TRIDENT
BUILDING A BASE-
SAFEGUARDING
THE ENVIRONMENT
PAGE 20
Features

4 LEADERSHIP AND MANAGEMENT EDUCATION AND TRAINING (LMET)
Effectively teaching leadership skills to all Navy people

8 A NEW USO FOR A NEW MILITARY ERA
Organization continues to aid service men and women

11 THE CAPTAIN’S ‘STEP AHEAD’ ATTITUDE
Yard period brings about sense of achievement

20 TRIDENT – BUILDING A BETTER BASE
Protecting the environment while building a base from scratch

30 LAST VOYAGE OF CYCLOPS
Sixty years later, her disappearance is still a mystery

34 BAKED ALASKA ON A TIN TRAY
Navy winners get tips from top chefs

38 RESERVIST VIGNETTES
Active duty training accomplished with ingenuity

41 THE ‘EYES OF THE SHIP’ -- THEY’RE STILL AROUND
Role of the lookout remains unchanged

44 NOTHING IS CERTAIN BUT DEATH, TAXES . . . AND MOVING
Ways to have a trouble-free move

Departments

2 Currents
14 Bearings
48 Mail Buoy

Cover

The Navy’s newest base is taking shape in the Pacific Northwest. Naval Submarine Base, Bangor, Wash. – present and future home of submarines, sailors, school children and white-tailed deer – is the Navy’s answer to safeguarding the environment. (Photos by JOI Jerry Atchison, except aerials by Harold E. Browne.)
COLA and Housing

Allowances Modified for Junior Enlisted • As a result of a recent policy decision by the Department of Defense, junior enlisted personnel E-1 through E-4 (two years of service or less) assigned to ships homeported overseas or shore-based overseas became eligible March 1 for full cost of living allowance (COLA) and housing allowances if their dependents maintain a residence in the vicinity of the homeport or overseas duty assignment. This decision eliminates a significant inequity in entitlements between junior and senior members stationed overseas. Before March 1, those junior enlisted personnel on shore duty could receive housing and COLA at the “without dependents” rate on their own behalf if they were not furnished government quarters or subsistence, while junior personnel on ships homeported overseas received no COLA or housing allowance. Both categories are now eligible to receive housing and COLA at the “with dependents” rate. For personnel stationed overseas, the change gives junior enlisted personnel the same entitlement to housing and cost of living allowances as those with command-sponsored dependents. This policy change was promulgated by Per Diem Travel and Transportation Allowance Committee message DTG 011615Z MAR 78, addressed to Navy activities included in AIG 111, as an advance change to the Joint Travel Regulations (JTR). JTR, Volume I, contains the rules and lists the locations eligible for payment of these allowances. Members assigned to shore or afloat commands overseas who are eligible for this new entitlement should contact their disbursing office to complete forms.

Recruit Training

Shortened Nine Days • Navy boot camp, now eight weeks long, will be shortened to six weeks and five days, effective Oct. 1, 1978. The cut in length of basic training was ordered by the Department of Defense and affects all the armed services. Early plans call for the elimination of ship’s work week, also called service week, as one way to accomplish the directed reduction. Mess cooking duties which previously were performed by recruits will be privately contracted. Some adjustment of the curriculum also is anticipated. Since 1965, length of basic training has varied between seven and 11 weeks. The most recent change, effective Feb. 1, 1977, shortened the training from nine to eight weeks. The Marine Corps is planning to reduce its basic training course from 11 to nine weeks and the Army is cutting two days from its seven-week schedule. The Air Force six-week basic training schedule will remain unchanged.
**Jumper Style Uniform**

**Guidance Provided**  • Guidance for the wearing of the jumper-style uniform has been released by the Bureau of Naval Personnel for all personnel taking part in the year-long uniform evaluation and for other E1-E4 personnel who wish to purchase service dress blue jumper style uniforms. The evaluation of new material for the jumper style uniforms by designated fleet units was ordered last year and delivery of the uniforms began this month. E1-E4 personnel meeting the eligibility criteria and assigned to fleet units selected by the fleet commanders in chief to participate in the evaluation will be issued the necessary uniforms at no cost. Other E1-E4 personnel assigned to sea duty will be permitted to purchase and wear the service dress blue jumper style uniforms. Personnel assigned to shore installations and reservists will be authorized to purchase and wear the uniform in August 1978, as more supplies become available. For those participating in the evaluation, jumper uniforms will be substituted for present uniforms in accordance with the following table:

<table>
<thead>
<tr>
<th>Present:</th>
<th>Jumper Style:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Dress Blue</td>
<td>Service Dress Blue Jumper</td>
</tr>
<tr>
<td>Winter Blue</td>
<td>Winter Blue Jumper</td>
</tr>
<tr>
<td>Winter Working Blue</td>
<td>Winter Working Blue Jumper</td>
</tr>
<tr>
<td>Service Dress White, Summer</td>
<td>Service Dress White Jumper</td>
</tr>
<tr>
<td>White (Tropical White Long)</td>
<td></td>
</tr>
<tr>
<td>Summer Blue</td>
<td></td>
</tr>
</tbody>
</table>

Further details are available in BuPers Notice 1020 of 22 March 1978 and will be included in *U.S. Navy Uniform Regulations, 1978,* planned for distribution in July.

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**DoD Five-Year Shipbuilding Plan Announced**  • The Department of Defense FY 79 naval shipbuilding program delivered to Congress last month calls for construction of 70 new ships and modernization of 13 others over the next five years. The FY 78 shipbuilding plan requested 157 new ships and 21 conversions and modernizations during the 1978-82 period. Among the ships to be added to the fleet under the new DoD proposal are six new Trident-class submarines and a conventionally powered aircraft carrier. Ships to receive major service life extension are two Forrestal-class conventional carriers. The major modernization will keep the ships in the force until the year 2000. Other proposals in the FY 79-83 shipbuilding plan include:

- Continuation of the SSN 688 nuclear attack submarine construction program at a rate of one per year.
- Construction of a nuclear-powered cruiser (CGN 42) in 1983.
- Construction of seven DDG 47-class destroyers.
- Modernization of 10 DDG 2-class destroyers.
- Construction of 26 FFG 7-class frigates.
- Construction of two LSD 41-class dock landing ships.
- Construction of one destroyer tender.
- Construction of five mine warfare ships.
- Construction of 16 auxiliary ships and modernization of one other.

Projections included in the five-year plan show the fleet increasing from 466 ships at the end of FY 78 to more than 525 ships at the end of FY 84 if the shipbuilding plan is adopted.
Editor's note: A recent study by the Chief of Naval Personnel has knocked the old saying “Leaders are born and not made” right out the window. BuPers researchers have determined that the skills of superior leaders and managers can be identified and effectively taught to most Navy people—from seaman to admiral. In response to these findings, a new program called Leadership and Management Education and Training (LME) is being developed to do just that. To learn more about the program, ALL HANDS talked with Commander D. P. French, BuPers LMET Project Director.

Q: Commander French, why did the Navy decide research in leadership and management was necessary?
A: About five or six years ago, fleet commanders began reporting they were unhappy with the level of leadership and management ability demonstrated by some of their people. Various fleet retention conferences—in both fleets—also addressed the need for improved leadership and management training. In recent years, the urgency for comprehensive leadership research has been underscored by newly emerging personnel problems—like rising desertion and attrition rates.

Q: Will leadership training like LMET solve these problems?
A: No. The solutions to these problems lie at all levels in the chain of command, are complex and not likely to be solved by a single program. We do think, though, that the LMET program is an essential part of the solution because our goal is to see better leadership and management in the Navy.

Q: What's behind this effort by BuPers?
A: Leadership and management development of both officers and enlisted has never been a centralized subject in the Navy. We’ve had many short courses over the years that have dealt with leadership and management but they’ve never endured. Nor have they been comprehensive or footed in valid research. Instead, they’ve been a collection of knowledge courses that have told people about leadership and management but not how it works.

Many of these courses are homegrown, developed by concerned supervisors and commanders trying to deal with the need for leadership and management training. Some have spent their own money, used their own resources and shorted themselves here and there in order to address the problem. That’s not only wasteful, it’s inappropriate because the subject is much too complex.
That’s the same as suggesting every command figure out for itself the best way to fight fires. They would have to design their own firefighting equipment, training and procedures. Each command’s approach would be different and, clearly, that makes no sense.

Our efforts, then, represent a centralized, systematic approach to leadership and management development.

Q: Why must the Navy now change the leadership development methods they’ve used for years?

A: For 200 years, the Navy has been using an apprenticeship system to develop people to do their jobs. It’s a system we inherited from the British navy when we started our own Navy. We would take midshipmen aboard sailing ships at the age of 14 or so and they would spend several years just watching more qualified officers and petty officers. They either mastered the skills or they weren’t commissioned.

The Navy can no longer afford to develop its leaders and managers through on-the-job training like this because:

The Navy of today is not as forgiving of the learner as it once was. Errors in learning are more costly. And it doesn’t make sense to make young sailors we’ve recruited at great expense serve as training aids for budding young leaders.

The operating time of fleet units is at a premium and it has to be used to refine peoples’ abilities that cannot be simulated ashore in other ways. The people reporting to key billets in the chain of command need to be able to deal effectively with complex leadership situations from the first day on the job.

There are fewer people in the Navy than there were before. Equipment is far more sophisticated and the total years of experience available in a work center are far less. Emulating your supervisors is a good way to learn leadership skills. But there are not as many of them and they don’t all have the longevity they once had.

Some people can’t learn leadership and management skills through on-the-job training. They need the benefit of some minimal form of formal education like LMET will offer.

Q: One result of your research is the identification of 27 “leadership competencies”—skills used in varying degrees by all the Navy’s superior managers and leaders. Why do you think they are skills that can be taught to most people in the Navy and how do you intend doing so?

A: Actually, the leadership skills we identified are basic enough to be used by everyone on the job, be they seamen or admirals! Application of these skills will, of course, differ from job to job and up and down the chain of command, but they’re still the same basic leadership skills.

In order to teach these skills when they’re most needed, we’ve identified 15 levels of leadership and management across the chain of command for officers and enlisted. We are presently designing LMET courses for these levels that will tailor the skills of personnel to the unique requirements of the billet to which they are ordered, whether petty officer, department head or commanding officer.

The LMET course we are presently testing on the junior petty officer level, for example, includes instructional time to teach the skills and then includes practice in applying these skills in situations sailors are likely to encounter on the job.

The courses will be team-taught by two Navy instructors. Team teaching is uncommon in Navy instruction but particularly suited to the teaching of leadership skills vice technical knowledge. In teaching these skills, the instructors interact with the students to ensure learning takes place. This means teaching may be different with two different people or from class to class.

We've still got a long way to go in refining the teaching techniques, but initial results from our test courses have been very promising. People are learning leadership and management skills and, of greater importance, learning how to use these skills effectively on the job.

May 1978
Leaders can be made

Q: Leadership, Management Training (LMT) courses are presently offered at various Navy activities. How does the proposed LMET program differ from LMT? What will become of existing leadership courses?

A: The present LMT courses differ in a number of ways. First, they teach mostly leadership and management general knowledge. LMET stresses skills, skills the effective managers use every day.

Another difference is that the present LMT courses can't handle the number of people—the whole Navy—we intend teaching at LMET courses. They deal only with senior petty officers and junior officers and then only on a returnable quota basis rather than on a (rotation) pipeline basis. Because of this, only about five percent of the people in the Navy can receive LMT training each year.

We have built LMET out of much of what's good about the Navy's present leadership programs. People from LMT and the chief petty officer's course taught at COMNAV-AIRLANT, for example, have all been involved in the research and design of LMET.

Q: Once the LMET course is operational, who will be attending the course and when might they expect to go?

A: We are pursuing resources to support LMET courses in FY 80 for all line officers and petty officers enroute to the fleet. We are centering our initial training efforts on those rotating from shore to sea because the operating forces are the cutting edge of the Navy.

All the prospective division officers, department heads, and commanding and executive officers who go through technical training on their way to the fleet will receive LMET training. Also, with some schools located on the coast, all petty officers E-6 and above would receive training enroute to sea. We hope someday to offer the course to all people in the Navy, but this describes our initial effort.
Q: Why do you feel it important to train all Navy people in leadership and management skills instead of training only selected people?

A: We know from past experience that if you train just some of the people and send them into a unit, it doesn’t usually work. They’re the only ones with anything different or new so they’re thwarted by everyone else who just don’t know what the new arrivals are talking about.

Part of the problem is lack of a common approach. So unless you give LMET an opportunity to work by having everyone in a unit trained, that training probably isn’t going to be worth it.

Because of that need for a common approach and in the event we are unable to come up initially with the full resources to support LMET, we could ask the fleet commanders in chief to specify which commands they wanted LMET-trained people to go to and which not. This would mean that every billet in the leadership and management chain of command at a particular command would be manned by LMET-trained people.

Q: In certain cases, you’ve indicated LMET training will be integrated into existing technical training courses instead of being offered separately. Aren’t leadership skills different from technical skills?

A: You cannot separate technical and leadership skills in practice as easily as you can on paper or when you’re talking about it. For example, there is a technical skill involved in repairing electronic equipment. But managing a repair force, motivating that repair force to repair that electronic equipment is a leadership skill.

In the smaller Navy of today, we can’t afford to have people doing only part of their jobs. We must have the best level of effectiveness we can get out of everyone. Petty officers who can only repair equipment and are unable to undertake any of their petty officer leadership responsibilities are going to be less and less useful to the Navy.

Q: You mentioned a common approach for leadership and management development. Why is this important?

A: Over the years, we’ve had technical operational programs like PQS, practical factors and the like. But leadership and management requirements have always been general and vague, almost emotional. They’re referred to in your enlistment contract and your promotion certificate. They’re not wrong, it’s just that they’re not specific.

A lot of petty officers told us they don’t disagree with them, they just don’t know what they mean. What LMET is trying to do is specify what the Navy expects you to be able to do in terms of leadership and management skills—come up with a common language for the first time.

This common language will make it easier to talk about leadership and management. It will make it easier to communicate in terms of how you’re doing or not doing. It should greatly help supervisors in leading and directing their subordinates and it applies right on up the chain of command.

In the long run, we should be able to make the evaluation system much more explicit and useful. It tends to break down the distinction between officer and enlisted as regards the subject area because the same skills are used on all levels.

Q: People have different personalities. Leaders operate differently. How can LMET make better leaders and managers of everyone?

A: The leadership skills we’ve identified are fundamental enough. They can be applied using a wide variety of styles by a wide variety of people with a wide variety of personalities. For example, you can set goals effectively for your people (one of the leadership skills) and yet have an inherently cold personality. You can be trained to be a good counselor despite an authoritarian manner. People have unique personalities. They can be taught the leadership skills they learn in LMET and apply them with their own personality.

We have no intention of saying that there’s only one way of doing something. Rather, “It is important to set goals and in order to set goals you must understand the characteristics of good goals.”

The truth is, under the apprenticeship method I mentioned earlier, we developed some excellent leaders and managers on the job. We came up with very effective people—but not enough of them.

So what we want to do with LMET is to accelerate people’s experience, to concentrate in a formal training setting, the opportunity to learn the leadership skills that took others years of experience to develop.

Social change is occurring today faster than ever. Leadership that we use today has got to work on the people we’ve got in the Navy today. We can’t use the leadership that was working on people 20 years ago or the people we might have 20 years from now. LMET will help us stay abreast of that change.
BY JO2 DAVIDA MATTHEWS

A home away from home; a friend when you needed one. That’s what the United Services Organization, better known as USO, was to World War II servicemen and women. And during the Korean and Vietnam conflicts, our old friend was back, providing a place where a Navy visitor could get a cup of coffee and a smile, and forget the war for a time.

But now it’s peacetime. Where does the USO, an organization with war-oriented beginnings, stand?

“Our primary mission remains unchanged,” says General Michael S. Davison (Ret.), former U.S. Army Europe commander and now president of the USO. “It has always been and remains today the extension of a civilian helping hand to the millions of young men and women who serve our country at home and abroad. All that has changed is our methods in fulfilling that mission.”

The United Service Organization for National Defense (later shortened to USO) was born early in 1941.

Eighteen civic organizations, including Salvation Army, YMCA, YWCA, National Catholic Community Service and National Jewish Welfare Board, recognized the need for a single united effort to provide morale-supporting services to military men and women.

With Pearl Harbor and the hectic pace of World War II—thousands of young men and women answered their country’s call and joined the armed forces. USO was ready to act as a buffer for the transition from civilian to military life.

USO volunteers served where the military served, often exposing

*Miss Black America, Claire Ford, sings at a recent USO show. (Photo by PHI Terry Mitchell)*
military era

themselves to the same dangers. At the peak of WW II, there were 3,035 USO operations scattered throughout the world. Camp shows gave more than 438,000 performances to over 213 million service people. Americans in uniform boogie-woogied with the Andrews Sisters, swayed with Bing Crosby, and laughed at the antics of Bob Hope. These USO entertainers, and hundreds of others, brought a breath of home to war-weary men and women.

People at home said “Yes, we care” by donating more than $236 million to USO during the war. But at that war’s end, many felt USO had outlived its usefulness. In 1947, it was disbanded.

USO was soon missed, however, and another organization, Associated Services for the Armed Forces (ASAF), was created in 1950 to fill the gap. But ASAF was short-lived. A few months later, Americans were again at war and a reactivated USO marched to Korea.

Again, as before, when the fighting stopped, so did the financial backing. By 1962, USO was barely surviving. Then, stepped-up hostilities in Vietnam brought increased awareness and support.

Twenty-two USO facilities were opened in Vietnam alone over the next few years. The monthly door count at those centers averaged 500,000 by 1968 and went as high as 750,000 by 1973. Camp shows were revived and virtually every famous entertainer in the states traveled under the USO banner, performing in combat zones and aboard ships on the line.

But now the fighting is over and we’ve entered the era of an All-Volunteer Force. Many Americans do not feel the same obligation they felt for a drafted force. USO faces one of its toughest challenges to date.

“We feel the morale of an All-Volunteer Force is just as important to the readiness of that force as was the morale of a drafted force. If anything, it is more important. If you want to keep quality people in the service, you have to keep them happy,” GEN Davison explains.

“The military is a whole new ball game now, and we’ve had to change with it,” he said. “Sixty percent of the people in the services are below the age of 21 and half of them are married. So we’ve shifted the emphasis on many of our programs to deal with the problems these young families face.

“For example, in one of our fairly new projects called ‘Outreach’ we offer such recreational, educational and self-help programs as ‘How to find Jobs’ seminars, budget management classes, or marriage and child abuse counseling.’” GEN Davison explained.

“Community involvement is another important function in the new USO,” he continued. “No matter where a serviceman or woman and their families are stationed, or how long they live in one spot, they are still strangers until they become a part of that community. Once you get that involvement, the family just has to be happier with their situation,” he said.

“Programs like being pals with one-parent children, or working with senior citizens or cleaning up a park are the things that benefit both the community and service people. We feel it’s the USO that brings the two together.”

The backbone of USO is the over 75,000 volunteers who keep its 23 permanent facilities and local affiliates, airport centers and information desks working. “It’s our volunteers who make it possible to return, in direct services, 80 cents of every dollar we receive. Not many national agencies can make that claim,” GEN Davison said.

Nearly seven million military men and women and their families took advantage of worldwide USO services last year.

Rocco R. Perrotta, executive director for Mediterranean Fleet operations and USO Naples, estimates that they aid more than 60,000 Sixth Fleet sailors each month.

On the other side of the world—at the USO lounge at Chicago’s O’Hare Field—Dorothy Conley pours what must be the thirtieth cup of coffee and, with a smile, hands it to a weary serviceman. A few thousand miles away, Lorna Tagg, director of the USO club in Beeville, Tex., greets another visitor, one of many regulars from nearby NAS Chase Field, who has come to consider the USO as a second home.

Through USO, these people and thousands more like them, will continue to lend a helping hand as long as the people of America, recognizing their responsibilities to men and women in uniform, make such services possible.

General Davison summed it up when he said “The young person coming into the service today usually enlists for a self-serving reason, like an educational opportunity. But it has been our experience that after a time, a subtle transition takes place, particularly to those stationed overseas. The majority begin to see themselves as doing something for their country. And like everyone who does a job well, they feel a need to be thanked.

“I see the USO as an expression of appreciation—a physical, tangible thank you—from the people and the country they are serving.”
The Captain's 'Step Ahead' Attitude

STORY AND PHOTOS BY JOE RICH SYLVESTER

Command at sea is demanding, yet many a ship's captain bemoans the day his vessel enters drydock. Overhaul creates some unusual situations and challenges for both captain and crew.

Aboard USS Reeves (CG 24), undergoing extensive overhaul at Pearl Harbor Naval Shipyard, those challenges are met head-on by her skipper, Captain Ming E. Chang. According to CAPT Chang, any operation can go smoothly as long as one "...keeps a step ahead of events."

"Those bluejackets never cease to amaze me," CAPT Chang said, as he looked out the window of his two-room trailer office perched at the rim of the drydock, overlooking Reeves sitting high and dry in the dock's huge belly. "If given something to work for, something to achieve and be proud of, they will work so hard," he said.

"For example," Chang explained, "from the beginning of our last WestPac deployment, I talked often with the crewmembers about what the upcoming operation would be like and what our overall objectives were. Because they understood what had to be done and why, they did a super job."

Reeves' demanding last cruise schedule included operations with Australian, Canadian, Japanese and Korean Navy units, and participation in 10 major fleet exercises. The ship's combat information center conducted 950 fighter aircraft air-to-air intercepts—an unprecedented number for a cruiser in peacetime, according to the executive officer, Commander Stephen Clarey.

In addition, after sailing to ports such as Manila, Yokosuka, Keelung and Pusan, the ship compiled a virtually incident-free visit record.

"It all amounts to the crew's being prepared. We produced an informative video tape for them before each port visit. The men knew what they could and couldn't do before they ever went..."
on liberty. That was reflected in their behavior," the captain said.

The captain's "step ahead" attitude is his major tactic in any dealings with his crew, particularly when preparing them for the year-long yard period. "It's important to give the men a sense of being in on the planning as well as a sense of achievement," he explained.

"It was a matter of changing their attitude from one in tune with operational readiness to one keyed for the yard. The crew understands the importance of an overhaul. They realize what the end product will be and how it will be managed."

Reeves' overhaul includes installing Harpoon and upgrading the engineering and guided missile fire control systems. In addition, the captain estimates that his crew will spend over 400,000 man-hours overhauling equipment not contracted to the shipyard.

"That's one reason why I had my office set up in this trailer near the ship. I try to make myself as readily available as possible," he said.

Crewmembers describe their energetic captain as "always on the go," and likely to "pop in for a chat" anywhere at any time. CDR Clarey said that CAPT Chang "doesn't simply make himself available to subordinates. He goes after them."

The rapport between captain and crew is reflected in Reeves' retention rate. Within three months after assuming command, the first term retention rate had leaped to 55 percent. By the following quarter it stood at 88 percent.

The captain tries to meet with each

Bottom: USS Reeves (CG 24) at sea before yard period.
crewmember as soon as he reports aboard, again about five months before transfer or separation, and a third time just before he leaves.

"I find out what kind of orders the man desires and try to get those orders in writing," he said. "Then, when it's time for him to transfer, he will more likely get what he wants. Or if he thinks he wants to get out, we can sometimes show him a set of orders that may change his mind. It works!"

Chang encourages all of Reeves' officers and senior petty officers to do their utmost to retain on board as many high quality sailors as possible.

"Most of what we do in the way of leadership simply shows the sailors that the Navy is really interested in them," CAPT Chang said. "For example, in Subic Bay the crew had access to a hotline direct to Washington so anyone could talk to the detailers. When we returned to Pearl Harbor, I found out there wasn't one here for fleet sailors, so I had one put in my office for our crewmembers.

"I couldn't be more proud of the way my crew has responded to this yard period. I feel that if I give them 100 percent, I can't help but get 100 percent back!"

Captain Ming E. Chang is believed to be the first naturalized American to command a U.S. warship in recent times (see ALL HANDS, July 1973).

His first contact with the Navy came when he was a small boy in Shanghai. He would sit for hours on the bank of the Whangpoo River and watch American cruisers maneuver in and out of the crowded channel. His father was a petty officer aboard one of those vessels and CAPT Chang was determined that someday he, too, would be a sailor.

That dream came true beyond all his youthful expectations. Reeves is the second ship CAPT Chang has commanded; USS Rathburne (FF 1057) was his first.

In the early days of his career, CAPT Chang found that he was excluded from certain fields and that he couldn't obtain a security clearance because he was foreign-born. "I couldn't get a cryptology clearance and, in fact, it took a long time to get a background investigation completed," the captain said. "There's a part of my life that they can't investigate—it's back in China."

Gradually, changes in the laws governing naturalized citizens permitted CAPT Chang to assume command of a warship and obtain the rank of captain. He is extremely proud that his son, Danny, is attending the Naval Academy—a place once denied him.

"I'm a firm believer that if you're the best qualified to get the job, you'll get it no matter where, who, or what you are.""
Don't look now but the F-14 of tomorrow may be wearing something new—a nosewheel fender no less. The idea isn't to make the plane look more dressy but, rather, to cut down on the amount of FOD (foreign object debris) which the plane's nosewheel is suspected of picking up.

A test pilot and a project engineer at the Naval Air Test Center (NATC), Patuxent River, Md., are working on the idea. It's so simple that it has been equated by some to other simple but dramatic ideas like the paperclip and the hula hoop.

It has cost NATC only $3,500 to design and build the first set of fenders. They would be much cheaper, of course, if manufactured in quantity.

Commander Jack Ready, a Navy test pilot, originated the idea of fenders for the aircraft's nosewheels. In August 1977 he was assigned to NATC as the chief test pilot for Strike Aircraft Test Directorate, and one of his first actions was to find someone to evaluate his fender idea.

That someone was project engineer Gary Rasponi, who was excited by the simplicity of the idea and its potential for saving people, airplanes and money.

NATC had suffered engine FODs in the past on the F-14A. There was a possibility that some of the FOD could have been kicked up by the nosewheels. Manufacturer's tests had already disproved the popular notion that the engines suck high-density items right off the ground. Rasponi felt that the obvious way to document how much FOD, if any, is tossed into the engines from the nosegear was with the little fenders.

His first stop was at the design and fabrication shop of the Technical Support Directorate. Design engineer Roland Campbell and his crew fashioned a 15-pound set of aluminum fenders that fit easily onto the Tomcat's nosegear without any alterations to the aircraft.

To date, Rasponi and CDR Ready have proven that the fenders will not interfere with wheel changes, will not be in the way when the nosegear kneels and will fit smoothly into the wheelwell when the gear is retracted.

All this has been demonstrated on a stationary aircraft. The real test will be to taxi an F-14A through a trash-littered runway. To do this Rasponi is trying to locate a complete F-14A nosegear assembly to transport to Langley Air Force Base in Virginia. Langley has an aircraft landing load and traction facility which can simulate runway conditions. The device might allow him to take high-speed photographs of the fenders in action without risk to an aircraft and crew.
‘Chief’ Tower

Senator John Tower of Texas now has another title to add to his list—call him Chief Boatswain’s Mate Tower. He was recently initiated into the ranks of chief petty officers after years of climbing up the ladder.

His climb began in 1943. After 33 months of combat in the Pacific during World War II, plus another 32 years in the Naval Reserve, it looked like the ranking Republican on the Senate Armed Services Committee and only enlisted reservist in Congress would always be known as Petty Officer Towers. Then, lo, last year he was selected for chief petty officer.

Still, being the senior senator from Texas didn’t carry that much weight, at least as far as CPOs in the Navy and Naval Reserve were concerned. Chief Boatswain’s Mate (Selectee) Towers had to be initiated just like any other CPO or he wouldn’t be allowed to don “The Hat,” no matter what.

Rest assured. The initiation took place at the Naval Air Station, Corpus Christi, Tex., and BMC John Towers survived. Not only that but he acquitted himself of all charges—real or imagined—and demonstrated his proficiency in line-handling and pipe calls.

Before the event had run its course, Sen. John Towers was welcomed into the ranks of the Navy’s chief petty officers—thus ending his 35-year quest for “The Hat.”

Congratulatory messages from Secretary of the Navy W. Graham Claytor Jr., CNO Admiral James L. Holloway III and Master Chief Petty Officer of the Navy R. J. Walker were read at the ceremony. Admiral Holloway’s message noted, “The esteem with which chief petty officers are regarded and the importance of their unique place in our Navy have not diminished over the years. The Hat is still a hard-earned symbol of knowledge, judgment and proven experience. The legend and lore of the Navy chief petty officer gain a new chapter as you are formally welcomed.”

—JOI Curt Voss

A Booming Find

What would you do with a 7,320-pound Civil War cannon submerged in the drink? Well, if you have thoughts of preserving it, you’ll leave it right there—at least for the time being.

Such a cannon, all 10 feet, eight inches of it, rests today at the bottom of the Castillo de San Marcos moat in St. Augustine, Fla. But that’s not where it was found.

Seems the cannon was fished out of the basin at the Naval Station, Mayport during routine dredging operations. “It was just hanging out of the bucket,” said dredge employee Joe McConkey. “You could see part of it through the mud.”

Local historians were immediately interested in the find and the Navy didn’t lose much time in turning it over to them for preservation. Transported to St. Augustine, the Civil War piece was returned to the element which has been its home for the last 116 years or so.

An historian for the National Park Service at St. Augustine, Luis Arana, inspected the piece when it was first fished out of the basin and identified it as U.S.-made, somewhere between 1836 and 1865. He wouldn’t speculate on whether it belonged to Union or...
Confederate forces. A fortification named Ft. Steele was built at the Mayport location by the Confederates in 1861 and was captured a year later by Union forces.

One could guess, however, that the cannon was last in Confederate hands. When it saw the light of day last fall, it had a cannonball wedged in its mouth—spiking guns is usually accomplished by defenders just before they're overrun by the victors. On the other hand, at the end of a war, victors usually haul the guns off to museums or parks. A spitting image of this latest find is on display in the plaza of the "nation's oldest city."

Meantime, the newly found piece sits in the moat awaiting the day curators will restore it to its former beauty.

Two-Second Beep

Using about $10 worth of parts, electronics engineer Tom Pigg of Pacific Missile Test Center at Point Mugu, Calif., may have designed a backup aircraft safety system that could save the Navy millions of dollars annually.

An average of 13 Navy pilots each year fail to engage their landing gear before touching down. Some simply forget. Most, however, are operating in high-stress emergency situations where normal procedures are sometimes overlooked. Under stress, the flashing warning light, designed to alert a pilot that his landing gear is up, may go unnoticed.

Discovering a way to avoid such needless mishaps was the goal of four men at the test center's human factors branch. Working with Lieutenant Commander William Maroney and psychologists Alvah Bittner and Ed Holshouser, Pigg designed a circuit which takes the signal from the tense, in-flight environment and repeats it in the control tower. "When the controllers hear a two-second beep," Pigg said, "they request that the pilot lower his landing gear. Clearance to land will not be granted until the aircraft is in the wheels-down configuration."

Although still in the testing phases, the prototype circuit board, which can be easily installed on most aircraft, has performed well. Only one problem has been detected: when pilots must adhere to noise abatement procedures.
the signal sounds prematurely. As part of the procedure, the pilot puts wing flaps in the down position. "This reduces noise by reducing required power," Pigg said, "but it sends a premature warning signal to the tower because landing gear and wing flaps are usually lowered simultaneously."

It is expected that the problem will be solved by the addition of altimeter feedback into the circuit. It would trigger the warning beep only at low altitudes when aircraft are on the approach path.

Pigg said that his design is intended (at least for now) only as a backup, and will augment some of the traditional warning devices such as instrument panel warning lights, communications between pilot and tower, and a visual check by the wheels watch. "If the other warnings fail," Pigg said, "it may prevent a wheels-up landing."

Dohyo Makes Perfect

All nations revere their sports heroes, but none are idolized more than sumo wrestlers in Japan. Crowds of adoring fans follow these massive athletes wherever they go. Now, American sailors are stepping into the ring of this traditionally Japanese-only sport.

Naval Air Facility (NAF), Misawa, Japan, recently unveiled what is believed to be the first sumo practice ring (dohyo) ever built on a U.S. Armed Forces installation.

Captain W. S. Myers, NAF commanding officer, participated in a traditional Shinto ceremony to dedicate the dohyo. The practice ring is approximately 4.6 meters in diameter and conforms to standards of the Amateur Sumo Association of Japan.

NAF has its own amateur sumo team comprised entirely of naval personnel. The team is registered with the Amateur Sumo Association of Aomori Prefecture and is being considered for sanctioning by that association.

An exhibition meet followed the dedication. The 12-man NAF team competed with teams from Towada City Agricultural High School, Misawa City Police Force and members of the Aomori Amateur Sumo Association. The NAF Sumo Club swept the matches and was awarded first place in team competition.

77's Top Controller

Marine Master Sergeant Robert A. Marshall of Marine Corps Air Station, Yuma, Ariz., has been named the Navy's Air Traffic Controller of the Year for 1977 and has received the Vice Admiral Robert B. Pirie Award.

Navy Secretary W. Graham Claytor Jr. cited Marshall's "Superior sustained performance in a demanding environment, including lifesaving actions, which establishes him as an individual of the highest caliber... his record exemplifies the highest standards of naval air traffic control. His professional contributions have been significant in enhancing readiness and safety in naval aviation."

Secretary Claytor commended all candidates for the award: Marine Captain A. E. Davis of Marine Air Traffic Control Unit (MATCU) Twenty-Four; Marine Master Sergeant D. C. Bacz-
**Bearings**

**Maternity Uniform**

For Lieutenant Sarah McCullom, the Navy’s approval of a new maternity uniform was timed perfectly. “The day I read of the Navy’s decision authorizing the uniform was when I also learned I was pregnant,” she said.

LT McCullom is public affairs officer at NAS Jacksonville, Fla. She and her husband, Lieutenant Hugh J. McCullom, a pilot with Anti-Submarine Squadron 24, are expecting their first child this month.

The Navy was the first service to authorize the optional maternity uniform. The action came in response to Navy women’s desire to maintain—even while pregnant—a more professional military appearance. In the past, they have had to wear civilian maternity clothes when conventional uniforms no longer fitted.

The new uniforms feature four interchangeable items: white shirt (long or short sleeved), dark blue skirt, slacks and overblouse. By making various combinations, women may form appropriate uniforms for any season.

Most of the major Navy exchanges now carry the new maternity uniforms. The uniform also may be purchased through the Naval Uniform Shop in Brooklyn, N.Y., or through that shop’s mail order service. Exchanges not stocking the uniforms have special mail order forms.

**Talbot’s Citizens**

Well over 200 people gathered last Dec. 19 at Valley Forge, Pa., on the 200th anniversary of George Washington’s encampment to be sworn in as United States’ citizens. For at least two of those people, Mess Specialist Seaman Milton Saracho and Engineer Fireman Brinsley Arthurton, the ceremony had extra special significance—a chance to reaffirm their allegiance to their new country and to the United States Navy.

Both men—Saracho, a former citizen of Uruguay, and Arthurton, formerly a citizen of Guyana—received strong moral support in their quest for citizenship from their shipmates aboard USS Talbot (FFG 4) now undergoing overhaul at the Philadelphia Naval Shipyard.

**HN Takes Charge**

When a truck recently ran a red light outside the Naval Training Center, Orlando, Fla., Hospitalman Phyllis DeBlois had thoughts that the driver was probably drunk. She caught up with the truck after the light changed and followed it to the NTC gate where it stopped.

There she learned from the driver, Dick Bowen, a retired master sergeant and the NTC Librarian, that he had suffered a possible heart attack. Taking charge, HN DeBlois told a center policeman to call an ambulance. Then she helped Bowen out of the truck, made him lie on the ground and assured him that everything was going to be all right.

“I was trying to get him calmed down and in a better position until the ambulance could get there,” she said.

“I also asked him what medication he had taken.”

All Hands
Bowen's memories of the next minutes were foggy or lost completely. The ambulance rushed him to the hospital—his heart had stopped beating by the time he arrived there. An emergency team revived him. After major treatment and a hospital stay, he was able to go home to convalesce.

Because of HN DeBlois' efforts, she was presented a letter of commendation. She also was honored at a Recruit Graduation Review before 2,600 sailors and their guests.

The incident helped to firm up DeBlois' future plans. Now she really wants to return to college and study to become a nurse—a Navy nurse at that!—Janet Acres

It Comes to 34

Thirty-four is more than a hull number—having recently attained her status as a COMNAVSURFLANT Retention Superstar, the Norfolk-based guided missile cruiser USS Biddle (CG 34) reenlisted seven of her sailors in February. There were three CPOs and four E-4s through E-6s who received reenlistment bonuses in excess of $34,000. Total obligated time was for 34 years. From right to left: FTG3 John Bost; OS1 William Crocker; DS2 James Lee; HM3 George O'Melia; CAPT A. L. Henry, commanding officer; RADM Robert L. Walters, Commander Cruiser-Destroyer Group EIGHT—to which Biddle is attached; HTCS Richard Outland; SKC Robert Andrews; and EWCS Robert Hahn. Petty officers Bost and O'Melia reenlisted in January and OS1 Crocker, who reenlisted in March, are shown in place of BT3 Henry Allshouse, BT2 Darryl Baker and MM3 Raymond Queen, who were on reenlistment leave at the time the photo was taken.

By way of coincidence, the command's career counselor, NCCS Wilber G. Richardson, is 34 years old. (Photo by ENS Dale Meyer)

Heart Jog-a-thon

When 20 members of the Armed Forces Staff College in Norfolk recently decided to conduct a "Jog-a-thon" to raise money for the American Heart Association, they didn’t expect to fight Mother Nature along the way to raising over $1,500 in pledges and contributions.

The worst rainfall to hit Northern Virginia in 76 years turned volunteer joggers into "soggers" battling rising streams, flooded roads, and heavy highway traffic. Yet, according to team leader Lieutenant Commander Dean Turner, "we decided that as long as our escort vehicles could move, we would run.

Although the "Jog-a-thon" was expected to take 28½ hours, the runners hit the Pentagon's steps five minutes early. "The emphasis wasn't on speed," LCDR Turner said, "We simply intended to raise money for a good cause and get some exercise while ensuring the runners' safety."

Participants, representing all branches of the services, were from the student body, faculty, and staff of the Armed Forces Staff College. Runners were pre-positioned along the route with each man running one 10-mile stretch. They wore reflective vests and carried a baton containing letters from the college commandant, Major General L. Gordon Hill Jr., to each of the five Joint Chiefs of Staff.

Each team member chipped in to pay the team's expenses, thereby donating toward the Heart Fund effort. Escort vehicles used CBs to receive traffic reports and weather advisories from the Virginia State Police along the route.—JO3 David Hines

May 1978
STORY AND PHOTOS
BY JOI JERRY ATCHISON

When the Navy decided to build the Trident submarine base in the Pacific Northwest, builders faced the challenges of building a base virtually from scratch while protecting the scenic—but fragile—environment of Washington State.

Thanks to the advances made in construction, habitability and design technologies, plus a lot of planning and more planning, Navy builders have met those challenges at the new Naval Submarine Base, Bangor, Wash.

The one-hour, combination ferry boat/car ride from Seattle to Bangor serves to underscore the Navy's challenge. The ferry boat winds among forested islands on its route to Puget Sound's opposite shore. Ahead, rolling fir and cedar forests work their way up to the towering Olympic Mountain Range named for Olympus, mythological home of the gods.

As you drive through this forest, deer graze along the roadside and a mother grouse with her brood moves off the pavement. Your trip takes you out of the forest and past rushing streams renowned for their trout fishing, along glacial inlets that protect fishing boats and nearby small towns.

This, then, is the Navy's double mandate in the Pacific Northwest: build a base that will fully support the Navy's newest strategic deterrent weapon system—Trident. However, build and operate that base in such a manner as to guarantee the preservation of the environment.

Nor is this the limit of the Navy's responsibilities in rural Kitsap County. One very big job is to see that the impact of building and operating such a base does not adversely affect the lifestyle of the area's 129,000 residents, residents whose respect for the scenic beauty of their surroundings has grown as, elsewhere, the quality of the environment has diminished.

Construction of the base began in October 1974, at the 6,929-acre site of the former Bangor Annex of the Naval Torpedo Station, Keyport. By the time the base is completed, fully manned and operating as homeport for an anticipated 10 Trident submarines, the Navy will have spent about $660 million. It will employ 2,800 civilians and almost 4,800 military personnel. This is all scheduled to be completed by the mid-1980s. By then, the combined annual income of base workers—both civilian and military—is expected to be in excess of $100 million.

The figures point out that this is no small job the Navy faces. Here's how the Navy tackled that job.

Before the first shovel of dirt had been turned at Bangor, it was necessary to prepare an Environmental Impact Statement (EIS). The EIS identified, in effect, everything that could possibly be detrimental to the environment and the steps the Navy would take to protect the environment. After in-depth study and field surveys by Navy experts, reviews by the Defense Department and other federal agencies, public hearings, and still more federal agency reviews and studies, a five-volume EIS was completed. This was filed with, and accepted by, the Council on Environmental Quality—a part of the federal Environmental Protection Agency (EPA).

The Navy was also directed to research and evaluate environmental data beyond the requirements of the EPA in order to demonstrate to federal courts the nature and extent of their commitment at Bangor.

Lieutenant Commander A. L. Wynn is the environmental officer assigned to the staff of Officer in Charge of Construction (OICC) Trident. As the Navy's watchdog on the environment, he described some of the other preconstruction environmental tasks.

"The Navy was interested in testing such items as water quality, air quality, noise and marine biology before construction began," he said. "To do this, people were brought in from the Naval Undersea Center in San Diego and the Naval Civil
Engineering Laboratory, Port Hueneme, in addition to contractor personnel."

The result was an environmental monitoring program that established a baseline and told the Navy how things were before construction began. It continues to monitor the environment during construction and will do so after the base becomes operational. From stations scattered about the base, environmental data is fed to a central information center where personnel detect any changes as they

Above: Dawn highlights enlisted housing units under construction and an early arriving construction man. Left: A housing construction site as seen from the air. (By Harold Browne)
occur and take immediate corrective or protective action.

To ensure changes don’t occur, Wynn and his staff have prepared environmental specifications that are written into each construction contract.

“We require many positive things from the contractor,” he said. “The contractor must submit an environmental protection plan that discusses how he will protect the environment in those categories related to his particular contract. We then have a commitment from him that says what he’s going to do to minimize environmental impact throughout the life of his contract.

“Another thing is the actual master planning we did so as to decide where each facility would be located. We tried to take advantage of already-cleared areas in order to minimize the number of trees that had to be cut down. We also wanted to avoid construction in environmentally sensitive areas: marshes and wildlife habitats. We have—as much as possible—left these enclaves untouched where wildlife continues to live.”

According to base forest ranger Art Schick, “The result of this master planning has been that only 10 percent of the forest will have been displaced by construction. And that figure will be further reduced because we are eliminating some existing roads, railroad tracks and buildings. That land may be turned back to forest.

“Master planning also allowed us to identify the placement of roads so that they not only allowed access to the facilities, but also ensured none of the 5,000 acres of forest on base is more than one-quarter mile from any given road. In the event of a forest fire, that becomes an important advantage.”

In addition, Schick cooperated with the base game warden and experts from the Washington State Department of Game and Fisheries in a survey of types, numbers and range of game found on base. Besides learning that the base serves as home to an amazing cross-section of Pacific Northwest wildlife, some potential problems were identified and solved.

One solution required thinning the deer population on base to a size the environment could support. But this wasn’t done with guns. Deer were captured and transferred to nearby Indian Island and other locations where their progress is closely watched.

State game officials also decided that, given the restricted access of the base, it would be an excellent place to release game birds (pheasant and grouse) in order to study their life and habits.

After the Navy had scrutinized the base environment, begun working with Kitsap County officials and completed the base master plan, it was finally time to start building.

The Navy has specified how contractors are to build base facilities so as to continue supporting the environment. What they built, are building and will build in the future are examples of this ongoing concern.

The Waterfront

“The most significant environmental protection idea devised was for the piers,” Wynn said. “The piers are being placed several hundred feet offshore with access trestles leading out to them. They are being built this way for two primary reasons—both related to marine biology.

“First, if we could get the piers out in deep water, we would be able to bring the subs right up to the piers without being forced to dredge; that could upset marine life.

“The second reason for locating offshore was to permit migrating salmon fingerlings to proceed to sea unhindered. There are four species of salmon common to Hood Canal (upon which the base sits). Two of the four migrate very close to shore all along the reaches of Puget Sound.

“Significant monitoring programs in
cooperation with the University of Washington and the Washington State Department of Game and Fisheries were undertaken to ensure that the dredging that did have to be done (for the drydock site) was done so as to minimize impact on salmon. To accomplish this, we had as many as 27 people working full-time to monitor the salmon during their outward migration period.

"All these tests were run not only because we are working to protect the environment but because salmon are also commercially important to the economy of the Pacific Northwest. The results showed the dredging had no impact on the fish."

Wynn also described other waterfront environmental efforts.

"We've built a storm water retention facility for each pier. The idea here is to catch even the rainwater that falls on the pier and treat it before returning it to Hood Canal.

"The general use of equipment on a pier means oil and lubrication accumulates on the pier's surface. Therefore, the water that falls on these piers will be collected, pumped to these storm water retention facilities and the oil and other contaminants removed."

Another potential source of pollution will come from the Trident submarines to be homeported there. Three steps have been taken to ensure these submarines do not pollute.

First: garbage will be removed from each sub and processed through a grinder before being routed to a sanitary sewage treatment plant.

Second: federal law prohibits the discharge of oil from all ships when in proximity of land. The Trident submarine, therefore, will be equipped with a waste oil collection system and tank. The tank will be sized to permit off-loading of oil in port through a piping system. Galley oil waste will be
drained to the ship's sanitary tanks.

Third: the submarine will have the ability to operate 24 hours without pumping sanitary tanks within restricted water areas. When in port, the submarine will discharge all these wastes directly into the piping system running from piers to treatment facilities.

Buildings, Grounds and Facilities

Each building on base has been designed so as to blend into the existing terrain. To make sure this was done, Navy planners developed two approaches.

It begins with the architectural review panel. As each project goes through the design stage, Navy engineers and architects review the plans to see how these facilities will fit into their setting. The panel can (and often does) direct that changes be made to improve facilities—their appearance, function and, in the case of housing, livability.

In addition, "all of us around here like trees," Wynn said. "Because of this, and given our responsibility of keeping things looking as natural as possible, you'll notice the trees are left surrounding each structure built."

The areas within which each contractor may cut down trees at a construction site are written right into the contract. The removal of any tree outside the designated area must have approval on a tree-by-tree basis.

As a result, many of Bangor's buildings appear to have been set down in the middle of the forest. One can drive down base roads without realizing that behind the solid wall of trees on each side are buildings and facilities.

"That takes considerable effort to accomplish," Wynn said, "and it also costs more money to build facilities that way."

Of course, some clearing in excess of building sites is required. But those areas that must be cleared during construction are replanted after the job is done. Replanting is directed by an on-base botanist who selects plants, trees and shrubs native to the area. These plants are not only more likely to take root and grow but also more effectively complete the desired blending-in process.

It's apparent the Navy—whenever possible—tries to get many of its environmental plans to do double duty. In case of Bangor's buildings, design combines eye-pleasing elements with energy-conserving materials.

Take the Trident Training Facility—largest building on base. The building is constructed of oxidized steel, solar reflective glass and formed concrete. The oxidized steel is designed to naturally "rust" over a period of time. The dark brown rust, besides blending the building with its surroundings, also serves as a protective covering. The result is a sealed, protective coating that virtually eliminates exterior maintenance.

The expanses of solar reflective glass not only reflect the mountains and forests of the area but also allow much of the building to be well-lighted in the daytime with only a minimum amount of supplementary electrical lighting.

That same solar reflective glass is capable of absorbing the sun's heat:
heat that may be used to aid the school's physical plant in heating the building.

And consider that physical plant. It is set next to the woods away from the main building. All wires and pipes that run between the two are located out of sight in underground tunnels.

Each building on base reflects still other energy-saving elements. They might be as simple as ensuring each building has the maximum amount of recommended insulation or as interesting as the Enlisted Dining Facility with its skylights and numerous windows.

Utilities

Even though conserving resources is reflected in the base facilities, it still takes a lot of power and water to support a base the size of Bangor. And the job gets bigger when one considers the importance of guaranteeing sources of each for critical security and operational areas on base.

To accomplish this, the Navy decided to purchase its electricity from the most economical source, the Bonneville Power Authority (BPA), while also developing emergency power generation capacities on base.

The base produces all the water it needs—and then some. This excess came about because the engineers designing the drydock discovered artesian conditions at the drydock site. In order to build the drydock, a number of wells had to be dug to relieve this water pressure during construction. The result was more wells than necessary to supply the base's water supply. So as to ensure a back-up supply of water, the Navy decided to maintain these extra wells in working order instead of abandoning them.

While the Navy awaits construction of the Kitsap County Sewage Treatment Facility, which it helped to fund, an interim, on-base sewage treatment plant has been built. This interim plant, plus three smaller facilities that have been on base for years, will work as sewage treatment back-up plants once the county facility is operational.
Having these back-up utility sources was a rather important design consideration. The base must have the potential to be self-sufficient to ensure its mission requirements are met and to lessen the chance of having to draw from the surrounding community during a period when such a drain might inordinately strain those local facilities.

Decreasing the impact—or the potential for impact—on the surrounding area manifests itself in other areas of the base. At one of the base housing sites, engineers saw that considerable clearing would be required for construction of the 564 enlisted housing units planned there. Storm water run-off from the new houses and streets in this southeast portion of the base was bound to increase considerably. This excess water would run from the hilltop site to offbase and pose a potential flood threat to local residents.

Enter the double-duty thinking Navy planners. They formulated an answer that makes both on- and off-base residents happy: build two storm water retention lakes in series. This allows the base to control the flow of water during heavy rains and, therefore, protect off-base residents from floods. These lakes, once filled, also will provide on-base residents with a nearby center for recreational boating, fishing and swimming.

The work being done at Naval Submarine Base, Bangor, Wash., reflects some of the most sophisticated and innovative building techniques permitted by modern technology. It is still, however, a human effort.

People doing a job, multiplied by the immensity of the job, are bound to equal some mistakes. Mistakes cost money, upset work schedules and lessen the Navy’s reputation as a good neighbor in the community. Since the Navy cannot afford to spend more money, more time or injure its reputation, these human mistakes must be kept to an absolute minimum.

The Navy’s efforts in the Pacific Northwest reflect a system of checks and balances designed to protect the environment and control the impact of the base upon the community while ensuring the orderly and fiscally responsible construction of that base.

This demonstrates that getting the job done is no longer the sole criteria of military base construction. Indeed, during World War II, the last period of large-scale base construction, the military did not—nor were they expected to—justify their on-base actions to the nearby off-base communities. LCDR Wynn believes the construction of the base at Bangor reflects a new set of standards that the Navy shares with America.

“The Navy has a prime piece of real estate here. We’ve made a commitment to the people that reflects this fact. When we put this facility in, it will be something pleasant, something that will not be an eyesore and that they can live with without disrupting their lifestyle any more than necessary.

“To the maximum extent possible, we’re meeting that commitment. We’re trying to preserve what was here before we ever came along. After all, it was nice before. Why not keep it as nice as possible?”
Providing full tactical, logistic and personnel support to the Trident Weapons System is a big job—a job made critical by Trident’s scope, complexity and strategic importance to national defense. Because of this, support for Trident became one of the first assignments for Trident planners.

Keeping the submarines on patrol—fully armed and operational—will be accomplished more effectively, thanks to a number of new approaches to the business of submarine and weapons system maintenance. These approaches are reflected in submarine design, support base layout and function, and state-of-the-art training techniques for Trident crews.

Here’s what Trident people will have at their disposal to see that the job gets done better:

Trident Submarine

Because of a lack of working space, maintaining submarine equipment and installing new equipment are complicated and time-consuming problems on pre-Trident generation submarines.

Any piece of equipment that is removed from or installed in a submarine must pass through personnel access hatches. The size of these hatches—usually no more than 26 inches in diameter—required that major equipment be disassembled before passing from submarine to dock or vice versa. This disassemble-pass through-reassemble routine is time taken from a submarine’s refit.

Although it’s been a fact of submarines’ lives for years, design experts decided this was not to be the case with Trident. Two submarine design concepts have been developed that will enable Trident personnel to service, repair or replace components or entire systems more quickly and efficiently. First, enlarged special logistic access hatches are installed and, second, components are designed to pass through these enlarged hatches.

These two concepts will permit a minimum number of personnel to remove a defective component and run it to an access hatch where it will be lifted to the pier. A replacement modular component may then be hooked up, lowered into the submarine and transported to its installation point.

If it’s going to be easier to fix Trident equipment, it is also going to be easier to identify what needs fixing. Electronics systems will, in many cases, monitor their own health, sound an alarm when a malfunction occurs, and locate the fault for repair.

The planned maintenance and equipment replacement schedule will ensure routine preventive maintenance is performed on equipment when it is needed. This schedule will identify equipment to be removed for maintenance and replaced during each of Trident’s in port, refit periods. The intent is that a maximum amount of maintenance be performed before a piece of equipment reaches the breakdown point.

These design concepts—which will be combined to decrease the in port time and increase the operating effectiveness of the submarine at sea—are only part of the reason why Trident will be able to spend up to 16.7 percent more time at sea than is possible with our present day SSBNs. They are also only part of the explanation why the planned crew for Trident is only 10 percent more than that of Polaris and Poseidon submarines.

The other reasons for this increased efficiency, dependability and ease of maintenance are ashore at the Naval Submarine Base.

Naval Submarine Base Bangor

Providing full support to the Trident system from shore starts with a simple premise: put everything Trident needs in one place and make that one place Trident’s homeport.

Construction of the base at Bangor, Wash. gives Navy planners the opportunity to build a fully-integrated, CONUS-based support site for the submarine community. The West Coast location of the base, coupled with the long-range characteristics of the Trident missile and submarine, will permit submarines to depart their homeport and almost immediately be on-station and in missile range of the assigned targets. Trident submarines, therefore, will not be required to make extended transits to their operating areas or depend upon U.S. bases located on foreign soil for logistic support.

But the Trident system must have full support from ashore if it is to retain that advantage. Here’s how it will be accomplished—
**Four commands in one**

Three new U.S. Navy shore commands—Naval Submarine Base Bangor, Trident Refit Facility, and Trident Training Facility—have joined the existing Strategic Weapons Facility, Pacific, at the former Bangor Annex of the Naval Torpedo Station, Keyport, Wash. Located on a 6,929-acre complex on the Hood Canal in the Puget Sound area, these commands will provide dedicated support to the personnel, submarines, and missiles of the Trident system.

The location of complete Trident support facilities at one U.S. base also will eliminate the expense and time lost in transporting crews between homeport, refit and training activities. This will allow all Trident crew members to be near their families while not on patrol, and both blue and gold crews will be available to assist in the submarine refit efforts.

All of this adds up to a quick refit and turnaround time for Trident resulting in a cost-effective system that keeps the submarine at sea a high percentage of the time.

**Trident Training Facility**

The Trident Training Facility (TTF), housed in the largest building on base, will be used to train officer and enlisted personnel in all basic and advanced Trident unique skills. It also will provide functional, refresher and team training to Trident submarine crews and submarine support personnel to increase and maintain their knowledge of Trident systems.

Located in the central core area of the base, TTF will allow students from the Bachelor Enlisted Quarters and base housing to walk to their classes.

The training facility will employ training techniques such as mock-ups, and computer simulated and stimulated systems and equipments.

**Trident Refit Facility**

This facility will consist of refit, service, and magnetic silencing piers; a drydock; repair shops; and other waterfront facilities required to support Trident submarines in refit. Trident refit piers, configured in the shape of a delta, will consist of two 700-foot piers and a 690-foot drydock. A 58,000-square-foot support building is being constructed in the center of the pier. This Refit Delta will provide services to three submarines simultaneously and can support a squadron of 10 Tridents once it is fully operational.

**Strategic Weapons Facility, Pacific**

The Strategic Weapons Facility, Pacific (SWFPAC), provides support to the Navy’s Polaris missile program and is being expanded to support the Trident system. It will include two explosives handling wharves (covered piers where submarines will load and unload their explosives), and facilities for reassembly processing, maintenance, and storage of the Trident missiles.

The SWFPAC facilities have been designed to ensure appropriate missile handling at safe distances and to provide the required security as well.

**Naval Submarine Base**

When the Naval Submarine Base reaches its projected 10-submarine homeport limit sometime in the mid-80s, Trident sailors will walk from their BEQs, BOQs or Navy homes to the Trident Training Facility, Navy exchange, dining facility, base library and theater as well as to many of the other base facilities.

All of the facilities needed to support the Trident system fully will be under the host activity’s administrative umbrella. Besides coordinating the various Trident-support functions of the site’s tenant activities, the Naval Submarine Base will also have the task of providing liaison between Trident base and the local civilian community.

**The advantages**

It makes sense to put everything needed to support Trident in one place. But it goes beyond providing effective personnel and logistic support to the Trident weapons system. Some very real advantages accrue to the Trident sailor stationed there. Captain A. K. Loposer, commanding officer of the Trident Training Facility, described these advantages.

“For the first time, if a man really wants to, he can put in almost an entire Navy career here. He could complete a three-year submarine tour and then come ashore at one of a number of Trident activities on base, or serve at nearby Keyport Torpedo Station or Puget Sound Naval Shipyard in Bremerton.

“If the sailor likes it here, he can put down some real roots and become an active member of the community. I think we’re going to have a more stable Navy because of people who elect to do things like that.”

Trident, then, will be one of America’s premier strategic deterrent systems into the 21st century, thanks to a combination of advanced technology and farsighted planning.
Good neighbors in Bangor

Before the decision had been made to locate the new Trident submarine base in Kitsap County, Wash., Navy people had begun examining the base's potential impact on the residents and land of the surrounding communities.

Once the Bangor site had been selected, it soon became apparent that close liaison between the Navy and the local residents was important if that impact was to be controlled.

For example, one projection showed the county's population will grow—because of the base—24 percent to almost 160,000 people by 1985.

"More people mean more schools, roads, services—like fire and police departments—and more utilities and facilities," said Peter Crane, Kitsap County Trident Coordinator.

"We wanted to make sure this is controlled, orderly growth; growth without losing the basically rural setting of the county."

One of the first questions needing an answer was, where would the county government get the extra money for extra services?

In most places, when a new company moves into a new area and employs a large group of people, that company provides the extra money for an increase in local services through the taxes it pays.

But it's not like that in Kitsap County. The federal government—which will employ an estimated 54 percent of the labor force in the county when Bangor is fully operational—pays no taxes. Sure, the people who work at places like Puget Sound Naval Shipyard in Bremerton or the Torpedo Station at Keyport pay property taxes, sales taxes and the like. But that's only enough money to operate existing services and not enough to allow for growth.

Lieutenant Commander A. L. Wynn, environmental officer for OICC Trident, explained how the Navy, working with both local and federal government agencies, helped to solve this critical money problem.

"Once the scope of the tremendous impact the base would have on the community became obvious, we began working together to administer a Federal Impact Program that Congress had previously passed as part of the Military Construction Act," he said.

"We are working with state and county agencies to make sure those funds are wisely spent. For example, all of us want to make sure that what we do on base in the way of utilities, road construction or special environmental studies neither duplicates nor conflicts with the efforts of the state and county governments."

One result of this type of liaison was the decision to build two schools just outside the base. These schools will serve both on-base, dependent personnel and off-base, civilian students. For one of the schools, Navy land was made available for the construction.

Another result involves the planned sewage treatment facility that will serve both the central portion of Kitsap County and the base. The Navy will pay more than 40 percent of the construction costs and 100 percent of the cost of a several-mile-long sewage line between the base and the plant. The county will pay about 10 percent of the remaining costs with the rest of the funds coming from Federal Impact and state funds.

"We'll be the only ones using the sewage line between the base and the facility because the county's land-use plan directs that the land through which the line passes be kept a rural, undeveloped area," Wynn said.

The county's land-use plan was a beneficial side effect to the decision to build the base in Kitsap County. County Trident Coordinator Peter Crane tells how:

"Many areas of the country have had their growth sneak up on them. Communities woke up one day and found mixed up commercial and residential areas that cause problems in services. There might be too many hospital beds here and not enough there, or overdevelopment blights like neon strips, fast food chains and the like.

"The Trident project encouraged the Kitsap County planners to look far down the road and come up with a comprehensive land-use plan that reflected future needs, desires of local citizens and the adequate consideration for the health, safety and welfare of county residents."

Both the county and the Navy decided this close liaison will be continued. To ensure this, what's best for both will be examined by a standing committee of senior Navy and local government officials.
Last voyage of CYCLOPS

BY JOC DANIEL J. GUZMAN
1 AUGUST 1974:
"USS OPPORTUNE IS INVESTIGATING A WRECK 80 NM NORTHEAST OF CAPE HENRY THIS MORNING IN 29 FATHOMS OF WATER. THE WRECK IS BELIEVED POSSIBLY TO BE THAT OF THE USS CYCLOPS, THE NAVY COLIER LOST WITH ALL HANDS IN 1918. DIVERS ABOARD THE OPPORTUNE INTEND TO TAKE PHOTOGRAPHS AND VIDEO TAPE TO ASSIST IN AN IDENTIFICATION TODAY. PHOTOGRAPHS TAKEN YESTERDAY AS WELL AS RECOVERY OF "USS OPPORTUNE IS INVESTIGATION TODAY. THE SHIP'S BELL FAILED TO PROVIDE A POSITIVE IDENTIFICATION.""

5 AUGUST 1974:
"THE SALVAGE SHIP OPPORTUNE (ARS 41) RETURNED TO NORFOLK FRIDAY AFTER COMPLETING THE SEARCH FOR USS CYCLOPS OFF CAPE HENRY. DIVERS' OBSERVATIONS AND UNDERWATER TELEVISION PHOTOGRAPHS HAD ESTABLISHED THAT THE WRECK LOCATED WAS NOT THE CYCLOPS ... IN ANY CASE, THE FATE OF THE CYCLOPS REMAINS A MYSTERY."

On March 4, 1918, the U.S. Navy collier USS Cyclops got underway from Barbados, British West Indies, bound for Baltimore, Md. She carried 15 officers and 221 enlisted men and, as passengers, six officers, 64 enlisted men and two U.S. Marines. Additionally, the U.S. Consul at Rio de Janeiro, L. M. Gottschalk, boarded Cyclops after she had loaded 10,800 tons of manganese ore for delivery to Baltimore's steel mills.

Cyclops was due in Baltimore on March 13. She never arrived nor was she seen again.

The nature of Cyclops' disappearance has not been resolved though there has been much conjecture. Every plausible idea advanced to explain her disappearance has been impossible to support with fact.

Here, we merely compile facts that have been set to paper in the past, and hope that an insight into the ship and her captain may prove interesting to those with a curiosity about this mystery.

There is not much in writing about George Worley, the man who commanded Cyclops on her last voyage. It is known that he was German-born, that his real name was Johann Friedrich Wichmann, and that he was brought to the United States as a child. While living in Port Orchard, Wash., he assumed his foster father's surname, Worley. At age 25, George Wichmann Worley journeyed to the Bremerton Navy Yard and joined one of the civilian crews manning naval hospital ships and auxiliaries. There is a gap from then until about 20 years later, in 1910, when he is ordered aboard the naval auxiliary service (NAS) collier Cyclops as master. With the American entry into World War I, the auxiliary service was abolished and the crews became Naval Reservists on active duty.

So it was that on Feb. 16, 1918, Lieutenant Commander George Worley, U.S. Naval Reserve Force, was commanding USS Cyclops.

The next time Worley's name is found is in the July 1969 issue of United States Naval Institute Proceedings. The writer is Conrad A. Nervig, an officer who served on Cyclops on her voyage from Norfolk, Va., to Rio de Janeiro where he was detached and ordered to USS Glacier. It was on Cyclops' return voyage to the U.S. following Nervig's departure that she disappeared.

In his article, Nervig provides his personality sketch of Worley as a commanding officer—one that is not too complimentary.

According to Nervig, Worley developed a liking for him and established a routine of visiting him during late watches on the bridge. He describes Worley as a "... gruff, eccentric salt
ordered to bed by the doctor. It was division officers, apparently in good health, was placed on the sick list and disliked by both his officers and men. Some of the incidents that Nervig relates as having taken place aboard Cyclops leave one wondering about the captain.

A few samples:
- His attire on his regular nocturnal visits to the bridge never varied: "... long woollen underwear, a derby hat, and a cane."
- "On the fifth day out, the Captain ordered Lieutenant Forbes, the executive officer, to his room under arrest following a trivial disagreement about ship’s work. From all reports, this seemed to be a routine matter in ships commanded by Captain Worley."
- "In the evening of this same day, Ensign Cain, one of the watch and division officers, apparently in good health, was placed on the sick list and ordered to bed by the doctor. It was the general opinion in the wardroom that this was done to save Mr. Cain from being a victim of the Commanding Officer’s unreasoning temper."
- "On the 12th day, we came in sight of the coast of South America off Pernambuco, at a distance of about 20 miles. The Captain immediately changed course to take us farther out. We came to anchor off the city of Bahia on 22 January 1918, after running 48 miles past the entrance of the harbor. Three more hours of darkness, steaming on that course, would have had her aground. The navigator had protested, pointed out the error of these decisions, but had been brusquely overruled."

If Mr. Nervig’s observations are correct we now have a character sketch of the ship’s captain, the man who was to sail her into the Western Atlantic and oblivion.

Nervig’s assessment of Worley is strengthened by a letter in the January 1929 issue of Proceedings written by Brockholst Livingston III, son of the American Consul to Barbados. He takes Worley’s navigation to task. His father, Brockholst Livingston II, in reply to State Department correspondence, cabled back a report which included rumors of disturbances aboard Cyclops, including men confined and one executed.

Now, what of Cyclops herself? Was she seaworthy?

Yes. Most definitely! At the time she was built in 1910 her class of ship was considered the last word in marine construction. When she visited Kiel in 1911, she was inspected by German naval engineers who pronounced her an "outstanding ship."

Cyclops was one of ten ships authorized by Congress between 1908 and 1911, and put into service between 1909 and 1913. These ships consisted of the Jupiter class (Jupiter, Cyclops, Neptune); the Vulcan class (Vulcan, Mars, Hector); the Proteus class (Proteus, Nereus); and the Orion class (Orion, Jason).

Cyclops was designated a fleet collier, as were the other two ships in her class and the ships in the Proteus and Orion class. The smaller 403-foot Vulcans were classified colliers.

Cyclops’ keel was laid June 2, 1909. She was launched May 7, 1910, and put into service Nov. 7 the same year. Built by William Camp and Sons, Philadelphia, she was a twin-screw collier of 19,360 tons displacement. Her rigging—a complex arrangement of king posts and coaling booms—gave her a grotesque look, but enabled her to refuel coal-burning ships at anchorages and bases.

She saw service with the Atlantic Fleet until January 1918 when she was reassigned to duty with the Naval Overseas Transportation Service.

Her first assignment under new management was to deliver coal to Bahia, Brazil, and return to Baltimore via Rio de Janeiro.

What happened to Cyclops and the 399 people aboard her after she left Barbados?

As stated, there have been numerous theories advanced regarding the cause of her disappearance; torpedoed by a German submarine—after the war, German and British records showed that there had been no German submarines or mines in her area during the time in question; storms—Navy records show that there were no storms of any consequence in her area; she broke in two and sank quickly—those associated with Cyclops’ sister ships state that this could not have happened as the other ships in her class experienced no problems which would indicate a tendency toward this.

One of the more widely accepted explanations is that given by then Lieutenant Commander Mahlon S. Tisdale who believes rough seas caused her cargo to shift, creating a list that was accentuated by the free surface effect of water in slack double bottoms.

Tisdale, who had previously served on Cyclops, says that the topside manhole covers were generally left open for ventilation. Thus the ship would have taken green water down the openings as a result of the list and rough weather. The later absence of flotsam he explains by the practice on Cyclops of thoroughly securing and lashing down all topside gear. The only problem with this theory is that the Navy, and the Secretary of the Navy himself, stated that there was no inclement weather of any consequence in Cyclops’ area at the time of her disappearance.

When announcing her overdue on May 14, 1918, Secretary of the Navy Josephus Daniels stated that there had been no bad weather, no distress signals and no German ships or subma-
rines near her route. Search attempts included sending ships on her last track to look for some trace of her, searching West Indian beaches and talking to islanders.

In his Annual Report to the President on Dec. 1, 1918, the Secretary of the Navy wrote, “There has been no more baffling mystery in the annals of the Navy than the disappearance last March of the U.S.S. Cyclops, Navy Collier of 19,000 tons displacement, with all on board ... No reasonable explanation of the strange disappearance can be given.”

After months of searching the Navy finally gave up the Cyclops as lost and her name was stricken from the registry.

One theory that has not been mentioned yet is that of “supernatural” forces. Cyclops, and, later, her sister ships Nereus and Proteus were all lost in an area resembling a triangle, with one point of its base at the Florida coast, the other base point at Puerto Rico, and the apex at Bermuda—the Bermuda or Devil’s Triangle!

Cyclops was by no means the only U.S. Navy ship to disappear mysteriously. In March 1781, USS Saratoga, a sloop of war commanded by Captain John Young, disappeared after sailing from Cape Francois, Haiti; in August 1800, USS Pickering, a cutter commanded by Lt Benjamin Hillar sailed from Newcastle, Del., bound for the West Indies and was never heard from again; on July 4, 1915, USS Epervier was sighted passing the Straits of Gibraltar and was not seen again; USS Lynx, a schooner commanded by Lt John Madison, sailed from St. Mary’s, Ga., on Jan. 22, 1821, bound for Jamaica and was never seen again; USS Albany, a sloop of war under Commander J. T. Gerry, sailed from Aspinwall for New York on Sept. 29, 1854. She was never heard from or seen again.

Disappearances in those days of “wooden ships and iron men” were not rare, but what has baffled searchers and thrown a shroud of mystery over these and the Cyclops’ disappearances is the complete lack of flotsam that normally marks a shipwreck.
Baked Alaska on a Tin Tray

STORY AND PHOTOS
BY PHI TERRY MITCHELL
Experts show award winners how to stay on top

If you’re fortunate to have mess management specialists who have won the Ney Award, the menu in the plan of the day may read—hors d’oeuvres, stuffed tomato escoffier, roast stuffed chicken, baked Alaska and coffee. Not your typical Navy menu, but neither are the planners of such a sumptuous feast typical Navy cooks.

The Ney Award, named in honor of Captain Edward F. Ney (SC) is given to the best messes afloat and ashore that demonstrate excellence in preparation and service of food and management of food service operations. The judging for this award includes a total review of each mess operation from the ordering of the supplies, through the food on the serving line, to food wastage in the scullery.

Afloat winners and second-place finishers send a representative to a two-week course in professional cookery at the School of Hotel and Restaurant Administration at Cornell University, Ithaca, N.Y. Their ashore counterparts attend a similar course at the Culinary Institute of America in
Hyde Park, N.Y.

Donning chef’s hats and aprons, students go through a curriculum that would make the ardent gastronomist’s mouth water and the supply corps officer happy as well.

Given ample “hands-on” experience, each student prepares a wide variety of food from a simple hors d’oeuvre to a complicated sculptured pastry. In many cases, the entire class is given a chance to taste their successes and their failures.

As part of the course at Cornell, the students take over the school’s cafeteria for an evening meal. Planning for that meal begins the first day of school with the selection of the menu. Once the menu is decided upon, the class costs-out the meal, much as a restaurant does in order to assure a
It's the extra touch that counts

profit or, in the case of the school's cafeteria, to break even.

Their patrons for the meal are other students attending the school. But these people are not the ordinary hamburger and french fries crowd. Most are owners, managers or chefs from restaurants around the world, and they're usually a pretty critical clientele.

Once the cafeteria is closed and cleaned up for the evening, the instructors hold a debriefing to point out mistakes and pass on congratulations where warranted.

Creating fancy foods isn’t the only thing on the schedule. Recipe standardization, supply requisitioning, sanitation, butchery and something as simple as folding a napkin are all subjects that must be thought of before the food hits the serving line.

The result of the two weeks of intensive cookery sometimes shows immediately at the student’s waistline. But if your mess specialists are Ney Award winners, you’ll see the result on the serving line and maybe even your own waistline.
Active duty Navy people sometimes forget that the Naval Reservists are also a vital, indispensable component of the sea service. The following vignettes—though not by any means the sum total of everything reservists do—show examples of reserve ingenuity and humanitarian accomplishments during recent months.

**Making Do With “Can Do”**

Two weeks of active duty training completed, 135 Naval Reservists of Patrol Squadron 62 checked their seatbelts and took a last look at Rota, Spain, while their Trans World Airlines 707 lumbered down the runway. Each expected to be in Jacksonville, Fla., 10 hours later (by late Sunday afternoon) and back at their civilian job Monday morning. Then there was a sudden change in plans.

As the jet taxied into takeoff position at Naval Station Rota, black smoke began pouring from the outboard port engine. The pilot brought the plane to a stop as a crash crew hurried onto the runway. Asbestos-clad firefighters soon surrounded the craft. The pilot asked for a tow to the terminal. However, no tow was available. At the end of the runway, the plane remained stalled in the midday sun.

Mechanics began dismantling the wing and a truck with an adjustable stairway arrived to offload passengers. Some rode back to the terminal to begin the vigil since there wasn’t enough “room at the inn” for all. The rest gathered in groups on the runway and discussed alternatives to their plight. What had begun as a routine 40-minute hop to Lisbon before flying on to the states, had become a frustrating delay.

Several hours later, everyone knew the situation. The problem was in the aircraft’s hydraulic system—a simple fitting, part of a reducing valve, had cracked. Under normal conditions it could be easily replaced, but today was not normal: no replacements were available. Not in Rota. Not in Spain. Not in Europe. The closest spare was in New York.

By then the alternatives were clear—wait at least 24 hours for a replacement part to be flown in from the states, or make one. The first solution was unacceptable. As unlikely as the latter solution seemed, three reservists began looking for raw materials to manufacture the needed part.

The three were Petty Officer 1st Class Bob McCallum, a civilian machinist, Chief Petty Officer Tom Eginberger, a civilian airline pilot who holds an airplane mechanic’s license as well, and Commander L. S. Connor, a flight surgeon with an interest in metal working. They found the needed materials on board USS Canopus, a sub tender in Rota.

The damaged part—about the size of a doorknob—was a squat, hollow, aluminum bolt with a large hole going in one end and a small one at the other. Starting with a similar, but oversized part from a submarine, a Canopus machinist ground down the outside diameter and changed the threads. The inside was rebored to accept the two airplane hydraulic lines. Working through the afternoon and into the night, the four slowly manufactured a reducing valve.

At 11:00 p.m., it was announced that the plane was repaired and ready for boarding. A muster was taken and all Navy men boarded again with fingers crossed. Before the whole unit had entered the 707, all the plane’s lights went off—seconds seemed like hours, but the lights came on again and stayed on.

For the second time that day, the plane rolled to the end of the runway, turned and made its takeoff run. There was no smoke this time. When the 707 lifted off at 11:58, a polite and thankful applause could be heard above the roar of engines.

Ten hours later, Patrol Squadron 62 landed in Jacksonville. It was 4:00 a.m. local time—half a day late, but still half a day earlier than they would have been had it not been for the determined ingenuity of three reservists and a helping hand from a sub tender.

—LCDR M. D. Wozniak

**Needed: More Glasses**

Remember when filling stations gave a water glass with each fillup? Those days have been revived by the reserve training destroyer USS Henderson (DD 785) as part of a retention and
regular drill attendance incentive. A reenlistment or a drilling quarter of perfect attendance earns the reservist a glass emblazoned with the silhouette of the Fram I destroyer, inscribed "USS Henderson." The object, of course, is to earn a set for yourself.

Commander John F. Leahy, the destroyer's reserve coordinator, originated the idea during a program to man the ship's force with 65 percent reserves and 35 percent regulars. "That program has since changed," the commander said, "but the idea of awarding glasses continues. It's working out—we are just about out of the second order of 300 glasses and we're only in the seventh month of our program."

The glasses are important to the program's success—they are unavailable anywhere else—but the continued success of the reenlistment and perfect attendance effort is based on the pride each crewmember feels for his ship and unit.

"This program is positive and seems to help reenlistment and retention," said Commander Glenn E. Shrader, commanding officer of Henderson, and owner of a complete set of glasses himself. The commander said that the glasses are only part of the ship's retention program. Other incentives are: an elaborate reenlistment ceremony; a personal letter from the CO to the reenlistee, his wife, family, CPO and division officer attending the shipping-over ceremony; an autographed (by the CO) photo of Henderson; a ship's mug; and a day off for the reenlistee's entire division.

—LCDR David Kishiyama

Mission of Mercy

Thanks to the efforts of the active duty Navy on board USS Robert H. McCard (DD 822), two reservists—Commander Wade Hargadon and Lieutenant Commander N. R. Mabry (MC)—and Rotary International's 695 Clubs of Central Florida, a medical clinic now stands at Ile de la Gonave, near Haiti.

The Navy became involved when CDR Hargadon, president of the Rotary Club of Seminole County, South, in Florida, wrote Admiral Isaac Kidd, CINCLANTFLT, to ask permission to ship six tons of prefabricated building material for the clinic on board McCard. Both he and LCDR Mabry had served their active duty for training on McCard earlier in the year.

Adm. Kidd approved the project and Commander Gary Barnum, McCard's skipper, invited the two reservists to accompany the shipment. Without the cooperation of the regular and reserve Navy, the Rotary's project would have been nearly impossible—Ile de la Gonave is not accessible to regular shipping. The time, effort and expense saved assured the success of the club's effort to provide more than 30,000 natives with a semblance of medical care.

By the time McCard got underway, the crew was already asking questions about three-inch thick aluminum skin and rigid Styrofoam insulating filler on the helo deck. "Men who came into sick bay never missed an opportunity to ask me for details," LCDR Mabry said.

On arrival in Ile de la Gonave, a boat looking like something out of the movie "African Queen" pulled alongside and McCard's Lieutenant Bill Rigley called for volunteers to offload cargo. Sixty men appeared within seconds and worked through the night.

"The next morning we all boarded the trader to deliver the clinic to the village," LCDR Mabry said. "The McCard crew had been spontaneous with their gifts of food and clothing to the native crew of the trader and its passengers as was evident by the number of the natives wearing Navy hand-me-downs."

When McCard got underway for refresher training, every member of her crew had the feeling that they, along with two of their own who cared, had done something worthwhile.

—LCDR N. R. Mabry
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Navy ships need binoculars and spy-glasses.

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Will you help us "stand watch" on a destroyer?
The 'Eyes of the Ship' - They’re still around

"Land ho!"
"Thar she blows!"

Movie buffs may identify such cries as belonging to an old sailing ship lookout—the eyes of a ship. However, his real-life counterpart still sails the oceans and furnishes reports of everything he sees—aboard modern Navy ships.

Around the clock on the nuclear-powered aircraft carrier USS Nimitz (CVN 68), lookouts scan the sky and ocean for anything that could pose a danger to the ship. Everything from driftwood to aircraft, from ships to oil slicks, is reported.

Lookouts are not just an archaic convenience—they are required by Rule 5 of the International Regulations for Preventing Collisions at Sea. The rule states: "Every vessel shall at all times maintain a proper lookout by sight and hearing, so as to make a full appraisal of the risk of collision."

Seventeen men are assigned to Nimitz's Operations/Lookout and Recognition (OL) Division. Three men equipped with sound-powered telephones, binoculars and foul weather jackets are on watch continuously. One lookout searches forward while his two shipmates scan aft—one to port, the other to starboard.

Sometimes hours pass with nothing but empty ocean in sight, but the lookouts keep searching. When an object is spotted, the lookout reports the bearing and gives a brief description to the bridge's watch team. However, one report is not enough. The lookout continues to check on any previously sighted object and reports any change in its status. For example, a ship contact may change course or an aircraft may lose altitude for a low pass across the ship—above all, it's the lookout's job to keep the bridge informed.

Ensign Donell Cox, OL Division Officer, describes his division's responsibility as challenging and notes, "It is what is not seen and not reported that can do us the most harm."

Most Nimitz lookouts are new to the Navy and lookout duty is often their first assignment after a training program featuring video taped presentations, visual aids, ship and aircraft recognition posters and flash cards. Presentations are also made concerning different navigational light schemes and the rules of the nautical road—the same rules that require lookouts for safe navigation.

The most beneficial training a lookout receives, however, is on-the-job experience. Standing a six-hour watch,
a lookout can expect only 15 minutes out of every hour to rest his tired eyes and feet and drink a cup of hot coffee. For the remaining 45 minutes, the lookout stands his watch alert in all kinds of weather.

Fog is the one unknown that lookouts dread most. It knows no convenient hour and may set in at any time making it difficult to see and impossible to distinguish distant objects. Therefore, his ears become critical to foghorns and other sounds.

Watches are doubled during conditions of low visibility—one man listens for sound, the other makes reports over the sound-powered telephone. Additional lookouts are placed on the bow and stern of the ship. Often, lookouts who have just completed a six-hour tour may be awakened minutes after falling asleep to return topside and stand watch as fog lookouts.

Lookout duty doesn’t end when the ship drops anchor—in low visibility the watch goes on in port just as if the ship were underway.

Six months is the maximum tour for a lookout in OL Division and when his tour ends, he finds support from his division.

“Lookouts get a good start on their Nimitz career,” Cox said, “and we provide a chance to set some personal goals as well.”

The long hours of solitude provide time for a lookout to think over his career intentions and decide on other interesting and rewarding jobs aboard Nimitz. As an added incentive and reward for doing a demanding job, a Master Lookout Program is being developed to recognize lookouts who have performed their duties with noteworthy expertise and dedication.

Day and night, as the ship steams, lookouts are on duty. As the crew of the Nimitz work and relax, eat and sleep, lookouts continue their never-ending search of sea and sky.

**Ever Since Columbus...**

About 0200 on October 12, 1492, Rodrigo de Triana sighted a line of white surf breaking on a tongue of land. Triana’s shout of “Tierra!” (land) was Christopher Columbus’ actual discovery of the New World.

Since Columbus received credit for the discovery, it’s noteworthy that Triana, a simple seaman, is mentioned at all. Before Columbus sailed on his historic voyage, Queen Isabell had offered a lifetime pension of $60 a year to the first man to sight land. When it came time to collect, Columbus stepped forward and claimed the prize. Triana, in disgust, went to North Africa and became a Moslem. Consequently, one of the best known lookouts was all but forgotten by history.

Since man first got his feet wet on a seagoing vessel, it has been survival, not law, that has dictated the need for lookouts. As far back as 1200 B.C. the Egyptians realized the advantages to be gained from being the first to sight an enemy and added a crow’s nest to their warships.

Lookouts were often the key to accurate navigation, especially when a ship maneuvered close to shore where shoals could easily rip a hole in her. Money was, and still is, another factor involved in the use of lookouts. Whalers and others who profit from the sea found need for a sharp eye. Unless there was someone to sight the whales and yell “She blows,” voyages would have proved fruitless.

The role of the lookout has changed little down through history. While it’s true a lookout now has the benefit of binoculars and sound-powered phones along with radar, sonar and other electronic equipment to help him safeguard a ship, no system is infallible.

A low-flying aircraft may elude radar; a submarine, with only its periscope breaking the water, could slip by sonar unnoticed; or hazards to navigation—such as wood pilings or logs floating just beneath the water’s surface—could go undetected by electronics.

Although lookouts are rarely remembered by name for their contributions to man’s survival at sea, history has proven that it will take more than technological advances to replace the ever-watchful eye.

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**Ensign Donell Cox and Seaman Apprentice Coleman on the bridge of USS Nimitz (CVN 68) during a training session.**
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<td>$12.50 for 1 pay period</td>
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<td>$15.00 for 3 pay periods</td>
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**Buy U.S. Savings Bonds**

May 1978
BY JOI JERRY ATCHISON

Back in 1789, Benjamin Franklin wrote to a friend that "... in this world nothing is certain but death and taxes."

An updated version for sailors might read "nothing is certain but death, taxes—and moving."

One thing everyone in the Navy can count on with absolute certainty is being transferred. Last year almost two out of every three sailors moved. That's a lot of sailors, with a lot of dependents and a lot of household effects.

Executing permanent change of station orders can be complex. Moving is important for Navy people especially when you consider that last year:

- Some Navy people had to pay—out of their own pocket—hundreds of dollars in household effects’ shipping charges that could have been avoided.
- Some had to wait much longer than necessary for either pickup or delivery of their household effects.
- Others received little or no compensation for lost or damaged household effects when they could have been appropriately compensated.
The list of moving nightmares could go on and on. It could, but it shouldn’t. The things each sailor should know, the steps each should take and the responsibilities each should understand can guarantee a smooth and trouble-free move.

Following are some of those things. Be warned, though, the list is far from comprehensive because the business of moving people and their household goods is a complex one. It involves contracts with commercial carriers, varying entitlements, regulations and charges. Because of this, the most important thing to remember when arranging your household goods’ shipments is, go to the experts—your command’s Installation Transportation Officer (ITO)—for the facts. Your well-meaning but untrained friends could cost you money.

- **Upon receipt of orders, immediately make an appointment with the ITO.** The more time you give yourself and the ITO to arrange your move; the greater your chances of having a trouble-free one. This is even more important during the summer months when transfers are at a peak.

- **You and your spouse should attend the pre-move interview together.** Since moving affects the entire family, you and your spouse should both attend. This is particularly true when the member with orders must leave for a new duty station before dependents can be moved. In addition, when it comes to asking questions, two heads are better than one.

- **You must bring the following paperwork with you for your pre-move interview:** copies of your orders (usually four copies for each shipment but check with the ITO); a power of attorney document or other written permission if your spouse or designated agent is arranging the move because you are unable to attend.

- **Ask questions.** If you know the answers before your move is made, chances are no unpleasant or costly surprises will be waiting at your new duty station. Some of the questions you should ask are:

  **How much can I ship?**

  Two factors govern the weight allowance of household goods and personal property you can ship at government expense: your pay grade and the location of your new duty station. Some items—professional books, papers and equipment—are not included in your weight allowance but do require special shipping arrangements.

  **Are there shipping limitations?**

  There certainly are, particularly if you are ordered to an overseas duty station. But even if yours is a stateside transfer, certain items are still unauthorized for shipment at government expense. Your ITO can show you a list of personal property items that may not be shipped at government expense and also can determine specific weight limitations or other restricted items pertaining to your overseas duty station.

  **Is there a time limitation?**

  You may usually ship your household goods any time after receipt of your change of station orders. However, time limitations may apply if you are ordered to an overseas duty station, being released from active duty or retiring.

  **How many shipments may I make, where?**

  After reviewing your orders, your personal property counselor will be able to answer this question. Because
of the previously mentioned restrictions on overseas transfer, it is particularly important for the overseas-bound member to learn what to do with those household items he can't take. This is the time to ask.

**What to do before packers arrive**

Dismantle TV antennas and outdoor play equipment such as swing sets; disconnect and remove window air conditioners; disconnect all major appliances; dispose of perishable food-stuffs, opened food containers which might spill or spoil, and worn-out or no-longer-wanted articles (this includes, of course, emptying, defrosting and cleaning your refrigerator and freezer); segregate professional books and equipment from the rest of your belongings; also segregate articles you intend carrying with you and high-value or easily pilferable articles, since these will be inventoried and packed separately, and remove all pictures and mirrors from the walls.

**What to do when packers arrive**

Once again, your ITO will provide you with a specific list of your responsibilities during the packing, inventory and loading process. Some of the important things to remember are:

- Do not pack anything yourself, unless you are willing to assume the responsibility for any damage that may result from improper packing.
- Don't sign the inventory or any other document that is not completely filled in. Verify the number of cartons the carrier indicates he has used and verify that all services he states he performed actually have been performed.

Above and Right: GOING...GONE, CTO2 Joe Albright, his wife and child smile before and after their PCS move—because they asked the right questions and filled out the right forms.
Never argue with the packers or movers; call the ITO. As the government's representative, the ITO has the expertise and the legal authority to examine and, usually, solve any problems that may arise during the move.

What are the carrier's responsibilities?

The carrier's responsibilities are spelled out in the contract he signs with the federal government, and, therefore, it is to both your and the government's advantage to see that each duty is fully carried out. Since the list is long and specific, be sure to obtain a copy from the ITO.

After the move, if it was made within the Continental United States, it is very important to fill out the form evaluating the carrier's performance (MT Form 235). Within 10 days of completing the move, you should return the form to the destination ITO. This form grades the performance and is used in the award of future government moving contracts to the member's specific carrier.

Each move is unique and you will undoubtedly have other special questions about the shipment of your very special household effects. Chances are good that your personal property counselor will answer questions you never thought to ask.

Moving is a complex—and costly—business. That's why each of the military services has hired and extensively trained experts in the field. That's also why you should turn to those experts for help in making a successful move.

Few will deny that moving day is one of the most disruptive times in any military family's life. It's kind of nice to know there is a person working for you whose sole task is to take the hassle out of moving, your personal property counselor.

'Do it yourself'

If there's no way you can turn great-Aunt Agnes' 200-year-old rocking chair over to a group of strangers, you might want to consider the do-it-yourself option.

Everyone under PCS orders is eligible for this type of move. As long as it costs the government less (which it almost always does), you get to pocket the lion's share of the difference.

Basically, it works like this. Your Installation Transportation Officer (ITO) will assist you in determining what size rental truck you need, arrange for packing aids and materials and obtain an advance from the contractor for gas, oil and tolls.

For more information, talk to your ITO and see the September 1976 All Hands magazine article, "Do It Yourself . . . IT'S YOUR MOVE."

Pamphlet available

One of the best ways to make sure you have a smooth and trouble-free move is to pick up a copy of "It's Your Move" (DoD Pub 380) from your Installation Transportation Officer.

It's a pamphlet of helpful hints, checklists, and solid information both you and your spouse should read before the movers knock at your door.

Your ITO has a copy of this pamphlet for your personal use and retention. Drop in and get a copy before your counseling session.

May 1978
Mail Buoy

Tampions and All

Sir: I am on my second year's subscription to ALL HANDS. It seems every issue brings back memories of my service days, May 1, 1912, to April 29, 1916.

I was very much interested in the November 1977 story about the various ships named Texas. The third USS Texas was used as a test target in 1911. She was renamed the San Marcos and several battleships poured 12- and 13-inch shells into her. She was a mass of twisted metal but they couldn't sink her with gunfire. They finally sent men aboard to open the sea-cocks and send her to the bottom.

The Texas that was launched in 1914 came down to the Virginia Capes during her shakedown cruise for target practice. I was on the USS Minnesota that towed the targets for the Texas. We were going east about 12 knots with the Texas, which was hull down to the north. She fired one shell as a ranging shot which fell 50 yards short and about 300 yards astern. She then fired a salvo of her ten 14-inch guns and hit the target right on the water line. The target was destroyed and they had to wait several hours until the Navy tug Patapsco came up with another target from three miles away.

I was only 15 years old when I enlisted—and got away with it. Lucky me. Now I am three months past 81 and a retired engineer off the former New York Central Railroad.

The Minnesota was decommissioned January 1916 and I was transferred to the USS San Francisco, the flagship of what was then the mine laying fleet. It was four antique ships: the San Francisco and the Baltimore—both of which were at Manila Bay with Dewey in the Spanish-American War—also the training ship Dubuque from the Great Lakes and the Navy tug Patapsco. I can't close this without a story that happened on the Minnesota. While the Minnesota was at Vera Cruz, Captain Edward Simpson was being relieved for duty in Washington, D.C., by Captain Casey B. Morgan. Captain Morgan came down from New York on the Ward Line Steamer Morro Castle. When Morro Castle came into sight, the saluting gun crew was pipped to quarters. The gunner's mate and gun captain were both in sick bay so the loader and next senior member of the gun crew were put in charge. A lad named Thompson got excited and after getting the blank shells for the 12-pounders we had for saluting, he forgot to take the tampions from the muzzles of the two guns. Captain Morgan was on the Ward Liner's bridge in full uniform for the salute. When Morro Castle came abreast of Minnesota, the saluting gun crew started to fire. The tampions in the muzzle of the 12-pounders sailed at the Morro Castle. All the passengers and crew ducked for cover. They thought they were being fired on with live ammunition. The tampions didn't reach the Castle but they must have scared a lot of people—J. T. Barry, Syracuse, N.Y.

Submarine Weaponry

Sir: The answer on "Submarine Weaponry" in the "Mail Buoy" column of your December 1977 issue overlooks a submarine that seems closer to the specification of Petty Officer Mowery's letter: commissioned in the late '30s or '40s and mounting a 16-inch gun.

The Surcouf of the Marine Nationale de France was commissioned in 1934, and she had two eight-inchers. Admittedly the M-class 12-inchers are closer to 16, but Surcouf had two, and twice eight is 16. She also had a hangar for folding aircraft.

She should be memorable to Americans, because she was one of the vessels that Contre-Admiral Muselier used to rally the colony of St. Pierre et Miquelon (off the coast of Newfoundland) to the allied cause two weeks after Pearl Harbor. She was lost with all hands in a collision with an American freighter in the Caribbean early in 1942.—LT Philip Chaplin, RCNR (Ret.).

Bull Ensign

Sir: I am currently stationed on USS Preble (DDG 46), homeported in Pearl Harbor, Hawaii. Our wardroom is currently trying to revitalize many naval customs and traditions onboard, among them the position of the "Bull" Ensign and "George."

We have had several inputs from the senior officers onboard but none has been able to spell out the duties and responsibilities of these traditional billets with any conclusive detail. Do you have available or know of any such documentation of these duties in the traditional jargon of the sea or if there has ever been such a record?—Ensign Robert A. Reese, USN.

Your request stamped us completely. We've "shopped" this question before but, then and now, we can't come up with information on the tradition. Does anyone out there have an answer for Ensign Reese?—ED.

Reunions

- 115th Naval Construction Battalion Veterans (WWII)—Reunion 27-30 July 1978 at Indianapolis, Ind. Contact Edward C. Plummer, 5022 East Naomi St., Indianapolis 46203.
- USS Idaho (BB 42) Assn.—Reunion, summer of 1978 in San Diego, Calif. Contact David C. Graham, P.O. Box 11247, San Diego, Calif. 92111.
- Bomber Squadron 85—Reunion planned for former members of this squadron which served on USS Shangri-La (CV 38). Members who served from May 15, 1944 to Sept. 2, 1945 contact Ralph R. Matteson Jr., 15 Eldridge Ave., Warwick, R.I. 02886.
Ship recognition classes are held during the first few weeks of naval service and continue off and on through one's career. In this brush-up quiz (taken from Jane's Fighting Ships), how many of the U.S. submarine classes shown below can you identify correctly?

A

B

C

D

E

F

G

Answers: A – Sargo class; B – Permit class; C – Skipjack class; D – Ethan Allen class; E – George Washington
THE NAVY HAS IT ALL TOGETHER IN WASHINGTON STATE