter of Mrs. Beatrice Fox Palmer who sponsored the first *Thorn* 36 years ago this month. The principal speaker at the ceremony was retired Vice Admiral Frederick H. Schneider, a past commander of the original destroyer *Thorn*.

First Aegis Cruiser Named



The lead ship of a new class of *Aegis*-equipped guided missile cruisers (CG-47) will bear the name *Ticonderoga*. The name commemorates the capture of Fort Ticonderoga on Lake Champlain during the Revolutionary War.

Ticonderoga has been the name of four previous naval ships. The first was a 17-gun schooner which took part in battles on Lake Champlain during the War of 1812. The second was a steam sloop of war which served with Union forces during the Civil War. A third *Ticonderoga* was a former German cargo ship which served with the Naval Overseas Transportation Service during World War I.

The most recent ship to carry the proud name *Ticonderoga* was the *Essex*-class aircraft carrier USS *Ticonderoga* (CVS 14). This ship served from 1944 until 1973, earning 17 battle stars during World War II and Vietnam.

The newest *Ticonderoga*, CG-47, will be fitted with the *Aegis* weapons system and several other advanced sensor weapons systems which will make the ship a powerful multi-mission unit capable of conducting anti-air, anti-surface, and antisubmarine warfare in high-threat environments.

Ticonderoga's keel was laid Jan. 21, 1980 in Pascagoula, Miss. The ship is tentatively scheduled for launching in early 1981, with commissioning in early 1983.

Allowance Increase Passes Senate



A multi-faceted bill which would increase several different allowances for military people passed the Senate on Feb. 4 by an 87-to-1 vote and is on its way to a Senate-House conference for consideration. The bill was approved as an amendment to an earlier bill passed by the House.

The bill proposed calls for expenditure of \$486 million during the last nine months of FY 1980.

The largest single item—\$225 million—would be used to institute a variable housing allowance (VHA). VHA would vary by area as a similar allowance for excess housing costs overseas now does. VHA would be calculated as the difference between the average cost of housing in an area and 115 percent of the basic allowance for quarters. Maximum impact would be felt in high cost-of-living areas.

Other proposed moves would increase mileage allowances from 10 to 18.5 cents per mile, increase flight pay 25 percent, increase subsistence allowances by 10 percent, institute zone "C" reenlistment bonuses for people at the 10-to-14 year point in their careers, accelerate implementation of the revised sea pay plan provided for by the FY 80 authorization bill and increase those rates by 15 percent, and revise save pay provisions for enlisted members and warrant officers who accept commissions. In addition to basic pay, BAS and BAQ, the pay raises and longevity increases that the individual would have received as an enlisted member or warrant officer would be included in the provisions.

Before the bill can become law, differences between Senate and House versions must be ironed out in a Senate-House conference. The results of the conference must then be voted on again by both the Senate and House. The bill must also be signed by the president before it can take effect.

Man with a Mission

The sun on the horizon kissed the ocean as the pilot pushed the flight controls forward. The patrol plane leveled off at 23,000 feet. The co-pilot completed the climb checklist and began plotting the course for home. Flight engineer Aviation Machinist's Mate First Class Tom Beaman glanced at the horsepower gauges and adjusted the power levers to bring the needles to a more efficient setting. He loosened his seatbelt and harness, slid his seat back and stood to stretch. A drop of perspiration rolled down his back.

Behind the cockpit, the weary VP-24 crew had just completed computations from eight hours of antisubmarine warfare maneuvers. The pressure and tension from the low altitude submarine hunt began to subside as they secured their computers.

The plane, now on automatic pilot, chased the final beam of setting sun. Talk of the mission gave way to thoughts of home as the engine's vibration lulled the exhausted crew.

Beaman's eyelids felt the weight of the mission. He put all his energy into keeping them open. When he began to lose the blinking battle with sleep, he called his second mechanic to relieve him.

Suddenly a piercing whine blasted Beaman's ears. Red lights lit up the cockpit and glared at his now wide open eyes.

"Fire on number three," he called out.

"Feather it," the pilot commanded.

Pulling the emergency handle, Beaman cut the systems to the number three engine. He then activated the fire extinguishing agent. He glanced at the rpm gauge and shifted his eyes to the feather button light. It seemed like minutes before it went out.

Most of the 11-man crew was now

assembled at the rear of the cockpit watching the three men respond to the emergency. Only nine seconds had passed since the warning horn had sounded its alarm.

With the emergency under control, the co-pilot read off the checklist for the procedures that had just been performed from memory. All steps had been executed.

Beaman adjusted the power levers on the remaining three engines. He checked the fuel gauges and converted the 10,000 pound reading to 2.4 hours.

Meanwhile, the co-pilot had contacted Jacksonville tower to declare an emergency. He relayed the flight engineer's computations for fuel and the estimated time of arrival.

"This is what being a flight engineer is all about," Beaman said. "Enduring hours and hours of normal flight operations and still being able to handle an emergency effectively."

According to veteran P-3 pilot Lieutenant Jay Warren, "The flight engineer is an integral part of the P-3's flying team. He can make or break what goes on in the cockpit. He has to be tuned to the pilot and co-pilot or things just won't go smoothly."

Flying the P-3 in the patrol and anti-submarine warfare environment requires 100 percent of the pilot's and co-pilot's attention. That's one of the reasons why the flight engineer's job is so important—he helps them perform their mission by monitoring all the aircraft systems.

"It's a pretty complex airplane," Lieutenant (junior grade) Frank Huber, a pilot, said. "The flight engineer relieves the pilots from worrying about the systems so that we can concentrate on the flying. When we get down into the localization and tactical phase of ASW, the flight engineer

backs us up on the airspeed and power settings. It's very easy for the pilot to get involved with the tactical picture during the mission. We have to be able to count on the flight engineer to help keep us out of the water."

Flight engineers are systems experts. They are responsible for monitoring the aircraft systems—fuel, pressurization and air conditioning, hydraulics and electrical.

Flight engineers get down to the nuts and bolts of the aircraft systems. Pilots are familiar with the systems, but it's the flight engineers who need to know them inside and out. Most pilots will agree that a flight engineer is an invaluable source of information.

Commander Francis Ferry, training officer for Fleet Readiness Squadron (VP-30), emphasized the importance of the flight engineer.

"P-3 pilots today are getting less flying hours. This makes the flight engineer's experience extremely valuable. We have always counted on the flight engineer, but now with having more junior plane commanders, the flight engineer's experience counts for even more. Our pilots are thoroughly checked out on Naval Air Training and Operating Procedures Standardization (NATOPS), but when you run out of procedures in the book you need to turn to somebody with systems expertise. The flight engineer has it."

But the cockpit is only a small part of the flight engineer's responsibility. Basically, though the plane commander signs for the airplane, it's really the flight engineer's baby.

To a flight engineer, a 12-hour flight means a 17-hour day. To prepare for the scheduled 8 a.m. mission, Beaman

Flight engineer ADJ1 Tom Beaman starts the No. 2 engine on the P-3 as the co-pilot goes through the start checklist.



Man with a Mission



began his day at 4:30 a.m. when, outfitted in an olive flight suit and lugging a book bag and gear bag, he made his way across the hangar deck to maintenance control.

The room buzzed with activity. He squeezed into an open space at the counter and asked for his aircraft's maintenance logbook. As the maintenance control chief looked on, Beaman reviewed the plane's maintenance history.

"Each airplane has a personality of its own," Beaman said, "You can learn a lot about an aircraft from the gripe sheets and maintenance records. Our flying schedules don't afford us the luxury of being assigned to the same aircraft all the time, so this maintenance review is a necessity."

Satisfied that all was in order, he went to awaken his baby.

The nine planes of VP-24 stood in a row outside the main hangar. Crossing the ramp, Beaman paused to turn and shield his eyes from the windblast of a taxiing P-3. Aviation Structural Mechanic Airman Barry Moll, the flight crew's second mechanic, had already begun the three-hour preflight routine. Greeting Beaman at the aircraft, the young first-termer briefed Beaman on his progress and responded to the flight engineer's instructions.

"A good second mech is like having four sets of hands," Beaman said. "Without Barry there just wouldn't be enough hours in the day to get all the work done."

After visually checking the P-3's ex-

terior and interior, Beaman stowed his flight gear. Seating himself in the aircraft's galley, he spread the contents of his briefcase onto the table. Surrounded by a calculator, weight and balance slide rule, NATOPS manual and a folder stocked with forms, he began to work up the computations for the flight.

Beaman totaled the weight of the sonobuoys—later to be dropped into the water for submarine detection. He added this to the weight of other ordnance cargo and the crew to determine efficient weight and balance on the aircraft.

Next he computed the fuel required for the mission and added this to the total weight computations. With that, he was able to figure the rotation lift-



Calculating mission fuel requirements, determining efficient weight and balance, and fueling the aircraft are part of a flight engineer's three-hour preflight routine.



off speed and a refusal speed (point at which the takeoff cannot be aborted). Runway length and temperature, along with the total weight of the aircraft, determine this speed.

"The math is relatively basic," Beaman said. "It takes a while to get used to all the charts, but the paperwork is part of the job."

Other members of the antisubmarine warfare crew began to filter on board. They, too, have to test and preflight their equipment.

The overhead light in the cabin flickered. He went to the cockpit to see what was wrong. From the window, he shouted for his second mech to get another external power unit from the line crew. Because of the sensitivity of the plane's equipment, the cabin's power and air conditioning must remain constant—another responsibility of the flight engineer.

He moved back to the galley where the plane commander (senior pilot on the mission) was waiting to discuss the flight engineer's figures. He approved Beaman's work and left to file the flight plan with the tower.

Hearing a new power unit pulling up outside, the engineer made his way back to the cockpit to restore power to



the aircraft. He hit the switch and signaled a thumbs up to his second mech as he watched the fuel truck pull up to the plane.

The ordnance team had just finished loading the second torpedo in the bomb bay, and the second mech was already connecting the fuel hose to the belly of the plane. Beaman came out to tell the truck driver the required load. The P-3 was almost ready.

With the plane fueled, Beaman was back on board taking the flight engineer's seat. The last crew members had returned from their last minute run for sandwiches and soft drinks. The flight team began the engine start checklist.

"Select and start number two," the pilot commanded.

Beaman glanced at the air pressure

gauge. Adequate external pressure was indicated. He turned the engine start selector switch to number two and pushed the start button.

The four-bladed propeller responded immediately. Beaman watched the air pressure drop and glanced at the rpm gauge to verify rotation. As the propeller speed increased, the high-pitched sound from the spinning turbine turned to a roar. The flight engineer continued to monitor the gauges as the starter button popped out. His ears were well attuned to the familiar sound as the engine stabilized at 98 percent. It was a good start.

Becoming familiar with the procedures, systems, gauges and some thousand circuit breakers in the P-3 is not a process that comes easy.

"When someone chooses to become

a flight engineer, he also is choosing a lifetime of studying," Beaman said. "In flight engineer school, you devote nights to learning the systems and memorizing the procedures. The 19-week school seemed more like an endurance test.

"I remember my first flight as an engineer. I really got sick. It was more nerves than anything else. Suddenly I realized that if I messed up, somebody could get hurt. I wasn't in a simulator anymore. This was for real. Later, I figured that this was the reason there is so much pressure on us in school. Flight engineers have to be able to handle mental stress, not only in responsibility, but in endurance and reactions, too."

Once a flight engineer graduates, he soon realizes that studying isn't a thing

Man with a Mission

said. "On long flights, I quiz with the pilots on the emergency procedures and systems. This has become an integral part of our training."

Today's flight was evidence of how that kind of training can pay off. It can put an ASW crew at ease to know they can depend on the flight engineer.

Rain beat against the windshield as the pilot turned the P-3 in on its final approach to Jacksonville Naval Air Station. As the wheels met the wet pavement, the crew braced themselves for the propeller reverse. The big bird was back home.

It took Beaman and his second mech only an hour to fuel and put the airplane to bed. Drenched from the rain, the two gathered their gear and headed out to file the maintenance gripes.

The clock hands were approaching 9:30 p.m. when Beaman stopped to check the next day's flight schedule—the daily list governs the life of a P-3 crew member. "Living day to day by a flight schedule can get pretty rough sometimes, but it's something that comes with the territory," Beaman said.

And to a flight engineer, the territory is what makes it all worthwhile. Ask any P-3 flight engineer what it is that keeps him going at such a pace. You're likely to get the same answer that Tom Beaman gives. "I've got flying in my blood. I don't know where it came from, but I know it won't go away.

—Story and photos
by PH1 Jim Preston

★ ★ ★

The Navy is seeking qualified Navy personnel to become P-3 flight engineers and wear the aircrew wings. Petty officers E-5 through E-8 in the AD, AE and AM ratings may apply.

Basic qualifications for this program are: physical qualification to be an aircrewman, GCT/ARI of 105 or higher, ability to pass a first class swimming test, eligibility for at least a secret clearance and a consistent record as a high performer.

Successful applicants will first attend

a five-week Naval Air Crewman Candidate School in Pensacola, Fla. Upon successful completion of this school, applicants will attend 18 weeks of flight engineer training at either NAS Jacksonville, Fla., or NAS Moffett Field, Calif. Successful trainees are designated as NEC-8251 aircrewmembers (P-3 flight engineers), and are eligible for flight pay.

Interested persons are urged to get more information by contacting: LT Lichwala or ADCS Robertson by message (NMPC 404E) or by calling AUTOVON 291-5836/63, commercial 301-427-5836/63. This program is also open to Naval Reservists desiring recall to active duty.

★ ★ ★

Left: In the cockpit, the flight engineer is responsible for monitoring all the aircraft's systems and maintaining them at efficient settings. Below: a 12-hour mission is just another day for ADJ1 Tom Beaman and his second mechanic, ASMAN Barry Moll, as they head for the hangar.



of the past. It is now part of his occupation.

"I thought I was pretty sharp after graduation," Beaman said. "It was a relief to put away the books. When I got to my first squadron, I found this wasn't quite the story. You're not a flight engineer until you qualify. You really have to keep on your toes to earn that seat. And making it doesn't guarantee that you're going to stay there."

In this community there is no such expression as "once a flight engineer, always a flight engineer." Re-evaluation is a yearly process. A test, made up of both a written examination and a flight check, is administered by a NATOPS examiner.

"Many people don't realize how much book work it takes to stay qualified in this profession," Beaman



The P-3 Flight

The Navy's P-3 flight engineer program, first established in 1962, demands the talents and professionalism of extremely dedicated sailors. The men who occupy today's P-3 flight engineer seats are every bit the professional systems experts the Navy expects them to be.

But for these flight engineers, maintaining this high level of dedication hasn't been quite so easy.

According to Vice Admiral Wesley L. McDonald, Deputy Chief of Naval Operations (Air Warfare), "Our flight engineers have been undermanned, overscheduled and overworked. It's been the kind of situation that defeats itself. As I've become more and more aware of the demands of the P-3 community, I've found that these men have really taken a hit. Something has to be done about it."

The problems which have been eroding the flight engineer program seem to have taken root in 1977 when the Navy discontinued the second mechanic school and training program.

Commander Roger P. Hulson, Enlisted Community Manager for Anti-submarine Warfare Aviation Support Programs, explains, "The second mechanic school was discontinued because it just wasn't producing the

quality of first-term enlisted crew members that the P-3 community needed."

Instead of training second mechs to assist flight engineers, the Navy opted to attain a more ideal situation: putting two flight engineers on each P-3 flight. To accomplish this goal, the Navy increased the number of flight engineer billets per squadron from 17 to 24. It looked good on paper.

Unfortunately, this ideal situation has never been attained. There weren't enough flight engineers to fill the new openings. At the present time, there are approximately 800 flight engineer billets and some 175 are still vacant—a situation which has put pressure on the existing flight engineers.

"Our P-3 squadrons still have mission requirements to maintain. The aircraft have to keep flying those missions," CDR Hulson said, "To compensate for the undermanning problem, the flight engineers are being overscheduled."

At the squadron level, this problem is compounded. Squadrons sometimes use their flight engineer chief petty officers as maintenance supervisors. "They make superior quality control

chiefs because of their vast systems knowledge," explained a squadron commander.

But, because they also occupy a flight engineer billet, assigning these CPOs to a shop decreases their availability to fly. The additional flight time requirement is then passed on to the remainder of the squadron's flight engineers.

"This is what I meant about the situation being self-defeating," VADM McDonald said. "A squadron commander knows he's got talent here. When you've got a man who can produce, you've got to use him to the fullest."

To help ease some of the burden, flight engineers are recruiting their own second mechs from among top-performing first-term enlisted men in the maintenance shops.

"You're really lucky when you can find a volunteer who has talent and desire," a flight engineer said. "We've got to be selective for the same reasons the Navy is selective with its flight engineers. A second mech not only has to know what he's doing, but also has to be able to shoulder the responsibility."

Another problem affecting the flight engineer community involves rate ad-



Engineer Program

vancement. Flight engineers are not in a separate Navy rating. They are volunteers from aviation machinist's mates, aviation electricians's mates, and aviation structural mechanic ratings. Once qualified as flight engineers, these enlisted men receive a primary Naval Enlisted Classification Code of 8251.

When it comes time for evaluations and advancement examinations, flight engineers are tested and evaluated on their rating knowledge. Therefore, along with studying to keep abreast of their flight engineer requirements, they must also study to maintain their rating proficiency. When a flight engineer spends all his time flying, it's difficult to get the kind of rate qualifications the CPO selection boards are looking for.

This dilemma has caused many flight engineers to take a good look at their career patterns. Also, the problems don't help to attract candidates needed for the program. One engineer com-

mented, "I put up with it because my heart's in flying. It gets pretty frustrating when you have to leave what you've worked so hard to achieve just to acquire the necessary qualifications to make rate. I can't afford to let it get me down when I'm in that seat. I have people's lives at stake."

VADM McDonald is taking positive steps to improve the flight engineer community. "I want to maintain the high professional standards that I see in the cockpit now. To turn this problem around, we're going to have to make the flight engineer's program more rewarding—something to help us keep the flight engineers we have now. This will also make it a more attractive program to volunteer for."

VADM McDonald and Rear Admiral James R. Hogg, Director Military Personnel & Training Division are pulling together the resources of all the people familiar with the situation. This combined effort is producing positive solutions.

A bill currently before Congress proposes an increase in flight pay. This incentive pay hasn't been increased since the early '50s.

The CPO selection boards have been

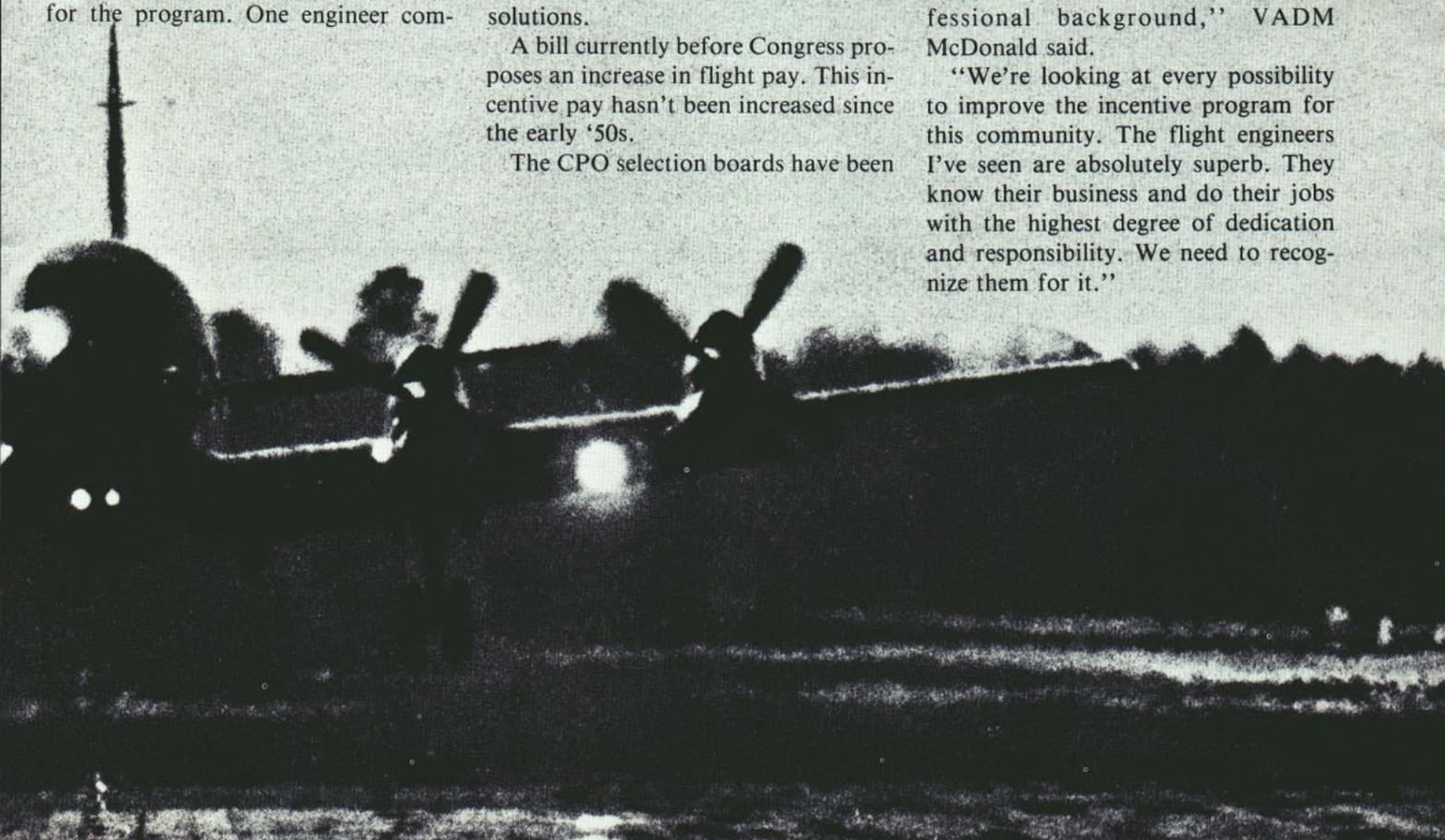
advised to consider candidates with an NEC of 8251 on professional performance as a flight engineer, rather than on his rating performance. This will allow them to be evaluated on a more competitive basis.

A selective reenlistment bonus (SRB) for flight engineers, to be implemented in fiscal year 1980, is now being seriously considered. This recommendation is also being carefully scrutinized to determine if earlier implementation might be feasible.

Flight engineers may soon be able to attain nine college credits for flight engineer school. This proposal is now being considered by accredited colleges that teach aviation programs.

The possibility of establishing a flight engineer rating is also being studied. "I feel that this is a viable option to the present problems. A separate rating would give flight engineers the opportunity to compete for advancement with men of the same professional background," VADM McDonald said.

"We're looking at every possibility to improve the incentive program for this community. The flight engineers I've seen are absolutely superb. They know their business and do their jobs with the highest degree of dedication and responsibility. We need to recognize them for it."



An Artist's View of the "Ike"

"The speaker announces a drill and everyone scurries about. Hatch covers and stair ladders are shut down. Bulkhead doors are bolted and the ship becomes compartmentalized into hundreds of separate and secure sections.

" 'Time plus 4. We have 6 minutes to secure the ship.' Steel doors clang shut. Bolts slam into place. Air-conditioning goes off. Footsteps are heard overhead. Another and more distant door is bolted with a dull bang. Voices, indistinct in the distance, move away.

" 'Time plus 6. We have 4 minutes to secure the ship.' Ship quiets down in an expectant unease. I begin to wonder if the oxygen in my room will hold out. I try to put my mind on painting. Am I in prison?

" 'Time plus 10. No smoking, eating or drinking during the drill.' The ship is almost completely quiet. No hums, footsteps or voices. I finally get concentrating and paint.

"In about an hour, the speaker announces end of drill. Air conditioner starts to hum, water flushes, doors open, footsteps, vibrations, and the ship breathes life again. Freedom."

That was the way portrait artist Peter Cook of New Jersey was introduced to life at sea aboard the nuclear carrier USS *Dwight D. Eisenhower* (CVN 69). His son, Lieutenant Commander Steven Cook, was an assistant medical officer aboard *Ike* at the time; the doctor is now stationed at the orthopedic clinic, National Naval Medical Center, Bethesda, Md. During his two weeks aboard the carrier, Cook executed pen

and ink sketches, pastel drawings and small oil paintings of life around him. Using those on-the-spot impressions, he later developed a series of paintings—some of which are shown here—to depict vividly the carrier's day-to-day routine.

Artists, Cook proves, are born observers of life. They note those small details which easily go unnoticed by others. While aboard *Eisenhower*, Cook also maintained a daily record*—minus the familiar phraseology of seagoing men—from which his above impressions of a ship during general quarters were drawn. There was much for him to see. *Eisenhower*, during those two weeks in 1978, underwent readiness exercises which called for round-the-clock flight ops involving F-4s, A-6s, A-7s and F-14s, and—to top it all—the at-sea stint was culminated by a presidential visit.

His diary entries, as witnessed by the following excerpts, are revealing—both of the man and his surroundings:

"A walk on deck after dark. A helo looming against the last light in the west. The lights on the island are red so as not to blind the pilots . . . visited weather central and combat control center, all computers and radar . . . last, the fantail, with the wake quietly floating out behind."

"A chief and I had a conversation about the duty on *Ike*. His words: 'You work harder but it's never dull, always something different.' It reminded me of working on the farm."

"Can you imagine being shot into the night (a night launch of an F-14) at 200 mph, and have the presence of

mind to keep an eye on about 50 instruments, give power at the right moment and breathe?"

About the men on the flight deck early one morning: "They are not looking forward to this day as they will be on till midnight with only half-hour breaks for chow. The F-14s will be flying. They are huge, fast, noisy and give out tremendous clouds of brown exhaust when taking off."

"Not satisfied with the general effort, it (the IMC) said, 'Hangar deck, why can't we get some cooperation? We're trying to bring down planes and everyone's standing around . . . if you haven't anything to do, find something.' I don't think the remarks were appreciated."

"Lots of wind today and chilly. Forty-five knots from the west. Really too much for comfort for the planes, let alone the men who are blown about the flight deck like dry leaves."

"There is a daily evening prayer over the speaker. Tonight we thanked the Lord for our Air Boss and his crew. Rightly."

"How those men on the deck can stand it for hours at a time is beyond me. Exhausting and hazardous. All someone has to do is goof off once."

"Went up to the bow and drew a view, from way out on a missile platform . . . the bow ghosting through the clear blue water. As I was drawing, a shark rolled right by the bow, about 10 feet long, its single fin shearing the surface . . . then some dolphins came cavorting by, enjoying the quiet morning."

"Had a talk with . . . during lunch.



Above: *Night Catapult* © 1980 (Collection National Air and Space Museum)

Below: *Bridge* © 1980, Peter Cook, Kingston, N.J. All Rights Reserved



An Artist's View of the "Ike"

He had tried to be a pilot but washed out because he got sick every time he went up . . . I guess it's tough on those who don't make their heart's desire."

"People had guns and stuff and lots had gas masks. I asked someone what it was all about. This lad said, 'See that fellow out there? Well, if he falls down suddenly, we'll know it's more than a drill.'"

"Tried the movie tonight! Oh my! Where do they find them? There must be some place to put your hand on some good flicks. There seems to be a lot being made."

"Then there's this thing about language—always the ever present 'Roger' and 'Say again' and 'That's a negative.' But then, you and I are 'individuals' (when the 'individual' deplanes). The plural is 'individuals' unless you're speaking of 'personnel.' People, it seems, applies to CIA operatives."

"The fliers have a breeze, I feel, and all the glory. There is a swagger to their

step and a collected air of assurance in their movements, like athletes. I can understand it, it's familiar. My feeling is for the guys whose intricate knowledge of electronics and tools—who work long hours, who work those infernal catapults, who keep track of every moment a plane is flying, and who bring them in safely on what seems a tiny island in no place."

"Later, the wardroom will be a scene for a party in honor of those who have seen their 100th movie on board. A cake iced with various names . . . The oral surgeon produced a sword, with which a huge piece was incised from the middle and passed around."

"Tomorrow (the presidential visit) is a big day. All the preparations! Everyone has to have a point to living and trying to do a good job of it. The ship sparkles. Hope *he* likes it."

"Other pilots were talking at the table. The greatest thing in life seems to be to make things go BOOM . . . a sonic boom that practically blasted

people into the ocean . . . That's what pilots like."

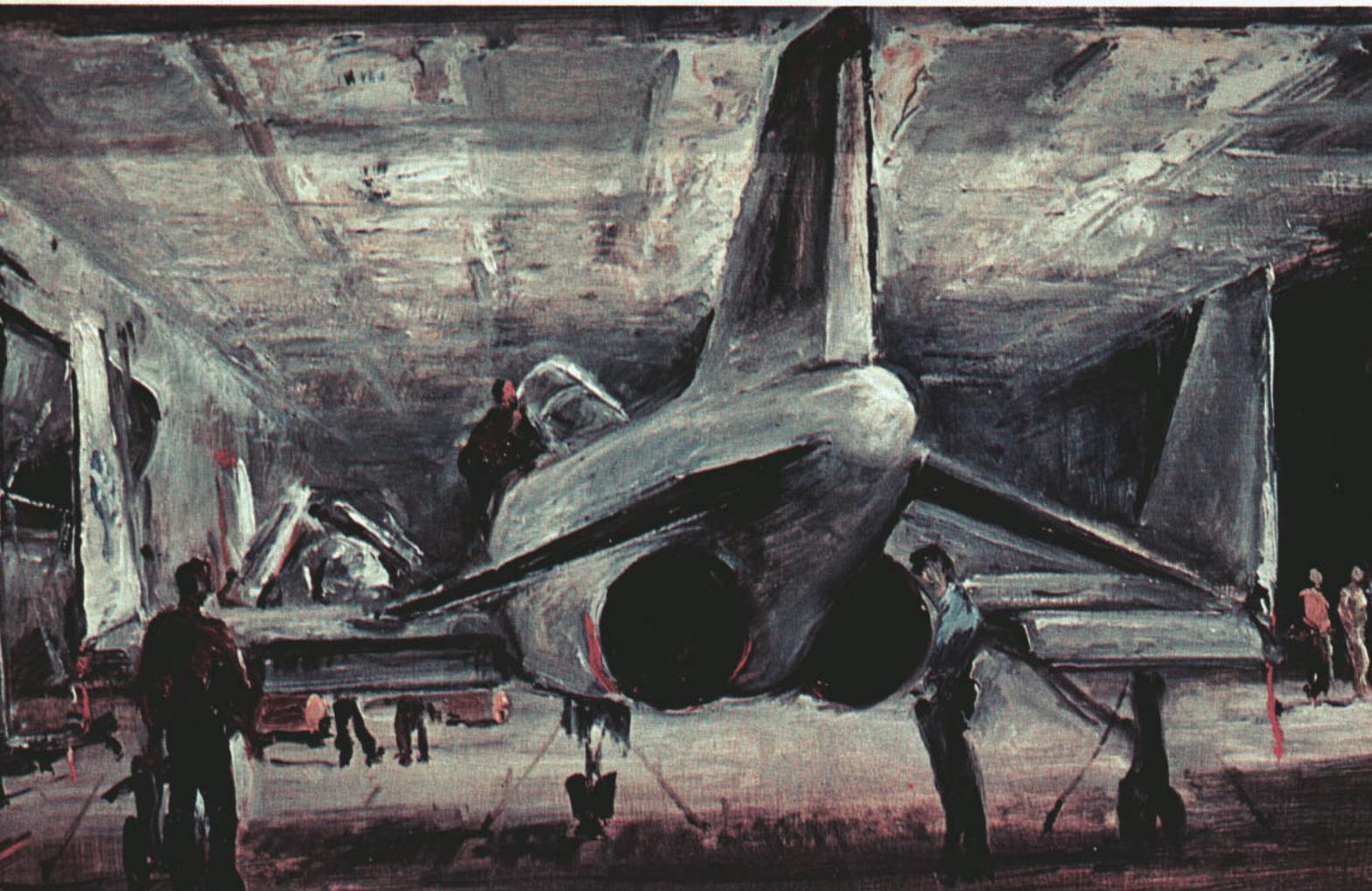
"After lunch today Steve had an appendectomy to do, so I watched and made a few sketches. It was interesting . . . the operation was a success."

"The water changes color from clear sea blue to light, muddy green, to a cafe-au-lait opaque ochre."

"The waiting Marine guard hoists the Stars and Stripes aft and the Union forward, almost 1100 feet apart . . . the pier starts to fill with wives and relatives, little kids in strollers and prams . . . Debbie waves heroically."

"How can the cruise be summed up? The first thing that comes up is the friendliness of everyone on board. There were *no exceptions* . . . I can imagine times when routine and paper work could make life somewhat less than exciting. But, then, what career can you think of that doesn't have its dull moments . . . I feel there is probably always something unique going on in a floating city of 6000 souls."

Below: Hangar Deck with Joggers





Above: Corsairs at Rest

Below: Ordnance Officer



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Finding the Right

“Ensign Broadside” is a cartoon character which some would say mirrors the woman who created her. “Indeed,” said Lieutenant Nan Benson-Schlax, “we are both junior officers struggling to compete in a predominately male organization.”

LT Benson-Schlax’s comic drawings of the bewildered-looking ENS Broadside are meant to portray the lighter side of some of the situations that women encounter in today’s Navy.

“I really believe that there is a little bit of ENS Broadside in every woman officer,” said the artist. “ENS Broadside is well-educated and hard-charging, but her desire to take charge of a situation and her inexperience sometimes crash head-on. Like many young officers, the novice ensign has her embarrassing moments; the key to surviving these moments is an objective sense of humor.

“That’s what I try to put across in my drawings.”

The artistic lieutenant started drawing at an early age, but like many people who dabble in art as a hobby, she never sought professional art training. Nevertheless, as a teenager, she won awards in city and state competition. At 14, her accomplishment of getting two of her drawings published in a national magazine sent her “walking on ‘cloud-nine’ for about a month.”

She said that drawing has always been a way to release her emotions, and recalled that during her early years she experienced many strong feelings.

“I watched my dad sail away many times,” she said. “He was a chief petty officer in the Navy, and spent most of his career afloat. Each time he left, there was a lot of sadness, but then when he came home again we were happy and excited.

“He loved his job, and I envied him for getting to travel all over the world. I wanted to be the one going on the cruise rather than being the one left waiting on the pier.”



Career

During her senior year at the University of Colorado, Nan Benson began searching for a job. With two years of engineering courses and a double major in statistics and marketing, she felt a challenging and rewarding job would not be difficult to find. She looked into the opportunities offered by some 30 different corporations, but each time came away frustrated and disillusioned. She felt they were less concerned with her potential and more interested in her personal matters, like her future plans for marriage and a family.

"Some companies said that I was technically overqualified; others said I was too young," she said. "In virtually every case, the jobs that were offered were not nearly as challenging as I desired, nor did most of them hold the promise of significant advancement."

Remembering her father's enthusiasm about the Navy, she went to see the local recruiter.

"Even now, many years after his retirement, my dad still gets excited when he sees a destroyer. I thought that there must be something about the Navy to make it stay with a person."

The Navy recruiter was interested in the young woman's potential and offered her a career that was *not* just one of those "for women only" jobs.

At the Navy's Officer Candidate School (OCS) in Newport, R.I., she discovered that women officer candidates followed the same curriculum as the men "and did an admirable job, too . . . to the surprise of some," she recalled.

Her training at OCS included hands-on experience aboard the school's squadron of patrol craft, even though the laws at that time precluded women from serving aboard ships.

"We candidates thought it was an archaic law that prevented us from serving at the heart of the Navy," she said, "but now that sea duty is available to women, I definitely see a tour aboard ship in my career."

After OCS, she reported to the Navy Supply Corps School (NSCS) at Athens, Ga. It was there that she drew a cartoon strip for the school's newspaper and introduced the character of Ensign Broadside.

The six-month curriculum at NSCS was fast-paced and comprehensive. "It was unlike anything I had ever faced in college—12, maybe 14 months of learning crammed into six months. We had to master some 88 'pounds' of publications in only 26 weeks."

During her studies at Supply School, as well as later in her Navy career, Benson-Schlax's drawings of Ensign

Broadside characterized a young woman's struggle to become an effective officer and manager.

"I still meet senior officers who express surprise that women are receiving training at Athens," she said. "I thought it was common knowledge in the fleet, but the longer I'm in the Navy, the more I find this not to be true."

LT Benson-Schlax said that women supply officers may expect such reactions until there are more of them in the ranks.

From NSCS, she reported to her first command in San Diego. Convinced



As director of the receiving division at NSC Pearl, Supply Corps officer LT Benson-Schlax manages a work force of 26 people.

Finding the Right Career

that her success in the Navy depended on more education, Benson-Schlax began taking courses through the University of Southern California, under one of the Navy-sponsored post-graduate programs.

“Working full-time during the day and going to school at night got to be a grind after awhile,” she said. “There were days when I would work eight hours, spend five hours at night school, and then stand a watch from midnight until eight the next morning.

“Believe me, it was a long two years.”

When it was over, LT Benson-Schlax received her master’s degree in systems management. She was then transferred to the staff of Commander Naval Air Forces, Pacific (also in San Diego), as assistant fleet budget analyst/controller.

Her experience in the Navy thus far had convinced her that she had found

the career she wanted “especially after hearing what had become of the so called ‘great’ civilian opportunities my college friends had bragged about.”

Benson-Schlax was growing more confident. She had advanced to lieutenant and her new assignment at ComNavAirPac exposed her to the “big picture of the Navy’s financial system.” ENS Broadside, her cartoon character, was still an ensign, still having her embarrassing moments.

It was while at ComNavAirPac that LT Benson met LT Tom Schlax, also a supply officer.

“Shortly after we became engaged, Tom left for duty in Iran,” she said. “We felt prepared for the long separation, but nothing prepared me for the devastating loneliness I felt.

“Every person copes with a problem in his own way. For me,” she said, “the best approach to the separation and loneliness was work. I was so accustomed to night classes that I went back to school for a master’s in business administration.

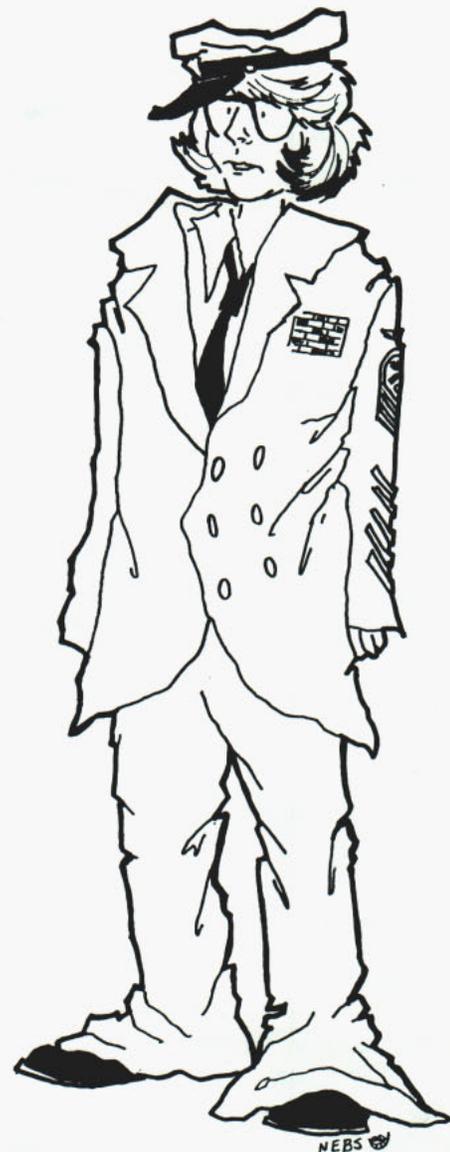
“If anyone had told me I would have a bachelor’s degree and two master’s by the time I was 26 years old, I never would have believed them.”

Tom came home, and Nan Benson became Nan Benson-Schlax. The decision about the name, she said, was so “I could maintain my professional identity while simultaneously acknowledging my change in marital status.”

From San Diego, LTs Schlax and Benson-Schlax reported to their respective duty stations in Pearl Harbor, Hawaii: Tom to duty as supply officer aboard a guided missile destroyer, and Nan to the material department at Naval Supply Center.

“From what I’ve been told, I am the first woman supply corps officer to be assigned to NSC Pearl,” she said, “and, as director of the receiving division, I am in what has traditionally been a man’s world. In the beginning, I sensed some anxiety on the part of the 19 men and seven women I supervised, but things have worked out extremely well.”

Both lieutenants say that the Navy



“Dad, I know you want me to follow in your footsteps . . . but this is carrying things a little too far!”

will continue to be an important part of their lives.

“We understand and accept the fact that someday we again may be stationed apart, but no one said it was going to be easy,” said LT Benson-Schlax.

One of the Navy’s few female supply corps officers, LT Nan Benson-Schlax has found the rewarding and challenging career that she once so desperately sought. Every assignment and every degree (she’s a candidate now for a Ph.D.) adds to her professionalism and her confidence.

“And, who knows,” she said, “I may even promote ENS Broadside to lieutenant (junior grade).”

—Story by LCDR John E. Jackson, SC
—Photos by JO2 James G. Bryant



“I’m sorry Captain . . . either this is the latest uniform change or the Communication Station garbled the message!”

Getting More for the Money

Realizing that the energy shortage will be around for some years to come, the U.S. Navy is leading the way in energy conservation with its design of the new LSD 41-class dock landing ship. The Navy expects to reduce fuel consumption 30 percent in these new

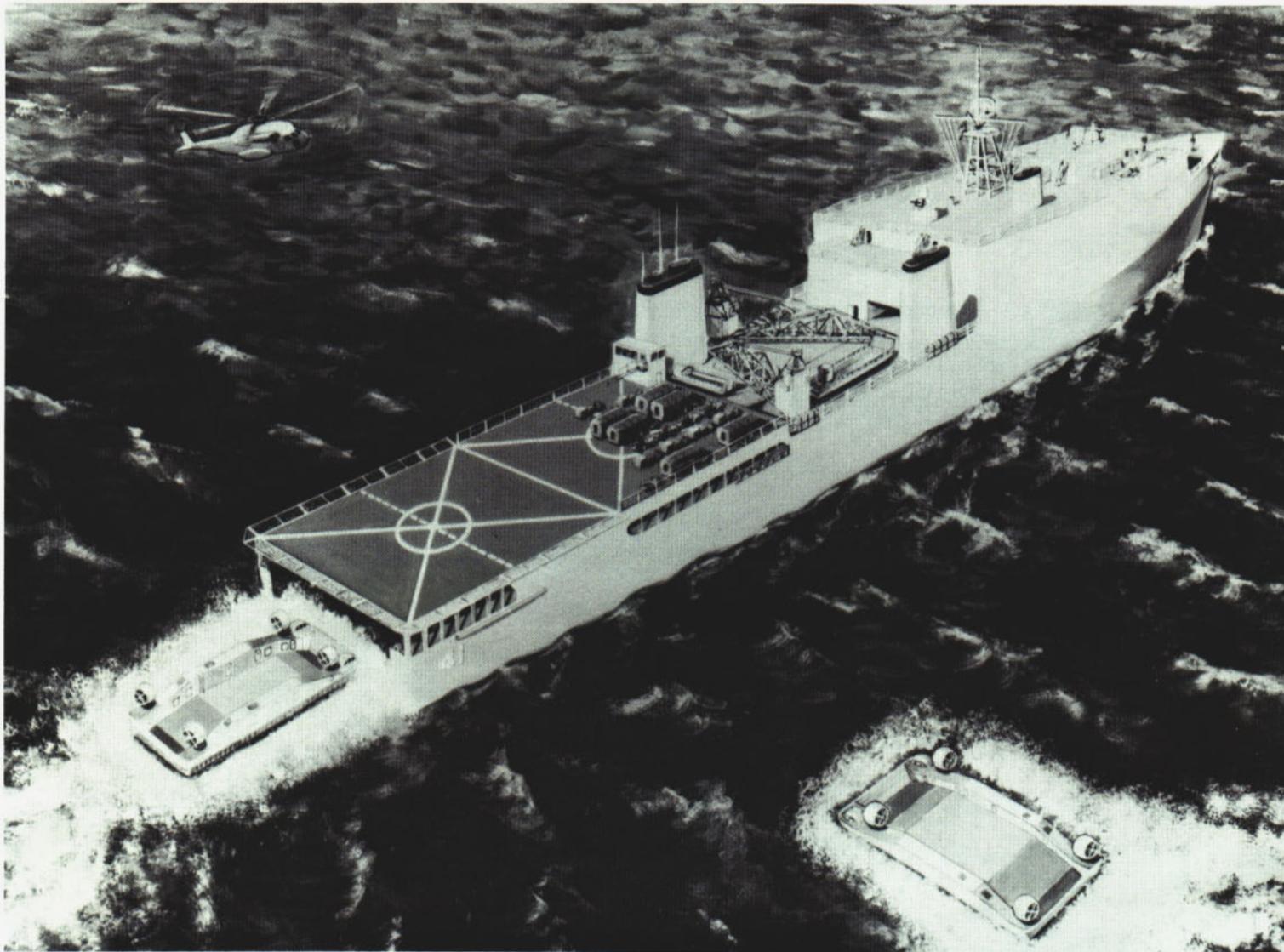
amphibious ships by using engines already proven in marine service worldwide.

Although similar in appearance to existing dock landing ships, the new LSDs are far different. Major changes are in the propulsion system, well and

flight deck design, habitability and armament.

Propulsion

Early in the design stage of the LSD 41 (as yet unnamed), it was found that the ship could be powered by diesel



Getting More for the Money

engines, gas turbines, or a conventional steam plant as used in the LSD 36 (*Anchorage*) class. Analyses showed that the diesels offered improved fuel economy and that several American-made diesels were available to do the job. Engineers selected medium-speed diesel engines for the LSD 41 power plant.

Since the diesel uses less fuel per mile, the ship will carry less fuel and still meet its cruising range requirements. Net result is that the LSD 41 will be less costly to acquire and operate than a ship with gas turbines or a conventional steam plant.

Big savings in fuel consumption and costs are expected to be realized in the planned 30-year life of the new ship. The eight new LSD 41-class ships, which are designed to replace, eventually, eight ships of an older class, will save more than 2.5 million gallons of fuel per ship a year. At today's costs, this amounts to an annual saving of some \$1.3 million a ship, or \$40 million over the life of each ship. These figures, projected last July, have already increased and the overall saving achieved by each ship is bound to be much higher than the quoted \$40 million.

The LSD 41 is slated to have four diesels installed—producing about 40,000 horsepower—more total output than the steam plant of an LSD 36-class ship. Because of higher front end costs for the new engines, initial installation cost of the diesels will be slightly more

than for an equivalent steam turbine plant. One of the costs involves construction of a land-based test site for the new medium-speed diesels to research and develop the propulsion system. Additionally, there is the added cost of training engine room personnel to operate and maintain the new system.

Still, all of these costs will be recouped because the LSD 41-class ship's initial purchase price is less than that of the purchase price of the larger steam-driven or gas turbine ships.

Habitability

Habitability for both the crew and embarked troops will be improved noticeably in the new dock landing ship. Berthing areas will be in the deckhouse instead of in the wingwalls.

The inboard passageways will be offices or repair shops instead of living spaces, which will be located in the deckhouse away from the traffic flow.

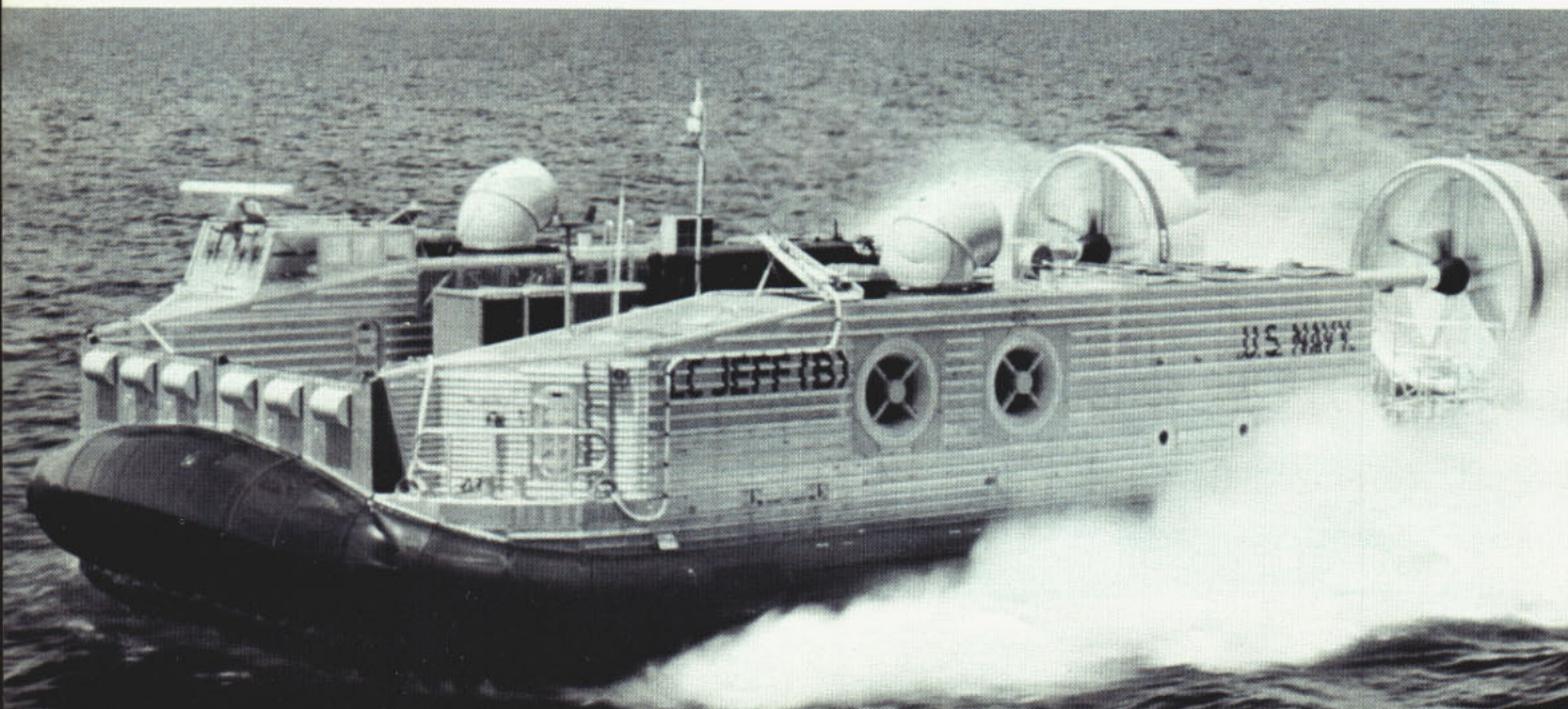
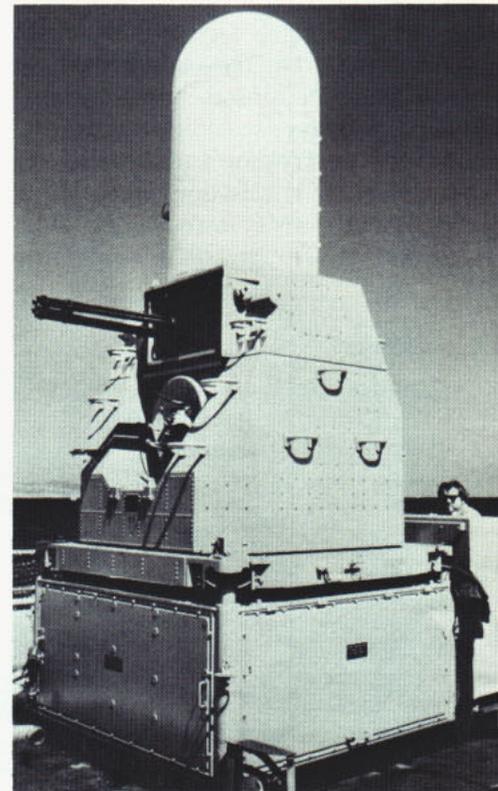
Embarked troops will encounter another pleasant surprise in their berthing arrangements—no more four-high racks and small storage lockers. Habitability standards will be the same for troops as they are now for the crew.

Another change involves the central galley and scullery. Gone are the wardroom and captain's galleys—all food is prepared in a central galley. Mess management specialists assigned to the wardroom and captain receive food

from the central facility via dumbwaiters and return used dishes to the scullery by the same method.

Amphibious Design

The most noticeable change in the new dock landing ship is the larger flight deck. While other LSDs have room for only one helicopter, the LSD 41 has a "one-plus-one" capability. This permits flexibility as mission requirements vary.



Normally the ship can accommodate two helicopters. If necessary, the forward portion of the flight deck may be used for vehicle storage instead of accommodating a second helicopter.

Not as obvious as the flight deck change is the difference in the ship's well deck. The LSD 41 is the first dock landing ship designed to accommodate the air-cushioned landing craft (LCAC) scheduled to enter Navy use in 1985.

The ship's "drive through" capability allows vehicles to be driven directly to the flight deck or well deck without using mezzanine decks. Mezzanine decks, which are necessary in the *Thomaston* and *Anchorage* class LSDs, are large, portable, metal grates placed between the well deck and the flight deck. Using ramps, vehicles could be driven from the well deck to the mezzanine deck and then to the flight deck.

In the LSD 41, mezzanines have been eliminated. Vehicles as large as five-ton trucks drive up a portable ramp from the well deck to the deckhouse. In the deckhouse, a turntable turns them around and they proceed up built-in ramps to the flight deck. During an amphibious assault, vehicles can quickly be delivered to either helicopters or landing craft for transfer to the beach.

The vessel also has greater crane capacity than earlier dock landing ships. While *Anchorage* class LSDs carry two 50-ton cranes, the LSD 41 class will have one 60-ton and one 20-ton crane.

Vital Statistics of the LSD 41, LSD 36 and LSD 28

	LSD 41	LSD 36	LSD 28
Length (Overall)	609'	553'	510'
Beam	84'	84'	84'
Draft (Full load)	19'7"	18'6"	17'9"
Displacement (Full load)	15,774	13,500	12,150
Payload			
Crew—normal complement	376	361	353
Troops	338 plus 102 surge	338	318
Vehicle capacity (sq. ft.)	12,800	12,000	10,200
Cargo capacity (cu. ft.)	5,000	1,200	2,500
Boat capacity (LCM 6 size)	21	15	15
Helicopter capacity	1 plus 1	1	1
Speed	over 20 knots	20	20
Crane capacity	one 20-ton one 60-ton	two 50-ton	two 50-ton

This will give more versatility in load handling, especially if the Marines go to a 60-ton tank.

Armament

Gator sailors will notice the typical 3-inch 50-caliber guns are missing from the new LSD 41. In fact, there will be no conventional offensive or defensive weapons on the new ships other than 20

millimeter machine guns. There will be some unconventional ones, however.

The new Close-In Weapons System (CIWS) consists of a highly modified 20mm machine gun firing 3,000 rounds of heavy lead per minute. This "Gatling gun" can blacken the sky with the amount of ammunition it fires, locking onto a target and proceeding to shred it.

Overall, the LSD 41 will be a great improvement in the amphibious force of the U.S. Navy. Still, however, it will do the job Gators do best: "Land the landing force."

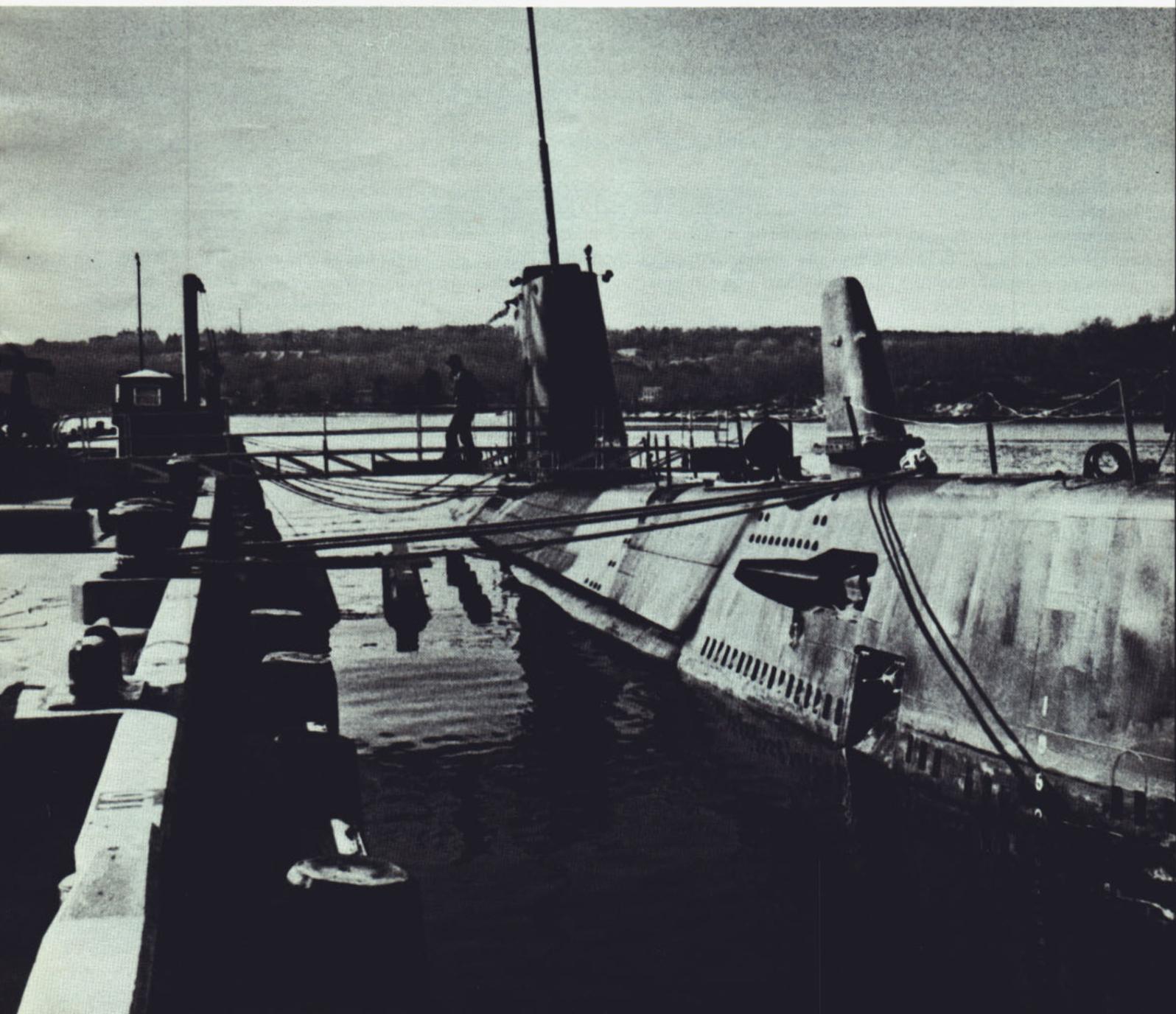
—Story by JO2 Bob Rucker



Far left: JEFF B, a prototype of the air-cushioned landing craft (LCAC) to be carried by LSD 41, skims the water on a trial run. Top: Close-In Weapons Systems (CIWS) "Gatling guns" will protect the LSD 41 class. Left: LSDs of the Thomaston class will be relieved by the LSD 41 class.

A Name to be Remembered

A Diesel Boat Named Tang



Like the snail darter, another North American marine form faces extinction. The limited supply of fossil fuel has signalled an end to the diesel submarine and its disappearance will end a historical era seafarers will long recall.

First recognized as offensive predators during World War I, the gray shapes stalked the enemy over the high seas. By the close of World War II, they had wreaked havoc with their deadly stings in both the Atlantic and Pacific Oceans.

Today, however, only seven diesel-electric submarines remain in the U.S. Navy; our journey into the atomic age

is almost complete, at least for submarines.

On Feb. 8, the oldest diesel-electric submarine in the Navy and the last operational one in the Atlantic Fleet, USS *Tang* (SS 563), was decommissioned and the famous name retired from the Navy's list of ships.

However, unlike the dinosaurs whose fossilized bones are their epitaph, the diesel boats' sea-battered hulls won't be their epitaph. Instead, the submariners who served in them will be.

In *Tang's* case, the submariners are those who served in two boats bearing the name. The first was USS *Tang* (SS

306), now lying 180 feet below the surface in the Straits of Formosa. Most of its gallant crew perished when an erratic torpedo from its own tubes sunk the boat shortly before midnight on Oct. 24, 1944, during a daring surface attack on a Japanese convoy. Seven years later on October 25, 1951, the second USS *Tang* (SS 563) was commissioned and was the first of the modern fast attack submarines and surrogate

USS Tang (SS 563) pierside at New London. Below: MS3(SS) Billy J. Cassio shows off his third generation dolphins, his "Diesel Boats Forever" insignia, and his Tang button.



A Diesel Boat Named Tang

parent of the U.S. Navy's nuclear power submarine force.

Both submarines have left indelible records for future submariners to follow, to recall the fading, silent warriors of the deep.

The SS 306 served only one year before its untimely loss but etched into the annals of naval history a record unmatched. In only nine short months, *Tang's* skipper and crew—in five war patrols—aggressively sought out enemy shipping and exacted a terrific toll. They averaged one enemy ship sunk every 11 days—a rate twice that of any other U.S. submarine during the war. *Tang* sunk nearly 100,000 tons of Japanese shipping in enemy-controlled waters and rescued 22 downed naval aviators off the island of Truk. That *Tang* was awarded two Presidential Citations, making it one of only three Navy ships so honored.

The fifth patrol of the SS 306 was called "one of the great submarine cruises of all times," by Vice Admiral Charles A. Lockwood, Commander U.S. Pacific Fleet Submarine Force during World War II.

During the ill-fated patrol, *Tang's* seasoned crew challenged two large, well armed, and heavily escorted convoys bound for the Philippines. Without any support, it sent every supply ship of both convoys to the bottom in surface attacks. The heroic effort began on Oct. 23, 1944, when *Tang's* crew sent the five ships of the first convoy to the bottom in only 10 minutes and continued 24 hours later when they sent the second five-ship convoy to the bottom. But their last torpedo ran erratically and began a circular run. Twenty seconds after firing, the torpedo hit *Tang's* stern. The boat sank immediately. The commanding officer, Lieutenant Commander Richard O'Kane, and eight other crewmen on or near the open bridge at the time survived to spend the remainder of the war in a Japanese prisoner-of-war

camp. *Tang's* war effort was summed up in its second Presidential Citation:

"A seaworthy, fighting ship handled brilliantly by her gallant officers and men, *Tang* rounded out her previous distinguished record of achievement by crushing blows against the enemy's power to wage war, thereby, materially furthering the vital operations to control the Pacific. . . ."

By 1948, the Navy's submarine force saw the development of a new hybrid submarine. The U.S. diesel boat and German U-boat yielded the first fast attack submarine—USS *Tang* (SS 563).

From its initial planning, the new *Tang* introduced the fast attack con-

cept to the submarine community with its streamlined hull, integrated snorkel system, and increased speed and depth. The SS 563's design incorporated the total submerged operation concept from the U.S. Navy's World War II submarine experience as well as the submarine experience of our enemies.

At the SS 563's commissioning, seven years after its namesake's sinking, a passage in the program by W. R. Anderson, the executive officer, interlocked the soul of both boats.

"We pay tribute in assuming our duties on the new *Tang* to our valored comrades, most of who lost their lives on Oct. 24, 1944. Fate cut down your



MM3(SS) Glenn R. Nicholes at his diving station. Opposite: QM1(SS) Michael K. Scroggins stands by the navigational periscope.

fighting submarine at the very hour you deserved the greatest laurels of victory. We cannot replace you, rather, we hope that we shall capture some of your skill, some of your devotion to duty and country, and some of your gallantry. We shall endeavor to be a credit to your memory and we shall strive to justify our affiliation with the name you and your heroic commanding officer have enscrolled in the history of fighting ships of the Navy. . . .”

Thus began the 30-year career of a submarine that provided shipbuilders with the pattern for the first eight U.S. nuclear powered submarines of the *Nautilus*, *Seawolf*, and *Skate* class.

Tang outlasted four of those submarines before being decommissioned.

Tang's first crew found themselves with the task of helping to construct and make this “modern” submarine work.

“It was a 24-hour-a-day task,” recalled retired Captain E. P. Huey, the 563's first skipper.

“One of my successor's said when he was there, back in the olden days, they had trouble with *Tang*'s fresh water plant. It just so happened some of the 563's commissioning engineering types were around and explained, ‘We didn't have that trouble because we made it work the first time.’”

The *Tang* quickly established itself as a submarine capable of meeting operational commitments while remaining flexible. Even a fire in the pumproom didn't prevent the crew from setting a diving record on their first deep dive.

“On this particular dive, we were down to the 500-foot mark when word came there was a fire in the aft pumproom,” said CAPT. Huey. “According to eyewitness reports, a troublesome fireman down there saw it was an electrical connection causing the fire. So he kicked it . . . broke the connection and shot it with a fire extinguisher putting out the fire.”



A Diesel Boat Named Tang

"We continued the dive and completed it successfully to our test depth. And that fireman, after the incident, squared away and ended up being one of the contributing sailors on board," he said.

After the initial sea trials and while in the midst of its shakedown cruise, *Tang's* submariners showed how flexible they could be by making an unexpected transit from Panama to Pearl Harbor.

"We had gotten about halfway through our shakedown cruise and had been given tentative approval for a cruise to Panama pending concurrence from the Commander-in-Chief U.S. Pacific Fleet," said CAPT Huey. "The request had been sent, we were en route, and usually it was just a 'rubber-stamp' approval. However, in this case, they said why don't we knock off the six-week cruise and report to the fleet early.

"We tried to 'hand-wrestle' out of reporting early but as you can guess, when you try to 'hand-wrestle' with someone who talks with four stars, we reported six weeks early."

So as the SS 563 chopped to the Pacific Fleet they sent this message, "Chopping to Pacific Fleet answering all bells on four engines."

"The crew of 563 was pretty proud of going from Panama to Pearl Harbor without any major problems," said Huey.

A chief engineman on board at the time claimed to have invented a new bathing method for submariners.

"I had the dubious honor of being responsible for the auxiliaries and I took more baths in hydraulic oil than anyone in the world."

Tang continued to answer all bells from its Hawaiian home port and conducted the full range of multifaceted submarine operations for 20 years. During those years, its submariners completed 11 Western Pacific deployments, 18 special missions including the initial polar exploration for the *Nautilus'* Trans-Polar voyage, and four Vietnam patrols. *Tang* earned six battleship efficiency "Es," four ASW "As," and four engineering "Es." The

last engineering "E" was won in 1979 after 30 years' service, and almost four years out of overhaul. In addition, the SS 563 served briefly as the flagship of the Commander U.S. Pacific Fleet Submarine Force.

As *Tang* matured, advanced technology brought vast sophistication to submarine warfare. *Tang* constantly incorporated the improvements into its hull including replacing the original 'pancake style' engines with the present three Fairbanks-Morse engines. It also underwent extensive sail modification and modernization and two 'hull stretches' to provide space for an extensive sonar, electronic and ventilation modernization. The 'hull stretches' were engineering marvels in ship overhauling as the boat was severed in half, pulled apart, and new sections dropped into place.

Today's *Tang* measures more than 292 feet in length and displaces more than 2,000 tons, making it 600 tons heavier and more than 22 feet longer than the boat that slid into the New Hampshire waters in 1951.

In 1972, *Tang's* crew found their boat and themselves in a new home port—San Diego, and with a new mission: antisubmarine warfare (ASW) research and training. The new job brought with it a new designation "AGSS" for the 563. Under a heavy operational tempo, *Tang* dedicated itself to ASW training and several special CNO research and development projects for the next six years.

But in 1978, *Tang* shifted home ports once again. This time it went to New London, Conn., where the 563 was redesignated "SS" and became the only operational diesel submarine in the Atlantic Fleet and was once again heavily used in ASW training.

"*Tang* was outstanding in its ability to perform a valuable function for the Navy in respect to antisubmarine warfare," said Ensign Paul S. Schmitt, *Tang's* last weapons' officer.

With more than 5,000 dives, *Tang's* 'twilight cruise' had been anything but slack. For the past two years, SS 563 and its 79-man crew have lived day-to-day under a constantly changing opera-

tional schedule and an unknown future.

Shortly after Thanksgiving, the crew learned their fate and *Tang's* when waiting pierside after a two-week operation were *Tang's* decommissioning orders and 40 Turkish naval officers and chief petty officers. Once *Tang* retired from the U.S. Navy, it began a

Tragic

A convoy contact popped on the radar screen and the skipper, eager to sink enemy ships, charged straight toward the convoy.

Ten torpedoes were fired in rapid succession as ear-shattering explosions sounded each hit of the daring surface attack. The Japanese ships in the convoy erupted in flames one after another as the USS *Tang* (SS 306) bore away to reload.

On Oct. 24, 1944, *Tang* and its skipper, Lieutenant Commander Richard O'Kane (now a retired rear admiral), saw their last action of World War II in the Straits of Formosa where they had deeply penetrated the Japanese-controlled waters.

Precisely at 9 p.m., *Tang's* luck ran out.

Having loaded its last two torpedoes, O'Kane took *Tang* back in amidst its earlier handiwork. The night glowed with the wild orange light of the burning tankers and transports.



new career with the Turkish Navy as the first modern class U.S. submarine in their navy. It was leased to Turkey for five years under the Security Assistance Program.

"The main significance of *Tang's* retirement is that it is the first ship of the U.S. Navy's modern-designed submarine force," said Commander U.

Dean Hekel, *Tang's* last skipper. "And it marks the end of the diesel submarine era for the U.S. Navy."

Most of the sailors seeing the time-tested veteran through the final days weren't even born when its steel hull first splashed into the water. Nevertheless, the youthful crew overcame each obstacle they encountered by hinging

their drive and high morale on diesel boat tradition.

"Tradition was a major factor behind *Tang's* success and high morale," said Senior Chief Yeoman William L. Reynolds, a qualified diesel submarine chief of the boat. "There's an old saying, 'If you want to wear the name, you have to play the game.' If a sailor

Loss of the Defiant Sub

Tang bore in on a crippled transport at full speed and fired its last two torpedoes.

The first ran straight and true.

Then, the 24th and last torpedo suddenly broke the surface and commenced an erratic circular run.

Emergency speed and right full rudder were ordered. *Tang* began initiating a "fishtail" maneuver. The frothing wake of the screw and the black stream of exhaust told that the engineering gang was doing its best. But *Tang* answered up too late.

Within 20 seconds, the torpedo hit *Tang's* stern and the boat sank immediately. The jarring concussion from the explosion whipped the boat, knocking all hands topside overboard.

Trapped crewmen of the forward engine room and after battery compartments negotiated their way to the forward torpedo room and the sub's escape hatch. But their escape was hampered by raging fires in the com-

partments and Japanese escorts who were dropping crashing salvos of depth charges on the mortally wounded boat.

Thirteen men managed to escape, using Momsen lungs (portable breathing devices), from *Tang's* watery grave 180 feet below the surface. Only five, however, reached the surface; they clung to debris until picked up by the Japanese. The five are the only Americans ever to escape from a sunken submarine on their own and live to tell about it.

Of the nine officers and men on the bridge, only three survived. Another officer escaped through the flooding conning tower. In all, nine officers and crewmen survived, including O'Kane, and all were subsequently beaten by their captors. They spent the remainder of the war in a Japanese prisoner-of-war camp.

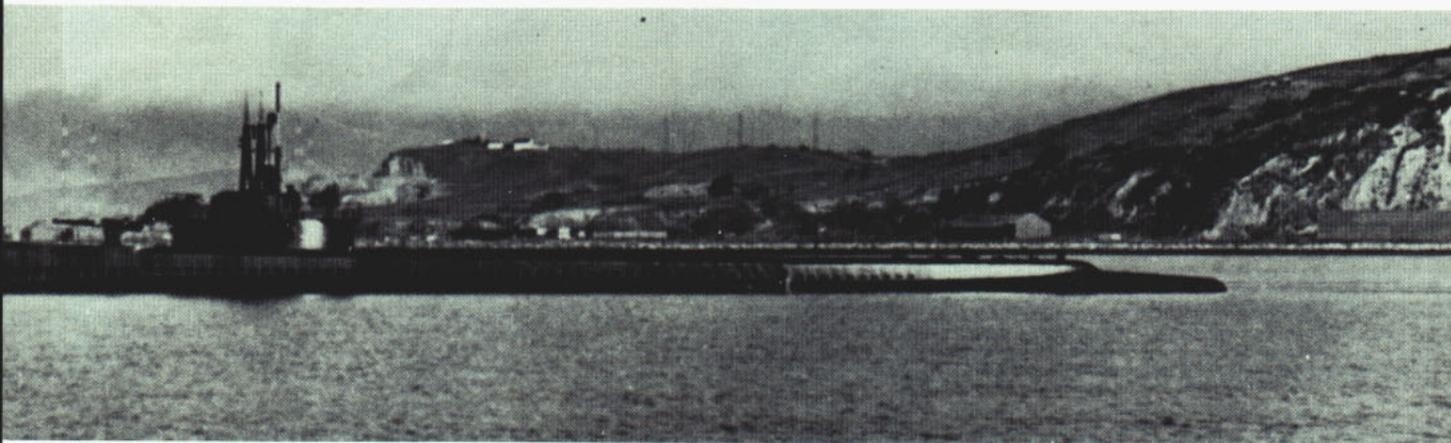
Tang's untimely loss came just one year after commissioning. But its gallant officers and men inscribed a

record unmatched in Navy annals. In five war patrols, *Tang* sunk nearly 100,000 tons of Japanese shipping at a rate of one ship sunk every 11 days, twice that of any other U.S. submarine. Overall, *Tang* sunk 24 Japanese merchant and naval ships—ranking second in sinkings and fourth in tonnage.

Only once did *Tang* return from a patrol with some torpedoes unfired. But then it carried 22 naval aviators it had rescued when on lifeguard duty during the United States attack on Truk.

For extraordinary heroism, *Tang* was awarded two Presidential Citations. O'Kane received the Medal of Honor.

Tang's first citation recalls the crew's devotion: "The brilliant and heroic achievements of this vessel reflect the highest credit upon the courage, seamanship, and determination of her officers and men. . . ."



A Diesel Boat Named Tang

wants to be a diesel submariner, he has to put up with minor difficulties.

"I was really impressed at exactly how much the younger guys identified with the diesel submarine community," he added. "They would rather have given up their girlfriends than get transferred."

"*Tang's* crew was superb," claimed CDR Hekel. "We were always undermanned, yet, we had one of the highest operational tempos of any Atlantic Fleet submarine and the crew handled operational, and mechanical situations in a highly professional manner. Everybody worked hard so we could provide our allies with the best boat we could."

Tang's No. 3 engine followed the lead of the crew's topnotch performance.

"Well, the No. 3 engine went so long without breaking down and had the fewest problems of all three engines we gave it its own 'Official *Tang* Hero Award,'" said Machinist Mate Third Class Glenn "Nick" Nicholes.

The bright orange-yellow "Official *Tang* Hero" buttons were awarded to individuals for recognition of a job or event well done that wouldn't normally get any official recognition.

For the past crew members of 563, *Tang's* retirement marked the disappearance of the diesel boat in the Atlantic Fleet. Today, the remaining seven boats all patrol the Pacific.

"*Tang* was in good shape but needed a yard period," claimed Chief Engineer Adolph Marshetz, a 24-year diesel boat veteran. "After that, it would have been good for another five to ten years. To me, this was a young boat, I've been on older ones."

Remorse and regret were running high among the '*Tang*masters,' as the crew turned over their old shipmate.

"It means the end of a good home," said Mess Specialist Third Class Billy J. "B.J." Cassio. "Diesel boats are good times, good places and good people."

"It's kinda like losing an old friend.

We went through a lot of changes, been to a lot of different places, and it's all been at a hectic pace," said Torpedoman Second Class William "Whit" Whitmer.

For *Tang's* submariners the good times in the last three years were spent in 18 ports in nine Caribbean Islands and five states including a port visit to the 1979 Mardi Gras.

The retirement of the diesel boat also marks another milestone in the decline of a select brotherhood of sailors—the diesel boat submariners—the men who created the esprit de corps of the submarine force.

"To some degree we're the last of a breed," said Senior Chief Reynolds. "Some things don't continue once the environment changes. On *Tang*, everybody was primarily a diesel boat sub-

mariner first and their job specialty second."

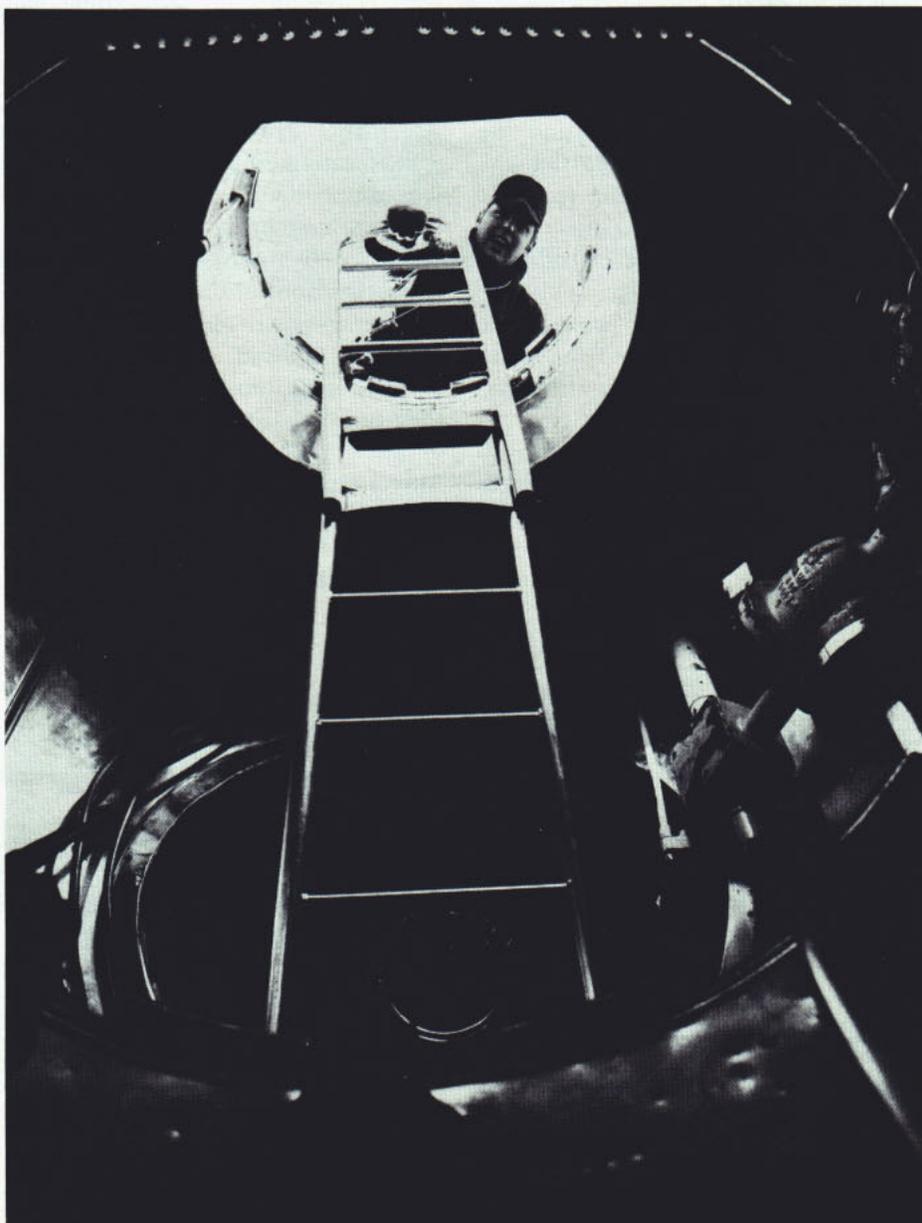
The slogan "Diesel Boats Forever" seems dated now, but the diehard diesel submariners won't let it die.

"There are a lot of submariners out there who won't let the diesel boat totally die," said Reynolds. "We've got more diesel submariners out there than we have boats for them to man."

Nevertheless, the era of diesel-electric submarines is drawing to a close. Only their contributions in war and peace and the men who served on them are their legacy as the nuclear-powered submarine emerges as the future of the U.S. Navy's submarine force.

But, even so, they were sired by a diesel boat called *Tang*.

—Story by JO1 James R. Giusti



A *Tang* sailor shouts out before descending the forward ladder.

They're Not Handed Out...

The silver insignia he wears over his ribbons tells his shipmates that this sailor is no longer a wet-nosed recruit. He's qualified now.

He earned the famous emblem through long hours and hard work qualifying on every system on the boat. Now, their operations and purpose are embedded into his mind. He's a submariner—his dolphins say so.

Probably no other community in the Navy today or in years past has had the esprit de corps of the Submarine Force. The dolphins each submariner earns and wears with pride are the common bond of these handpicked volunteers.



Dolphins aren't just handed out as a sailor reports aboard. Instead, each man must show he's capable of earning and wearing them through an extensive training and testing program in every U.S. Navy submarine.

"They symbolize one of the most important things in the submarine service," said Commander U. Dean Hekel, commanding officer of USS *Tang* (SS 563). "The qualification program of each boat is one item that's important and critical in keeping the high standards of safety and operation in the submarine community. It takes an enlisted man nine months and an officer one year to earn dolphins. And I stress the word 'earn.'"

Submarine "quals" originated with the first U.S. Navy diesel submarine and have been carried into today's nuclear-powered community.

"The Navy went on the basic assumption that a man on a submarine,

in event of a casualty, would need to know how to operate the equipment in whatever compartment he was in," said Lieutenant Commander Larry A. Hillerman, *Tang's* qualification officer and navigator. "It's essential for boat and crew safety that submariners be qualified on every system."

Every enlisted man and officer who reports aboard as a "non-qual"—an unqualified submariner—has to go through the qualification training program. Qualified submariners reporting to another class boat go through a re-qualification program.

Tang's regimen required each

enlisted trainee in the 36-week program to obtain a signature a week from a qualification petty officer. Crewmen who fell behind found their liberty delayed continuously until they brought their qual cards up to date.

"There are 27 systems on board *Tang* a sailor must know and every four to five weeks in the program, he obtains a review signature in the general area he's studying from a chief petty officer," said LCDR Hillerman. "Once a sailor has all the systems signed off, he then goes before a qualification board composed of an officer and three qualified enlisted personnel where he demonstrates his knowledge of the ship and answers their questions before he will be certified."

"A sailor not only learns how to operate the boat both mechanically and mentally," said CDR Hekel, "he also learns to get along on the boat and accept responsibility."

The officers' program requires a year of training with their qualification board convened by the squadron commander. In addition to learning the boat's systems, an officer must qualify as diving officer, officer of the deck surfaced and submerged, engineering duty officer, and command duty officer along with demonstrating a knowledge of general submarine operations and tactics.

"It's a lot of hard work, trying to run a department and qualify at the same time," said Ensign Paul S. Schmitt, *Tang's* weapons officer and last qualifying officer. "But it's a good feeling once it's done to be able to say, 'Hey, I qualified on a diesel submarine.'"

Whether officer or enlisted, the feeling of pride clearly shows on each man's face when the skipper pins on the dolphins.

In one case aboard *Tang*, the dolphins were third generation. When Mess Specialist Billy Joe "B.J." Cassio received his dolphins during a ceremony on *Tang's* mess deck 300 feet below the surface, it was in keeping with a family tradition.

Cassio is the third family member on his mother's side to earn dolphins and wear handed-down dolphins. Besides keeping the dolphins in the family, the 22-year-old cook was the second family member to serve on and qualify on *Tang* before its decommissioning in February.

"Before I knew what was going on," said Petty Officer Cassio, "the captain was reading a letter from my uncle (retired Lieutenant James S. McDonald), recalling his qualification and presentation of the dolphins on *Tang* as an enlisted man and later as an officer. I turned 15 shades of purple but it was great.

"These dolphins really mean a lot and it's probably one of the biggest things to happen in my life."

Bearings

They're Buttoning-up in Newport

The Naval Education and Training Center (NETC) in Newport, R.I., doesn't claim to possess a secret formula for saving energy. Yet, since 1975, NETC Newport has achieved an enviable 31 percent reduction in energy consumption. They've saved year after year while other places in the country reported increase after increase in energy use.

The answer to NETC's success is simple. The public works department and other folks there waged an all-out war against wasteful energy habits and inefficient systems. "Save Energy" has become more than just a slogan at Newport, and dollar-saving/energy-saving results bear this out.

Consider NETC's boiler tune-up program at its power plants. Measurable losses of heat and pressure have been effectively reduced by a stepped-up preventive maintenance and inspection schedule that keeps mechanical equipment and boiler systems operating at maximum efficiency.

The command uses gas-saving, compact cars to save fuel, and also employs an engine analyzer to keep them and other command vehicles running at peak performance.

It has reduced the number of vehicles

on the road by providing radio-dispatched taxis, usually a van and station wagon, which serve some 100 patrons daily.

By using fluorescent lights in place of incandescent bulbs indoors, and installing sodium vapor lights outdoors, NETC has gained more lighting with lower energy cost. Throughout the command, stickers have been attached to light switch plates urging that lights be turned off when not needed. Other signs and posters remind users to conserve water and heat. About 50 "energy monitors" keep a watchful eye on the progress of this energy-saving campaign.

The command estimates that it will



actually save about \$40,000 through the relocation of its supply comptroller operations and consolidated civilian personnel office from three buildings into two. Demolishing some old wooden structures, while adding insulation, storm windows and temperature control devices in some three dozen other buildings may yield another \$163,000 per year in energy savings.

The recent installation of an automated utilities management system (AUMS) provides computer-controlled monitoring and regulation of steam valves, dampers, heating ventilation and air conditioning systems in buildings throughout the command.

A profitable energy recycling system began when NETC started using 25,000-gallon "donut" tanks to collect waste oil from the bilges of destroyers and minesweepers homeported in Newport, as well as contaminated fuel and oil from other ships, aircraft, and even road vehicles. When one of the tanks is filled, it is stored for about a year to permit sediment to collect on the bottom. Reusable fuel left floating on top is then skimmed off for burning at the power plants.

Newport's command-wide attack on the energy crisis has not been the business of only a few—it's been everybody's business, and everyone at NETC Newport is doing a good job at making it a profitable one. —by Frank Pritchard



Reservists Aid AIMD

Two weekends a month, about 80 selected air reservists—all avionics specialists—of Detachment 184 from Naval Air Station Brooklyn, N.Y.,

board a military transport for Norfolk Naval Air Station in Virginia.

They arrive on Friday, remain two days and then return home Sunday night. Their stay in Norfolk is all part of a new program to help the Atlantic

Fleet Naval Air Force (COMNAVAIRLANT) cut down the backlog of repair work on aircraft in the Atlantic Fleet.

When the Brooklyn reservists arrive, they're joined by Norfolk-based reservists from Detachment 2186. Together, these units take charge of Norfolk's Aircraft Intermediate Maintenance Department (AIMD).

"The augmentation program enables the AIMD to operate seven days a week," said Naval Reserve officer Captain Dick Young, one of the program's planners. "It increases productivity, and, at the same time, provides valuable training for the reservists."

"The Norfolk-based unit has been doing this work for some time," said Lieutenant Commander Dewey Barnes of COMNAVAIRLANT, "but most reservists come from Brooklyn."

When an aircraft part requires repair beyond a squadron's capability, it becomes a job for AIMD. Each AIMD, like the one in Norfolk, stocks some \$33 million worth of aircraft repair and test equipment. The reserves accomplish everything from testing an electrical system to completely overhauling an aircraft engine.

"The most economical way of meeting our manpower requirements, particularly with respect to quality, is to make better use of our reserve forces," said Commander Naval Air Force, Atlantic, Vice Admiral G.E.R. Kinnear II. "I'm a big believer in the Naval Reserves as a source of talent both in war and peacetime."

"Frequently there is a lack of appreciation on the part of the Regular Navy as to how much talent is out there in the reserves, and how much help we can get if we'd only avail ourselves of it. That's what we're doing here."

Captain Young added: "If the reserves can receive better training and at the same time assist in improving the operational readiness of fleet aircraft, this demonstrates the 'One-Navy' concept."

— by LCDR T.R. Hegele
— Photos by JO3 Chris A. Durney



Want to be a Blue Angel?

The Blue Angels, the Navy Flight Demonstration Squadron, will select three pilots (one to be a representative of the Marine Corps) and a naval flight officer (1320) for the 1981 team. Final selections will be made in September 1980, but interested officers should submit applications as soon as possible.

Applicants should be tactical jet pilots or naval flight officers with 1,500 hours flight time, and going to or already on shore duty. Letters of application, endorsed by the applicant's commanding officer, should be forwarded to the Navy Flight Demonstration Squadron with a copy to the Chief of Naval Air Training and Commander, Naval Personnel (CNMPC) or Commandant of the Marine Corps. Letters of application should specifically include experience and qualifications.

Questions regarding application or comments concerning the mission of

the Blue Angels can be addressed to: Commanding Officer, Navy Flight Demonstration Squadron, Naval Air Station Pensacola, Fla., 32508 (AUTOVON: 922-2583; comm: (904) 452-2583).

The Blue Angels are also looking for qualified maintenance technicians in the following ratings: aviation machinist's mate, aviation structural mechanic (hydraulics), aviation structural mechanic (structures), aviation electronics technician, aviation electrician's mate and aircrew survival equipmentman.

For qualification and application information refer to the Enlisted Transfer Manual, paragraph 9.23. Additional information and appointments for personal interviews can be obtained from the Blue Angels' maintenance department by phoning AUTOVON: 922-2466 or comm: (904) 452-2466.

Bearings

NRS on Nassau

In time of need, many Navy people turn to the Navy Relief Society for help. Occasionally, there is a delay in obtaining aid, especially when the person is aboard a deployed ship. To avoid these unnecessary delays, Navy Relief is experimenting with placing offices on ships.

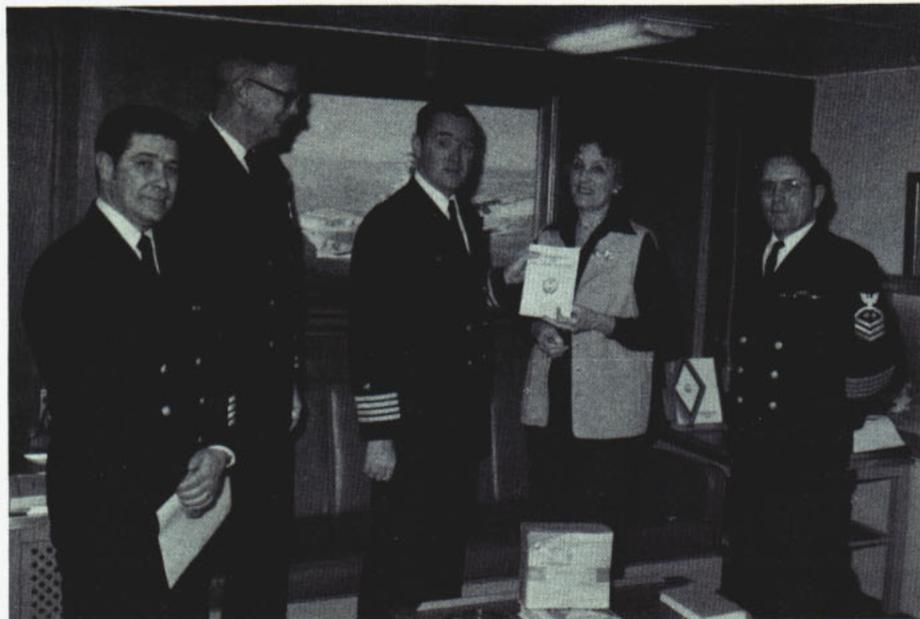
Participating in this experiment is USS *Nassau* (LHA 4), whose commanding officer, Captain William A. Kearns Jr., accepted the challenge from the Relief Society's president. Three members from the Norfolk-based ship—Commander Christopher B. Young (CHC), Chief Signalman Luis E. Alderman, and Data Processing Chief Harvey L. Lawson—volunteered for the program and were trained as Navy Relief Society interviewers and counselors.

Kilauea's Visit

Kwajalein Atoll, scene of heavy fighting and the first position in the Pacific (Marshall Islands) to be captured by U.S. troops in WWII, was the setting recently for the peaceful visit of the USS *Kilauea* (AE 26). Even though Japanese bunkers and bomb shelters still stand as grim reminders of the fighting that took place in 1944, Kwajalein's beautiful scenery and coral beaches beckoned *Kilauea's* crew to make the most of their visit.

While some swam at Coral Sands and Emon beaches, or played softball with local teams, other crew members viewed the atoll from the air. Aboard two CH-46 helicopters on training flights, they had an aerial view of Kwajalein's lagoon. At 655 square miles, it is one of the world's largest.

At Kwajalein's small but efficient "Macy's West," sailors went on a shopping spree, then dined at a plush restaurant. This gave *Kilauea's* crew a chance to meet some of the Atoll's residents.



A space aboard the general purpose amphibious assault ship was designated as the ship's Navy Relief Society office. Now *Nassau* crew members can save precious time by going directly to the shipboard office in-

stead of to the shoreside Hampton Roads Auxiliary.

(l-r) DPC Lawson, CDR Young, CAPT Kearns, Ms. Betty Burton, Executive Director of the Hampton Roads Auxiliary, and SMC Alderman officially open Nassau's Navy Relief Society office.

Student Loans

The Navy Relief Society has been helping the Navy and Marine Corps take care of their own for more than 75 years. Now the society has a new program to help educate Navy and Marine dependents—the Guaranteed Student Loan (GSL) program. The GSL program will lend more money to more people with less cost to Navy Relief than the society's old interest-free Education Program.

Students requesting loans must be U.S. citizens enrolled (or accepted for enrollment) in a U.S. Office of Education qualified school, and the dependent child (including step-child or legally adopted child) of:

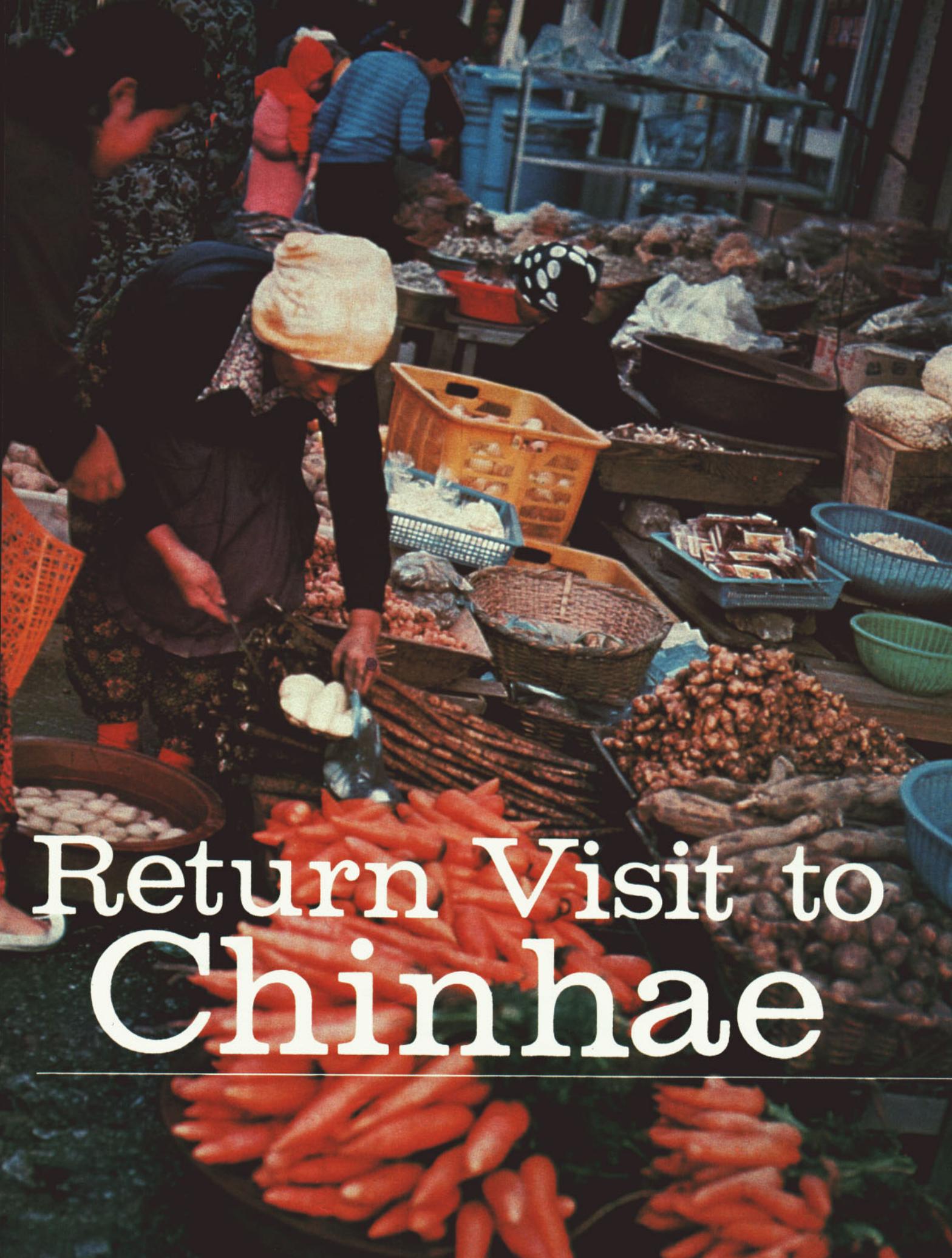
- An active or retired member of the regular Navy or Marine Corps;
- A member of the Navy or Marine Corps Reserves on continuous active duty; or,

- A deceased member of one of the above categories.

Students may borrow up to \$2500 a year for full time undergraduate study but the total loan cannot exceed \$7500. Additionally, students may borrow up to \$5000 a year for graduate or professional schooling but the total of both undergraduate and graduate loans cannot exceed \$15,000.

Unlike Navy Relief's current Education Program, which is supported directly from Navy Relief funds, the new loans are made by a New York City bank with the society's sponsorship. Repayment on the new loan begins 10 months following graduation or when the student leaves school. Interest at the rate of seven percent per year starts at the repayment date.

For details, contact the Navy Relief Society at 801 N. Randolph St., Suite 1228, Arlington, Va. 22203. Applications are now available for the fall (1980) semester.



Return Visit to Chinhae

Visit to Chinhae

If you've never visited South Korea, you have missed a real treat. Crew members from USS *Thomas A. Edison* (SSBN 610)—commanded by Commander Donald C. Tarquin—took that opportunity twice—and wouldn't have missed either chance.

During *Edison's* first short visit to Chinhae, a seaport on the southern tip of South Korea, Submarine Sonar Technician Second Class Dean Billmeyer visited a war orphanage. When he told other crew members about his visit and the plight of the children, they took up a collection to establish the "*Thomas A. Edison* Memorial Scholarship Fund." That in itself called for a return visit.

The second time around, after a 40-day patrol, *Edison* submariners were ready for liberty call. This time,



with three days in Chinhae, they were able to tour the city and become acquainted with some of the friendly local people.

The first day in port, the wives club of the U.S. Naval Forces in Korea provided a tour bus, driver, and two volunteer guides.

First stop was—you guessed it—the orphanage. Throngs of smiling children dressed in brightly colored festival clothes surrounded the sailors as they dispensed cookies baked by Mess Management Specialist Second Class Vernon C. McKinney.

After playing with the children, the submariners continued on with their tour and stopped next at the South Korean Naval Academy. From the deck of a historic turtle boat on display, they watched Korean midshipmen practice Tae-Kwon-Do, a form of self-defense, on the parade ground. They learned a little about the nation's history and the part played by the turtle boats—used in the 16th century by Admiral Yi Sun-shin to lead Koreans to victory over the Japanese and thus winning Korea's independence.

Two-masted, a turtle boat is about 40 feet in length. The bow is carved into a large dragon's head similar to those of the Vikings and oars protrude from both sides. Armed with small cannons, the main deck was covered with a wooden roof to protect gunners from arrows; to discourage boarders, the roof was barbed with spear tips.

Next stop was a Buddhist temple situated high on a hill overlooking the naval academy. It was quite a contrast with the academy where about 1,000 midshipmen had been practicing Tae-Kwon-Do with punching, kicking, and shouting. The temple visit afforded a period of calm reflection for the sailors who carefully walked the pathway of smooth, egg-shaped stones. Walking fast would have caused the stones to slide and disrupt the tranquility of the temple grounds.

The tour ended with a walk through the downtown market where sailors took roll after roll of film of the buyers and sellers at the colorful stalls. For

shoppers, it was bargain day with tennis shoes, tote bags, back packs, and climbing boots at affordable prices. Brightly colored Korean sweaters, brass ornaments, jewels, and fine quilts—purchased with holidays in mind—will be found under many American Christmas trees this year.

The following day, Hospital Corpsman First Class John E. Leffert, Fire Control Technician Second Class Louis P. Tompkins, and Billigmeier returned to the orphanage to paint and make some small but badly needed repairs.

The visit was over all too soon, but the

three days in Chinhae provided *Edison* men with a well-deserved respite from life at sea. The stopover—along with word that *Edison* had won Submarine Squadron Fifteen battle and engineering "E" awards—was a boost to their morale. The visit had ended, but the conversation about the good time that was had by all continued well out beyond the sight of Chinhae. The port call was just one example of some of the rewards and pleasures of life in the nuclear-powered Navy.

—Story and photos by
RM1(SS) J. Burford Fields

—Photos by FTB2(SS) Louis P. Tompkins





Sampling the Best of the South Pacific

For most people, the allure of tropical islands is only a fantasy. For 850 Navy men, a dream became reality when three 7th Fleet ships deployed to the South Pacific on a 1979 goodwill cruise.

The task force included the guided missile destroyer USS *Cochrane* (DDG 21), and the guided missile frigates USS *Roark* (FF 1053) and USS *Robert E. Peary* (FF 1073), along with Commodore Robert B. Hoffman, Commander Destroyer Squadron 25, and his staff aboard the flagship *Cochrane*.

Island hopping from Pago Pago in American Samoa to Suva, the capital of the Fiji Islands, the ships carried American good will and friendship to eight South Pacific ports and welcomed more than 21,000 visitors. The cruise, with its opportunities for shopping, sightseeing, and learning local customs, proved that the Navy really is an adventure.

Pearl Harbor, home port for *Cochrane* and *Peary*, was the starting point of the venture. San Diego-based *Roark* joined the two ships at Pearl and they set out on their southern course January 24.

Four days later, the ships crossed the equator and the crews were initiated into the Order of the Shellback. One sailor, Senior Chief Richard D. Rohland, with 29 years of active duty, extended his tour for this cruise just to cross the equator. "I wanted to be able to tell my grandchildren I had crossed the line and became a shellback," he said.

The first port call for *Cochrane* and *Peary* was Pago Pago while *Roark* tied up for two days at Apia, capital of Western Samoa. Every stop was a new adventure with different customs and

sights but most sailors thoroughly enjoyed the white sand beaches or exploring the underwater kaleidoscope of a sapphire-blue lagoon. They toured Pago Pago's shops and sampled the fare in local restaurants. Other attractions included an open-air museum and a tramway ride across the harbor to the top of surrounding volcanic mountains.

Peary's last night in port was an unusual treat, with the entire liberty party attending a traditional native feast held in the mountain village of Aolouha. Commander William W. Mathis, *Peary's* skipper, said, "It was a most memorable occasion and the highlight of our visit."

The voyage continued for *Cochrane* as she moved on to Tonga's capital, Nukualofa. Here, the ship played host to Tonga's crown prince, His Royal Highness Prince Tupouto'a.

For the frigates *Roark* and *Peary*, three-day port calls to Vila, New Hebrides, and Lautoka, Fiji Islands, were a special honor. *Peary* was the first U.S. warship to visit Vila since World War II.

After a brief stop at Rarotonga, Cook Islands, *Peary* went on to Lautoka where crew members were greeted by friendly Fijian people.

Meanwhile in Vila, *Roark* crewmen were welcomed by British, French, and Melanesian residents of the port city of Efate Island. Sailors from *Roark* will long remember one of their favorite haunts, the Beach Hut, a private beach outside Vila where they snorkeled, swam, and relaxed under the shade of coconut trees.

Others found their brand of relaxation cruising along the coastline and visiting coastal islands. At night, it was

the disco scene or gourmet dining with choices of French, British, or Chinese cuisine.

In Noumea, New Caledonia, a former French prison colony, *Cochrane* sailors discovered a Polynesian version of the French Riviera with its casinos, cafes, and beaches. Local families invited *Cochrane* sailors into their homes and took them on island tours.

Before heading for New Zealand, the task force stopped at Suva, known as the "hub of the South Pacific." This tropical metropolis with its blend of Fijian, Indian, Chinese, and European cultures is the transshipment point for all South Pacific islands. Suva is a bargain-hunter's paradise and sailors dickered over boar tusk jewelry, wood carvings, tapa cloth, and other native handicrafts. *Roark* Fire Control Technician Second Class Jerry Rolleson summed it up: "The people were friendly and the prices reasonable."

Throughout the cruise, the ships took on sporting challenges from local community police and military teams, competing in slow-pitch softball, volleyball, basketball, and soccer matches.

In keeping with their goodwill mission, sailors pitched in on civic work projects and distributed Operation Handclasp donations that included sewing machines, school books, medical supplies, and vegetable seeds.

Speaking for his fellow sailors, Hull Technician Third Class Mitch A. Mercill of *Cochrane* said, "It's been great. Every port we hit, we were greeted by friendly and beautiful people. It's been a real adventure."

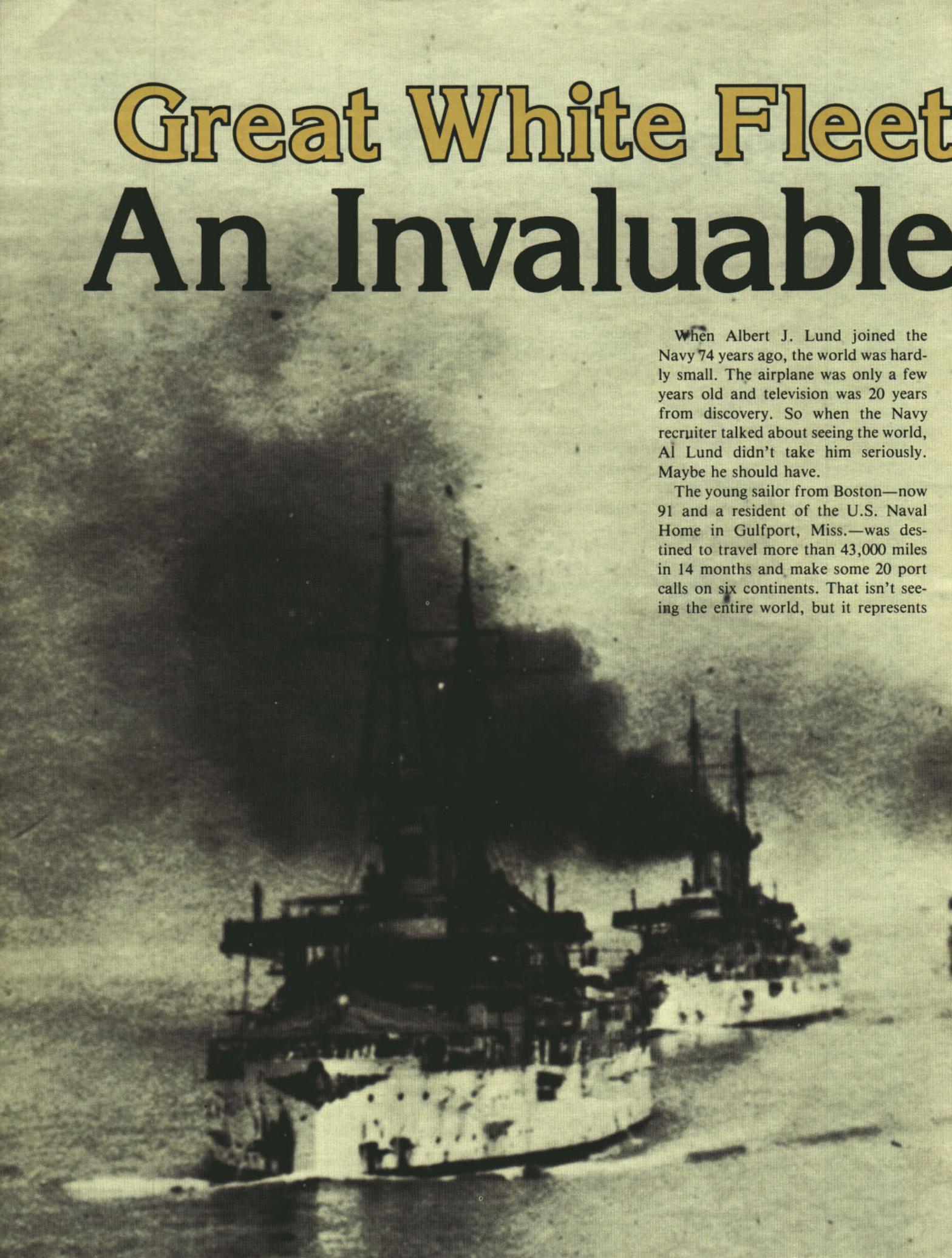
—Story by JO1 James R. Giusti

Great White Fleet

An Invaluable

When Albert J. Lund joined the Navy 74 years ago, the world was hardly small. The airplane was only a few years old and television was 20 years from discovery. So when the Navy recruiter talked about seeing the world, Al Lund didn't take him seriously. Maybe he should have.

The young sailor from Boston—now 91 and a resident of the U.S. Naval Home in Gulfport, Miss.—was destined to travel more than 43,000 miles in 14 months and make some 20 port calls on six continents. That isn't seeing the entire world, but it represents



Veteran Experience

an itinerary that would make plenty of today's jet-setters feel like deprived shut-ins. Mr. Lund took his world cruise aboard the battleship *Connecticut*, flagship of the Great White Fleet.

"I wish I were young so I could join up again," he said, relaxing in the lobby of the Naval Home.

"The best uniform in the world was the bluejacket's. I don't like the one they've got out today. They've got to go back to the old one. Anyway, I don't know *how* they fold those things today and put them in lockers."

The first job he had after finishing boot camp in 1906 was that of a mess cook—a job which had an incentive of \$5 extra per month. He took care of 20 hungry messmates aboard *Connecticut*

—messmates who had a tendency to growl when there were only two pork chops left on the serving tray.

When his mess cooking tour was up he changed jobs.

"I became a coal-heaver with the black gang." The veteran sailor propped his silver-tipped cane against the chair. "We were always covered from head to foot with coal dust; couldn't get away from the stuff."

When the coal-burning Great White Fleet left Hampton Roads in December 1907, the age of sail was already dead. But the age of oil wasn't exactly thriving either. Its use in ships was still experimental. The suggestion that it be used to fuel 16 battleships for a trip around the world was unbelievable at the time.

Each time a new load of coal was taken on board, the ships would be covered with coal dust—inside and out. After several days spent in an all hands evolution to "coal ship," the crew had to spend several more days cleaning up the mess that remained. It

was a vicious cycle, occurring about every two weeks.

But Lund didn't worry about the deck force and their cleaning chores. Their above-deck world filled with daylight and fresh breezes was foreign to him. Lund's world was filled with "black diamonds" and searing heat: spreading coal evenly in the fireboxes, knocking out clinkers, shoveling coal, and hoisting ashes over the side. Although many fleet commanders of the day believed that "coaling ship" caused more desertions than any other feature of the service, Albert Lund had no regrets about serving with the black gang.

"Oh, sure, it was hard shoveling all that coal, but we made fun of it; thought up games to make the time go faster. Our ship held about 2,000 tons of the stuff. All the deckhands would go down into the collier (coal supply ship) and fill these big bags with about 500 pounds. Then they'd hoist 'em over to us down in the coal bunkers, and we'd spread out the coal with shovels until all the bunkers—about 20—were full to the top."

Every once in a while, there was a bonus: "Sometimes we'd find a barrel of beer or something in the bunkers after we put out to sea. When we took on supplies, the guys loading thought they'd hide some for themselves in the coal. Well, we usually uncovered it before they came back to claim it. After all, pokin' around in the coal was our business."

It was an important business, one that kept the huge furnaces satisfied in their role of turning water into steam.

Great White Fleet steams in single-line formation during 1907-09 world cruise.

Great White Fleet Veteran

It was the steam that pushed the engines to their task of moving 16,000 tons of ship through strong currents and choppy seas. Lund seemed to wince as he recalled the days of furnace and flame.

“It was hot all right. You bet it was hot. We were down there in that fire room with the ship going across the equator, and no circulating air. We’d be constantly phoning up the officer of the deck, asking him to send us some ventilators down there. And all the time, the air you’re breathing is 120 degrees or hotter. Four hours of that stuff was long enough. Four on and eight off. Funny thing is, none of us growled about it. There was a job to do and we did it, that was all.”

He talks about his voyage around the world with that Great White Fleet.

“You know, our first stop was Port of Spain, Trinidad, and it was one of the most boring places I’ve ever been in,” he said, wiping his glasses. “When we pulled in, there were no people around and almost everything was closed up. Just one building was open

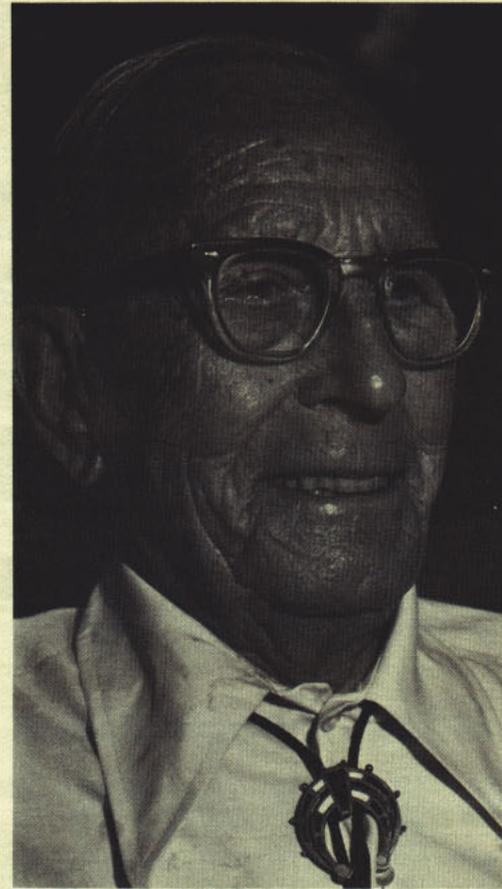
that had any beer in it. And by the time we made it to shore, the stuff was hot as hell. Just like drinking boiler water.”

One of Lund’s shipmates, John Parker, now deceased, summed up Trinidad’s entertainment capabilities at that time in a short history he penned of the voyage: “The only amusement there was to look at the flowers and visit the leper colony.”

Apparently, Trinidad was one of the low points in the Battle Fleet’s itinerary, but better times were in store. For starters, the ships themselves offered many diversions. They carried—all told—24 pianos, 60 phonographs, 300 chess games, 200 decks of cards, handball and billiard equipment, plus nickelodeons and silent movies.

“They were silent, but we had those moving pictures. What was that one

Albert J. Lund, 91, lives at the U.S. Naval Home in Gulfport, Miss. He sailed aboard USS Connecticut, below. Opposite page: Lund (far left) and fellow “black gangsters.”



they showed to us about 50 times?" Mr. Lund pauses for a moment. "Oh, yeah. 'The Perils of Pauline.' It was a series of about 50 films. They might show number nine one day, and then show number 47 the next. But we enjoyed it, anyway; she was always in some kind of fix, getting thrown off cliffs and things like that."

But the biggest event was when the ships competed against each other in the whale boat (oar) races. "That's when the money really changed hands. With two good ships' crews racing against each other, \$15,000 worth of bets was nothing. I pulled in one of those boats for three years."

Shoveling coal and pulling oars. Seventy years later, Al Lund moves under his own power—with some help from his cane—defying the law of averages, and keeping his membership in a group that's rapidly becoming extinct. More than 14,000 men sailed on the 1907-09 World Cruise. Less than 50 are alive today.

Following various port calls on the

West Coast, the fleet left San Francisco July 7, 1908, for the final 28,800 miles of the voyage. It stopped in Hawaii for six days of luaus with leis, dancing girls, surf-riding and sailing regattas, then turned southward to New Zealand and Australia.

In Sydney, the ships were met by spectators lining the shores "like thousands of wild birds."

En route to Japan, the fleet steamed into the China Sea's worst typhoon in 40 years, almost as though it had been saving up its most terrible weather for something really special, something like the Great White Fleet. Albert Lund's eyes seem to reflect a nostalgic terror, induced by the memory of a furious ocean that did its best to drown 14,000 men.

"The typhoon happened right off Formosa," he said. "They call it Taiwan now." His cane taps rhythmically on the carpet. "I'm telling you, in this typhoon all you could see when a ship was in a trough was the trunk of its mast above the wave tops.

That was all you could see of an entire battleship that weighed 16,000 tons or so. Then our turn would come to go into a trough, and we couldn't see anything for a while."

The retired chief warrant officer leans forward: "And something happened during that typhoon that you're just not going to believe. One of the sailors on a ship in our squadron (*Connecticut, Kansas, Louisiana, and Vermont*) was picked up and washed overboard by a big wave. Then that same wave carried him over to another ship in another squadron, and it threw him back up on the deck."

Lund and his companions survived the typhoon, but weren't exactly relaxed as they moved into Tokyo Bay toward Yokohama. Japan's naval defeat of Russia three years earlier had decimated Nicholas II's fleet. This striking victory over a supposed world power caused rumor to blossom in political and diplomatic circles. There was talk that Japanese agents might try to sabotage the Battle Fleet, or that the



Great White Fleet Veteran

Emperor would attempt some kind of ambush at sea with his naval forces.

Concerning his feelings about a possible Japanese attack on President Roosevelt's "white messengers of peace," Mr. Lund summed them up: "That was nothin' but a lot of hooley."

Rear Admiral Charles S. "Speedy" Sperry, however, discredited the "hooley" and called his fleet to battle stations when three unidentified cruisers broke through the surrounding mist in Tokyo Bay.

For nothing.

The cruisers were part of an escort sent out by the Emperor to welcome the Americans. Confrontation with Japan was still a whole generation off. The country's hospitality toward the bluejackets was impeccable.

"After Japan," Mr. Lund continued, "we went back to Manila for some target practice. We took about a month, and got all kinds of mail there.

I remember this one fellow we had on board who couldn't read. So when he got his letters, he'd have someone else read his mail for him. And he'd make whoever was doing it stick cotton in his ears, so he wouldn't be able to hear what he was reading." Lund's deadpan erupts into laughter. "Thought he could keep his privacy that way," he said between laughs. "I'll tell you something—he was a real dumb guy."

When Manila moved into the past tense in the ship's log, homecoming was in the wind. It was the same wind that whipped the coal smoke back from the ships' stacks in long, straight lines as they moved across the Red Sea on New Year's Day of 1909. The Suez Canal was dead ahead.

One gets a compact description of this famed waterway from John Parker's narrative: "Our next stop was through the Suez Canal where we coaled the ship (at Port Said, Egypt). The

Suez Canal is merely a large ditch dug through the sand. The ship ran aground about every couple of blocks. Does not resemble the Panama Canal." Cost of passage: \$134,751.32.

"That's when we got word of the earthquake in Messina, Sicily," said Al Lund. "After coaling up, we went there full speed, and everything in the city was knocked down. We were looking for the American consul's daughter." He paused. "But we never found her."

Teddy Roosevelt was in the final two weeks of his presidency when the fleet returned on a dull day in February. Albert Lund remembers it well.

"We hit Hampton Roads on Washington's Birthday and it was raining. But by golly, we celebrated with

Below, fleet officers pose in Tokyo. Opposite page: Lund (third from left) jokes with rowing team friends; battleships pull into San Francisco harbor May 6, 1908.





hardtack and sow belly dinner that day. Later, all the deckhands had to go to Washington and parade in the snow for Howard Taft. He'd just been elected president."

The great adventure was ended. Al Lund and his black gang would split up, going on to more ships and voyages. But none would ever match this round-the-world cruise with all expenses paid.

Mr. Lund rose slowly to his feet and leaned on his cane. The silver tip is hidden beneath his hand—a hand that heaved coal for a Navy which is no more.

He said this about the voyage: "We just wanted to let the world know we were prepared for anything they wanted to kick up. Show the world what we could do. We had a fleet, which was more than most of the other countries had; it was the biggest fleet of battleships ever assembled."

The veteran sailor walked halfway

across the room, and suddenly stopped. Something else was on his mind.

"You see, Congress thought Roosevelt was crazy. They didn't think our ships could go out and travel to another port without breaking down." He raised his cane into the air and aimed it vaguely at a color TV set in the room. It had a sign taped to the screen: out of order. "Why, we never had a breakdown the whole way around. No accident. No nothing. The only thing was that the *Missouri* lost a gun along the way somewhere, or some damn thing like that.

"A lot of those congressmen had never really seen the ocean—didn't even have an idea as to what it was like." He turned to leave. "Those congressmen didn't know what the hell the ocean was."

But the not-so-young sailor from Boston knows what the ocean is. He'd be hard-pressed to forget.

—Story by JO2 P. M. Callaghan



It's not easy but it's **BEST**



At BEST, the schedule is not easy. It's reveille at 5 a.m. and lights out at 10 p.m. It's 15 hours of physical training, inspections, classroom lectures, studying and counseling. It's going on with the program day after day for four weeks. But the sailors in BEST (Behavioral Skill Training) admit that the program is giving them a boost toward higher levels of individual accomplishment. It's also giving them a better understanding of themselves.

One seaman said, "I thought at first it was stupid. But now that I've been here a few weeks, I feel that it's going to help me a lot, and probably turn me around."

Another sailor who didn't want to enter the program—"I put a chit in to talk with my captain about not coming"—now says that the program is benefiting him.

Established last year as a means of helping young sailors reach success in their jobs, BEST is administered from the Naval Amphibious Base, Little Creek, Va. As an attempt to curb attrition of first-term enlistees, it is one answer to the Chief of Naval Operations' objective to solve the retention problem.

As Chief of Naval Operations Admiral Thomas B. Hayward said, "The basic way in which we are operating the Navy and motivating our people does not provide the prospect of a properly manned fleet in future years. We are retaining inadequate numbers of seasoned petty officers to provide quality manning today, and the problem will become more severe as the Navy grows over the next several years.

Trainees are physically, as well as mentally, challenged at BEST.

We must take better care of our people.”

To put it in even starker terms, about 40 percent of the young men and women entering the sea service today fail to complete their initial enlistment. With BEST, the Navy hopes to identify the first-term enlistees who possess potential and ability and then to give them the help and support they need to develop that potential.

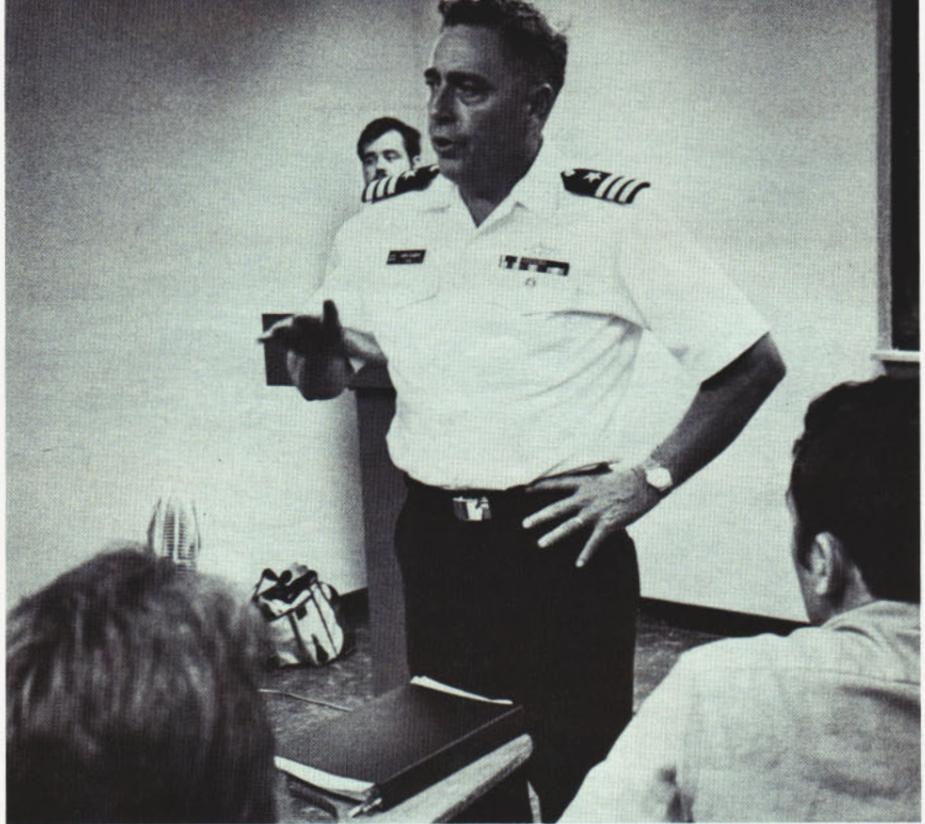
Commander William H. Holbert, commanding officer of the BEST program, said, “By helping one man complete his enlistment, fewer men will have to be recruited, training costs will drop, and personnel stability will improve.”

He and other Navy officials contend that marginal performers can be reoriented and taught how to function more effectively in the Navy environment. Without the guidance and reorientation provided by the BEST program, many would probably become attrition statistics.

Sailors come to BEST on recommendation of their commanding officers. Eligible candidates must be: first-term enlistees with at least two years of active obligated service remaining; non-rated; have no disciplinary action pending; and have no more than four captain's masts and/or one court martial during the past 12 months. They must have the potential to complete their enlistment, but be unlikely to do so unless helped. The only other requirements are a complete physical examination, a full seabag and a regulation haircut at the beginning of the program.

At BEST, there are no frills or frivolities. Students bring with them only the things they'll need during their four weeks of training. Liberty is granted on an earned system.

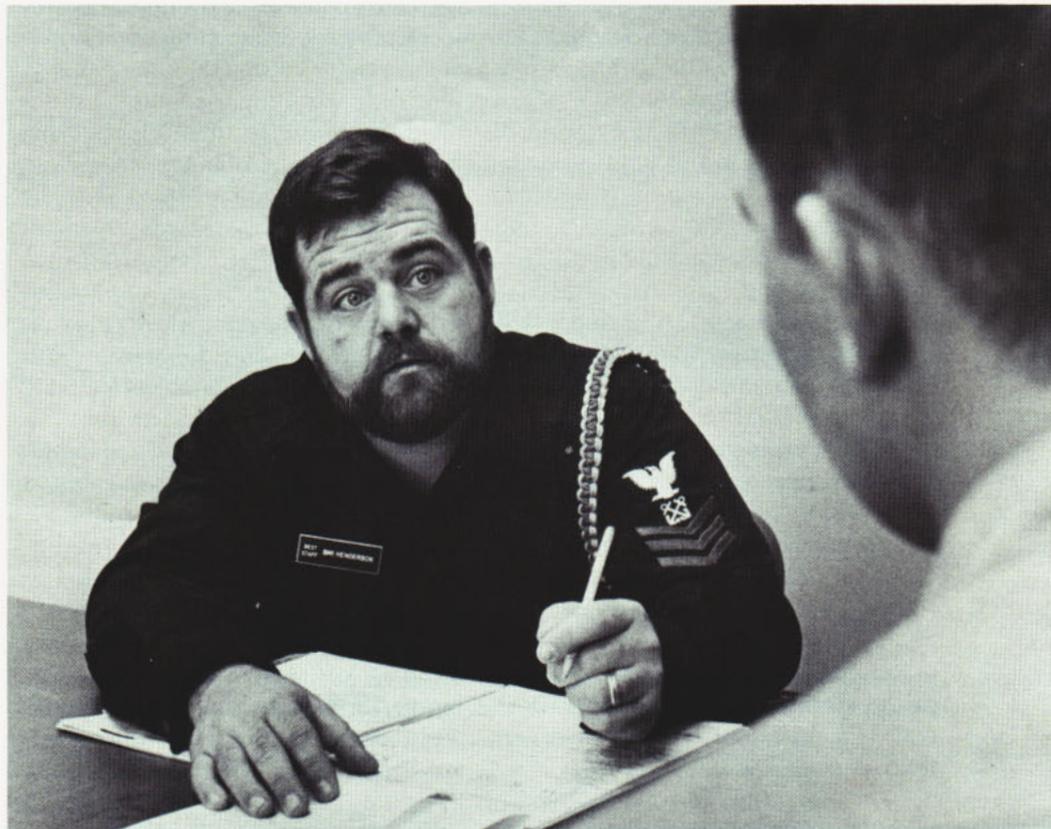
Instructors are quick to point out that BEST is not just another dose of boot camp. “They are similar only because both are military,” said Chief Aerographer's Mate John C. Tramack,



one of the staff members. “But everyone goes through boot camp. The BEST program is directed at individuals already in the Navy, and is concerned with getting them up to an acceptable level of performance.”

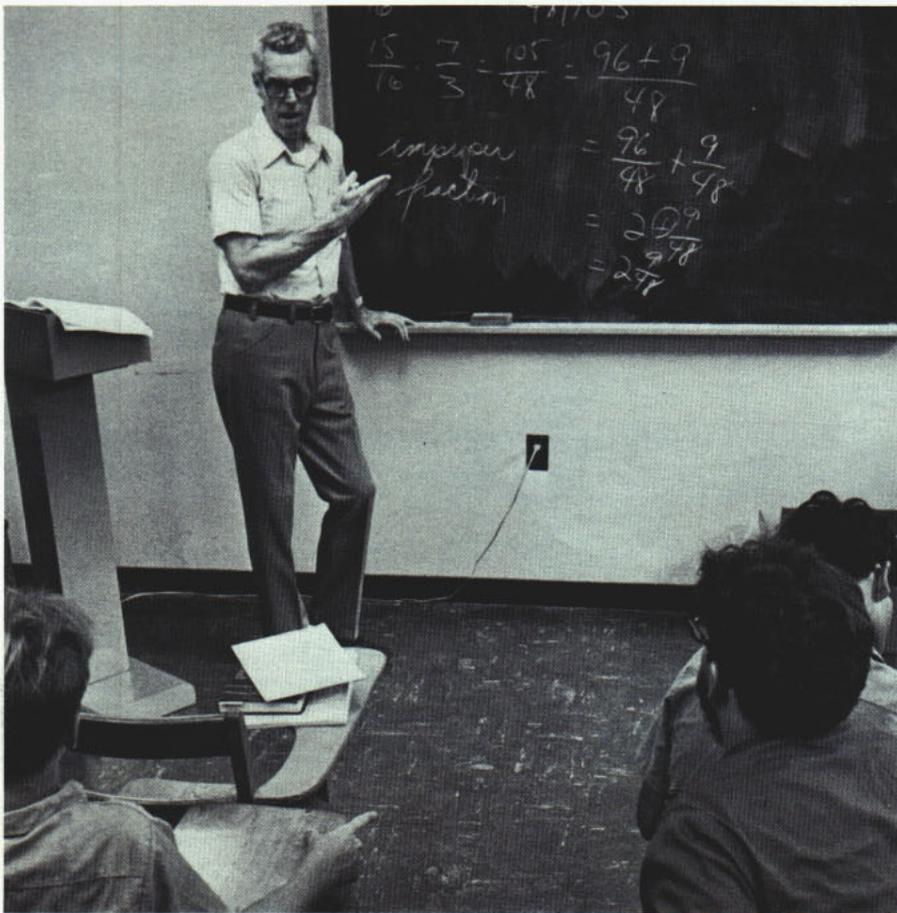
Military skills and discipline are reinforced daily and individual per-

formance counseling is mandatory every day for all trainees. Additionally, a group session of about 25 students and three or four staff members is held every day. Here, problems encountered throughout the day are discussed. At times the “hot seat” concept is used, where a trainee's peers can apply



BEST

Reading and math instruction (left) help BEST students improve their comprehension skill.



carefully screened and commanding officers are personally involved in selection. Following a briefing for the CO and key command personnel on board the sailor's unit, the division officer and the individual's leading petty officer participate in interviews with BEST staff members and students before the training and during the last week of training. Crew members in the student's chain of command are encouraged to visit the BEST unit during the course of instruction.

How do the students feel about the program and the instruction? Following are some comments by participants in the first four-week curriculum:

"I feel right now that I have more motivation to do a good job when I return to my ship as a result of completing this program."

pressure for negative actions observed during the day. The session is used as a forum for all parties. Physical activities such as long-distance running and challenging the obstacle course are also part of the routine as are various work projects around the base.

Not all of the training is centered around counseling and physical activity. Classroom instruction is designed to improve students' feelings of self-worth, to increase their ability to excel in the Navy and to motivate them to further achievement. It includes sessions on effective study techniques, understanding and dealing with stress, developing social relationships, learning to solve problems, decision-making, financial management, alcohol and drug abuse, and many other topics.

Encouragement begun by instructors and counselors continues after the students are graduated. Their semianual performance evaluations are monitored and questionnaires are sent to the students' officer supervisors at two-, six- and twelve-month intervals following graduation.

"The program respects the dignity of each sailor," CDR Holbert said.

"Students do not perform demeaning tasks but accomplish meaningful projects where they can see the results of their efforts. The accomplishment of work projects, completing the obstacle course, and cutting a minute off a long-distance run, can turn an individual around to think of achieving success rather than failure."

In calling for volunteers to staff the BEST program last March, Admiral Harry D. Train II, Commander in Chief, U.S. Atlantic Fleet, emphasized "the specialized nature of this duty requires that the unit be staffed with carefully selected and effectively managed personnel trained in techniques of management and rehabilitation. It requires constant alertness, a high order of imagination, initiative, and personal integrity, and the use of common sense and mature judgement."

According to CDR Holbert, commanding officers recommended their top performers as candidates for staff positions. Those chosen as instructors are dedicated to helping their young shipmates.

The students at BEST also are



"I think it's a well-run program. The instructors really care about us. They're sympathetic and understanding. They're here to help us and that's just what they're doing."

"It's a lot tougher than I thought it would be. I'd heard lots of rumors about it being a boot camp, and I was really upset. I went to my division officer to complain, asking why me? But after the instructors interviewed me and my CO explained the program, I was really looking forward to it."

"My whole attitude toward the Navy has changed. I've learned to cope with harder and more stressful situations. When I get back to my command it's going to be a breeze. I want to show them how I've changed and how well I can perform my job."

"I have only one complaint about this program—liberty. I wasn't restricted when I left my ship, but immediately upon arriving at the school I

was placed in a restriction status. Lots of us complained about that."

One staff instructor put it another way.

"We're seeing a reflection of a part of the fleet. When I talked with the first group of students, I realized that I could easily have been one of these guys just a few years ago. I understood their feelings.

"We can't expect 100 percent success. But what we're teaching is individual responsibility. If an individual is mature enough to accept responsibility, we're helping him for the rest of his life—whether he remains in the Navy or gets out."

This acceptance of individual responsibility already shows. Two-month evaluations reflect that 83 graduates thus far are performing average or above average, and only 11 percent of the graduates have had a captain's mast. Before this, 65 percent of them had masts within two months of beginning the BEST Program.

Fifty percent of the graduates have received recognition in the form of a

letter (a "Well Done") or an advancement.

Although immediate success is difficult to measure in this or similar programs, the dedication and understanding of staff members, coupled with the students' desire to learn and excel, will help assure the program's continuance and its promise of success. Another important element, however, is the attitude of Navy commands in accepting BEST graduates upon their return to their duty station. The truth is, coming back from BEST with a clean slate means just that—the past is erased; only the future counts.

BEST is only a beginning, but through positive feedback, encouragement and understanding, a BEST graduate can look forward to a better future in terms of individual accomplishment. And that individual accomplishment from one of its own will mean, in the long run, an all hands benefit for the Navy.

—Story by SP5 D. A. Case
and LCDR J. W. Alexander

—Photos by PHC Claude V. Sneed



Morning inspections (above) and running the obstacle course daily (left) help the trainee look and feel his best.

Mail Buoy

Six More Ayes

SIR: As reported in the October issue of *All Hands*, Shore Sailor of the Year, Chief Robert Schamberger, and his wife were touring Yellowstone and Grand Teton National Parks as guests of the Fleet Reserve Association.

During their tour, on the afternoon of Aug. 14, a typical high country thunderstorm suddenly came down heavily, catching us—three Navy retirees and our wives—walking about a mile from camp. Sailor of the Year Schamberger rounded a bend in the road about the same time the downpour started and stopped immediately upon seeing our plight. With very little pleading he convinced us that eight people could fit into his rented compact car.

Back at camp, under shelter, and after introductions, Bob and Carol told us the exciting story of his selection to this high honor. You can be sure there were six more "AYE" votes in his favor.—Charles F. Shallenberger, John Reza, Thomas R. Newton.

Reunions

- *First Naval Construction Battalion*—Reunion April 18-20, 1980, in West DeMoines, Iowa. Contact Charles E. Mischler, 29 Sanford Ave., Emerson, N.J. 07630.

- *Association of Naval Aviation*—May 1, 1980, in Arlington, Va. Contact Bob Smith, 6468 W. 85 Pl. Los Angeles, Calif. 90045; or, Dick Gingrich, 468 E. Baltimore St., Greencastle, Pa. 17225.

- *USS Little* (DD 803)—Reunion May 2-4, 1980, in San Diego, Calif. Contact Doyle E. Kennedy, 13224 Buena Vista St., Poway, Calif. 92064.

- *USS Niblack* (DD 424)—First reunion since World War II, May 9-10, 1980, in Boston, Mass. Contact Charles D. Root Jr., 6601 Wissahickon Ave., Philadelphia, Pa. 19119.

- *USS Biloxi* (CL 80)—Reunion May 15-18, 1980, in Newport, R.I. Contact William Wyrick, 34 Winton Rd., Warehouse Point, Conn. 06088.

- *Marine Corps Aviation*—Reunion May 31, 1980, for aviation or aviation ground officers who served with Marine Air. Contact Mrs. Judy Skinner, MCAF Quantico, Va. 22134.

- *USS Wadleigh* (DD 689)—Reunion June 18-22, 1980, at Louisville, Ky. Contact Elwood East, 107 Cheapside, R-705, Lexington, Ky. 40507.

- *USS Whitehurst* (DE 634)—Reunion June 19-21, 1980, in Norfolk, Va. Contact Jon "Lucky" Shaver, 104 N. Oxalis Dr., Orlando, Fla. 32807.

- *USS Amycus* (ARL 2)—Reunion June 24-26, 1980, in Reno, Nev. Contact Walt Skinner, 1940 Lana Ave., NE #25, Salem, Ore. 97303.

- *USS North Carolina Battleship Assn.*—Reunion June 24-27, 1980, aboard the ship in Wilmington, N.C. Contact Alton H. Starling, 10839 Hampton Rd., Jacksonville, Fla. 32217.

- *Naval Weather Service Assn.*—Reunion June 26-28, 1980, in Jacksonville, Fla. Contact D.A. Cruse, 567 N. Livingston St., Arlington, Va. 22203.

- *USS Frazier* (DD 607)—Proposed reunion—June, 1980. Contact W.R. Lewis, Box 153, Lynden Tribune, Lynden, Wash. 98264.

- *Navy Helicopter Assn.*—Reunion in San Diego, Calif. June, 1980. Contact LCDR G.H. Dawson, P.O. Box 460, Coronado, Calif. 92118.

- *USS Plunkett* (DD 431)—Reunion in Athens, Ga., July 4-5, 1980. Contact Robert W. Cavany, RR #1, Hull, Ga. 30646.

- *773rd Field Artillery Assn.*—Reunion July 8-10, 1980, in Columbus, Ohio. Contact Ed Brook, RD 1, Canisteo, N.Y. 14823.

- *LST 639*—Reunion July 11-12, 1980. Contact Harry R. Sams, 17791 Fifth St., Beloit, Ohio 44609.

- *USS Knapp* (DD 653)—Reunion July 11-13, 1980, in Oakbrook, Ill. Contact Francis Wickenheiser, 1109 Pleasure Rd., Lancaster, Pa. 17601.

- *Aviation Boatswain Mates*—Reunion July 16-19, 1980, in Pensacola, Fla. Contact Harry B. Johnson, 6520 Colonade Circle, Pensacola, Fla. 32506.

- *302nd Seabee Battalion*—Reunion July 17-20, 1980, in Flint, Mich. Contact Benjamin Coaster, 675 Van Buren, Mt. Morris, Mich. 48458.

- *Fraternal Order UDT/SEALs*—Reunion July 18-20, 1980, in Norfolk, Va. Contact R.P. Clark, 3540 Hilber St., Virginia Beach, VA. 23455.

- *Stinger Club, Inc.*—Reunion for crew members and squadron personnel of the *USS Wasp* (CV 7) July 18-20, 1980, in San Diego, Calif. Contact George Greene, 412 N. Green St., Morganton, N.C. 28655.

- *USS George Washington* (SSBN 598)—Reunion July 19, 1980, in Groton, Conn. Contact Al Sitter, 40 Country Club Rd., Groton, Conn. 06340.

- *U.S. Naval Cryptologic Veterans Assn.*—Armed forces personnel who served with cryptologic units. Annual reunion in Eugene, Ore., July 24-26, 1980. Contact Graydon Lewis, 3412 Stark St., Eugene, Ore. 97404, or Executive Director, 3065 Olive St., Denver, Colo. 80207.

- *115th Naval Construction Battalion*—Reunion July 31-Aug. 3, 1980, in Columbus, Ohio. Contact Edward C. Plummer, 5023 E. Naomi St., Indianapolis, Ind. 46203.

- *LST-607*—Reunion, for crew members who served between 1944-46, Aug. 1-3, 1980, in St. Louis, Mo. Contact R.F. Martin, 405 Lindy Blvd., Manchester, Mo. 63011.

- *ABSD No. 1, Inc.*—Reunion Aug. 1-3, 1980, in Cincinnati, Ohio. Contact C.E. Patterson Jr., 10355 Chevy Chase Circle, Houston, Texas 77042.

- *USS Norton Sound* (AVM 1)—Reunion Aug. 1-3, 1980, in Port Hueneme, Calif. Contact *USS Norton Sound* Association, P.O. Box 487, Port Hueneme, Calif. 93041.

- *USS Chanteleur* (AV 10)—Reunion in Medford, Ore. on Aug. 7-10, 1980. Contact Mrs. Kenneth E. Boyd, Reunion Secretary, RR #4, Box 145, Culpeper, Va. 22701.

- *USS James E. Craig* (DE 201)—Reunion Aug. 8-10, 1980, in Providence, R.I. Contact Abbie Ise, 83 Sherwood St., Providence, R.I. 02908.

- *USS Wyman* (DE 38)—Reunion in Milwaukee, Wis., Aug. 12-13, 1980. Contact Carl and Harriet Forkes, Rt. 1, Bester, Wis. 54893.

- *USS Medusa* (AR 1)—Reunion Aug. 17, 1980, in San Diego, Calif. Contact Granvil H. Jones, 3780 Leland St., San Diego, Calif. 92106.

- *U.S. Submarine Veterans of WW II*—Reunion Aug. 17-23, 1980, in St. Louis, Mo. Contact Earl Pace, Box 388, Shelby, Ind. 46377; or, John Larrin, 4060 Belcroft, Florissant, Mo. 63034.

- *USS Seahorse* (SS 304)—Reunion Aug. 20, 1980, in St. Louis, Mo. Contact Paul E. Alexander Sr., 4748 Donovan Dr., Carmichael, Calif. 95608.

- *PT Boat Squadrons*—Reunion Aug. 28-Sept. 1, 1980, in St. Louis, Mo. for all crews and officers connected with PT boats. Contact P.T. Boats, Inc., P.O. Box 109, Memphis, Tenn. 38101.

- *USS Little Rock* (CG 4/CL 92)—Reunion Aug. 29-31, 1980, in Buffalo, N.Y. Contact Al W. Kruedelbach, 8412 Jericho Way, Plain City, Ohio 43064.

- *USS Elizabeth C. Stanton* (P 69) and *USS Clay* (APA 39)—Reunion Aug. 29-Sept. 1, 1980, in Knoxville, Tenn. Contact Ralph F. Briggman, Rt #3, Box 533, Hamlet, N.C. 28345.

- *USS Rockwall* (APA 230)—Reunion for crew members. Contact Donald J. Kusnir, 2140 S. Military Trail, West Palm Beach, Fla. 33406.

- *USS Enterprise* (CV 6)—For information on geographical locations for reunions, contact Ed Doss, 1606 28th St. S.E., Auburn, Wash. 98002.

Stern Shots

How well do you know your Leave and Earnings Statement (LES)? Since the Navy went to Joint Uniform Military System (JUMPS), the monthly LES proves to be a storehouse of information on a sailor's career and monthly pay. See how well you understand your LES—after all, it's your money.

S/N 0102-LF-001-6240

LEAVE AND EARNINGS STATEMENT

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| 2. Block 17 _____ | B. EAOS (Expiration Active Obligated Service) |
| 3. Block 20 _____ | C. Pay grade |
| 4. Block 26 _____ | D. Clothing allowance |
| 5. Block 34 _____ | E. Basic Pay |
| 6. Block 53 _____ | F. SGLI (Servicemen's Group Life Insurance premium) |
| 7. Block 57 _____ | G. Allotment |
| 8. Block 6 _____ | H. Federal income tax withheld to date |
| 9. Block 1 _____ | I. Next payday forecast |

Answers: 1-B; 2-E; 3-D; 4-G; 5-F; 6-H; 7-I; 8-C; 9-A

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Finding the Right Career • See page 16