

# ALL HANDS

DECEMBER 1981

**in this issue:**

**Pearl Harbor –  
After the Attack**



# ALL HANDS

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## 2 A GOOD NAVY DEAL

Instructors at Great Lakes find duty to their liking

## 6 DEFENDERS' DAY

Commemorating courage and heroism

## 8 REUNION WITH HISTORY

Navy people recapture the joys of Scouting

## 12 SHIP WITH A PIONEERING SPIRIT

SSBN subs rely on USS *Simon Lake* (AS 33) for repairs

## 18 AFTER THE ATTACK

How the victims of Pearl Harbor came back to fight again

## 32 WHERE ON EARTH IS MOUNT SANTA RITA?

The heart of Navy communications in the Philippines

## 38 DESERT NAVY

NOMTF celebrates 35th anniversary

## 40 SEARCH FOR A TENTH PLANET

Naval Observatory astronomers conduct a photographic search of the sky

## Departments

28 Bearings

46 Currents

48 Mail Buoy

## Covers

Front: The bugle resting on the American flag was on board USS *Arizona* (BB 39) on Dec. 7, 1941. Photo by JO1 P.M. Callaghan.

Back: The Navy's hot air balloon floats over thousands of colorful campsites at the 1981 National Boy Scout Jamboree, Fort A.P. Hill, Va. Photo by PH1 Jim Preston.

Inside front: Members of the U.S. Navy Ceremonial Guard present arms on the flight deck of USS *Steinaker* (DD 863) in Chesapeake Bay. The team was aboard the veteran destroyer to help celebrate Defenders' Day in Baltimore, Md., Sept. 13, commemorating the city's successful defense against British naval forces during the War of 1812. The ceremonial guard was recently awarded the MUC for the period March 24, 1979, through May 9, 1981. Photo by JO1 P.M. Callaghan.

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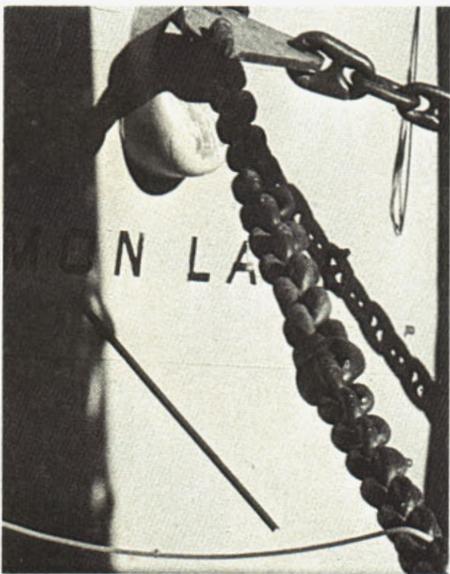
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Page 8



Page 12



Page 18

Great Lakes Duty

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# A Good Navy Deal



It may be one of the best kept secrets in the Navy. And it's not even classified. The scoop? Things have been quietly changing at the Naval Training Center in Great Lakes, Ill., and duty there isn't half bad. In fact, it's pretty darned good.

For people who started their Navy careers at Great Lakes years ago on a cold, wind-swept grinder and who returned later for training in any one of a number of ratings, it may be news that almost everything they remember is now just memories.

Great Lakes is a duty station of change. Temporary buildings that grew up almost overnight to train thousands of new sailors for World War II, and then which turned out to be not so temporary after all, have now almost completely given way to the wrecker's ball.

Schools at which Navy people were trained to operate weapons that changed in detail only over a period of decades are now engaged in teaching sailors to use space-age systems to defend their ships from threats that seem

just this side of "Star Wars."

The Service Schools Command at Great Lakes runs a number of schools basic to the operation and upkeep of the Navy's surface fleet. Instructor duty there is on the leading edge of the technological growth of the Navy.

A lot of "knocks" that are leveled at Great Lakes duty are at least partially true. But like most stories—good and bad—there are other sides to what has been said.

Great Lakes is cold. You can bet your overshoes on that. But really, there are only three winter months worth writing home about. And not too coincidentally, they are three of the best months available at just about any Navy base anywhere. Aficionados of winter sports will, for instance, tell you that cross country skiing is as good for you as jogging, and it doesn't beat your knees to death.

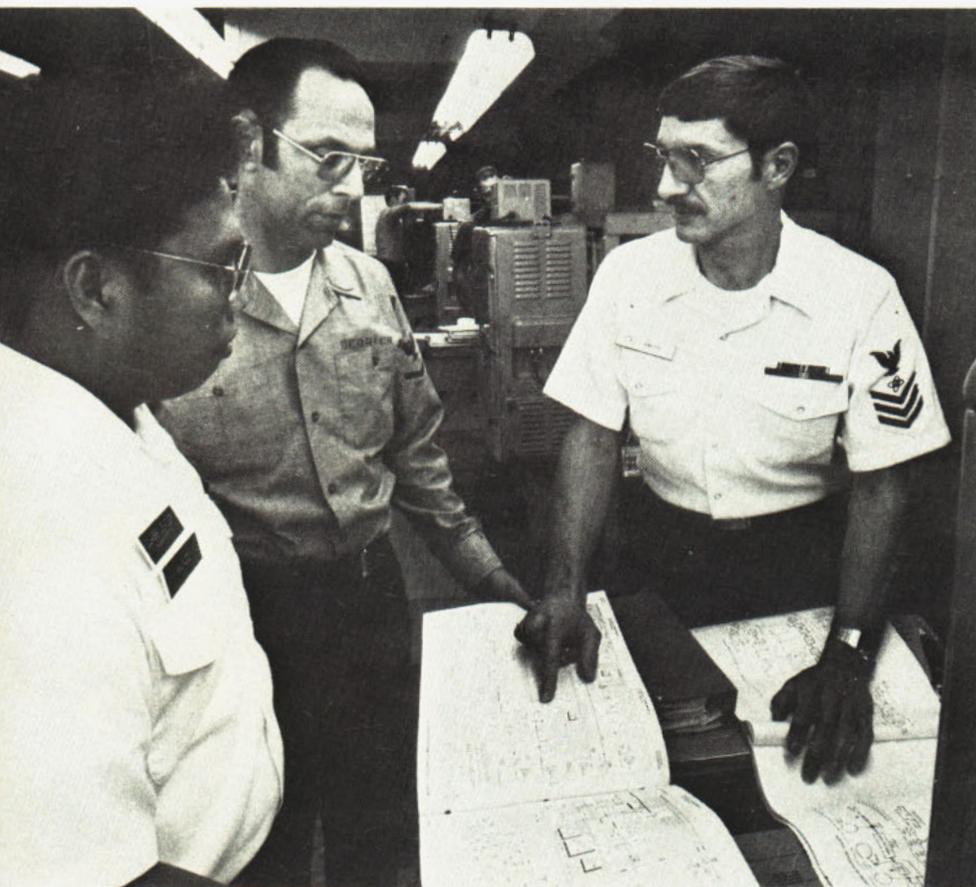
Instructor duty is tough, and becoming an instructor isn't easy. There is little doubt of that, either. According to Electronics Technician First Class

Mark A. Smith, an instructor in the ET School, "People returning for instructor duty here remember boot camp or an earlier school; Great Lakes is a tough command. But instructor duty is great for your career." Smith pointed out that teaching a subject is a great way to ensure that it becomes crystal clear in one's mind—a distinct advantage under the pressures of a rating exam. Also, information about new systems in the fleet usually appears first in the schools that teach sailors to operate and maintain the new equipment.

Sharp sailors—and Smith is quick to point out that that is what they must be, because they are examples for the students—need not fear that they will be inadequately equipped to go in front of a class or into the lab with an individual student. Before they come in contact with their first student, prospective instructors must themselves be students for seven weeks of intensive preparation.

Instructors start with three and one half weeks of instructor training school. In small classes, they learn teaching techniques, proper speaking habits, preparation and use of training aids, as well as other necessary teaching skills. They have opportunities to teach their first tentative lessons in front of their peers where there is little pressure, and positive critiques are close at hand. They finish their fourth week of schooling in a learning center where they learn to use computer assisted teaching devices and other individual learning methods.

This is followed by two weeks of company commander training. There prospective teachers learn about the Integrated Training Brigade concept at Great Lakes. This system aids and manages students in their transitions from recruit training, through education, and into the fleet. It depends on close supervision of students and ready



*Opposite page: From the main gate at Great Lakes, a tree-lined avenue leads to a parade field and the training center's headquarters building. Left: ET1 Mark Smith (right) explains circuitry in the SPS-10 radar to students ET1 Rolando Munoz (left) and ET3 Roger Dedrick.*

# Great Lakes Duty

availability of advice and counsel for their needs and problems.

Before they go into the classrooms, instructors take a week to learn the facts about alcohol and drug abuse. This enables them to discuss these problems intelligently with their students, to identify possible abusers and direct them to sources of help. They also add to their own personal knowledge of the problems associated with abuse of drugs and alcohol.

And finally, their first contacts with students in labs and on the podium in formal class situations are carefully supervised by experienced instructors. Then, and only then, are they ready to "solo."

Even after all that preparation, and achievement of full-fledged instructor status, a vast backup network of information and experience is available to help them become more effective and comfortable in their teaching jobs.

As almost any instructor will verify, the first time you get a complicated point home to a student the whole pro-

cess becomes worth all the effort. That's when you take someone from confusion to comprehension or from muddling to mastery.

There's an added fringe benefit—your student may work for you in the future, and you'll know his/her strengths and weaknesses.

But instructor duty at Great Lakes isn't all teaching and hard work. Great Lakes is home to more than 1,500 instructors, and as such, the lifestyle offered is important.

Of course, not everyone teaching at Great Lakes has applied for this duty. "There are a lot of people who didn't want this tour," said Master Chief Precision Instrumentman Jim Parsons, division officer for the OM/IM School. "And that included old Parsons, too. There were claw marks all the way down the brow when I left the tender."

But now, three years after arriving at Great Lakes, he's very pleased with his lot. "I'm not alone, either," Parsons said. "About six months before their PRDs, instructors start dropping their

extension requests on the division officer's desk."

Smith is representative of many of the instructors in Service Schools Command. A product of recruit and ET training at Great Lakes, Smith requested his tour there when detailers visited his previous command, the then-U.S. Sixth Fleet flagship, USS *Albany* (CG 10).

The intense technician-teacher and his wife, Mary Jane, both hail from the small Upper-Peninsula town of Channing, Mich., where he reports that many of the people he grew up with—even those who graduated from college—still have pretty dull jobs.

The Smiths reside in base housing with their two children, Shannon, 5, and Mark, 16 months.

Mary Jane is pleased with their living situation. "The housing is not quite as nice as I'd like it, but the rooms are

*After a full day as an instructor in the Electronics Technician School, ETI Mark Smith relaxes at home with Mark, Mary Jane and Shannon.*



certainly large," she said. "The newer housing is a lot nicer."

There are compensations, though, according to Mary Jane. This is Shannon's first year in kindergarten, and it's less than a block to the school. "I can watch her almost the whole way right through the living room window," Mary Jane said. In addition to

that short walk to school, medical care is available only minutes away, and the recently completed \$8 million exchange and commissary complex is within easy walking distance, too.

Mary Jane also easily found part-time employment. "I'm trained as a dental technician, and I surely didn't want to lose those skills. It wasn't too hard to find a good job with hours that we can work with," she said.

There are a multitude of off-duty recreation opportunities available at Great Lakes. Recreation and special services offerings include rental of camping gear, boats and other leisure equipment, as well as training in a number of hobby areas like scuba diving, skiing and art.

Smith, an avid fisherman who takes advantage of another of Great Lakes' well-hidden secrets, said "the fishing is great here." The days of small, boney perch, and then—with the advent of lamprey eels after opening of the St. Lawrence Seaway—no fish at all, are over. Now there are abundant supplies of salmon and other game fish, all of which can be caught with relatively inexpensive equipment from the training center piers.

"We eat a lot of fresh salmon when they are running and freeze more for later," Smith said. "It helps with your food budget."

The Naval Training Center is only

minutes from Chicago. While some may wonder about that being called an advantage, others will recognize Chicago as a zesty and hearty city with ample opportunities for sports, the arts, education and relaxation.

The "Windy City" has professional sports teams in football, soccer, basketball, baseball and hockey. It has superb theaters and museums, including the world famous Museum of Science and Industry as well as the Field Museum of Natural History.

For people who enjoy college sports, Great Lakes is but a short drive from many of the campuses where last year's NCAA champions are playing.

Those same schools also offer many opportunities for advanced education. Several of them bring their teachers and courses aboard the training center where classrooms are provided by the center.

So this is instructor duty at Great Lakes, where more than 8,000 students attend school. They run the gamut from machinist's mates who work with valves so large they require a chain hoist and a working party to move, through instrumentmen working on watch parts so minute that a sneeze can make them disappear, to electronics students working with microscopic circuits and the even smaller electrons coursing through them.

Again, instructor duty isn't easy. It's a challenge. "There are probably commands where a person can 'kick back,'" Smith concluded, "but this is not one of them. Sure, it's tough, but it is worth it, too. I saw what these young people needed when I was out in the fleet, and now I'm helping them get it. And it's helping me, too."

The secret's out. You don't have to go to the ocean for a good Navy deal.

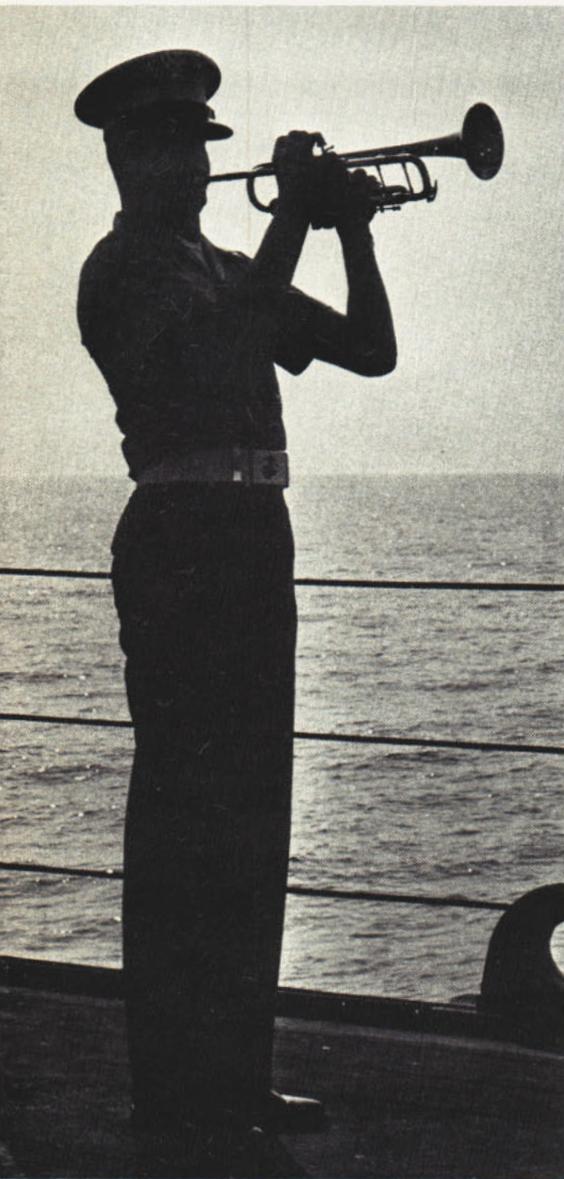
—Story and photos by Lt. Alan Dooley



Top left: ETI Mark Smith with about \$35 worth of salmon he caught in the breakwater at Lake Michigan. Left: Computer teaching devices and modern laboratory facilities in the new Basic Electricity and Electronics building enable students to grasp the basics of electricity and electronics so critical to their success in follow-on class "A" schools.

## Defenders' Day

# Honoring Those



Defenders' Day in Baltimore is Sept. 13, and for the last 167 years the city has celebrated its successful defense by Fort McHenry against superior British naval forces during the War of 1812.

Each year, the battle that took place in 1814—during which Francis Scott Key wrote "The Star-Spangled Banner"—is re-enacted by an exchange of blank rounds between Army howitzers and a Navy warship. This year, as in many years past, USS *Steinaker* (DD 863) played the role of attacking British naval forces. "Sneaking up" on Fort McHenry in the dark, the vintage destroyer aimed its two twin 5-inch gun mounts toward shore and blasted three gun emplacements with 50 rounds of blank shellfire.

Earlier in the day, a more solemn and far quieter occasion took place on *Steinaker's* flight deck. While the ship

stood off Chesapeake Bay Bridge, a wreath-laying ceremony was held in memory of those sailors and Marines who lost their lives at sea.

Sponsored by the Navy Mothers of Maryland, the ceremony was also attended by several other veterans' auxiliaries, including the American Legion and Veterans of Foreign Wars, American Gold Star Mothers Inc., Catholic War Veterans, Jewish War Veterans and the Disabled American Veterans Auxiliary.

As the ship's bell tolled, wreaths were tossed upon the water of Chesapeake Bay by members of the several groups. As the wreaths disappeared in *Steinaker's* wake, a U.S. Navy ceremonial guard fired a 21-gun salute and a Marine bugler played taps.

—Story and photos by JOI P.M. Callaghan



# Who Died at Sea





**NAVY**  
*an adventure*

# Boy Scout Jamboree

## Reunion with History

The fresh scents of pines, magnolias and persimmons filled the air of the dense Virginia forest, but there were a few new aromas this July—the smell of food being cooked over a thousand campfires.

The calls of whippoorwills and the nervous chatter of the blue jays that normally echoed throughout the rolling hills of Fort A.P. Hill were muffled by the sounds of new—but temporary—neighbors who moved onto the 76,000-acre Army training installation and set up a colorful tent city.

It was a staggering sight—32,000 Boy Scouts and their leaders, four

deep, all in green and red baseball caps, drab-green uniforms and multi-colored neckerchiefs, marching down the paved road to the huge, hillside amphitheater. And they sang cadence as they went.

They were on their way to the opening show of the 10th National Scout Jamboree—the quadrennial gathering of the Boy Scouts of America. Some 400 foreign Scouts from Canada, England, Israel, Japan, Libya, New Zealand, Scotland, South Africa, Sweden and Zambia joined the American Scouts. The theme for 1981 was “Scouting’s Reunion with History.”

The jamboree city grew almost overnight from a mere blueprint to the largest “town” in Virginia; included were community services such as a bus system, telephones, a hospital, post offices, a daily newspaper and trading posts.

And the U.S. Navy was there with recruiting vans, static displays, music, entertainment and experiences to share.

Navy musicians from the U.S. Naval Academy Band provided the musical background for the three-hour opening show in the amphitheater. The Navy’s Country Currents entertained the Scouts during the pre-show festivities and at regional campfires throughout the jamboree. The Navy’s Port Authority group also played at the various campfires.

The Navy’s three-man balloon team was also on hand, demonstrating hot-air ballooning and giving eager Scouts tethered rides.

Other sailors, all fleet volunteers, manned the bugling, signaling and electronic merit badge booths along the jamboree’s Merit Badge Midway. They helped Scouts prepare for and earn one or more of the 70 career and hobby merit badges throughout the 10-day campout.

“I volunteered for it 10 minutes after the Atlantic Fleet message came out,” said Chief Electronics Techni-



*The Navy Balloon Team (far left) over the jamboree’s tent-city. The 32,000 Boy Scouts and their leaders (left) march into the amphitheater.*

# Boy Scout Jamboree

cian Charles Brock. "I'm a Scoutmaster in Norfolk and this was the only way I could afford to attend. And I love it."

Besides answering questions on the electronic merit badge requirements and his career in the Navy, Brock had a prosperous patch trading sideline. The Boy Scouts came up offering to trade council patches, jamboree baseball-type cards and other Scouting memorabilia for Navy recruiting patches, even though Brock was giving the patches away.

"I'm getting all kinds of stuff," Brock said. "I don't know how it happened. The boys just started giving me things and the next thing I knew I was in the trading business."

Trading of Scouting patches and cards was a way for Scouts to meet other Scouts. Groups of three or four boys huddled over an assortment of patches here and there; it was a common sight.

*MUC Gene Lane demonstrates a bugle call for Scouts along the Merit Badge Midway.*

Some Scouts were even carrying briefcases to display their patches and to make a deal for others.

But the sailors at the merit badge booth were not giving the merit badges away. The boys had to earn them.

"It's not a two-hour merit badge," said Signalman First Class Rick Van Vliet about the signaling badge. "We're here teaching the boys semaphore and Morse code. It gives me a chance to teach what I do best and help a boy build up his self-confidence."

Van Vliet's partner—Signalman First Class Don Bradford—nodded agreement.

The Navy's involvement in Scouting goes deeper than supporting a jamboree. It is Navy people like Captain Channing M. Zucker, trading his daily Navy blue for Scouting green, who account for real Navy involvement.

Zucker, the director of geophysics on the staff of the Commander in Chief U.S. Atlantic Fleet, has been active in Scouting for more than three decades—since he was a boy in Maine. In

the Tidewater area, he is serving as a Scout troop committee chairman and an Explorer post committee chairman.

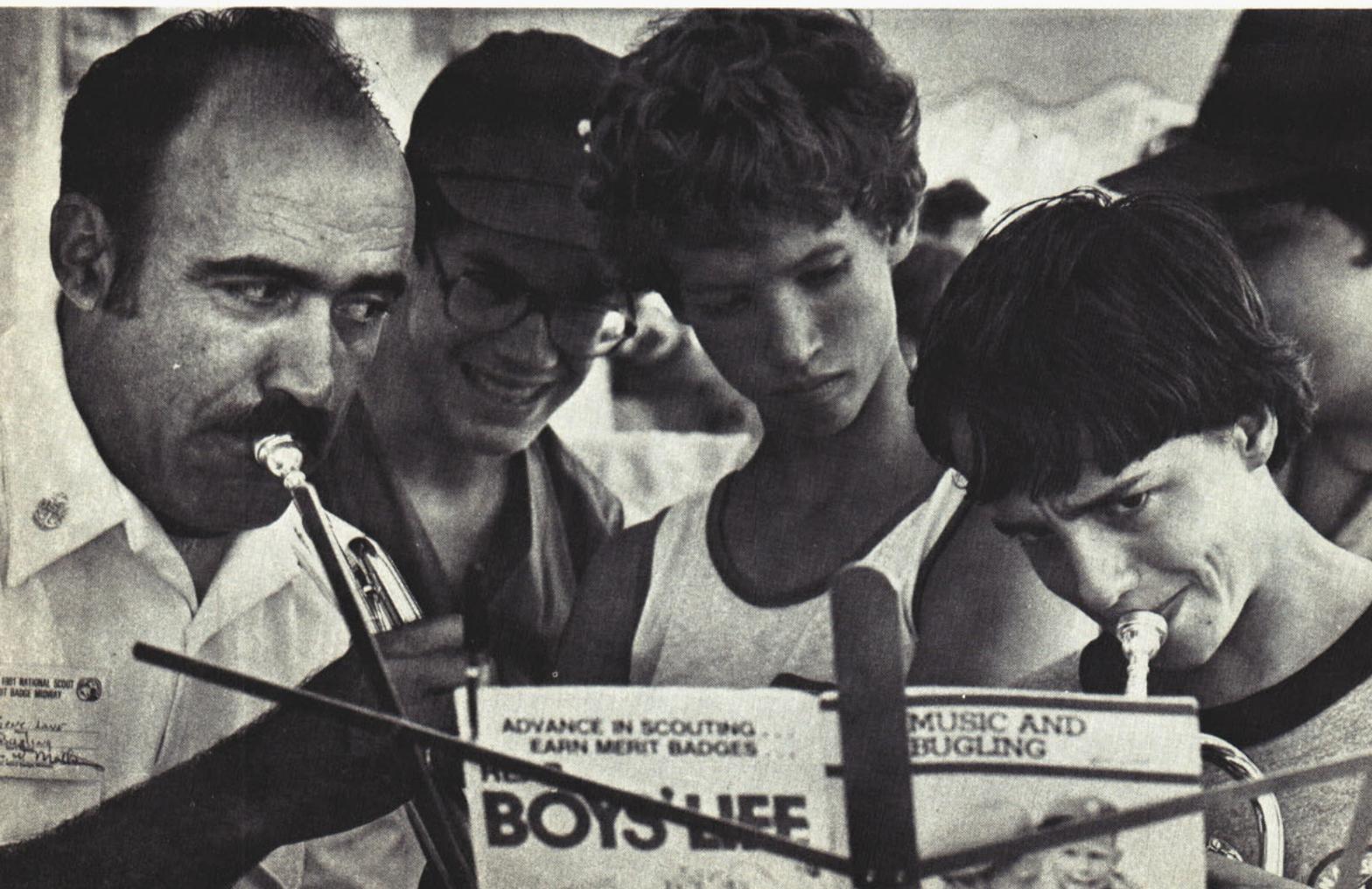
At his third jamboree, the captain was one of two assistant Scoutmasters for the Tidewater Council's Troop 524.

"I'm involved because I enjoy it, and I get a great deal of satisfaction in seeing young men progress and develop leadership abilities," Zucker said. "I'm returning the good experience that I received as a Scout years ago."

"Scouting gave me the ability to think independently and taught me how to camp and appreciate the outdoors. The knowledge and skills I acquired have served me well throughout my Navy career," he added.

The Boy Scouts began with a man and an idea—the man, England's Lord Robert Baden-Powell; the idea, outdoor life for boys. That was nearly 75 years ago.

Baden-Powell initially developed a program of outdoor activities for a group of 21 boys. Thousands of Scouts at this year's jamboree learned and



demonstrated the same skills taught to those first Scouts back in 1909. They also learned a few skills that Scouting's founder never knew. Each day was filled with a myriad of competitive skill events, displays, campfire conferences, conservation awareness and obstacle courses.

One main feature of the jamboree

was the handicapped awareness trail. It gave the Scouts a firsthand experience of what it must be like to go through life with a severe handicap.

The Boy Scouts learned that pitching a tent when you have a handicap required cooperation from each other, and they gained a better understanding of the problems of climbing in and out

of a tent when you can't see. On crutches and with one leg tied behind, they navigated an old-tire obstacle course. They also learned to communicate using some of the tools used by the handicapped—Braille and sign language.

The final event in handicapped awareness was a basketball game played from wheelchairs. The Scouts quickly learned it was not easy to score a basket from a wheelchair.

While the trail was enjoyable and challenging, it brought home to many of the Scouts the meaning of living with handicaps.

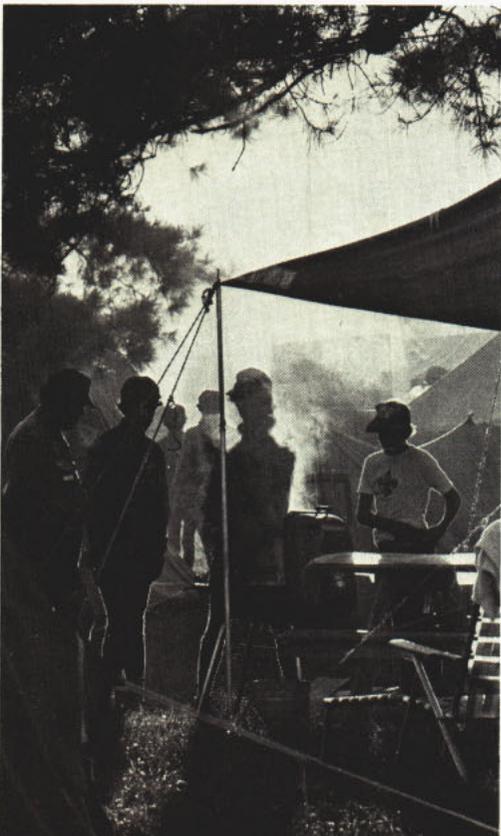
"The jamboree gave boys and their leaders a clear understanding and a deeper sense of commitment to the ideals of Scouting. It also emphasized the important need for physical fitness and for conservation of natural resources in today's world," John K. Sloan, the jamboree's chairman, said.

—Story by JOC James R. Giusti

—Photos by PHI Jim Preston



*The Navy's Country Currents (top left) perform during the gala show. Time out from jamboree activities as Scouts (bottom left) gather at campsites to prepare meals. Capt. Channing M. Zucker (bottom) joins his Scouts in a morning of rafting.*



## Ship with a Pioneering Spirit

Hard work and long hours have been hallmarks of Navy professionalism since the inception of the senior sea service. Today, as in the Navy's infancy, professionals provide the framework for an effective operating naval force.

While some Navy units operate in the front line of our nation's defensive arsenal, others, on the fringes of the limelight, demonstrate their importance by constantly performing their missions with effectiveness and efficiency.

One such unit is the submarine tender USS *Simon Lake* (AS 33), at the Naval Submarine Support Base Kings Bay, Ga. *Simon Lake* provides repair and replenishment services to the nuclear-powered fleet ballistic missile (SSBN) submarines of Submarine Squadron 16—effective members of the Navy's strategic defense force.

Captain Percy M. Beard, the tender's commanding officer, tells new crew members assigned to indoctrination division, "When you're talking fleet ballistic missile submarines,

you're talking strategic forces. And, if we don't meet our commitments, it will get the attention of the people at the top."

Beard has been commanding officer since January 1979. More than 40 submarine refits, 1 million manhours of work and numerous awards for superior performance have been logged by *Simon Lake* during his tenure.

"This is a surface ship with a tremendous submarine interface," said Beard. "Although some of our crew are submariners like me, most are surface sailors who have had limited experience with submarines through their

work on other tenders."

The range of professionalism found among the more than 1,200 people aboard the ship reads like an index from the Navy career occupational skills manual. Industrial, electronic and administrative ratings pool their talents on a daily basis.

"This ship is a jack-of-all-trades," said one crewman. "It's amazing to see the different jobs that are done every day on this ship. But the volume of work by the crew is even more amazing."

Equally impressive is the quality. Crews of submarines that have com-



*Right: Whether work requires the talents of a Simon Lake molder or another specialist in the tender's crew of diverse talent, the ship stands ready to meet the requirements of supporting the units of Submarine Squadron 16.*



*Left: MRC James Lester and MRI Roger Pilgrim operate a lathe in Simon Lake's machinery repair shop. Below: Business as usual aboard Simon Lake includes activity at all levels. Bottom: DMSN Robert Astengo completes a drafting project.*



# USS Simon Lake

pleted tender periods alongside have commended the tender's crew on both the efficiency and high caliber of finished work.

When the tender changed home ports from Charleston, S.C., to Kings Bay in July 1979 (after having returned earlier from a tour at Rota, Spain), there was little in the way of support services available ashore. Scarcity of shore-based conveniences notwithstanding, *Simon Lake* received its first submarines to undergo refit within five

days of arrival and has been fully operational ever since.

"I think it is significant that we could move an entire submarine squadron from Rota, Spain, and complete a major home port change for a ship and just keep right on operating," said Beard. "It took a lot of planning and a lot of hard work. It reflects my crew's positive attitude."

*Simon Lake* took part in another change which has given the ship a different kind of notoriety. The ship is the

only submarine tender in the Navy with the capability to support *Poseidon* submarines retrofitted with the new *Trident* missile.

Working on *Poseidon* subs equipped with *Trident* missiles not only expanded the mission of *Simon Lake* but also called for some structural changes to the tender. Before reporting to Kings Bay, the ship was equipped with larger cranes to heft the new missile.

"We have different equipment and a different set of books to use in han-



dling the *Trident*," said Beard. "But the biggest challenge we faced was making sure our personnel talent matched the missile's new technology."

Unlike a destroyer tender, a submarine tender—in addition to its refit and repair function—also has a major supply responsibility to the submarines it services.

"Because of the supply and logistical support," said Beard, "we must stock about 20,000 line items on board. In

essence, not only are we a repair facility for submarines, we are also a supply center."

When a submarine is moored alongside for a refit period, the day's pace at the waterfront reaches a feverish pitch. Not only does the period call for submarine structural and supply upgrading, it also includes a switching of Blue and Gold crews (see June 1981 *All Hands*).

While pallets of stores and supplies wait to be transferred, workmen from

the shops on board constantly make their way up and down the small gangway connecting their tender to the subs. Machinery from the submarines is transferred to various tender work spaces. Industrial repair facilities, foundry, chemistry lab, engraving shop and a watch and clock repair shop are only some of the specialty services the tender affords submarines.

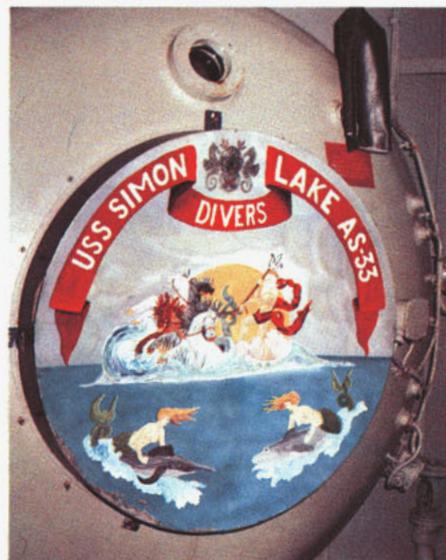
"We go on the subs and get equipment that needs repair. Once repaired we get it back to them. Most tenders don't give pickup and delivery service like that," said Master Chief Electrician's Mate Don Schnack proudly. Schnack is also the tender's command master chief.

In addition to supporting Submarine Squadron 16, the ship plays a major role in helping the Navy establish itself in the communities around Kings Bay. "Our men and women make up the bulk of the Navy community in Kings Bay," said Commander Walter B. Davis, *Simon Lake's* executive officer. "The crew has made its presence known in the community to a positive degree."

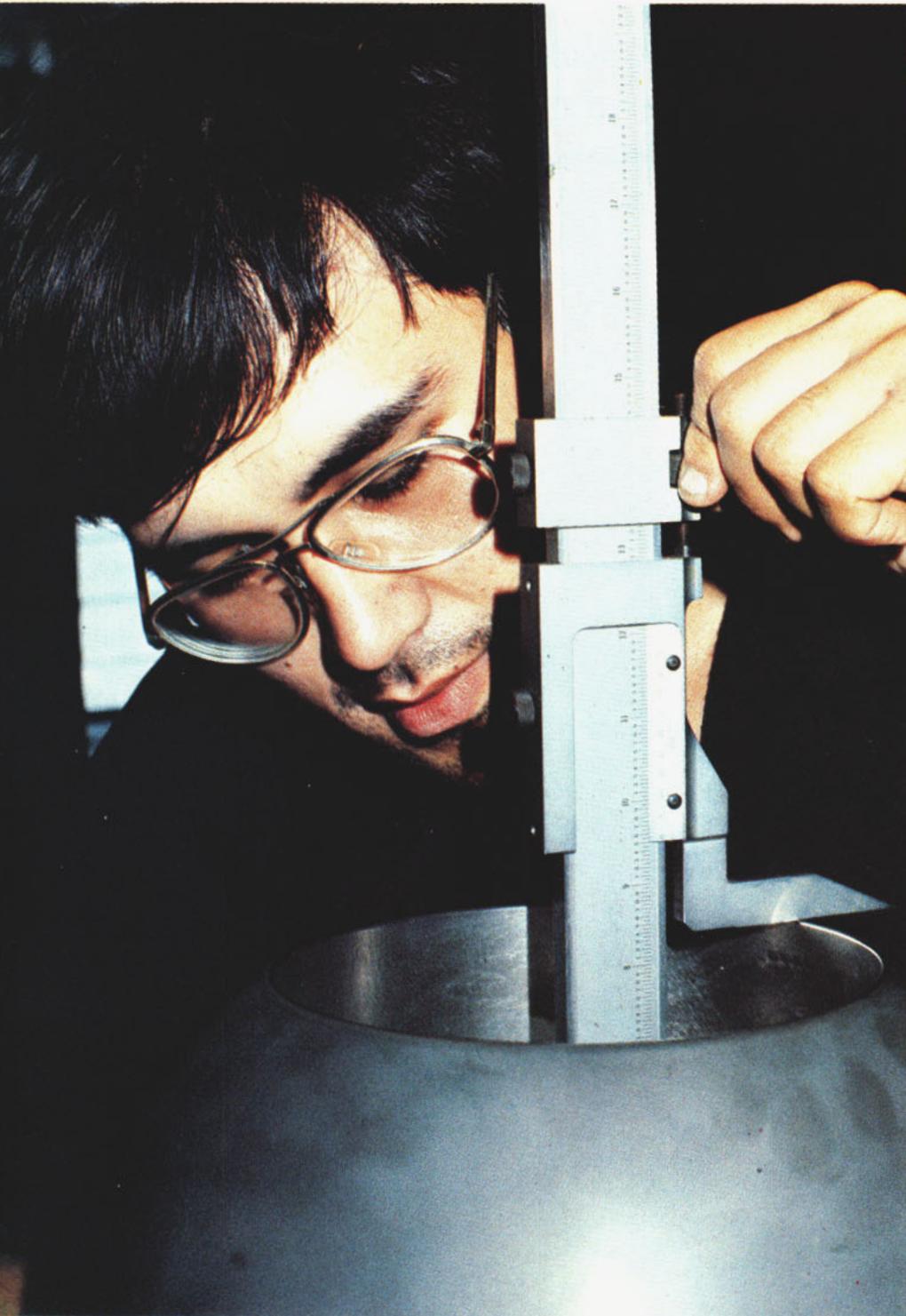
Through the combined efforts of the crew and the local community, a teen



*Left: USS Simon Lake (AS 33) has served a vital role in the operations of Submarine Squadron 16 since the ship reported to Kings Bay in July 1979. Below: Divers are among the varied specialists found in the tender's crew.*

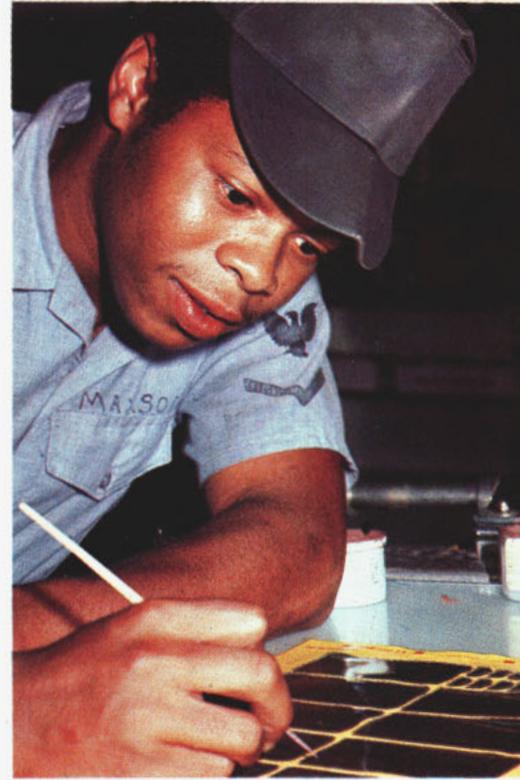


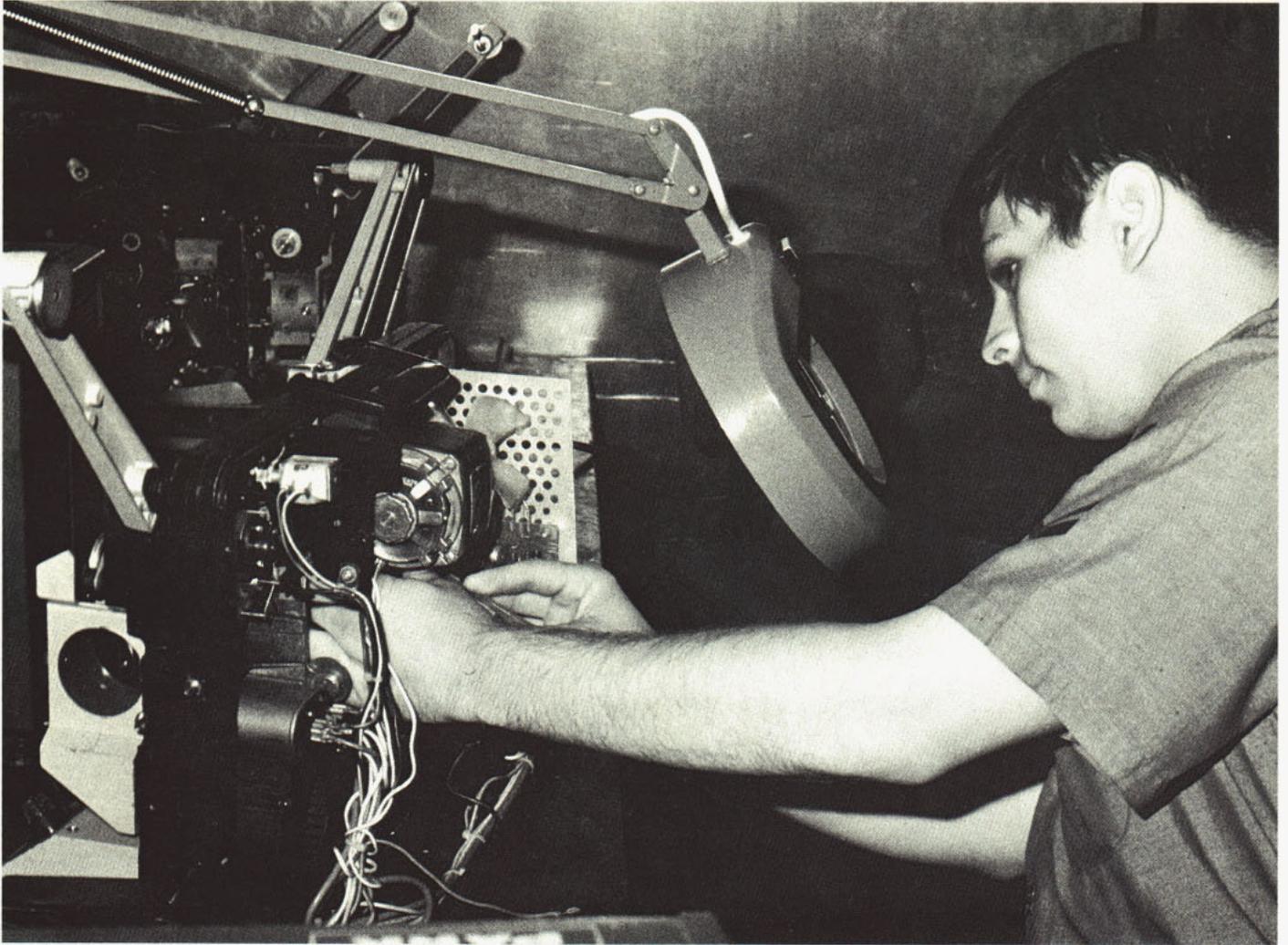
# USS Simon Lake



*MM2 Joseph Leone (above) works on equipment in the ship's engineering spaces as SA Timothy Hopkins (right) directs a crane above deck.*

*Right: EM1 Lawrence Comdeco performs a safety check on a piece of electrical equipment. Below: LI3 Herbert Maxson puts the finishing touches on a project in the ship's print shop.*





club and square dance club, as well as a Sea Cadet chapter, have been established in the Kings Bay area.

"We've also done a good deal of voluntary work with the Human Services Department here in coastal Georgia. And, we've aided some senior citizens in the area by doing minor home repairs for them," said Davis, "by replacing broken windows, repainting buildings or the like."

While Beard and Davis praised the quality of the men and women, both agreed that the ship could use the supervisory talent that additional, more middle grade petty officers could provide. "I think the lack of talent in that area hampers us a little bit," said Beard, "but that's true Navywide." The Navy, short some 20,000 petty officers in recent years, is seeing the gap closing through changes in assignment

policies and armed forces pay and incentives packages passed by the Congress.

One incentive to attract those petty officers to duty aboard *Simon Lake* is the action recently taken by the Chief of Naval Operations. Tender duty is now Type-B sea duty for career purposes.

"I see this step as very positive for attracting middle grade petty officers in ratings like machinist's mate, hull technician, engineman, electronics technician and the supply ratings," Beard said.

Even with the sea duty designation, it is a complicated evolution to put to sea. Not only must the tender be separated from the umbilical cords that provide the bulk of its power from shore, but submarines must be shifted and arrangements made to leave cer-

tain people ashore during the ship's at-sea periods.

Beard and many of the crew see duty aboard the Kings Bay-based tender as a unique opportunity. "Those people looking at Kings Bay should remember that although we are remote and lack some support facilities, most of the people here like being aboard," said Beard.

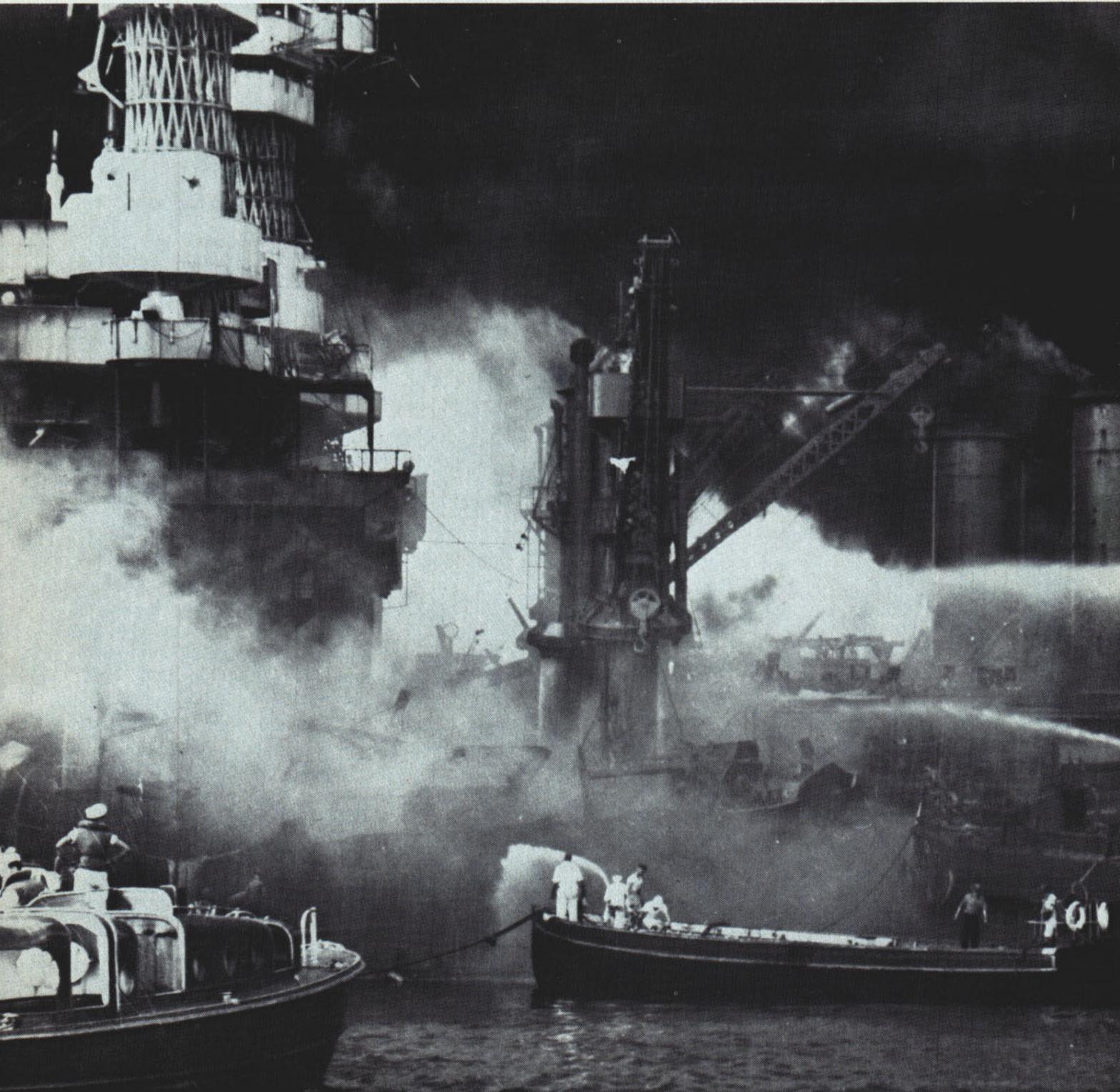
"They feel their job is important and that we have a pioneering spirit here. Kings Bay and the area is still growing. Being assigned to *Simon Lake* gives them the chance to grow with it."

Somehow it is fitting that a ship named after a submarine pioneer would also offer crew members "a pioneering spirit."

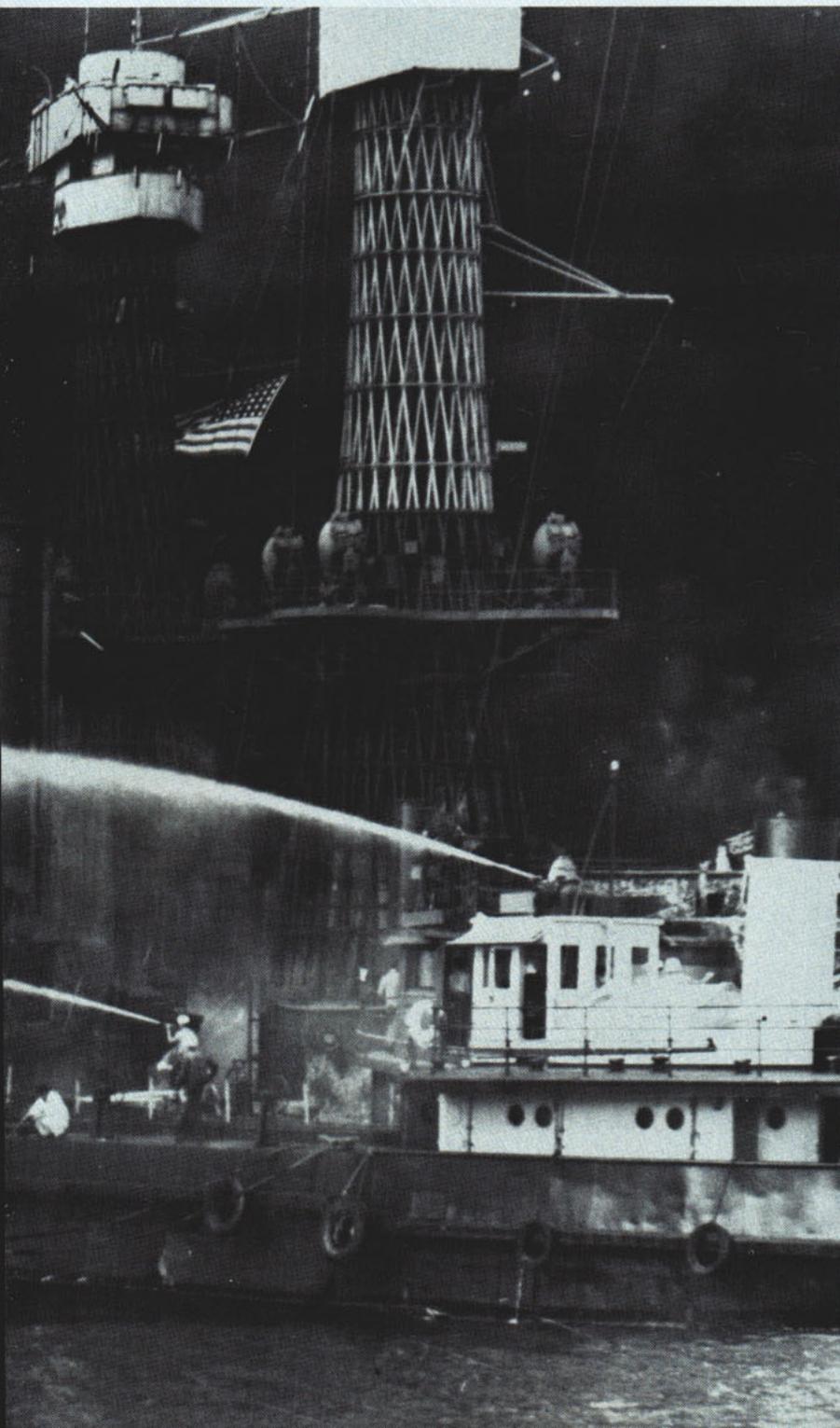
—Story by JO1 Lon Cabot  
—Photos by PH2 Steve Barnes  
and JO1 Cabot

Pearl Harbor

# After the



# Attack



We—America—heard the bombs explode and watched as thousands died.

Thousands like the sailor who leaned against a gun turret on the forecastle of his ship, reading the morning comics and waiting for liberty call. He'd gotten as far as "Little Orphan Annie" when he looked over the top of page three and saw a formation of planes.

They flew toward him across the bay. They flew in attack formation. Their pilots were now the enemy, and the sailor was now at war.

"Little Orphan Annie" would have to wait.

When we were young, we read stories and saw photos of what happened that day. They left impressions in our minds—impressions so intense that some of us could have sworn we were there. Some of us actually were.

0755: "Air Raid—Pearl Harbor. This is not a drill." Calls to Honolulu: "Return to the ship immediately; we are under enemy air attack." Taxis full of sailors and Marines careened down streets full of shattered glass, as fire engines rushed madly about. It was all so sudden, but so well-planned; we didn't believe what had happened until we saw the blood from our wounds—saw the ships capsized in the harbor—saw the mangled steel engulfed by black smoke and remembered its name was *Arizona*.

But most of us never saw the phoenix rising from those ashes. Most of us never heard the story of what happened after the attack—how nearly all of those burning, twisted, helpless ships lived to fight again.

\*\*\*\*

Salvage operations at Pearl Harbor began before the 353 attacking Japanese planes

*While Japanese attack planes still attack, sailors at Pearl Harbor battle fires aboard battleship West Virginia.*

# Pearl Harbor

had cleared from the skies. While bombs still exploded on one ship, fires on another were being put out and debris on a third was being shoved overboard. Hundreds of sailors became heroes under fire when they cut mooring lines with axes, hooked pumps to hoses and did other simple tasks that on any other day would have been routine.

*Member of salvage crew eyes an unexploded bomb aboard West Virginia; it was removed without mishap.*

In the chaos of destruction, one fact was obscured: The attack could have been much worse. The Navy yard's shops and drydocks were left intact; the submarine base was left untouched, as was the 5 million-barrel reserve oil supply on the island. Despite the overwhelming damage at Pearl Harbor, America could still consider itself lucky that the Japanese had not returned.

Formal salvage operations were organized one week after the attack. The "Big Three" of recovery work were Rear Admiral William L. Calhoun, officer in charge of salvage; Captain Homer N. Wallin, salvage officer; and

Lieutenant Commander Lebbeus Curtis, salvage engineer.

Priorities were set. The least damaged ships would be repaired first and made operational as soon as possible; the ones that got the worst end of the attack would have to wait their turn. During and immediately after the attack, a more pressing priority had already been taken care of: the salvage of lives. Rescue parties cut into the upturned hulls of capsized battleships *Oklahoma* and *Utah* with welding torches. One sailor was pulled from *Utah*; 32 others escaped the steel tomb of *Oklahoma*.

Another pressing concern was pro-



## About Our Cover

# Arizona's Bugle

The dented, tarnished bugle that appears on the cover of this issue once belonged to Mr. Edward A. Teats of Costa Mesa, Calif. Recently, he donated it to the Naval Historical Center in Washington, D.C., and related in a letter how he got the bugle.

"I enlisted in the Navy on June 9, 1939, in Denver, Colo., and was transported to the U.S. Naval Training Station at San Diego, Calif., for boot training.

"Immediately prior to graduation from the training station, President Franklin D. Roosevelt declared a national emergency. Our class was assigned to duty stations immediately upon graduation, and without leave we were shipped to duty. My assignment

tecting Pearl Harbor against further air attack. Anti-aircraft guns and ammunition were taken off the disabled vessels and placed in locations around the island where they would do the most good.

Nine ships made it into the "least-damaged" category: battleships *Pennsylvania*, *Maryland* and *Tennessee*; cruisers *Helena*, *Raleigh* and *Honolulu*; destroyer *Helm* and auxiliaries *Vestal* and *Curtiss*.

Most of these ships had been hit once, received near misses or were damaged by fires from other more seriously wounded ships. Generally, this group received temporary repairs at

Pearl Harbor, steamed to a West Coast facility for more extensive work or modification and were back in action with the fleet within a year.

All of these ships survived the rest of the war with the exception of light cruiser *Helena*, which finally succumbed to three torpedo hits in July 1943, after contributing heavily to our final victory at Guadalcanal.

Members of the "worst-damaged" category were destroyers *Shaw*, *Cassin* and *Downes*; minelayer *Oglala*; and six battlewagons: *Arizona*, *Utah*, *Oklahoma*, *West Virginia*, *California* and *Nevada*. Three battleships never recovered—two were never raised.

But the rest came back to active duty after going through different combinations of salvage, repair, modification and rebuilding. Recovery time for these vessels was much longer. Only two of the seven ships in this badly-hit group that were salvaged came back to join the fight within a year after the attack. Most of them didn't return until 1944.

*Nevada's* senior officer on board ordered his ship to be run aground at Hospital Point in order to avoid sinking in the channel and obstructing the harbor. When the new commander in chief of the Pacific Fleet, Admiral Chester A. Nimitz, first saw the

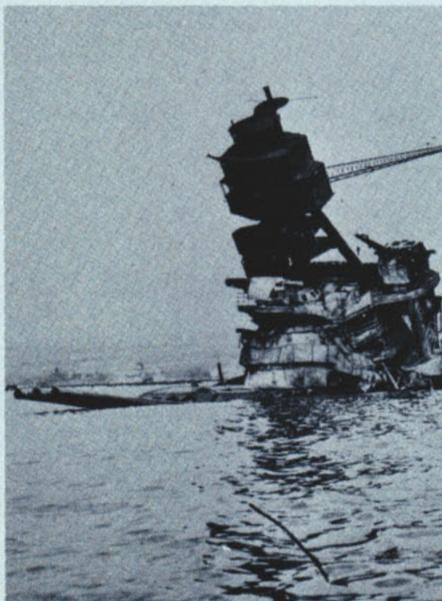
was the U.S. Naval Air Station, Pearl Harbor, Territory of Hawaii. My specific assignment was to the operations' squadron on Ford Island.

"In the fall of 1941, I was sent on detached duty to the Naval Air Facility at Maui, where we serviced and maintained drone radio-controlled aircraft for fleet target practice. It was the habit of this station to operate a weekend liberty plane to Pearl Harbor for liberty in Honolulu. On Dec. 6, I was on the list to fly to Ford Island—which I did.

"On the morning of Dec. 7, 1941—after breakfast—a buddy (Curtis Thatcher, shipmate and friend since boot camp) and I were standing on the Ford Island dock waiting for the 0800 liberty launch. We watched some small aircraft that appeared to be quite high coming in towards the vicinity of Pearl. As we watched, we talked about the planes releasing what we assumed were water bombs. I made a comment that the planes were too close to land. Within a minute or two after that, Pearl Harbor was under attack, and we could easily see the red ball insignia of Japan on the aircraft.

"As I was more or less a visitor, I did not have an assigned station for general quarters; however, Thatcher was in charge of the tank farm opera-

tions and fuel trucks. The fuel trucks (six or eight) were parked in a row in front of the tank farm and close to the fuel dock where tankers would tie up



*Twisted remains of battleship Arizona shortly after Japanese sank it.*

and unload. This was immediately in front of Battleship Row.

"Thatcher and I started dispersing the tank trucks by driving them out of the farm area to the perimeter of the airfield. We dispersed all the trucks ex-

cept one that we could not start, even by hand-cranking it.

"We then headed for the fuel dock where a berthed tanker had steamed up. We cut the tie-down lines with an axe. This tanker made it through the channel and out to sea. Thatcher received the Navy Cross for his effort.

"I was heading towards the operations hangar when the *Arizona* exploded—I was about 100 yards away from her at the time. The bugle that I'm forwarding to you landed about 20 feet in front of me. At this time, a large sheet of deck plate also came down in a vertical position and partially buried itself into the ground. In fact, the plate was later used as a shield, with a machine gun set up alongside of it."

Edward Teats lived out of his ditty bag for two weeks after the attack on Pearl Harbor and eventually wound up at anti-aircraft gun electrical school in Chicago. He kept the bugle that had been blown from the sinking *Arizona*. After he left the service, Teats' father inscribed a nameplate bearing the battleship's name and fastened it onto the bugle.

Plans are being made to include the bugle in the Navy Memorial Museum's World War II exhibit in Washington, D.C.

# Pearl Harbor

beached battleship on Dec. 31, 1941, he wasn't too optimistic—in fact, Nimitz felt that salvage of the *Nevada* was an impossible task.

Of course, when he saw it, most of the ship was underwater, and the only visible part was the superstructure which suffered most of the damage from five simultaneous bomb hits.

Dredging helped free *Nevada* from the harbor bottom, while water that had flooded most of the compartments below decks was gradually pumped out. As the water level went down, the ship's crew cleaned out the refuse in each compartment. Personal property was put under guard, classified information was turned over to the proper

authorities, and ammunition was sent to the depot for reconditioning. Oil remaining in the ship's fuel tanks was pumped out into barges.

Needless to say, the living spaces aboard ship were a real mess after being underwater for two months. First, they got a general washdown with sea water. Then a hot caustic solution was used to cut through the film of oil that covered open surfaces—it was everywhere.

Two of the salvage crew were killed and four others were overcome by concentrations of poisonous gas aboard *Nevada*. This unexpected condition was dealt with quickly. Ventilation on board the vessels being salvaged was

increased; confined compartments were no longer entered by working parties unless they had rescue breathing apparatus. More frequent air samples were taken for analysis. The culprit had been identified as hydrogen sulphide, an odorless gas in heavy concentrations that originated from a chemical reaction between polluted water and paper products in pressured spaces.

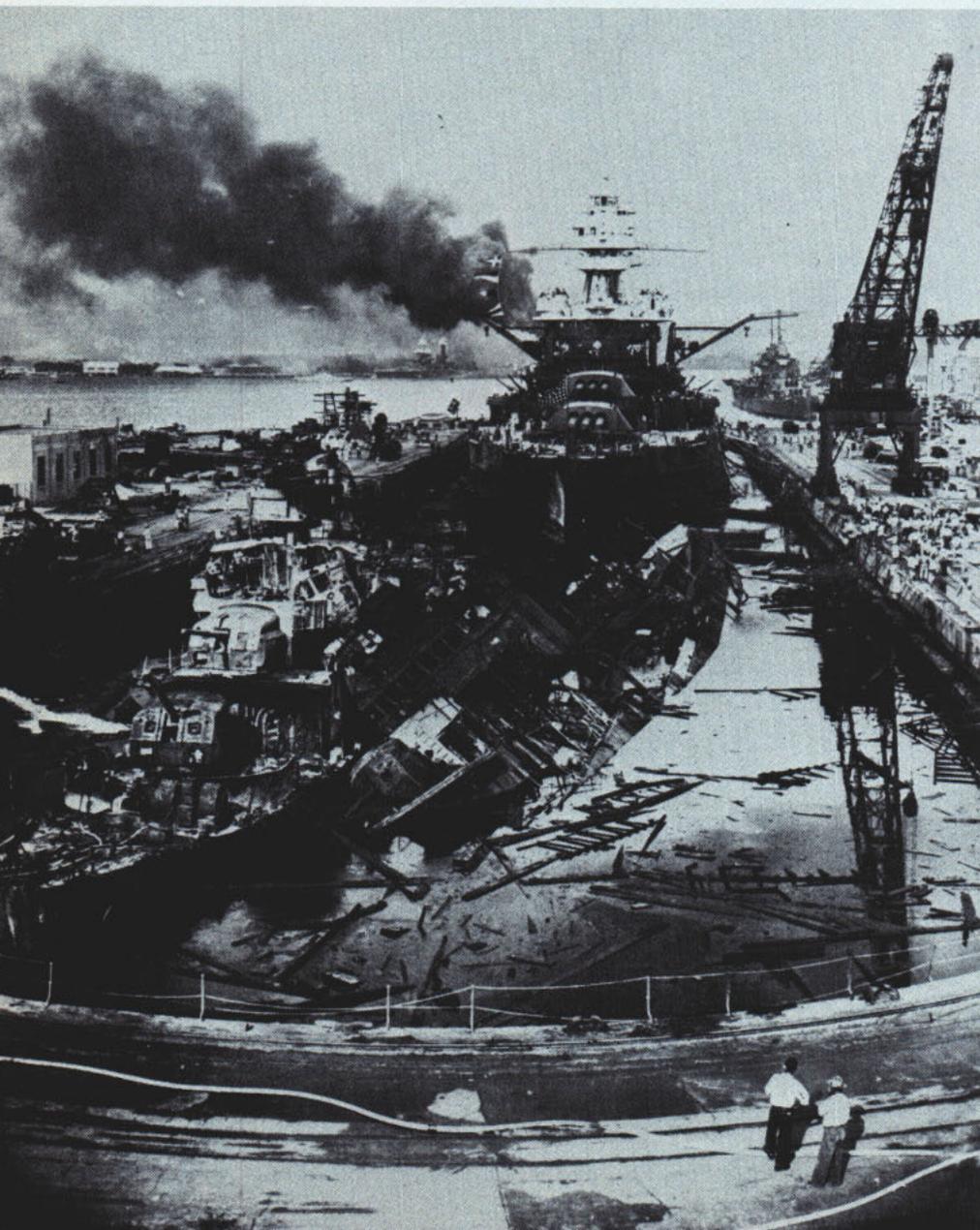
No more casualties due to poisonous gas occurred during salvage operations at Pearl Harbor.

*Nevada* came afloat on Feb. 12, 1942, and entered drydock six days later. Admiral Nimitz commended all hands involved with the salvage. Especially deserving were the divers who made more than 400 dives and did much of their work without the benefit of light—such as finding correct valves to transfer fuel oil from the sunken ship to barges. *Nevada's* engineering officer, Lieutenant Commander George E. Fee, had made a prediction—it seemed absurd at the time he made it shortly after the attack—that *Nevada* would sail for the West Coast under its own power. He proved to be correct.

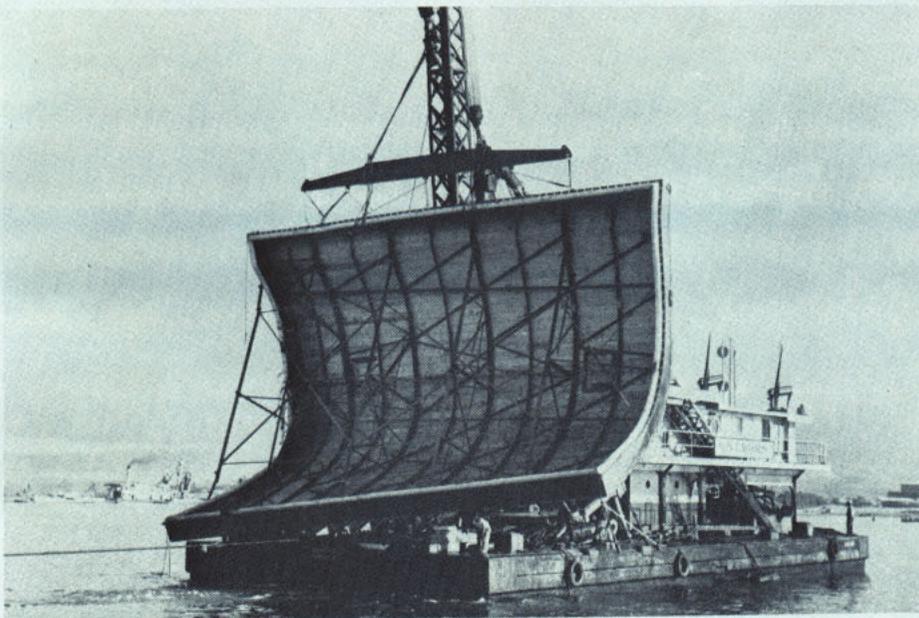
Battleship *California* didn't finish sinking until three days after the attack. Its salvage was similar to *Nevada's*, except the damage was much more severe, and the removal of about 50 bodies had to be dealt with.

The ship's slow sinking meant that it wasn't badly damaged below the waterline, but a serious oil fire that had spread from *Arizona* caused *California* to be temporarily abandoned and interfered with measures being taken to keep it afloat. Wallin was convinced that adequate pumping could have saved the battleship from sinking.

*California* had settled deep into the mud. To make the refloating job easier, the ship was made lighter. Nine of its 12 14-inch guns were removed, as



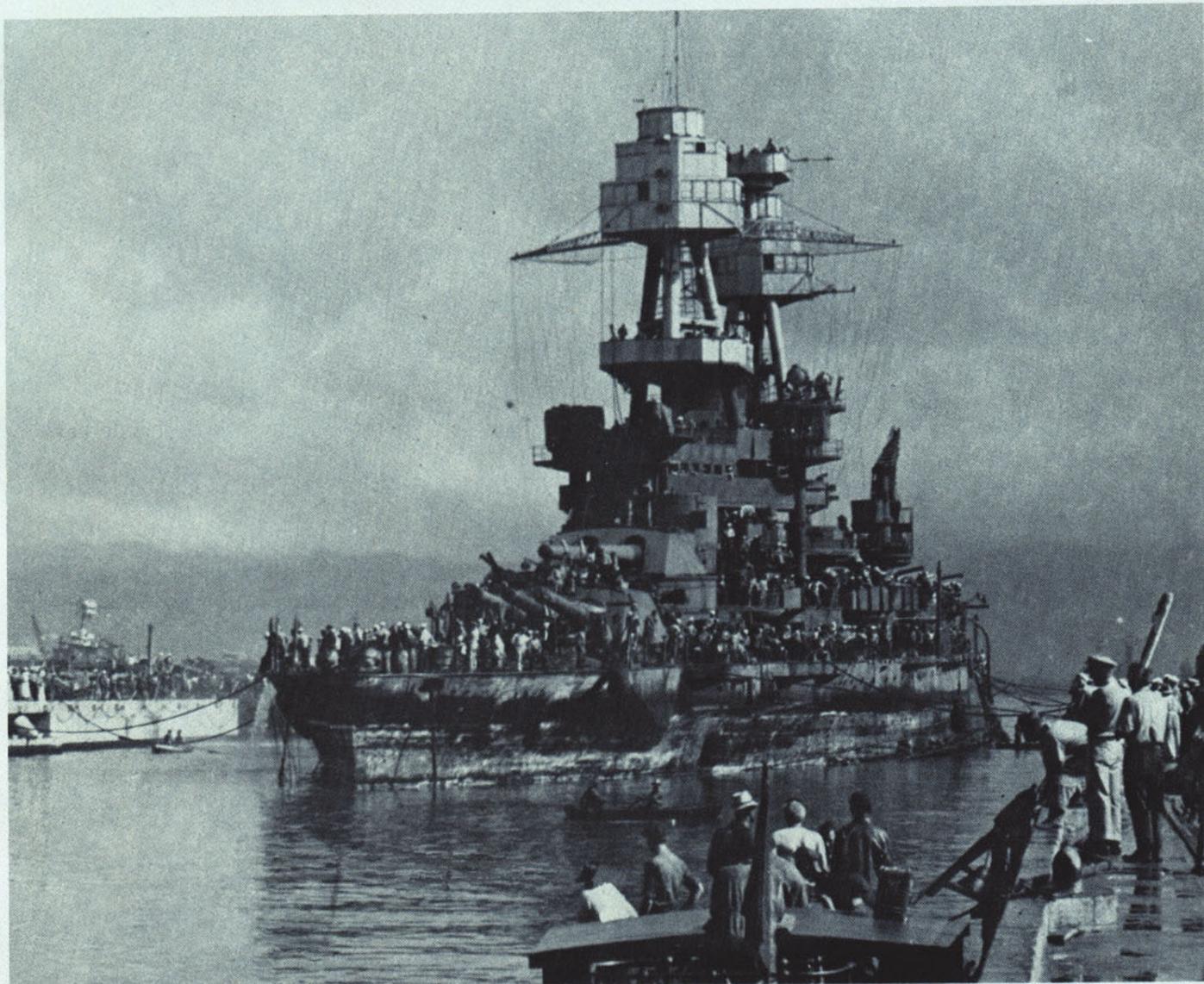
*Wrecked destroyers Downes and Cassin in flooded drydock after the attack on Pearl Harbor. In background are battleship Pennsylvania and torpedoed light cruiser Helena. All four ships were eventually salvaged and saw action against the enemy.*



well as the flag tower, conning tower and mainmast.

Remaining in drydock until June 1942, *California* was under way for Puget Sound Navy Yard on Oct. 10. About a year later, it emerged essentially as a new ship with a wider beam, increased stability, improved air defenses and 154 miles of new electric cable. At the Battle of Surigao Strait in October 1944, the one-time victim evened the score, hitting a Japanese battleship with more than 60 rounds of 1,500-pound shells.

*Left: Temporary patch is transported for installation on hull of battleship Nevada, sunk in the harbor. Below: After being raised, Nevada enters Drydock #2 on Feb. 18, 1942, for further repair.*



# Pearl Harbor

Of the battleships that were salvaged, *West Virginia*—hit by seven torpedoes—was in the worst shape. Essentially, its entire port side had been blown open, and the topside had suffered from a 30-hour oil fire that had the bad habit of blazing up every time it was almost put out.

One of the less attractive parts of salvage was removal of meat and dairy products that had been unrefrigerated for months. The stench was sickening. A solution was found during salvage of *West Virginia*. Compartments were pumped full of seawater for several days. That had the effect of shredding the meat and reducing the bad odor so that it was barely noticeable.

Having sat in the harbor with a max-

imum 28 degree list, *West Virginia* pulled into Drydock Number One at Pearl Harbor on a practically even keel on June 9, 1942. Nearly all of its electric motors and machinery were saved, and other vital items were either reconditioned in Hawaii or stored aboard the ship for delivery to a West Coast yard. And the ship's galley even became operational again, serving three meals a day to the salvage crew.

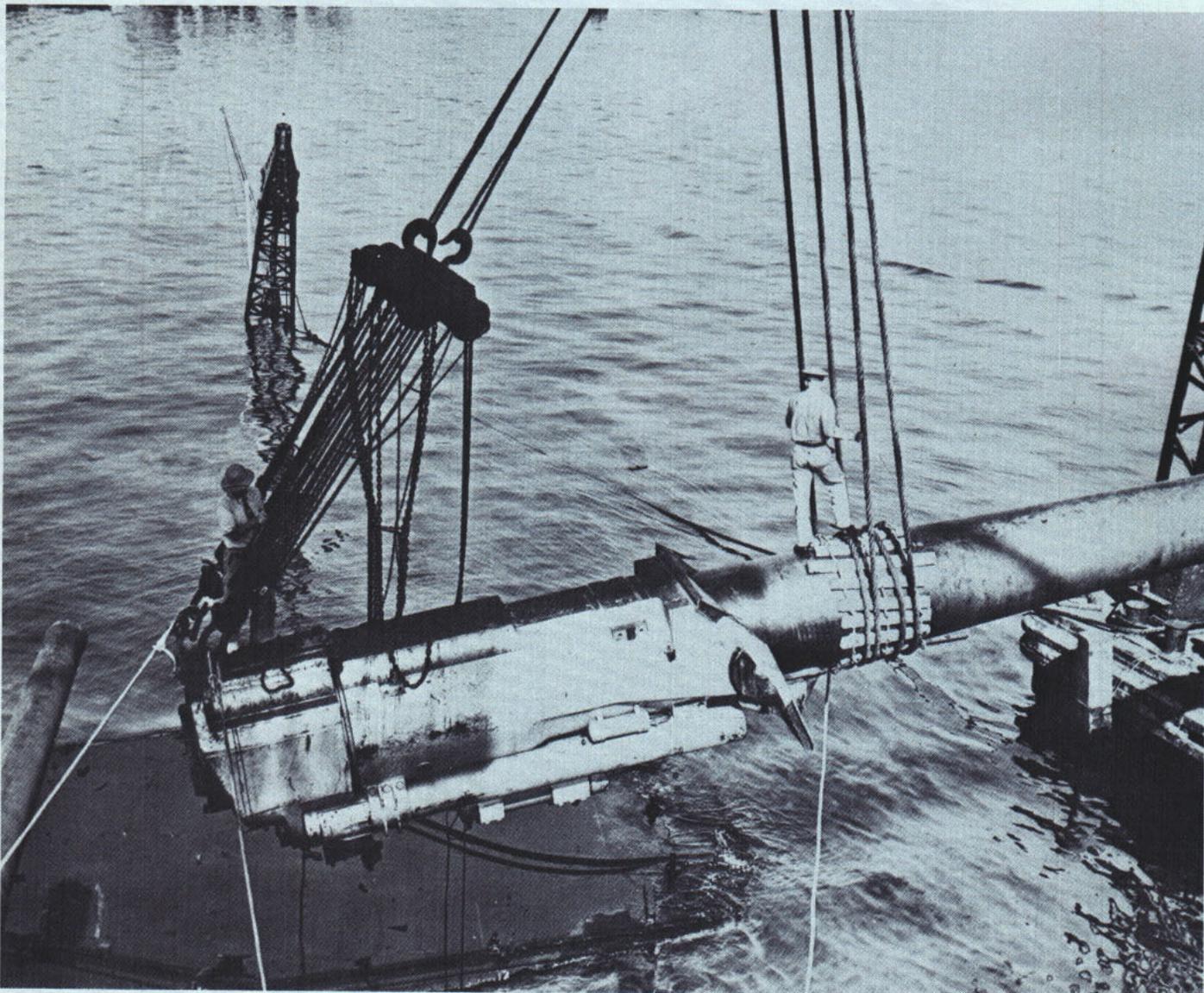
The most extensive salvage job of all the victims at Pearl Harbor had been a success; on the last day of the war, *West Virginia* would be anchored in Tokyo Bay, attending the surrender of its previous tormentors.

Sixty-six casualties were still left aboard *West Virginia* when repair work

began. Three of those deaths seemed especially tragic. When a work party broke into compartment A-111—a storeroom next to a fresh water pump—they found the space completely unflooded. Inside, on one of the lower shelves, were three bodies. All the emergency rations in the compartment had been eaten, and the manhole leading to the fresh water tanks had been opened. On one of the bulkheads was a calendar. Each day from Dec. 7 to Dec. 23 had been marked with an "X."

The three sailors had lived in isolation, surrounded by flooded compart-

*A 14-inch gun is removed by crane from battleship California; nine such guns were taken off the ship before it was refloated.*





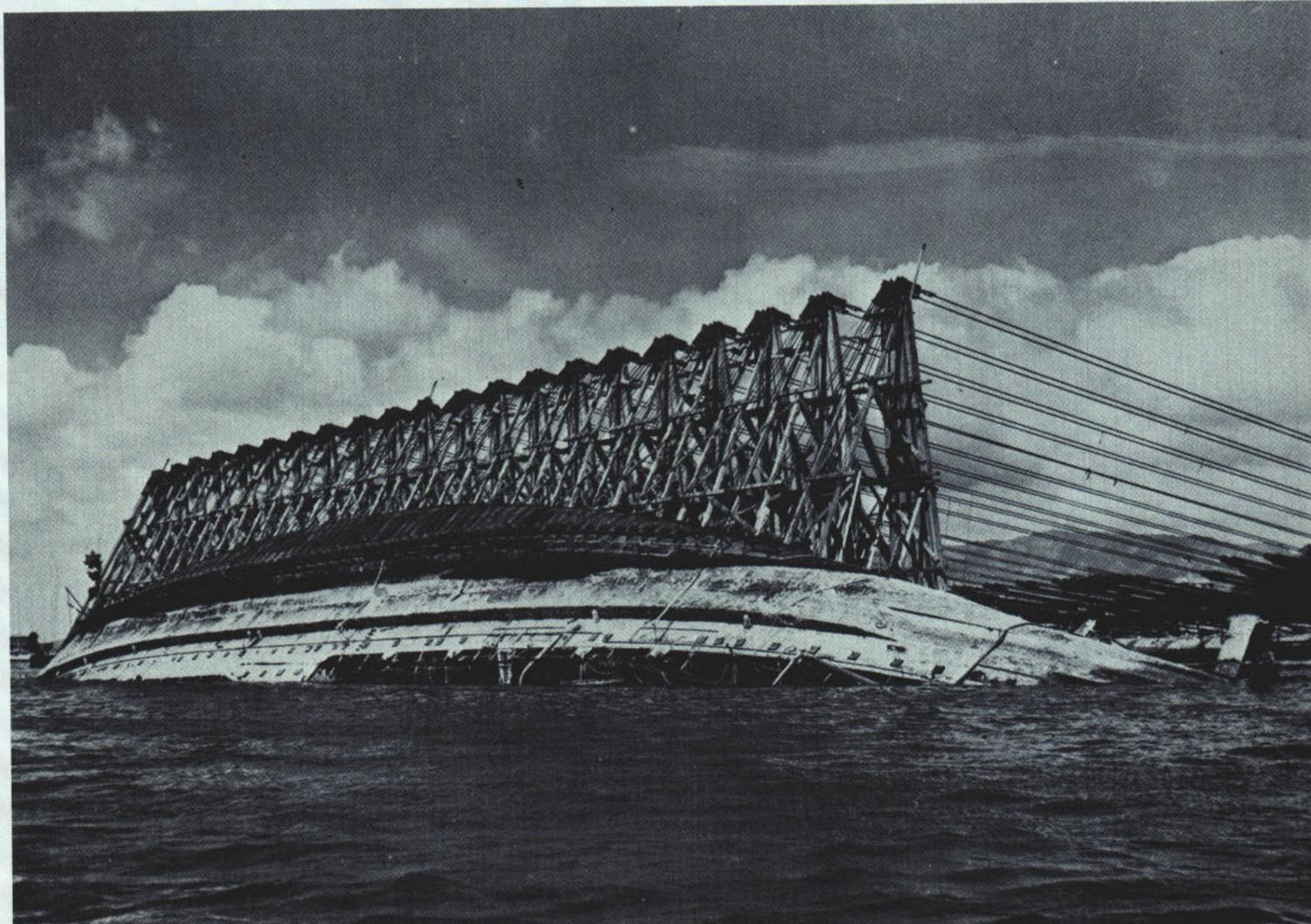
ments, for 17 days aboard the sunken battleship. They had finally died, apparently from lack of oxygen.

Although much effort and ingenuity were put into the righting of capsized *Oklahoma*, it was never salvaged. Instead, the battleship was decommissioned in 1944 and sold as scrap for \$46,000 after the war. While being towed from Pearl Harbor to the West Coast, *Oklahoma* was lost in a storm and sank May 17, 1947.

*Utah* and *Arizona* never came back up; both have been memorialized at Pearl Harbor.

Minelayer *Oglala*, on its side and almost submerged, had been launched in 1907. Because of its age, the ship's stability during salvage operations was the

*Below: With wooden struts attached to its hull and cables pulling from shore, capsized battleship Oklahoma is righted. Left: The ship has been raised to an angle of about 30 degrees.*



# Pearl Harbor

worst encountered and presented many problems. But it was finally resurrected and made it back to active duty in February 1944. Like the two destroyers *Cassin* and *Downes*, the old minelayer had been written off as a total loss. But all three vessels ended up contributing to our final victory against Japan.

The entire salvage operation at Pearl Harbor was an example of outstanding dedication to a tough job, made even more difficult by several shortcomings.

Pearl Harbor suffered from a lack of materials and equipment. If more pumping facilities had been available, some of those ships that had to be raised might never have sunk. Some of the fires might not have raged out of control. There was also a manpower shortage, especially in the case of carpenters and welders. The cleaning of those battleships required—realistically—about 500 men; salvage crews were usually about one-fifth that size. But

the work was done in quick order.

The worst shortage was that of defensive weapons against more air attacks, a distinct and uncomfortable possibility until the U.S. Navy's victory at Midway. Gun batteries and ammunition were taken off all the ships and used on Hawaii for the duration of the war. Reclaimed ships received new, improved AA equipment after returning stateside.

Performances of the divers and their

## The Ones that Made it Back

Of the 19 vessels damaged or sunk during the attack on Pearl Harbor, only three—*Arizona*, *Oklahoma* and *Utah*—became permanent losses. The other 16 were repaired or salvaged in time to see action before the war ended; some contributed heavily to U.S. naval victories, amphibious landings and offshore bombardment:

**USS *California* (BB 44):** Sunk at Battleship Row. Refloated March 25, 1942 and reconstructed at the Puget Sound Naval Shipyard. Departed Bremerton Jan. 31, 1944. Took part in Marianas invasion and helped to destroy Japanese forces at Battle of Surigao Strait that same year. Seven battle stars.

**USS *Cassin* (DD 372):** Heavily damaged in drydock and officially listed as a loss; decommissioned Dec. 7, 1941. After superb salvage effort, towed to Mare Island Navy Yard and rebuilt. Recommissioned Feb. 5, 1944. Six battle stars.

**USS *Curtiss* (AV 4):** Moored near Ford Island Air Station. Got under way and sighted midget Japanese sub, on which it scored two hits with 5-inch shells. Shot down three enemy planes, one of which crashed into the seaplane tender's forward crane. Also received one bomb hit. Went to San Diego for

permanent repairs and returned to Pearl Harbor Jan. 13, 1942. Seven battle stars.

**USS *Downes* (DD 375):** Berthed next to *Cassin* in drydock and also listed initially as complete loss; decommissioned June 20, 1942. Rebuilt and recommissioned at Mare Island Nov. 15, 1943. Four battle stars.

**USS *Helena* (CL 50):** Hit by torpedo. Received preliminary overhaul at Pearl Harbor and permanent repairs at Mare Island. Rejoined fleet in 1942, distinguishing itself in Battles of Cape Esperance and Guadalcanal. Sunk July 6, 1943, by three torpedo hits during Battle of Kula Gulf. Seven battle stars.

**USS *Helm* (DD 388):** Under way in West Loch Channel, Pearl Harbor when attack began. Shot down one plane and received light damage from strafing and two near misses from bombs. Drydocked at Pearl Harbor for repairs Jan. 15, 1942; under way five days later. Eleven battle stars.

**USS *Honolulu* (CL 48):** Suffered only minor hull damage from a near miss. Following repairs, sailed Jan. 12, 1942. Eight battle stars.

**USS *Maryland* (BB 46):** Hit by two bombs; Japanese announced that it had been sunk. Entered Puget Sound Yard Dec. 30, 1941, for repairs. Re-

joined fleet Feb. 26, 1942. Seven battle stars.

**USS *Nevada* (BB 36):** Hit by one torpedo and two or three bombs, still got under way during attack. Struck again while trying to leave harbor and beached at Hospital Point. Refloated Feb. 12, 1942. Repaired at Pearl Harbor and Puget Sound Yard; rejoined fleet in 1942. Seven battle stars.

**USS *Oglala* (CM 4):** Sunk; refloated in late 1942. Received extensive repairs in California and placed back in full commission Feb. 28, 1944. One battle star.

**USS *Pennsylvania* (BB 38):** Damaged in drydock with *Cassin* and *Downes* during attack. Underwent repairs at San Francisco until March 30, 1942. Took part in Battle of Surigao Strait Oct. 25, 1944, where Japanese lost two battleships and three destroyers. Hit by torpedo in Buckner Bay, Okinawa, and towed to Guam for repairs. Eight battle stars.

**USS *Raleigh* (CL 7):** Took a torpedo hit amidships to port side. Repaired at Pearl Harbor and overhauled at Mare Island; rejoined fleet July 23, 1942. Three battle stars.

**USS *Shaw* (DD 373):** Drydocked during attack. Took three bomb hits, one which exploded its forward maga-

supervision were both excellent. About 9,000 dives were made during salvage operations for a total of about 36,000 underwater hours with only one diving casualty.

Thus, Japan's naval superiority in the Pacific, achieved by paralyzing a significant part of our fleet for many months, was a shortlived advantage. Even with our terrible naval losses during the campaign for Guadalcanal, the Japanese still couldn't keep us off that

island. And after the decisive Battle of the Philippine Sea more than two years later, naval engagements for the Japanese were consistent and humiliating defeats.

As for the vessels "destroyed" at Pearl Harbor, their salvage amazed not only the enemy but also the United States. Their resurrection seemed incredible to many U.S. observers at the time. Japanese naval commanders probably felt the same way later in the

war when they saw the silhouettes of enemy warships reportedly destroyed at Pearl Harbor!

It's true that the initial destruction at Pearl Harbor was a stroke of Japan's military genius. But the rise of those victims from the ashes of defeat, and their eventual return to the fleet, was truly one of the greatest battles the U.S. Navy has ever won.

—Story by JOI P.M. Callaghan

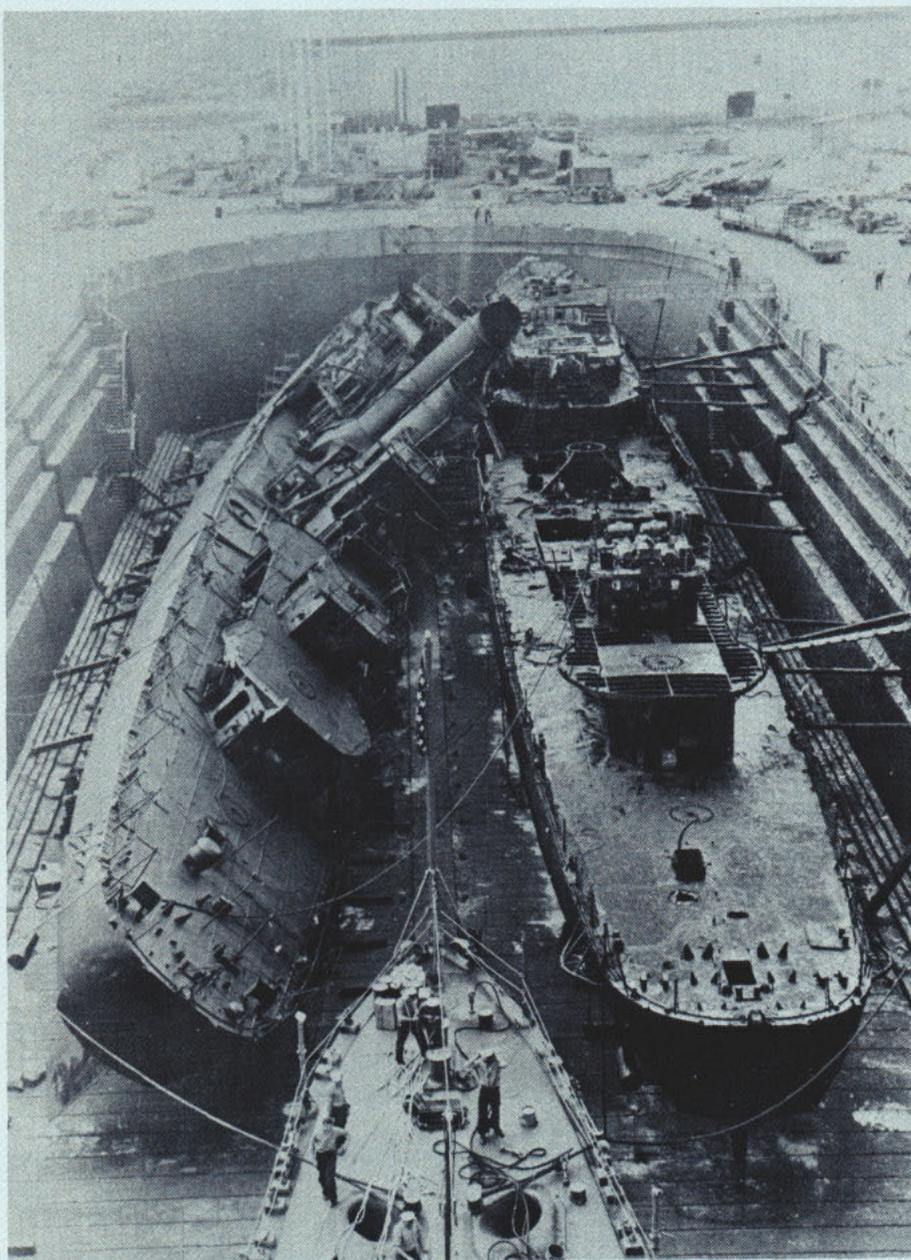
zine. Repaired at Pearl Harbor and San Francisco. Returned to Pacific in August 1942. Eleven battle stars.

USS *Tennessee* (BB 43): Hit by two bombs; also damaged by fires aboard *Arizona* and *West Virginia* moored close by. Left Pearl Harbor Dec. 20, 1941, accompanied by *Pennsylvania* and *Maryland*. Repaired and modified at Puget Sound. Compiled impressive combat record after rejoining fleet in February 1942. Ten battle stars plus Navy Unit Commendation.

USS *Vestal* (AR 4): Took two bomb hits, plus damage from explosions and fires aboard *Arizona*, moored alongside. Got under way and grounded on Aiea Shoal. After repairs and alterations, departed Pearl Harbor for South Pacific on Aug. 12, 1942. Two battle stars.

USS *West Virginia* (BB 48): Sunk by six torpedo hits and at least two bomb hits. Refloated May 17, 1942. Engineering plant repaired at Pearl Harbor and steamed to Puget Sound for extensive repair and modernization that lasted until the summer of 1944. Rejoined fleet in time to take part in Battle of Surigao Strait Oct. 25, 1944. Provided support for Mindoro and Okinawa landings; anchored in Tokyo Bay Sept. 2, 1945, for Japanese surrender. Five battle stars.

*Looking quite different from their condition on Dec. 7, 1941, destroyers Cassin and Downes undergo repair in drydock.*



# Bearings

## Time to Say Goodbye

Nostalgia swept over all who knew and served aboard the ship. To many crewmen, this mass of steel and gray paint had been a home away from home, but now it was time to say so long.

Such were the feelings of the crewmen of USS *Bryce Canyon* (AD 36) when it recently joined the ranks of decommissioned Navy ships. The 30-year-old destroyer tender left the Navy at Pearl Harbor, Hawaii, where it had served for 12 years as a "floating repair shop" providing repairs, along with technical and logistical support,

to destroyers and other Pacific Fleet ships.

Some thought *Bryce Canyon* homely in the sense that it was big and bulky compared to the sleeker, more glamorous destroyers and frigates moored nearby. Nicknamed "Brass Canoe," its solid brass handrails and other metalwork were polished twice a day.

Also known affectionately as "Building 36" (after its hull number), the 492-foot vessel served as flagship for Commander Naval Surface Group Mid-Pacific and was a familiar sight at Pearl Harbor. In its later years, the

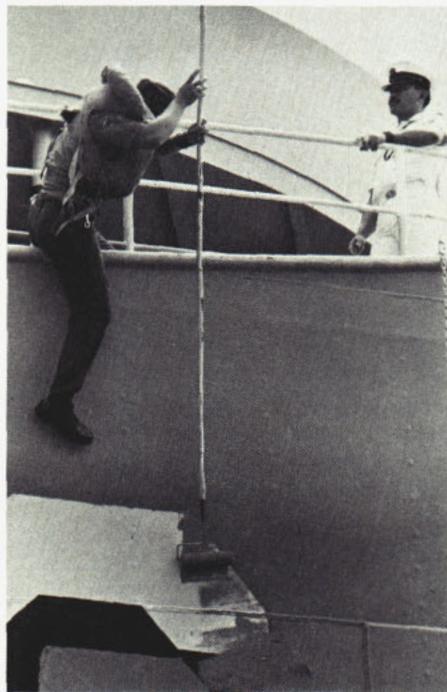
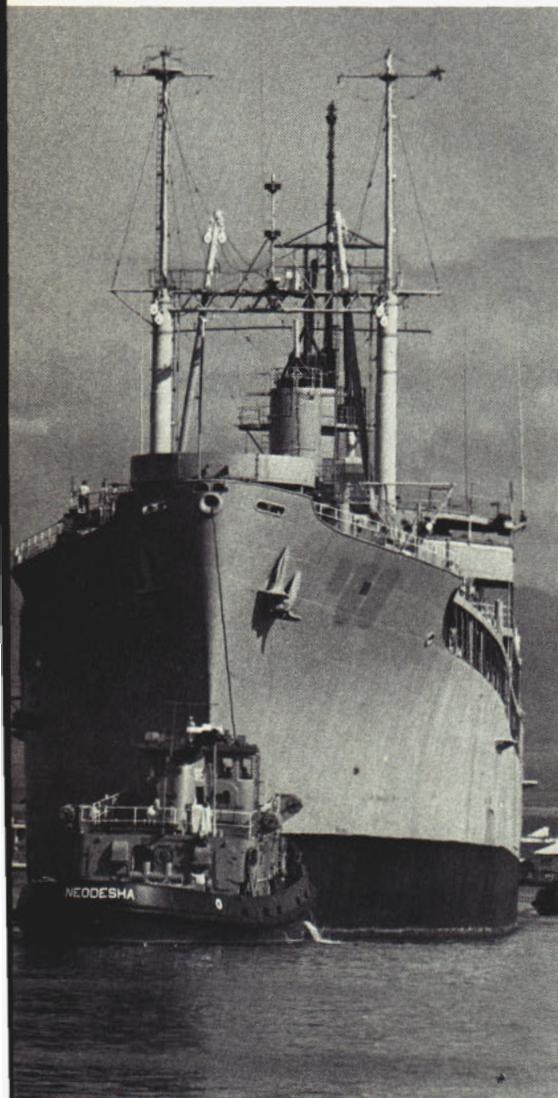
piners during Vietnam. Besides the many medals earned by the crew, *Bryce Canyon* won first place in the annual battle efficiency competition from 1955 through 1959, earning the gold "E" for five consecutive years.

No doubt *Bryce Canyon* boasted a proud crew. Former crew member Chief Hull Technician John R. Raymond said, "We set a record for changing ships' screws in the early 1970s that was unbelievable. We saved the cost of drydocking ships by replacing their screws underwater in 30 hours with four divers and a crane."

To Chief Warrant Officer William G. Johnson, *Bryce Canyon* was more "like family" than ship. Stationed aboard the tender for the past five years, he had the honor of securing the watch for the last time and making the final entry in the ship's log at 10:25 a.m., June 30, 1981. It read: "Decommissioned the USS *Bryce Canyon*."

—Story by JO2 Deborah F. Longo and JO2 Stacey Huesmann

—Photos by PH1 Harold J. Gerwien



Left: USS *Bryce Canyon* (AD 36) is towed from Pearl Harbor to join the ranks of other decommissioned Navy ships. The vessel is to be auctioned in an open sale. Above: A crewman applies the final touch before decommissioning by painting over the ship's hull number.

tender seldom went to sea. However, it made several cruises to Oahu's outlying islands—Maui, Hawaii and Kauai—and also sponsored several family cruises.

In the course of its career, AD 36 logged eight WestPacs, saw combat in Korea and serviced ships in the Philip-



"That's affirmative, Nacho, you're on a holding pattern until we can clear the flight deck of a certain miniature sleigh and eight tiny reindeer."

## U.S. and Japan Sail Together

The recent cruise of the Seventh Fleet flagship USS *Blue Ridge* (LCC 19) and the Japanese Escort Force flagship JDS *Shirane* (DD 143) was a time of coordinated hard work and much fun for the crews of the two ships. The three-week operation off Japan's main island of Kyushu also tightened the bonds of friendship between the two allies.



Together, the flagships conducted two war-at-sea exercises, an anti-submarine exercise, surface gunnery practice and—for liberty—made port calls at Beppu, Kagoshima and Sasebo.

The first stop at the resort city of Beppu found the sailors of both ships relaxing in the city's famous sulfur springs and mud baths.

In Kagoshima, as volcanic Mount Sakurajima spewed smoke in the background, the crew of *Blue Ridge* played

two softball games against the championship ladies team from the Yamagataya Department Store. Attempting to avenge last year's defeat to *Blue Ridge*, the women played tough ball, but the men won the games, 4-0 and 4-2.

Then it was on to Sasebo where *Blue Ridge* and *Shirane* celebrated America's Independence Day. After cups of saki and a 325-pound cake commemorating the cruise and the Fourth of July, *Blue Ridge* fired a 21-gun salute in honor of America's 205th birthday.

*Left: Sea brothers from Japan and the United States hoist flags aboard Blue Ridge. Photo by PHAN Doug McGrath. Right: Blue Ridge and Shirane head toward port under the gaze of the big Buddha of Beppu. Photo by PHAN Berkley Atkisson. Below: Blue Ridge (background) and Shirane practice underway replenishment off southern Japan. Photo by PH2 Lester D. Brown.*



## Home Away From Home

When a ship pulls into the shipyard for an overhaul, crew members generally live aboard ship and face less than peaceful living conditions.

But that's changing in Norfolk, Va. The Jonathan Corporation Ship Repair and Computer Systems Company bought the former Lafayette Yacht Club and turned it into dormitory-style housing and dining facilities for crews of ships being overhauled there. The

dormitory has berthing capacity for 500 and dining facilities designed to serve 2,500 people.

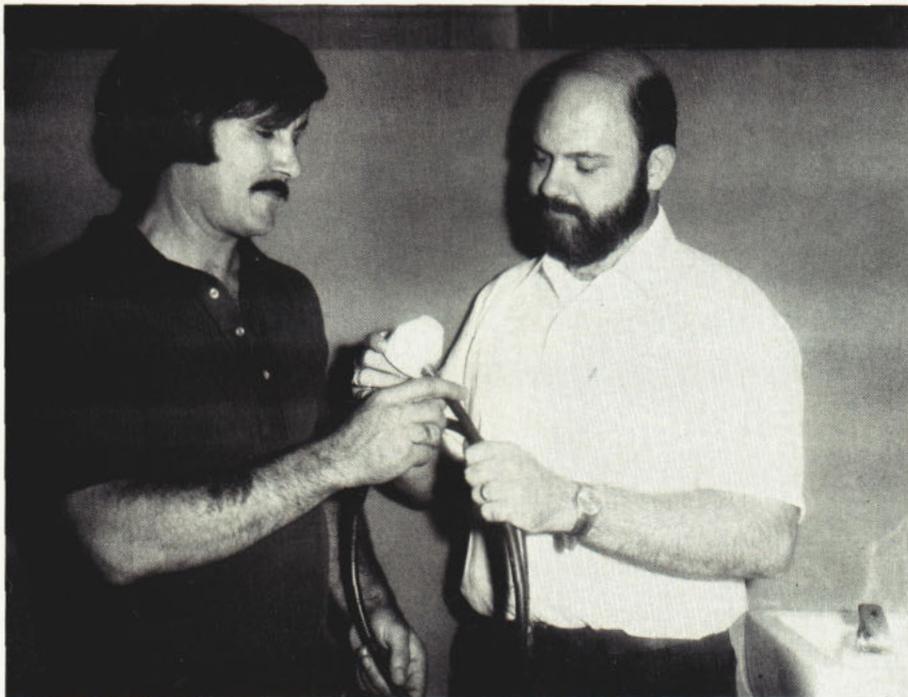
In addition, former tennis facilities are being converted to basketball courts, and the club swimming pool is being restored. New bathrooms, lighting, lower ceilings and carpeting have also been installed as well as a parking lot for 275 cars.

The new facility seems to be promot-

ing better morale. According to one crewman from USS *San Diego* (AFS 6), the first ship to use the facility: "Morale for most yard periods that I've experienced has been very low in comparison to this one. Habitability is important, and living at the club has lessened tensions ordinarily associated with living on board ship."

# Bearings

## New Showers For Ships



Francis Keffer (left) and Charles Kelly with their low-flow, hand-held shower.

child of Charles Kelly and Francis Keffer, uses an average of three gallons of water as opposed to 15-20 gallons for a shipboard "Navy" shower.

The low-flow, hand-held shower has been extensively evaluated and proved worthy. In one seven-month cruise to the tropics, the destroyer USS *Jonas Ingram* (DD 938) reduced shower water consumption by 85 percent, saving more than 500,000 gallons of water. And, in the case of the 5,000 crew members of USS *Saratoga* (CV 60), the shower system cut their needs in half. *Saratoga* is predicted to save more than \$2 million a year once its water resource management plan is in full swing.

Lowering fresh water consumption is expected to reduce the use of distillers, reduce hot water requirements, increase wastewater holding tank capabilities and decrease demand on wastewater transfer pumps.

This type of shower unit is expected to be installed on all surface ships during the next several years.

Two researchers at the David Taylor Naval Ship Research and Development Center in Annapolis, Md., have designed, developed and patented a re-

duced flow shower that predictions say will save the Navy millions of dollars each year.

The reduced flow shower, the brain-

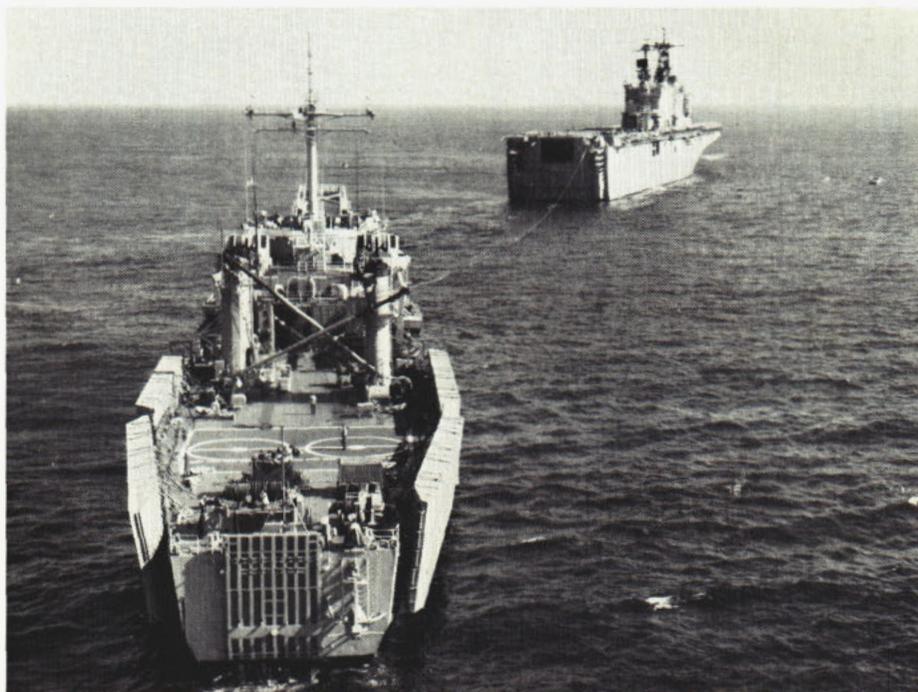
## Saipan Does It All

"We do it all" are the words behind the crew of USS *Saipan* (LHA 2). In fact, it's the ship's motto, and it came into play recently when *Saipan* was undergoing operational exercises in preparation for a Mediterranean deployment.

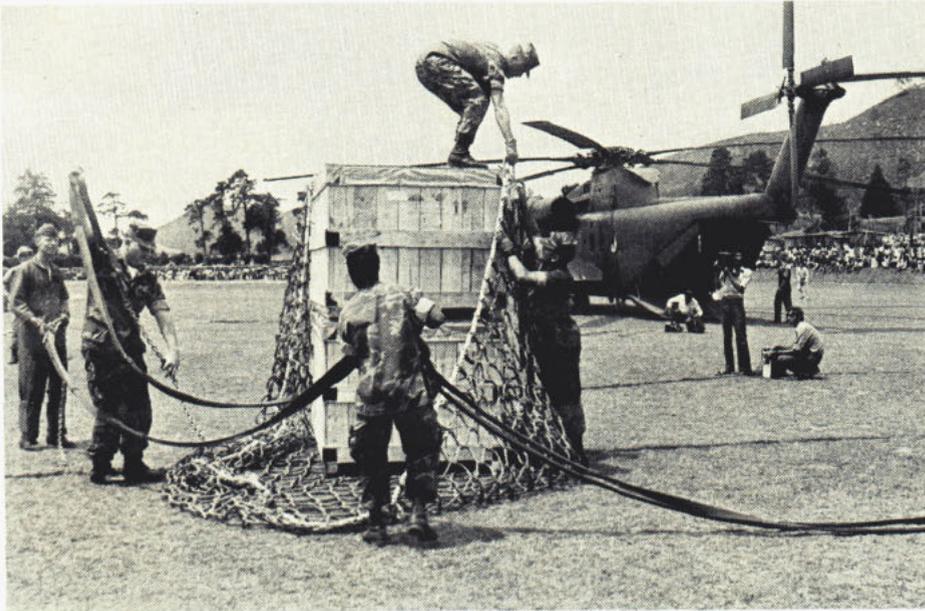
In addition to conducting operational checks and equipment tests off the Virginia Capes, the amphibious assault ship was called upon to tow USS *Barnstable County* (LST 1197). Through meticulously coordinated efforts on the part of both ships' crews, the towing exercise proved successful.

—By JO2 Jimmy D. Couch

USS *Saipan* (LHA 2) (background) tows USS *Barnstable County* (LST 1197) through the waters off the Virginia Capes. Photo by PH3 Dan Buckson.



## Putting Sri Lanka On the Air



The citizens of Sri Lanka have been brought into the television age thanks to a Navy/Marine Corps team. The small island nation—formerly known as Ceylon—was the recipient of a television transmitting facility presented by a Japanese firm. But transporting the 11,660-pound generator and its allied equipment to its mountaintop site was a big problem. Enter the Seventh Fleet and elements of the 31st Marine Amphibious Unit.

The Defense Attache Office at the U.S. Embassy in Colombo received a request from the Sri Lankan government for assistance with the generator. Clearing through diplomatic and military channels, it was determined that units from the 31st MAU embarked on the USS *Belleau Wood* (LHA 3) could do the job. The mission could be accomplished during a scheduled port visit to Sri Lanka.

Marine Medium Helicopter Squadron 165, with two CH-53 *Sea Stallions* and a UH-1 *Huey* helicopter, was selected for the task. Six Marines from Marine Service Support Group 37, embarked aboard USS *Thomaston* (LSD 28) would pitch in to help with the

hooking and rigging of loads and would guide the *Sea Stallions* through their takeoffs and landings.

While the Marines put the final touches on their flight plan, Japanese engineers worked to separate and crate the 16 loads that would be lifted to the mountaintop. By far the most perplexing problem was the generator. The altitude coupled with the warm weather would make the heavy lift difficult. But the Marines were confident; they had lifted up to seven tons with the *Sea Stallions*. This would be easy.

The day the *Belleau Wood* and *Thomaston* arrived in Colombo for a port visit, the Marines zipped into their flight suits for a look at the terrain. The weather was perfect, so perfect that after a quick flyover they decided to do the lift then, a day earlier than planned.

The local citizens, 3,000 of them, turned out to watch the helicopters. The audience quickly scattered when the CH-53s kicked up a small dust storm with their rotors.

Less than five hours after arriving in Sri Lanka, the first of the 16 loads was moved. The lightest loads were the first

off the grassy runway. Finally it was time for the generator to be lifted. With a green smoke flare at the landing zone streaming to mark the direction of the wind, the *Sea Stallion* strained its way up the mountain, hovered and gently deposited its load. It was a perfect touchdown.

The entire operation lasted a little more than two hours. It had begun and ended so quickly that the ground crews had finished packing away their nets and were relaxing when the government officials who were to witness the spectacle arrived.

The mission was a two-fold success. The Navy/Marine Corps team had not only positioned Sri Lanka's new television transmitter generator but also had undergone high altitude helicopter training at the same time.



Two stages in the airlifting of television equipment to Mount Pidurutalagala, Sri Lanka, are shown top left and above.

# Where on Earth is Mount Santa Rita ?

Wild pigs, monkeys and snakes. Isolation, brush fires and torrential rains.

It's enough to intimidate even the saltiest of Navy bluejackets, but for the 26 men and women assigned to the U.S. Naval Link Station, Mount Santa Rita, it's a part of their everyday life. And they all agree that this small, backwoods communications complex in Hermosa on historic Bataan just may be the most uncommon and the best duty they're ever likely to run across.

Perched on the summit of Mount Santa Rita (1,558 feet), the complex overlooks Subic Bay Naval Facility, 12 miles to the west. The link station provides communications for 53 commands throughout the Republic of the Philippines and for the entire Seventh

Fleet. To reach it, sailors wind their way daily up a narrow, serpentine road constantly threatened by the encroaching jungle.

"Mount Santa Rita is the heart of an essential communications set-up which is the largest microwave system in the world," said assistant officer in charge Master Chief Electronics Technician Jim Taylor. "All communications support provided by Naval Communications Station Philippines for ships and aircraft of the Seventh Fleet is made possible by Mount Santa Rita. The automatic dial telephone system alone can support a city of more than 60,000."

All phone and military radio message traffic between the Subic Bay area and the rest of the Philippines, the United States and other countries is

sent via microwave through Mount Santa Rita with the help of its 12-story tower.

Easily identifiable, Santa Rita is a perfect navigation point; it points the way to Cubi Point's 9,000-foot runway. The Tactical Air Navigation mast on top of "Rita's" red and white structure is 1,702 feet above sea level. Its navigational signal enables aircraft to home in on the air station and determine their distance and bearing.

For Navy people driving to Cubi or Subic, the tower is an always visible signpost along the winding mountain road that stretches from Subic Bay, across Bataan, to Manila and Clark Air Base.

*Cattle cross the narrow, winding road leading to Mount Santa Rita Naval Link Station on the peak of the 1,558-foot mountain.*

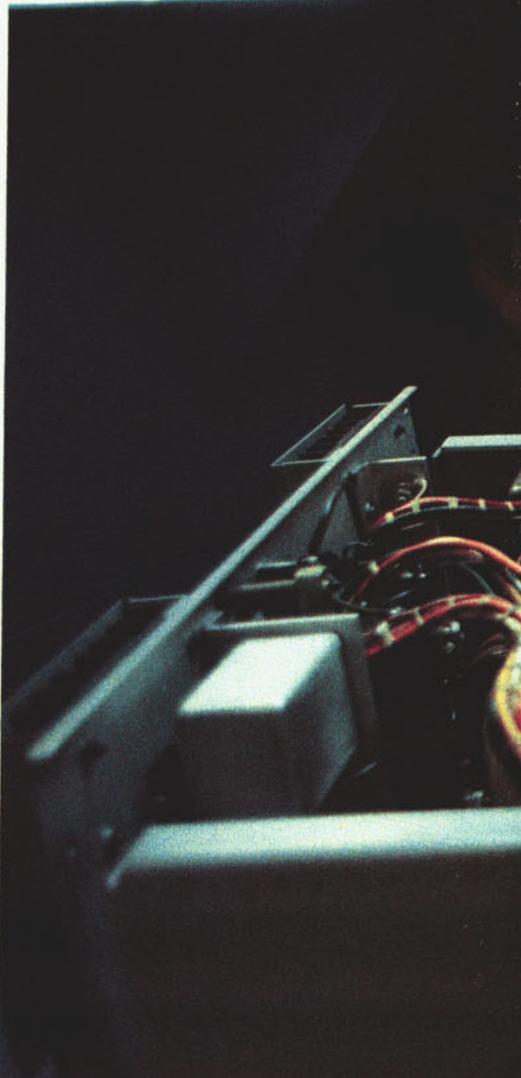


# Uncommon Duty



It wasn't long after World War II that the Navy realized the need for a modern point-to-point telephone and communications system between local U.S. military activities in the Philippines. However, the cost of installing and maintaining landlines traversing miles of exposed jungle terrain and dense forests was prohibitive. Thus, the radio microwave system was selected.

Construction of the multimillion dollar complex began in April 1953. The builders encountered incredible



problems caused by the elements, the site's location and the jungle.

According to officer in charge Lieutenant Frank Phillips, the original construction cost was only \$1.5 million. "Today, Mount Santa Rita is priceless."

"Santa Rita is unique because of the critical nature of its mission," said Taylor. "Without it, rapid communications in the Philippines would pretty much come to a halt."

"An interesting fact," said Phillips, "is that with all the messages relayed

through Mount Santa Rita (100,000 a month), the station cannot initiate a message into the system. Any message drafted by us has to pass through Subic and then back to Santa Rita on its way to its destination."

The daily routine for the people at this semi-isolated facility could be described as "unreal."

"It's certainly not like anything I've experienced," said Taylor, a 16-year Navy veteran. "One minute the troops will be conducting normal maintenance and the next, we'll find ourselves hur-

rying down a mountain trail with shovels and rakes to fight a raging brush fire. Acting as fire warden is one of our additional responsibilities."

From the moment they board their yellow work bus at 6:30 each morning, these mountain dwellers find that "up" is a way of life. "Down" is a nasty word until they again board their

*Opposite page: ETCM Jim Taylor and ETC Lewvino Maguyon inside the compound of the link station. Below: ET2 Robert Stone replaces a component in a microwave radio power supply.*



# Uncommon Duty

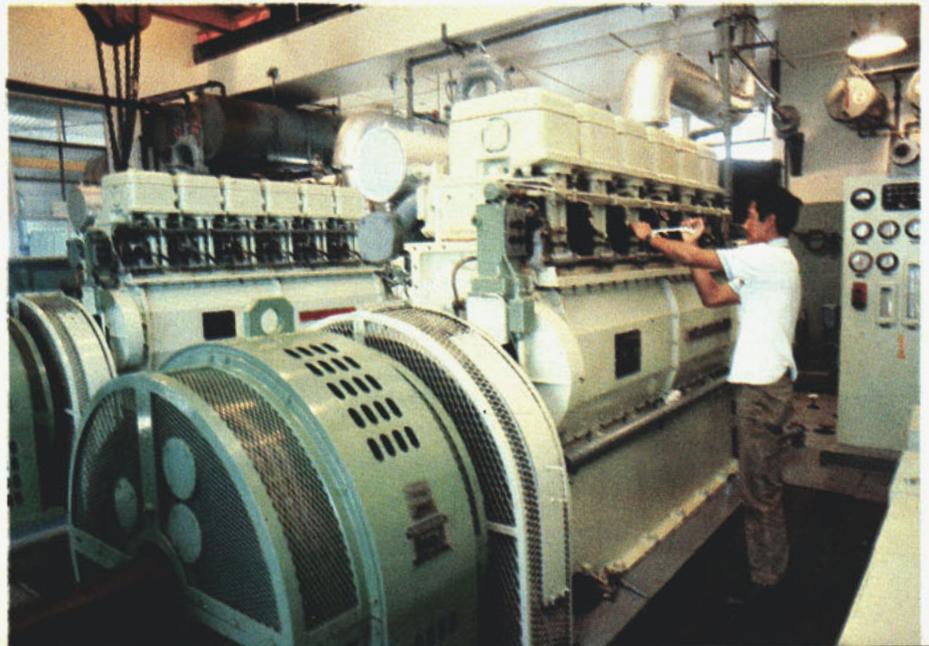
bus in the afternoon for the roller-coaster-like ride back to Subic.

Once at the station, normal maintenance evolutions are dictated by schedule. Taylor said, "If no equipment is malfunctioning, our attention turns to the continuous process of 'tweaking,' adjusting and checking performance of the gear to ensure it never degrades."

Because of the importance of Santa Rita as the communications hub for the area, the people there have no choice but to keep the equipment in tip-top shape. As Taylor put it, "We simply are not allowed to go off the air."

Mount Santa Rita's "lifeline" is a one-lane road over which traffic is

*Below: Lt. Frank Phillips conducts the monthly personnel inspection. Upper right: The San Miguel microwave antenna is on the 10th deck of the 12-story building and the view is magnificent. Lower right: Santiago Novero, one of two full-time civilian employees at the station, performs maintenance on a 275-kilowatt diesel generator he helped install more than 25 years ago.*



dispatched in one direction at a time. Filipino and U.S. Marine security guards are posted with a phone line for communication. They ensure the road is clear of traffic—and jungle entanglement—before allowing automobiles to pass. Monthly, Rita's communications people don jungle fatigues and boots, and with bolo knives and saws in hand, slash their way through heavy foliage that constantly encroaches upon the asphalt trail.

"Because of the relay station's remote location, it's necessary that we be nearly self-sufficient," explained Taylor. "We have our own power system, water reservoir, water purification unit and a store of rations that will last about 30 days."

The station's power is supplied by two, 25-year-old, 275-kilowatt diesel generators, of which only one is employed at a time. In addition, there is a 200-kilowatt generator for emergen-

cies. A large store of diesel fuel is kept in reserve.

Water comes from a small creek at the foot of the mountain, which supplies a 40,000-gallon reservoir. The water is then pumped to three 6,000-gallon tanks at the top where it is purified and pumped into a fresh-water holding tank.

There are seven different Navy ratings at Mount Santa Rita: boatswain's mate, electronics technician, interior communications technician, mess management specialist, radioman, storekeeper and yeoman. A five-man Marine security force remains on the mountain 24 hours a day.

Whether boatswain's mates or mess management specialists, all are required to learn the operation of technical control, normally the job of a radioman. If one is a yeoman, that person can expect to operate an OCR typewriter, or a shovel or a rake, whenever there's a grass fire.

Despite the remote location, wild animals, and the daily trek up and down the mountain, the men and

women assigned to Mount Santa Rita enjoy their surroundings.

Morale is high and most of the men and women are eager to extend their tours. The crew is a tightly-knit family that works and plays together. Evidence of this is revealed by the three Defense Communications Agency awards on the walls in the OIC's office; most notable are two very ornate plaques dated 1979 and 1980.

"It's like a big family," said the master chief. "We live comfortably. In our small Bay View dining facility, contract workers prepare and serve some of the best chow I've ever tasted. We have our own small Navy Exchange outlet, TV lounge, library and recreation room. And we have our pet monkeys, led by an old geezer we call Chief George (no relation to the writer) who visits the station almost every morning for breakfast.

"The only thing that annoys me about being up here," said Taylor, "is when people ask me, 'Where on earth is Mount Santa Rita?'"

—Story and photos by PHC Ken George

*Hundreds of thousands of cross connection panels meshing communication facilities in the area are housed on the fourth deck of the link station.*



# Desert Navy



In the midst of the desert, somewhere between El Paso, Texas, and Las Cruces, N.M., lies a small but active Navy command, the Naval Ordnance Missile Test Facility. Surrounded on all sides by the Department of the Army, NOMTF steadfastly maintains a Navy presence in the desert. The loyal men and women of NOMTF are marking the Navy's 35th year at White Sands Missile Range, a celebration not easily accomplished considering the hardships of the climate and the good-natured ribbing of the host command.

The Naval Ordnance Missile Test Facility began as a unit in 1946 to assist the Army in unraveling the secrets of captured German V-2 rockets. At that time, White Sands was a 12-block square of real estate with a dirt road leading to the highway some distance away. The original Navy construction consisted of 70 Quonset huts, some of which are still in use today.

The small but hardy band of sailors worked and played hard and were always quick to spot one of their own.

They adopted a stray dog that only a sailor could love and named him Guns. Rumor has it that Guns associated with only Navy people and could be seen riding in Navy vehicles, his ears flapping in the wind, sitting erect. Upon meeting his demise—he tangled with a coyote—Guns was accorded a memorable funeral with full military honors. Interment was in front of the BEQ where a suitable headstone was erected.

But serious work was also going on. Rockets were tested and missiles launched. In 1950, the Naval Ordnance Military Test Unit participated in the first successful launch of the *Talos* missile, a weapon still in wide use today. In 1950 the unit also became a facility, and the name was changed to Naval Ordnance Missile Test Facility.

In 1953 the USS *Desert Ship* (LLS 1—denoting land-locked ship) was completed. Desert Ship is the complex of missile assembly and checkout buildings, deck launchers, radar and steel launching towers and other struc-

tures that make up the Navy Unit at White Sands. It is a constant reminder to the Army host command that the Navy is present and afloat.

In 1954, NOMTF made history with the successful launching of the *Viking II* missile. The launch set an altitude record for single stage rockets, a record that remained unbroken for several years.

Through the years the Navy involvement at White Sands continued to grow. With a mission to support the guided missile and rocket programs of the Department of the Navy, including ground and flight testing of rockets and missiles, the folks at NOMTF were kept busy. After an initial humble start, 25 years later the facility had expanded into modern buildings. Some of the original huts were still in use, and one was a favorite relaxation spot for personnel—the CPO Club.

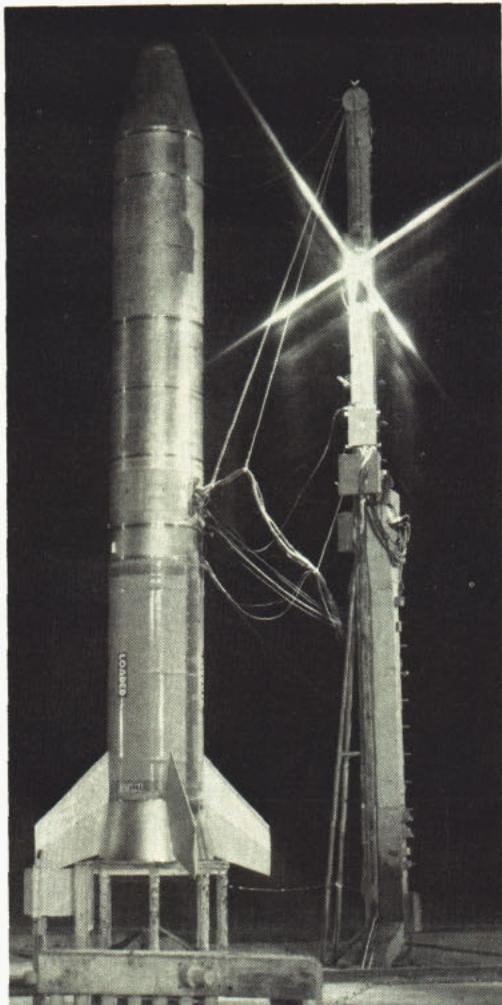
*Testing and firing missiles is big business at the Naval Ordnance Missile Test Facility, White Sands, N.M.*

The NOMTF sailors adopted a new mascot, this time a goat which was appropriately named Chief. Chief resided in the CPO Club, mingling freely with the guests and, so the story goes, occasionally joining them for happy hour.

Desert Ship was hard at work testing surface-to-air missiles by 1969. The close-in-weapons system was added to the testing schedule in 1970. *Terrier* and *Tartar* were all part of an intense effort for the ordnance people.

NOMTF's 25th anniversary in 1971 was a good reason for a new addition to the desert landscape. A suggestion to erect a flag and signal pole resulted in a ship's mast being installed, most appropriate for a ship of the desert.

Missiles and rockets are the business at NOMTF, and the command has been involved in the testing and firing of most of the Navy's weapons sys-



tems. The *Aries* missile and the *Standard* missile, part of the *Aegis* weapons system, underwent testing at Desert Ship. Tests of the upgraded *Talos* and *Terrier* are commonplace. NOMTF went Hollywood in 1978 when it was selected to participate in the sound track used in the movie "The Empire Strikes Back."

Despite their small numbers, the Navy people at NOMTF have a deep commitment to esprit de corps. The annual Army-Navy game continues to provide an opportunity for competition in other than football. Each year the Navy white hats plot to appropriate the cannon from in front of the Army headquarters building. The Army retaliates, on occasion, by placing a guard around the cannon. The Navy is often successful. Their latest coup,

painted a distinguished haze gray, was proudly displayed in front of the officers' club. The bluejackets were sternly admonished to restore the cannon to its brass finish and remove it to its rightful place at Army headquarters or face charges of unlawful possession of a deadly weapon.

The colorful history of the small Navy facility continues to be written. While much can be said of the accomplishments over the past, it has always been the matchless spirit and teamwork of the officers, white hats and civilians who have served in the desert that have made the Naval Ordnance Missile Test Facility a truly unique and outstanding command for the past 35 years.

—By Nancy M. Hamilton

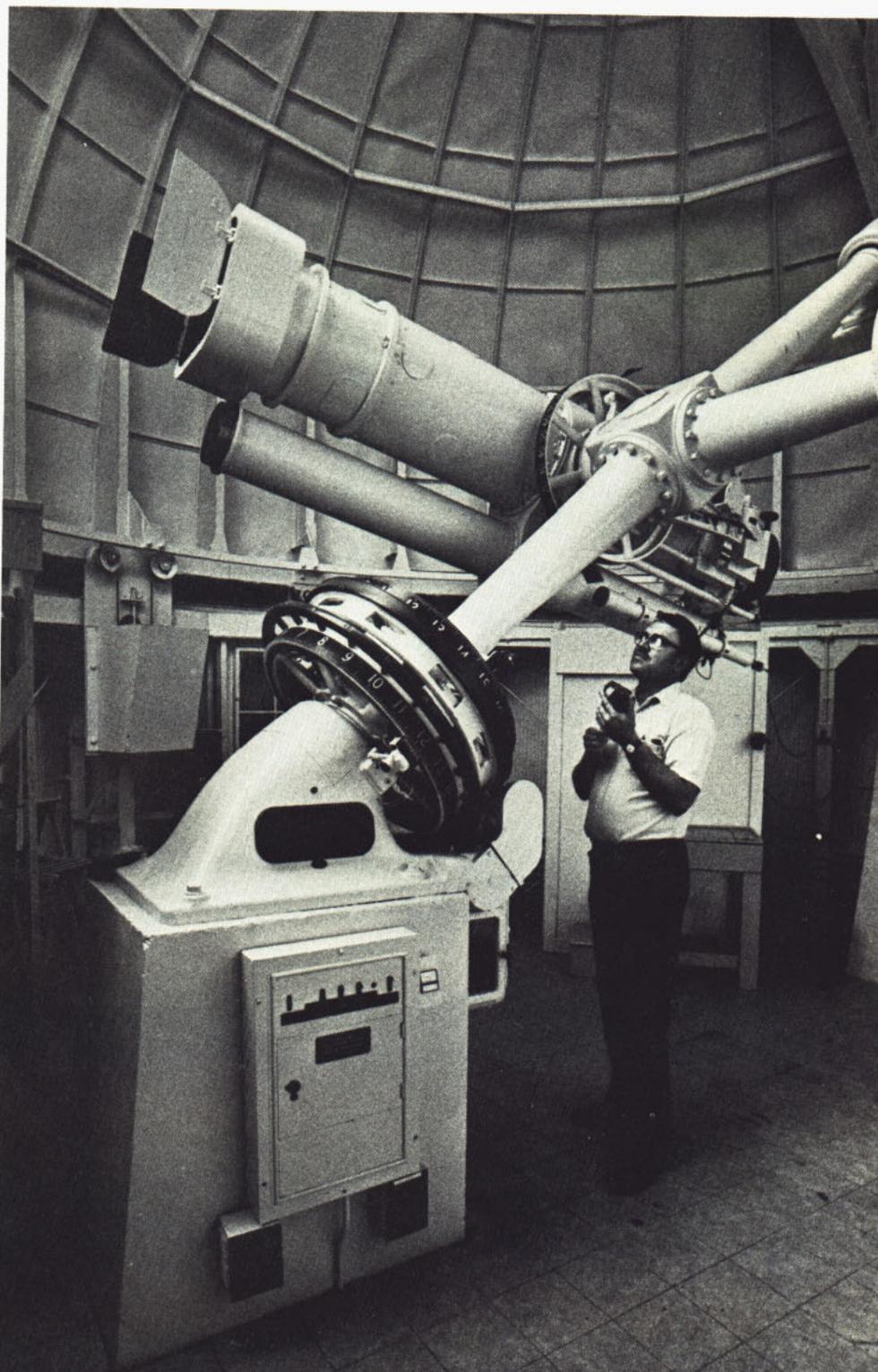
# Search for the Tenth Planet

There is considerable dismay aboard a Navy ship when the position indicated by the navigator turns out in error. During recent years, U.S. Naval Observatory astronomers—who prepare the astronomical tables used to help pinpoint those positions—have had their share of difficulties, too. Uranus and Neptune, two planets on the outer edge of our solar system, haven't been showing up where predicted by astronomers.

Naval Observatory astronomers Dr. Bob Harrington and Dr. Tom Van Flandern think they know why. Both agree that there may well be more than the currently accepted nine planets. An as yet unfound 10th planet could be at the root of predicting movements of the seventh and eighth planets. Van Flandern and Harrington are looking for the culprit.

Their search is part of the mission of the U.S. Naval Observatory in Washington, D.C. That organization is tasked with providing navigational data for ships at sea as well as basic positional data for current and future positions of the sun, moon, planets and stars in the sky. The latter information is used by astronomers all over the world as well as by other U.S. government agencies such as the National Aeronautics and Space Administration.

According to the head of the observatory's Nautical Almanac Office, Dr. P. Kenneth Seidelmann, the observatory staff has been wrestling with the problem of errant planet positions for some time. In fact, one of Sei-



*Dr. Bob Harrington and the U.S. Naval Observatory telescope he has used to conduct two photographic searches for a 10th planet.*

delmann's predecessors, Simon Newcomb—whose stern visage looks down on Seidelmann from an aging painting over his desk—directed his astronomers to get the wayward planets back into smart marching order back in the 1890s.

That was not an easy task then, and it still isn't, even with today's modern high speed computers.

Our solar system is complex. It is not simply a matter of planets going in circles around the sun. In fact, each planet follows an elliptical or oval path. Its speed causes it to attempt to spiral off into space, but it is kept in check by the powerful gravitational pull of the sun. Also, the planets have gravitational pulls of their own and attract each other. This attraction varies with their masses (the amount of material they contain) and the distances separating them.

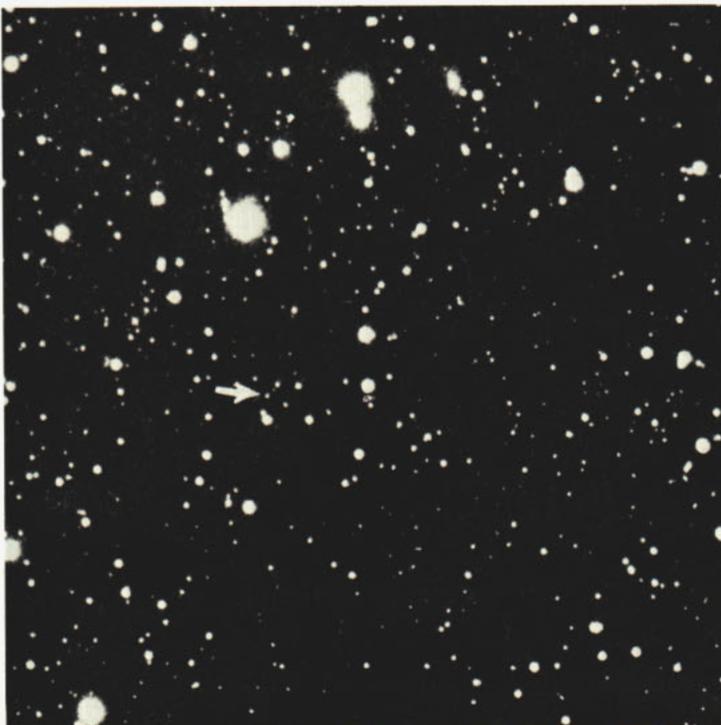
Seidelmann pointed out that the planet Neptune was found in 1846 following calculations of the various attractions and concluding that some unseen mass was distorting the orbit of the planet Uranus. A British and a French astronomer working independently with data on orbital residuals—the differences between predicted and observed positions—of the planet Uranus deduced the existence of an eighth planet and then predicted where it could be found. A German astronomer, acting on figures calculated by the French astronomer, found Neptune within hours of the start of his search.

The ninth planet, Pluto, was found in a similar manner in 1930 by Clyde Tombaugh, a young man hired by the Lowell Observatory in Flagstaff, Ariz., to conduct a search based on calculations by observatory director Percivell Lowell.

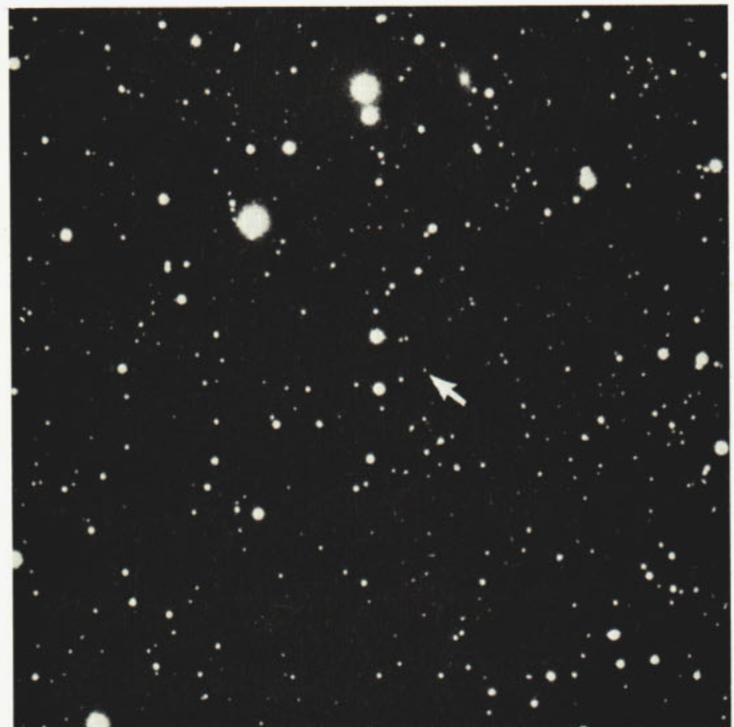
The actual task involved taking a number of photographs of an area of the sky on successive nights. These photos were then examined to see if any of the millions of images on them had moved in the interval between the exposures. Stars are relatively fixed in their positions. A planet, traveling in its orbit, would appear to move against the fixed star backdrop. Pluto was found after only a few months of careful searching.

Seidelmann reserved some enthusiasm for the search for another planet, though. He pointed out that during the 1800s, many astronomers—after observing variances in the orbit of the innermost planet, Mercury—theorized the existence of another planet even closer to the sun. It was later determined that Mercury was not wandering but that its light was being bent by the sun's gravity. ( → )

## Discovery of the Planet Pluto



January 23, 1930



January 29, 1930

*Copies of small sections of astronomical photos on which the ninth planet, Pluto, was found illustrate the nature of the problem facing astronomers in their search for a 10th planet. The ninth planet, indicated by arrows, was discovered Feb. 18, 1930, by Clyde W. Tombaugh at the Lowell Observatory in Flagstaff, Ariz. The motion of Pluto against the fixed background of stars took place over a space of six days. Photos courtesy of Lowell Observatory.*

# Tenth Planet

Today's search for a 10th planet is going forward on two fronts. Van Flandern is attacking the problem by making calculations based on historical observations of Uranus and Neptune.

Using recorded observations of planetary positions and comparing them with current data, he hopes to define what magnitude of forces could influence the planets as they have. Knowing these forces may enable him

to point a telescope at a calculated position to locate the intruding planet causing all the differences from the predicted positions.

Meanwhile, Harrington is basing much of his work on investigations of the satellites of Neptune. He has used the Naval Observatory computer facility to see just what kind of planetary body could have disrupted Neptune's satellites.

Harrington said that one satellite rotates in the wrong direction (in retrograde, as astronomers say), while the other is in an unusually large and elongated orbit.

"I built a normal satellite system for Neptune in my computer," he said. "Then I just threw a variety of sizes of theoretical planets at that system with my computer until I found a combination of size and speed that disrupted the artificial Neptune system into the state we observe today," he concluded.

Harrington has twice conducted photographic searches for a new planet. Neither has been successful. Both he and Van Flandern feel they need better values of the masses of Uranus and Neptune to crank into their calculations. They may have to await the 1986 and 1989 arrivals of the Voyager spacecraft at the two planets to get that refined data, though.

Mass information for Pluto was unexpectedly provided by another Naval Observatory astronomer, Jim Christy, when he found a satellite of Pluto in June 1978. According to Harrington, "With that discovery, we suddenly knew for sure that Pluto's mass was too small to be influencing Uranus and Neptune as much as the observed variances. Something else had to be involved."

The problem may be solved soon—or it may not. "Two weeks ago I thought I knew where it was," Harrington said. "Then a week ago I wasn't so sure. But when I feel confident of my calculations, I'll look again."

Each new piece of evidence removes a little more uncertainty. Each more refined value brings discovery of a 10th planet perhaps a bit closer.

If Naval Observatory astronomers locate it, they will certainly become famous. And they will also know the professional pride that a navigator feels when, after plotting a path across thousands of miles, he makes landfall precisely when and where he predicted.



*Dr. Harrington examines one of a pair of photographic plates to be placed in a blink comparator, an instrument that superimposes thousands of star images recorded on successive nights. Any image that has moved in the interval will appear to "jump" as the comparator "blinks" back and forth between the two plates.*

—Story and photos  
by Lt. Alan J. Dooley

# Rapid Runway Repair

These days, Seabees are playing a new "what if" game in their all-out effort to stay combat-ready. It's called rapid runway repair (RRR) training.

The Atlantic and Pacific fleets each have four Naval Mobile Construction Battalions. These builder-fighters deploy to U.S. military sites around the world for nine-month periods of construction activity. The deployments are

separated by five-month home port periods for outfitting and training.

Their job, and that of 17 reserve battalions standing by throughout the United States, is to be ready for any kind of wartime construction support to the fleet. One possible need is the rapid repair of battle-damaged airfields.

Once Navy instructors looked at the way the Air Force "Red Horse" battalions performed the RRR function, they quickly adapted it to the Navy's needs and put together a training course now administered at the Naval Construction Battalion Center in Gulfport, Miss.

The course starts with a study period, then is followed by practical application on a large portion of a simulated bombed-out airstrip—complete with crater holes, debris and smoke. The smoke reminds Seabees that they could be working in chemically-hostile environments.

Seven reserve Seabee instructors, assigned to the 20th Naval Construction Regiment, recently completed the course and are ready to share their expertise with reserve construction battalions across the United States. Most of their teaching responsibilities will be in theory; the hands-on training will be conducted in Gulfport.

Repairing a runway might sound easy: Fill up the holes, buckle some matting units together, drag them over the holes and blow the "all clear" whistle. Not so.

A battle-scarred airfield first has to be evaluated to determine just where to place the 50-by-5,000-foot replacement strip. Then, flatbed trucks move matting units into place for assembly. Front-end loaders, graders, bulldozers and sweepers go to work. Dump trucks haul backfill material to top off debris-filled holes.

While all of that is going on, others construct patches and more crews sweep the area clean. The real villain in the scenario is that small foreign object on the ground that could be sucked into a jet intake, putting a plane out of commission.

As workers pull patches into place and sweeping machines whirl away, several line painters affix the bright center line onto the "new" runway. The whole operation is a battle the Seabees wage against time. Can they help put U.S. warplanes back into the air before enemy bombers return?

Master Chief Constructionman C.G. Levelle of the 20th Naval Construction Regiment said, "We don't train individuals. We train Seabees to function as a team by using the skills they already have."

This is a theme that runs through the Seabee story since the first battalions were created in 1942: Teamwork is the vital ingredient that gets the job done. The Seabees' answer to the challenge of rapid runway repair is the same as with any other aspect of wartime construction—can do!

—By JOC Ruth W. Jackson



# USS Acadia

# Its Customers Vary in Size

The Navy's newest destroyer tender, USS *Acadia* (AD 42), was commissioned June 6 in San Diego. *Acadia* is the second of four new *Yellowstone*-class tenders, a modification of the *Gompers* class, and specially designed to serve DD 963-class destroyers, CGN-class cruisers and FFG 7-class frigates.

But service is not limited to just these types of ships. *Acadia* can assist almost any ship in the fleet from a 150-foot armed patrol boat to the Navy's largest surface ships.

The repair department can tackle a variety of jobs. In addition to the usual pipe, machine and carpentry shops, *Acadia* also carries specialty services such as an optical shop, typewriter repair and a sail and canvas shop. A



special facility for the repair of nuclear propulsion plants and armament is also available.

Four huge cranes on *Acadia's* deck handle antennas, torpedoes, machinery, provisions and small boats; they can even lift an entire gas turbine engine directly out of a ship alongside. A dozen small craft are available to transfer material and people to nearby ships.

Captain Brenton P. Hardy, *Acadia's* skipper, is a 22-year Navy veteran. He joined the reserves during his sophomore year in college and received his commission upon graduation. Hardy, a native New Englander, visited *Acadia's* namesake long before his ship was built. "My grandmother took me on vacations to Cape Cod and Acadia

National Park," he said. *Acadia* is named for the national park on Maine's seacoast.

The tender will provide more than just repair services. It has the latest personal convenience services plus medical and dental facilities to accommodate a potential crew of 1,595, including a flag. Extra electrical

generators, water distilling capabilities and transfer equipment can provide electricity, steam and fresh water to ships alongside for repair.

The evergreen and sun on *Acadia's* crest are symbols of life and define the tender's mission: a life-giving support for the ships it serves.

—By JO3 Vaden Robinson Jr.

## Acadia's Engineer

Geoffrey Calabrese loves a challenge. He began his Navy career as a recruit and worked his way up to chief petty officer in just eight years. But for someone like Calabrese there had to be something more.

"Starting as a fireman recruit boiler technician and working my way up the ladder was gratifying," said Calabrese, "but the more responsibility I had the more I liked it. So I went for chief warrant officer.

"After reaching the top of the warrant program, I still wasn't satisfied. That's when I tried the Limited Duty Officer Program."

Challenges were successfully met.

The former fireman recruit is now a lieutenant commander and the engineer of USS *Acadia*. His father, Guido Calabrese, traveled from Connecticut to San Diego to be on hand for the commissioning of *Acadia* and his son's latest promotion.

"I always thought he'd grow up to be a carpenter," said the elder Calabrese. "Well, he came close—he's an engineer."

With 19 years of active service, Calabrese isn't ready to quit. "I like pressure; it keeps me busy," he said. "My ultimate goal is to achieve command at sea."

—By PH2 Lon Lauber



# Currents

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## VEAP Extended

The Veterans Educational Assistance Program, which enables service members to contribute a monthly or lump sum payment to an educational fund, has been extended to Dec. 31, 1982. The personal contribution is matched two for one up to \$5,400, giving the member a potential educational fund of \$8,100. Lump sum payments, not exceeding \$2,700, may be made at any time by eligible active duty members. The service member can deposit a lump sum payment even after monthly allotments have been made. However, the total personal contribution, including the monthly payments in deposit and any lump sum contribution, cannot exceed \$2,700. If participating in VEAP by allotment, the minimum contribution is \$25 per month and the maximum contribution is \$100. If a service member on active duty discontinued participation in VEAP in the past and withdrew his/her contribution, the service member may re-enroll and still contribute up to \$2,700 maximum. More information on VEAP may be obtained by calling Autovon 224-5934 or commercial (202) 694-5934.

## CNO Emphasizes New 'Get Tough' Drug Program

Chief of Naval Operations Admiral Thomas B. Hayward made two strong points recently about the recent news media coverage given to drug abuse in the Navy. In an interview with a nationally distributed newspaper, he said he is deeply disturbed by the distortion evident in some media reports, such as one which stated that 60 percent of the crew of USS *Forrestal* (CV 59) had used drugs or alcohol during the last 30 days. The very narrow sampling of a few sailors was taken about six days after the ship had pulled into port following more than 50 days at sea. (The facts were 60 percent of the 424 E-1 to E-4s surveyed said they had used drugs or alcohol once in the preceding 30 days.) He said he wants Navy people to know he has not lost confidence in the professionalism that is so evident in their performance. CNO also said he wants everyone to know that the Navy is aware that it has a drug abuse problem—and that it has adopted a “get tough” attitude toward solving it. A number of specific corrective measures have been taken recently—aimed both at detecting drug abuse and giving professional help to drug abusers who truly need and want it. Admiral Hayward said, “The country needs to know we have the best alcohol rehabilitation program in the nation today. We are determined to create the same kind of professional capability in drug rehabilitation.” He added that the Joint Chiefs of Staff are working together on the problem to see that no avenue of possible corrective action is overlooked. When traditional Navy pride and professionalism is working right, he said, a division or work unit will not allow a shipmate to abuse drugs and bring down the superior performance level it worked together as a team to develop.

## New Hospital at San Diego

A ground breaking ceremony for the new San Diego Naval Regional Medical Center was held on Oct. 3. The Surgeon General of the Navy, Vice Admiral J. William Cox, was the principal speaker. The current commander of NRMC, Rear Admiral E.P. Rucci said, "We look upon this ceremony as the beginning of a much needed medical facility that will serve more than 350,000 people in the area." The medical center will be one of the main treatment centers for casualties in the event of war or conflict and will also serve the San Diego area for casualties of major natural disasters. The new facility will continue to support reciprocal training with civilian institutions throughout California. The medical center, which will be the largest in the Navy, is designed to make the flow of patients and staff through the structure easy and economical. Examples of this are automated energy monitoring devices and the use of natural lighting to save energy bills. The 760-bed hospital will feature modern information and computer technology. Computers will assist in patient registration and reporting test results. They will monitor patient physiology and interpret medical data.

## Get Full Pay While Studying

The Enlisted Education Advancement Program is soliciting applications from the fleet. Under this program, sailors receive full pay and allowances while enrolled full time in rating-related or management curriculums at selected junior or community colleges. Individuals are responsible for their own tuition and expenses as they earn associate degrees. OpNav Notice 1510 of Sept. 24, 1981, contains information on the 1982 program and a sample application. Deadline for submission is Feb. 1, 1982. Eligibility requirements are:

- Have at least four years (or E-5 with a minimum of three years), but no more than 14 years of active duty service, as of Sept. 1, 1982.
- Be a high school graduate or have passed the General Educational Development test.
- Have a general classification test (arithmetic test) (GCT/ARI) or work knowledge/arithmetic reasoning (WK/AR) score of at least 110.
- Be recommended by the commanding officer.
- Be eligible for rotation to normal shore tour with prospective date of rotation between Sept. 1, 1982, and Aug. 31, 1983; or, if on a normal shore tour, have at least two years remaining on shore duty.
- Have no record of conviction by courts-martial, non-judicial punishment or by civil court for anything other than minor traffic violations during the two years prior to the expected date of enrollment.
- Must agree to re-enlist or extend enlistment to have six years of active-obligated service. (This includes up to two years to complete degree.)

Further information can be obtained from local Navy campus education specialists or from the Office of the Chief of Naval Education and Training at Autovon 922-1757 or commercial (904) 452-1757.

# Mail Buoy

## Not the First

SIR: Your August '81 All Hands included an article on a special warfare group operation in Seattle which stated that the airlift of a PBR from SBU-11 from California to Seattle was believed to be a first. Please take note that on Dec. 10, 1979, I was officer in charge of Special Boat Unit 24 when we airlifted two Mini-Armored Troop Carriers (MATCs), a spare engine, weapons, ammo, spare parts and a 13-man detachment from Norfolk to Roosevelt Roads aboard an Air Force C-5. The detachment provided waterborne security to the base after the shooting of our sailors earlier that month and is still in place in Roosevelt Roads, although with different craft from SpecBoatRon Two.—Lt. Cmdr. M.A. Gorman

• As we stated—this “was believed to be the first time a Navy vessel was transported by the Air Force.” We purposely said “believed” since human memory, we learned years ago, usually has a short lifespan.—ED.

## Old Salts

SIR: While reading the August 1981 issue of All Hands, I was very impressed by the

articles on the famous Old Salts and USS *Constellation*—A Bright Navy Star.

Well done!—GMGI Marlin Schreck

SIR: I enjoyed the story (August 1981) about the “Famous Old Salts” in the 1888 photograph. The most significant thing about these men, to me, is the fact that they were quite “old” when they enlisted or re-enlisted as “career sailors.” Our modern Navy would not allow any of these people to don the uniform at such advanced ages. Nowadays, I suppose, an “old salt” is anyone in a second enlistment.—Lt. Robert G. Schipf

## Memories Don't Lie

SIR: The August 1981 All Hands with the front cover of a sailor in bell bottom whites brought back fond memories; however, there is one discrepancy in the way he is wearing the uniform. The trousers should have inverted creases along the sides as was customary with the old style uniforms.—UTCS J.M. Currie

• Yes, we're quite aware now—however late the date—that the cover subject was wearing his uniform incorrectly.—ED.

## Golden Earrings

SIR: Some of my shipmates and I have recently been having discussions about various Navy traditions. One of the subjects discussed was the wearing of a single gold pierced earring signifying the wearer had “sailed the seven seas.” We would like to know first if this is a recognized tradition in the U.S. Navy, and second, what are the seven seas?—MAC K.E. Mallonee

• A single, gold pierced earring does not signify that the wearer has sailed the seven seas. The earring custom dates back to early England when an earring in a man's left ear meant that he was a survivor of a shipwreck. It advertised that he was a charity case and people were supposed to help him out by giving him money—it was a type of begging.

As for the Seven Seas: In order to “qualify” for the Ancient Order of Magellan (or the Around the World Certificate) one has to have sailed all of the following: Atlantic, Pacific, Arctic, Antarctic, Indian, China Seas and the Mediterranean. But—according to Webster—the meaning of Seven Seas is any and all of the world's oceans and waters.—ED.



“Cast off the sternline”



“Engine ahead 2/3”



“Would Capt. Bligh consider casting off the bowline?”

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It's the  
right time to stay.

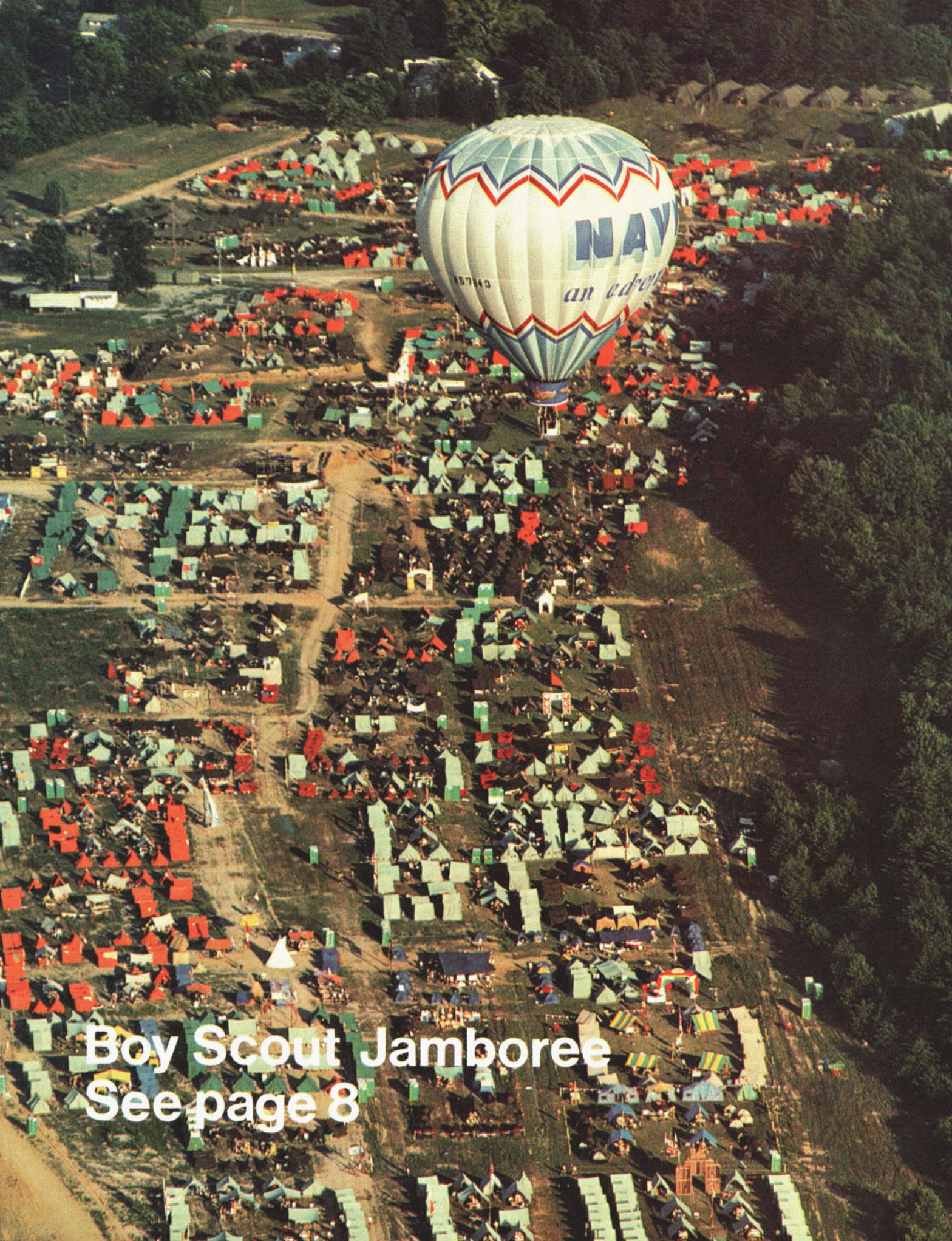
# There's a BAQ allowance for single CPOs and officers.

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HE'S GOT THE FACTS.**



Boy Scout Jamboree  
See page 8