ALL HANDS
FEVERWARY 1982

in this issue
Sixth Fleet Flagship
A Mine Countermeasures Squadron 14 helicopter operating from USS Nashville (LPD 13) and the crew of the minesweeper USS Illusive (MSO 448) teamed up recently to carry out the first underway surface-to-air and air-to-surface transfer of minesweeping equipment in the Sixth Fleet. The Sea Stallion helicopter is about to hook onto mechanical minesweeping gear towed by Illusive. The exercise took place in the Mediterranean off the Spanish coast. Photo by PH2 Tibor Zoller.
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Front: Cmdr. Daniel Assad, a dentist aboard USS Puget Sound, and Dental Technician First Class Reulito Gonzales treat a crew member from a visiting ship.
Back: Puget Sound may be a flagship, but it is still a hardworking repair ship. Both photos by PH1 Doug Tesner.

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The Navy’s Nuclear Propulsion Officer Candidate Program offers you a secure future with responsibility, authority and the chance to command—plus a paid-up college education.

Two young men are in their junior year at a major university—they’re engineering majors, and they’re knocking down pretty good grades, maintaining better than a 3.3 average. With that kind of work, there is no doubt that they are exceptional students. Because they are exceptional, industry wants them—so does the Navy.

The Navy comes knocking on their door and starts talking to them about a program that’s been around but one which isn’t all that well-known. It’s the Navy’s Nuclear Propulsion Officer Candidate (NUPOC) Program. This program was developed as an incentive to attract highly qualified applicants for the Navy’s nuclear officer corps, with the basic objective being to attract officers for the nuclear submarine service.

The students hear the recruiter out and spend the next few days mulling over the pros and cons of the proposal—and there are many to consider. One student finally decides against the program; he’s recruited by industry a year later when he’s a senior. The other student decides to grab the opportunity offered by the Navy. Fine for both—now let’s look down the road five years later after their graduation from college.

The student who opted for private industry is working at a nuclear power plant and making about $27,000 a year—not bad pay, but he started at $22,000 and ended up in quality control, looking at widgets. He still has to go a few more years before he’ll be in a position where he supervises several people. Student number one has discovered that he’s been caught in the “compression factor.” He finds that after working for the company for several years, new people are being hired at his present rate of pay—not at what he got earlier.

Student number two—starting with the same qualifications as his roommate—isn’t exactly rich, either. But the past seven years, two in college and five since then, have turned out to be years when he had money in the bank and—gilding the lily, so to speak—he has plenty of people working for him. He has more responsibility and authority than many of his...
NUPOC

College seniors may apply for the Nuclear Propulsion Officer Candidate (NUPOC) Program and receive approximately $1,000 a month during their last year of school; with additional bonuses their pay could total more than $10,000 before graduation.

College juniors may apply for the Navy’s Exceptional Student Program and also receive approximately $1,000 a month during their last two years of school. These applicants receive additional bonuses that could make the grand total more than $20,000.
said, "and—with recent pay initiatives—recall is up, too. Over the past several years, we averaged one or two officers coming back into the nuclear Navy after they had resigned. This year, we've got seven already at the lieutenant commander level.

"Accessions are up; last year we put in over 500 people from all sources into the nuclear submarine force, and that's a record. It looks like we're going to beat that record this year, hands down."

The admiral added, "We have signed up more people as we enter the fiscal year (October 1981) than we attained as accessions when we finished last year. We finished up that year with 138, and we now have 161 signed up for this year.

"Because of the NUPOC Program, we have 100 more signed up for 1983 and 1984. The program is paying off, but the trouble is, not too many people—particularly parents of college students today—are aware of it."

Got a smart young man in your family looking for a nifty $30,000 in financial aid, bonuses, pay and training—plus a secure job right away? Does he have an urge to head up his "own company"? That toll-free number, again, is: (800) 841-8000—probably the best buck you never spent.

—JFC

The submarine USS Ohio (SSBN 726), the Navy's newest nuclear-powered strategic missile submarine, during sea trials. Photo by PH2 William Garlinghouse.
Dawn’s first light flared up to crest the eastern horizon as USS Independence (CV 62) swung leeward through a wide turn. The carrier’s long, curving wake glistened in the early morning light, and the flight deck eased to life as sailors prepared for another long day in the South China Sea.

Strapped snugly into the rear seat of an F-4 Phantom, Lieutenant Junior Grade Dave Wheat, a 24-year-old radar intercept officer, pored over the pre-flight check-off list. He ignored the high-pitched whine of the jet engines as they revved up.

Seconds later, the yellow-shirted flight deck officer signaled “thumbs up” to the pilot. The warplane leaped forward, catapulted from the deck and joined a flight of other Phantoms for the day’s mission deep inside North Vietnam.

It was a mission from which four Phantoms would never return.

Wheat’s aircraft was shot down over enemy territory, an action that sentenced him to nearly seven and a half years in a Hanoi prisoner-of-war camp.

When hit, Wheat and the pilot bailed out. Wheat suffered a broken leg and soon was captured; the pilot never was accounted for. It was Sunday, Oct. 17, 1965.

For nearly a year, Wheat was isolated in a small room before gaining the company of a cellmate. Until then, his only weapons against loneliness had been his imagination, ingenuity and a continuous but futile battle with rodents and insects.

Freedom finally came to Wheat and his fellow prisoners in 1973. Wheat decided to remain in the Navy and undergo pilot training. He returned home to Duluth, Minn., for six months recuperative leave and took private flying lessons. During that time he met his future wife, Ginger Sauer. He received his naval aviator’s wings in 1975.

Today, at 40, Commander Wheat is still on active duty, and he wears his gold wings proudly. The years as a POW, indelibly etched in his mind, give him a unique insight into his job as training officer aboard the aircraft carrier USS Ranger (CV 61).

“I never feared flying, not even after returning from Vietnam,” said the commander recently. “It didn’t bother me a bit to get back into a plane. In fact, when I returned from Vietnam, the offer of flight training had a lot of influence on my staying in the Navy.”

Remembering the years as a POW, Wheat admitted he still can vividly recall the 88 months as a prisoner, almost a month at a time. As he put it, “There wasn’t a lot of activity going on in those days for us, so we had plenty of time to remember things.”

Of course, that period was not a high point in his life; but with his own brand of...
humor he added, "There aren't a lot of good things I can say about being a POW, but I must admit, I had an excellent savings program. I didn't spend a dime the entire time I was there.

"I also got a better perspective on life. Today when things get tough, I look back on the experience and say, 'Hey! This really isn't all that bad. I'm here, I'm free, and things will soon get better.' They always do."

In dealing with problems, Wheat said he can now sort through questions and decide on what really is or is not important. "I can take a relaxed attitude in many situations while others around me are concerned."

Wheat feels he had no problem readjusting to either his freedom or to the Navy upon returning home, nor did he expect any special considerations—except one.

"We (POWs) discussed the idea of receiving special treatment after being released," said Wheat. "We all agreed that the only consideration we wanted was the choice of our first duty assignment. Other than that, the men all wanted to earn what they got."

Wheat is a member of Nam Prisoner-of-War, a social organization of about 400 former POWs from all branches of the military. Once every three to five years, they hold reunions which provide time for friends to reaffirm the bond that grew through the days, months and years in confinement. It's a bond that can be understood fully only by those within the brotherhood.

"During the years as POWs, many close and long-lasting friendships were nurtured," said Wheat.

The reunions also give former POWs a chance to toast companions who are present in spirit only and to reminisce about the experiences that will keep the prisoner-of-war camps alive in their minds forever. For Wheat, one such experience was when he left Hanoi to come home.

"I'll never forget that day," he said. "As we watched the Air Force C-141 fly into Hanoi, many things went through our minds. We really had no idea what was happening until just before we left.

"Once we were all in the plane, you could see that everyone was happy, but there wasn't a big change in attitudes; we were still on Vietnamese soil."

That experience was brought back to Wheat last January when Ranger was off Iran as the 52 American hostages were released. He admits to feeling close ties with the former hostages and knows how they must have felt on leaving captivity. At that time, Wheat recalled his final moments in Vietnam:

"As the plane lifted off, heading for the horizon, jubilation broke out on board. It was really a thrilling experience, one I just can't describe. Most of us always felt we'd leave someday, but at that moment, we all realized someday was not a dream — but today. We were going home."

—Story and photos by JOC Gary L. Martin

Above: Cmdr. Wheat enjoys a quiet moment with an old friend. Left: Lt. Ed Vogel (left), assistant training officer; Cmdr. Wheat; and NCCS Roger Talob, career counselor, review a list of Rangermen eligible for promotion.

FEBRUARY 1982
An Investment in Freedom

This nation’s largest and most powerful submarine, the USS Ohio (SSBN 726), was commissioned at Groton, Conn., on Nov. 11, 1981, before a crowd of 8,000.

Nearby—and sporting a 60-yard-long banner proclaiming “Good Luck USS Ohio”—was the Ohio’s sister ship, the Georgia.

Principal speaker at the commissioning was Vice President George Bush. Following an introduction by Navy Secretary John F. Lehman Jr., the vice president said, “The Ohio represents the latest commitment of the people of the United States to peace. If she is successful in her life’s mission, she will never fire a shot.”
Bunting, ribbons, white gloves and ceremonial swords were the setting for the commissioning of the powerful USS Ohio (SSBN 726).
“I wish, with all Americans, that the Soviet Union was not expansionist and aggressive,” he said. “If they were not, then we would not be here today. But the Soviets have shown over and over that they are, and so we are here today.

“The Ohio will violate no sovereign waters, threaten no innocent peoples, carry out no aggression. She will, in the tradition of her breed, run silent and deep—an instrument not of war but of our will to live free and in peace.”

Also present were the Chief of Naval Operations Admiral Thomas B. Hayward; Sen. John Glenn of Ohio and his wife Annie Glenn (who was the ship’s sponsor); and Admiral Hyman Rickover, Deputy Commander for Nuclear Propulsion, Naval Sea Systems Command.

Admiral Rickover, known as the father of the nuclear Navy, was introduced as “the great American patriot” by Vice Admiral Steven A. White, commander of Submarine Force, Atlantic Fleet. As he stood to address the ship’s crew and spectators, he was given a standing ovation.

In his remarks, he said, “I was on board the Ohio during her first sea trials. I observed the skill and dedication of her crew. I can therefore affirm that no enemy can feel other than ‘fear and terror’ with this ship at sea. It is by such means as this ship that the chance of war is lessened.”

Ohio will initially be armed with 24 Trident I (C-4) missiles, to be followed with the new Trident II (D-5) missile now under development. The Trident I missiles have a range of 4,000 nautical miles and give the Ohio the ability to maintain an alert patrol in an area 10 times the size of any previous U.S. fleet ballistic missile submarine. It will be a vital and awesome strategic deterrent. Ohio and her sister ships will play a key role in the strategic triad of bombers, land-based and sea-based missiles well into the next century.

With a complement of 15 officers and 142 enlisted men, the submarine has two complete crews (Blue and Gold) which alternate on 70-day patrols. After a shakedown cruise in the Atlantic and Caribbean, Ohio will return to the shipyard at Groton for about two months. Following this shipyard period, the ship will transit to the Pacific where it begins a nine-year deployment cycle of patrols and 25-day repair and testing periods.

Measuring 560 feet in length, Ohio displaces 18,700 tons. It is the largest submarine ever constructed in our country or the Free World.

Aboard the Ohio, just aft of the sail, Captain Alton K.
Thompson, the commanding officer, read his orders, assumed command and placed the first Ohio-class Trident submarine in commission.

Before the ceremony, Captain Thompson told a press conference, “We spent 45 days at sea testing all the systems on board. I have complete confidence in my ship.”

At that same meeting, the commanding officer of the Gold Crew, Captain Arlington F. Campbell, was asked, “Do you feel Ohio is worth its price tag?” He replied, “I think we got our money’s worth. It’s an investment in the freedom of this country, and that’s worth whatever it costs us.”

As Vice President Bush said, “The Ohio embodies the resolve of the people of this country that the foes of freedom attack only at unthinkable peril. In her strength lies our safety.”

—Story by PH2 Robert K. Hamilton
—Photos by PH1 Jim Preston and PH2 Hamilton
If there is any duty that perfectly matches the recruiting slogan, "The Navy is more than a job, it is an adventure," it can be found aboard the destroyer tender USS Puget Sound (AD 38), the Sixth Fleet flagship.

The 1,250 men and women aboard work as hard as any sailors in the Navy, but they enjoy the benefits of traveling the Mediterranean the year around.

Homeported in the resort village of Gaeta, Italy, since May 1980, Puget Sound is the principal repair ship for the fleet's surface units. It's the first destroyer tender to be homeported in Gaeta and only the second to be the Sixth Fleet flagship since the end of World War II.

Being the only repair tender in the Med is not an easy role. It supports the maintenance and repair needs of some 25 surface ships at any one time.

The ship's original mission was to provide repair services to destroyers, but the crew supports almost every other type of ship in the area as well. To do this, Puget Sound's repair department is divided into eight divisions—with some 500 people in 77 work centers.

"We have done repair work on everything from an aircraft carrier to a submarine rescue ship," said commanding
Right: MR3 Stephen Hack takes a measurement on a valve with a dial indicator. Far right: The hands of ET1 Robert Gates are a study in precision as he works on a piece of electronic circuitry. Below: An H-46 Sea Knight from USS Concord (AFS 5) delivers supplies to Puget Sound.
officer Captain George W. Stewart. "Just because we are a destroyer tender does not mean that we are limited to the repair of destroyers."

The ship’s many shops—ranging from clock and watch repair to a fully-equipped foundry—can repair just about anything from a hole in the hull to a transistor in the most sophisticated piece of electronic equipment. And the electronics shop is probably one of the busiest shops aboard, repairing various electronic test equipment from other ships.

Electronics and hull repairs are routine assignments, sometimes keeping the crew involved working 12 to 16 hours a day. The repair department also takes care of other jobs such as opening a safe or changing a gas turbine engine in a Perry-class frigate.

"If you were going to compare us to anything, it would have to be to a miniature shipyard," explained Commander Charles Robertson, the repair officer. "We can do just about any job that a shipyard can."
USS Puget Sound
With the variety of work that is done on Puget Sound, the crew must include specialists in many different skills, and, therefore, almost every job specialty in the Navy is represented.

"Molder, patternmaker, lithographer, instrumentman and opticalman are just a few of the unusual ratings we have on board," said the captain.

Supporting the repair department are the supply department's six divisions which provide the parts and tools that keep the repair department operational. The supply department carries an inventory of roughly 60,000 repair parts and material valued at more than $1.5 million.

Also in the supply department are a food service division and a ship's store, which is a one-stop shopping facility called "Med Mart." With more than 1,500 square feet of floor space, it is perhaps the largest single ship's store afloat. It offers the crew and other Sixth Fleet sailors everything from toothpaste to musical instruments and hi-fi systems.

The medical department is on call 24 hours a day, not only for Puget Sound crew members, but also for those of ships alongside. Facilities include an extensive laboratory and a pharmacy, X-ray and therapeutic treatment facilities, operating rooms and a 35-bed ward. The department is staffed by a doctor, four dentists and 29 hospital corpsmen and dental technicians.

The deck department is another important unit of the tender's team. Without the "Deck Gentlemen," the ship would not be able to have customer ships come alongside. Bringing them alongside is no small job, and the deck force has handled everything from frigates to AFS's.

All departments need light, heat and water. That's the area of the engineering department. The engineering plant can provide electrical power for Puget Sound plus five other ships alongside, if necessary. Its twin boilers are capable of generating enough steam to heat a city of 10,000 people, and its four electrical generators could supply lights to a city of 50,000 people.

Serving as flagship for the Sixth Fleet is an additional challenge. It entails berthing and feeding an extra 250 people, handling more communications and dealing with protocol requirements associated with hosting hundreds of official visitors each year.

"Being flagship for the Sixth Fleet is a lot of extra work for us," said Robertson. "But don't get me wrong—everyone on board is very enthusiastic about being the very best tender and flagship the Sixth Fleet has ever had."

— Story and photos by PH1 Douglas Tesner
Philadelphia may be the U. S. Navy's official birthplace, but a small New York town claims to have built and launched the first American warships—which took part in one of the most decisive naval actions of the Revolutionary War.

The town of Skenesborough, today known as Whitehall, unwittingly began its contribution to the Revolutionary War effort in the spring of 1775. Told of the town's excellent shipbuilding facilities and harbor, Benedict Arnold (at the time a trustworthy officer of the Continental Army) authorized construction of a gunboat flotilla, which he threw against greatly superior British forces the following year.

When the opposing vessels clashed on Lake Champlain in October 1776, Arnold's flotilla was overwhelmed, and most of the gunboats sank. Yet, for the rebelling Colonies, this tactical loss bought another year of survival.

By the time both sides had recovered from the battle, winter had set in; the threat of British invasion from Canada was canceled. For the Redcoats, there would be no second chance.

The connection between Skenesborough and the first naval flotilla goes back—at least nominally—to the seizure of Fort Ticonderoga from the British in May 1775. Thirty men under the command of Captain Samuel Hearick arrived from Hand's Cove, N.Y., to commandeer all the boats that Skenesborough could provide. They were needed to transport the forces of Colonels Ethan Allen (of the Green Mountain Boys fame) and Benedict Arnold across Lake Champlain to take the fort.

The attack was successful but short-lived. In the long run, small bands of colonial farmers, merchants and craftsmen proved too poor a match for the professional British soldiers in Canada. The spring of 1776 found a previously invading American Army beating a retreat along Lake Champlain, pursued by a British fleet.

Arnold knew that whoever controlled Lakes George and Champlain would also control lines of communication between Canada and the Hudson. He warned that "it is of the utmost importance that the lakes be secured by a large number (at least 20 or 30) of gondolas, row-galleys and floating batteries..."

General Horatio Gates, adjutant general of the Continental Army, heeded Arnold's advice and gave him a chance to put his ideas into action by making the Army colonel his commander of naval forces.

In June 1776, Major General Philip Schuyler, commander of Continental Forces in the Lake Champlain region, received orders to build "with all expedition" as many ships as the Americans would need to control Lakes George and Champlain.

Immediately, the Skenesborough shipbuilders responded with a burst of activity and started to produce America's first fleet. (Clearly, it would contain no ships-of-the-line.) An assortment of craftsmen came into town, attracted by the salary of 48 shillings a month.

Colonel Arnold paid a visit to the borough on July 23, and was told that nine vessels would be seaworthy in 10 days. Writing to General Gates, Arnold revealed the progress: "A company of 27 carpenters from Middletown are cutting timber for a row-galley on the Spanish construction to mount six heavy pieces of cannon. One hundred carpenters from Pennsylvania and Massachusetts will be there this evening. . . . In two or three weeks I think we shall have a formidable fleet."

The last ship of Arnold's flotilla had barely slid down the ways at Skenesborough when word of his "formidable fleet" reached enemy lines. Sir Guy Carleton, the British commander in Canada, also had realized the strategic importance of Lake Champlain—and he wasn't about to hand it over. From June through September 1776, the British were building ships at St. Johns, 21 miles southeast of Montreal. Thus, a force of 30 British ships was put together, quite enough (Carleton felt) to obliterate anything Arnold might put into the water against him.

For several weeks, Arnold contemplated the best use of his tiny force. He finally decided to position his ships in a crescent formation between Valcour Island and the lake's western shore.

On Oct. 11, 1776, Carleton's fleet sailed south; it failed to spot Arnold's vessels until it was too late, when the British ships had already passed Valcour
Naval Flotilla

Island. At that point, the American flotilla opened fire—catching the enemy in an awkward position. Now the British had to struggle back upriver against the wind in order to give battle. While most of Carleton’s ships strayed into shallow water, the 18-gun sloop Inflexible did not; it came within range and let loose with broadsides of withering 12-pound shot.

The battle lasted from 10 a.m. until dark, leaving the Americans with 11 of their 16 vessels taken or sunk and 80 men dead. Half that number of British were killed. When dawn came and the fog had cleared, the enemy discovered that Arnold’s remaining craft had escaped south. Within hours, Carleton’s fleet went after the crippled American squadron, which ended up being either captured or burned. Arnold fled to Fort Ticonderoga.

Now the British had no competition for control of Lake Champlain. In the words of one noted historian, it had been “a strife of pigmies for the prize of a continent.” But Captain Alfred Thayer Mahan gave the valiant and outnumbered flotilla the credit it deserved: “...never had any force, big or small, lived to better purpose or died more gloriously.”

For Arnold’s gunboats had succeeded in stopping the British for the rest of 1776. A biting New England winter approached, and Carleton was unable to send supplies to his army on the lake. Nor could he order General John Burgoyne to consolidate his forces with General William Howe in Albany to block the American insurgents. Howe moved to Chesapeake Bay and Burgoyne marched to Saratoga, where he was defeated the following year.

His defeat proved to be the Revolutionary War’s turning point. That victory encouraged France to become America’s ally, and it was the French fleet that proved instrumental in forcing Cornwallis’ surrender at Yorktown.

Benedict Arnold is remembered as America’s turncoat of the Revolution. It’s ironic that his naval genius at the Battle of Lake Champlain had such a far-reaching effect on our country’s ultimate victory.

—Story by Al Meyer and J01 P. M. Callaghan

An artist’s conception of the Oct. 11, 1776, battle off Valcour Island. Painting by V. Zveg.
Glasses and Gauges

They have a lot in common—four-story tall periscopes and watch parts so small you could spend a career looking for them if you drop them. Both are subjects of study at the Navy's OM/IM School at the Service Schools Command, Naval Training Center, Great Lakes, Ill.

The opticalman and instrumentman ratings—two of the smallest groups in the Navy—are separated until the E-9 level, where they merge into the master chief precision instrumentman designation.

OMs repair optical equipment ranging from thousands of binoculars, bridge navigation instruments and optical range-finders to the intricate periscopes mounted in submarines.

IMs, whose primary work at one time was in the field of office equipment repair, today concentrate on metrology—the skills associated with metering, measuring and calibrating. In addition, they learn to repair IBM Selectric typewriters and a typical office copier.

Before the Navy established the OM and IM ratings in 1948, the work in these fields was performed largely by machinist's mates. OM and IM schools, offered at the Naval Gun Factory in Washington, D.C., varied in duration and content. By 1954, the schools were both relocated to Great Lakes.

Students in both the OM and IM class-A schools, which are self-paced courses running approximately 15 and 18 weeks, respectively, start their training with the study of basic mathematics.

Either rating is difficult to get into, and the students are highly qualified and motivated. "I was attracted by the precision of this trade," said Seaman Desi Cooper, a former 8-inch howitzer mechanic in the Army, and now a student in the OM "A" School. "I asked for this school as an enlistment incentive, and I'm extremely pleased with what I have gotten in return."

OM students progress into the machine shop. There, in addition to learning the machine tool skills they will need to make various precision optical mounting parts, they actually manufacture several of the tools that they will use in the remainder of their training. They then take the tools with them to the fleet.

From the machine shop, prospective OMs return to the classroom to learn optical theory. In this phase they learn how glass bends light and how the various elements of an optical system interact together to form images. To actually enable them to see light beams, students in this phase formerly used a "smoke box" into which they could introduce various lens combinations. The smoke came from cigarettes. New low-power lasers have both eliminated that health hazard and made it easier for the students to visualize the refraction, diffraction and reflection of light in an optical system.

The final phase of an OM's basic training demands that the students use all of their new skills to repair binoculars and other optical instruments.

Advanced training for OMs consists of a 12-week class-C school in which they learn to repair Type 2D and 15D periscopes. This school is also a prerequisite for a follow-on 12-week school in which advanced students learn to repair the type of periscope which is mounted on more
advanced submarines. This instrument has extremely complex electronics, and plans are currently going forward to send students to Basic Electricity and Electronics School before they start to work on this periscope.

IMs, following their math preparation, go into the MIRCS lab—Mechanical Instrument Repair and Calibration Shops. There they learn how to repair and calibrate gauges like those that are found aboard Navy ships. They also receive training in operating the latest testing equipment used to measure accuracy of entire banks of gauges aboard our newest ships.

The students in basic IM school also learn to repair IBM Selectric typewriters and a typical office copier. At one time, the bulk of their training lay in the area of office machine repair, but today these are the only such items they specifically learn to repair.

However, IM "A" School students learn to trouble shoot and repair a basic office copier. Although they may not encounter that particular brand of equipment in the fleet, working with it prepares them to at least make basic repairs to copy equipment they may encounter.

Two advanced training curriculums are available for IMs. One school, for MIRCS supervisors, is at Lowry Air Force Base, Colo. Students there receive the 11 weeks of highly technical training necessary to take charge of a laboratory that calibrates the many instruments and gauges on ships.

Another advanced IM school teaches the intricacies of watch and clock repair. This 12-week school equips students to repair a variety of bridge clocks and other timekeeping devices. The broad variety of equipment watch repairmen are called upon to fix makes it almost impossible for them to stock all the parts that might be needed, so an important part of their
training is the manufacture or modification of replacement parts.

Many of the students in the two schools come from other ratings. Some have requested OM or IM training as re-enlistment incentives; others were offered the training when they became unable to serve in previous assignments. One example is a Navy member who might have had a hearing loss from high-noise work areas.

Master Chief Precision Instrumentman Jim Parsons, OM/IM School division officer, is currently one of less than a dozen people at the top of this intricate craft. According to Parsons, both schools are advancing into new areas. “We are looking at the possibility of adding an optical alignment phase to our periscope repair curriculum in OM School. In the IM School, we are in a state of transition too. The days of mechanical gauges are becoming numbered,” Parsons said. “We are getting into remote sensing and electronic calibration. Also, even though new testing equipment is being introduced into the fleet to calibrate these systems, somebody is going to have to be trained to maintain the test gear—and that’s going to be the IMs.”

Less than one-tenth of 1 percent of the people in the Navy are OMs or IMs—about 350 and 450, respectively. But the equipment they repair and maintain plays a far larger role in the daily operations of the Navy than those small numbers might predict.

But then, what else can be expected from people who can remove, repair and reinstall a several-thousand-pound periscope, and make light go around corners, or from sailors who can measure temperatures and pressures inside of an operating gas turbine, and then fix your watch?

—Story and photos by Lt. Alan Dooley
Training the Elite

At 6:30 a.m., 31 men dressed in green shorts, T-shirts and running shoes assemble on a field at NAS North Island, San Diego. Most are recent graduates of Naval Aircrew Candidate School in Pensacola, Fla. Others come from local aviation communities or surface ships with search and rescue capabilities.

From wherever they come, these men know that the Search and Rescue Swim School they're about to begin will be a stiff challenge to their abilities. But if they manage to find the extra effort required to pass the course, they'll earn the distinctive "Rescue Swimmer" patch and assignment to the fleet as a "wet" aircrewman.

The school, under the jurisdiction of Commander, Anti-Submarine Warfare Wing, U.S. Pacific Fleet, receives full support from its command. And many SAR Swim School graduates return this support through outstanding performance of duty with various Pacific Fleet squadrons.

Students at the school, conducted by Helicopter Combat Support Squadron One (HC-1), are serious about their training; most of them will probably be called upon to save lives under arduous conditions. Only the best-qualified candidates make it through the tough four-week physical and academic training. The philosophy of being the best is emphasized from the first day of class.

Aviation Machinist's Mate First Class Camilo Gentile, leading petty officer and senior instructor at the swim school, tells his students on indoctrination day to "Keep in mind, if you're not the best,

One on one rescues are practiced to perfection.
Learning how every piece of equipment works is an essential part of SAR Swim School training.

you simply won't graduate."

This attitude is an inherent part of each training day for the student. It’s inseparable from classroom instruction on first aid, survival equipment, search and rescue tactics and helicopter familiarization. Vigorous training carries over to the pool and into the air with demonstrations and simulated rescue conditions covering lifesaving, day/night water entry from a helicopter and parachute disentanglement.

"We emphasize becoming involved in the worst possible rescue situation," said Master Chief Boatswain’s Mate J. J. Kaczmar. "An aviator, entangled in his parachute and panic-stricken in the water at night in heavy seas, is a reality which could be in the student’s future. We want to make sure he’ll be ready."

Although the course is full of stress for the student, it’s never allowed to become unsafe.

The seasoned staff members carefully blend academic presentations with practical demonstrations before the student participates. Instructors include two members of SEAL Team One, who make sure that maximum physical conditioning of students is maintained.

“We want a well-trained, disciplined individual who’ll react quickly, professionally and safely under any and all conditions," explained Gentile. "And the reason we want this is because we know what lies ahead."

The quality of training afforded by the rescue swimmer school is highlighted by 21-year-old Aviation Anti-submarine Warfare Operator Airman Apprentice Edward Hofstra. "I’ve played soccer and trained in Canada, England and Holland, but I’ve never experienced training that was so intensive. This school is more than I expected."

Gentile noted that the attrition rate at SAR Swim School has been as high as 30 percent. But to compromise standards of training is to invite disaster; the staff is always quality conscious, especially at the Planning Board for Training sessions.

"Weekly PBT allows us to frequently re-view and quickly reassess situations rather than wait until the end of four weeks to solve any problems," Gentile added.

Those experiencing problems in school have several options including after-hours training and individual counseling. Staff members feel that all students, with the exception of those with medical deficiencies, have the potential to complete the course: Incentive is the basic requirement.

"We don’t drop or set back an individual from training until every option to continue has been exhausted," said Boatswain’s Mate Second Class Brian Lippe, one of the SEAL Team staff members.

Completion of SAR Swim School is more than just a graduation ceremony. For the students, there is the pride of accomplishment; for the staff and command, there’s another kind of pride: that of having trained an elite class of qualified professionals—the rescue swimmers.

—Story by Ensign Sandra Lynn Mitchell
Sterett Arrives

The guided missile cruiser USS Sterett (CG 31) received a colorful, if damp, welcome this summer when it arrived at its new home port at the U.S. Facility, Subic Bay, Philippines. Under a canopy of gaily-covered umbrellas, several families, who had preceded the ship from San Diego, joined Philippine dance groups, the American-Filipino Cultural Association and base residents in welcoming the ship with banners and music. Children waved brightly colored balloons labeled "Welcome Home Daddy."

Sterett, with a crew of 400, joins the submarine USS Grayback (SS 574) as the only U.S. warships stationed at Subic Bay, the primary repair, supply and air support base for U.S. forces in the Western Pacific and Indian Ocean. Sterett will become the flagship of Rear Admiral Harry C. Schrader, Commander Task Force 75, the surface combatant force of the Seventh Fleet.

Liberty Council

Living in Europe for two or three years can be a rewarding and exciting experience. It also can be confusing and downright frustrating if one is not aware of local customs and ways of life. Helping new crew members adjust to life in Italy, the destroyer tender—and Sixth Fleet flagship—USS Puget Sound (AD 38), homeported in Gaeta, has introduced two classes called Liberty Council and Intercultural Relations.

Liberty Council classes are held for single sailors and geographical bachelors (married people without families in the area). Intercultural Relations classes are aimed at married sailors and their families living in and near Gaeta. Both classes cover essentially the same information, but they focus on specific needs of different groups. The classes help the Navy people adjust to their new environment and suggest many interesting places they should visit in southern Italy.

On the last indoctrination, participants go on a field trip of their choosing—Rome, Naples, Pompeii, Sorrento or the islands of Capri and Ponza. Expenses for transportation and food incurred by students assigned are reimbursed through the ship’s special services program.

A positive result of the program is that the Navy people have a greater understanding of their new duty station and the local citizens. They also gain more confidence for potential problem areas, such as shopping in local stores and traveling on the Italian mass transportation systems.

— Story by JO3 T.C. Brown
— Photos by PH3 Michael Drummond

Intercultural relations training in Italy includes a field trip, and MMFR Bamburg’s choice was the Roman Coliseum.
WWII Crew Returns

Crew members of the San Diego-based tank landing ship USS San Bernardino (LST 1189) played host recently to 20 former Navy members and their families. The visiting "crew" of the USS LST 225 was celebrating its third reunion and the first on the West Coast since LST "two-two bits"—as they call it—was decommissioned in 1947 and sold for scrap.

The reunion kicked off bright and early as crew members of yesteryear teamed up with today's sailors to work the same jobs they did aboard 225 four decades ago.

As San Bernardino headed out to sea, it passed USS LST 339 under tow to a shipyard. Memories flashed back to the 225 crew on seeing the old vessel from a modern day ship. In World War II years, LSTs did not bear names—they were only identified by hull numbers.

Sea stories were the plan of the day for both old and young sailors. One recalled a day, Jan. 21, 1945, when 225 was anchored in Kossol Passage, Palau Islands:

Shortly after morning muster, the crew was startled by an explosion near the ship. Another LST signaled it had sighted a sub. All eyes trained on a periscope off the port bow, and their ship's anti-aircraft guns zeroed in on an enemy two-man midget sub loaded with TNT, attempting to ram the 225.

Hot lead poured into the midget sub until it finally exploded near 225. As in most sea stories, the actual distance of the action narrowed from narrator to narrator.

A modern-day San Bernardino sailor asked how could an LST bag a submarine with anti-aircraft guns?

The "old salt" answered, "We dropped paint in the water, and it covered the periscope. The sub's crew thought they were still submerged and had to keep ascending to get to the surface—that's when we let 'em have it with the AA guns."

During lunch the visitors told their hosts about the invasions of Saipan, Peleliu and Tinian. But not all the stories were dead serious or dramatic.

Some were humorous, as the one 225 sailors related about making a deal with Marines in Pearl Harbor. The adventure began when the sailors agreed to lend the Marines a small amphibious landing craft if the Marines could "liberate" a jeep for the ship.

Once the pact was made, 225 crew members drove around Honolulu in their newly acquired jeep but later had to abandon it when it suffered a flat tire. It seemed none of the 28 riders wanted to stick around to see what authorities would say. It's not known how the Marines fared with the landing craft.

Following lunch, San Bernardino's 195-man crew took part in several exercises for the benefit of the visitors. Small boats were launched as helicopters conducted operations from the flight deck. The aerial maneuvers intrigued LST 225's old sailors since helicopters never operated from their ship, let alone any ship in World War II.

—Story and photo by Lt. Andy H. Wilson

Lamplighters Win

Helicopter Anti-Submarine Squadron (Light) 36 is the recipient of the East Coast LAMPS Squadron of the Year Award for 1981. First presented last year, the award has been won by HSL-36 both times.

The award goes to the East Coast Light Airborne Multi-Purpose System squadron that exhibits superior overall performance in areas of combat readiness, battle efficiency, aviation safety, personnel retention and search-and-rescue abilities.

Homeported in Mayport, Fla., the squadron also was winner, in 1980, of Battle "E" and the Chief of Naval Operations Safety Award.

The Lamplighters flew a record 6,201 flight hours in fiscal year 1980, including a record 704.5 hours in one month. Additionally, six HSL-36 detachments logged more than 3,350 hours while deployed to the Mediterranean, North Atlantic, Indian Ocean and Caribbean Sea. During that period, HSL-36 did not suffer maintenance-related or pilot factor mishaps.

Rear Adm. Fred Johnston presents the 1981 LAMPS Squadron of the Year award to Cdr. Martin Polsenski, CO of HSL-36.
Guests on Midway

Japan’s top-ranking civilian and military defense officials and key members of its legislative assembly visited the aircraft carrier USS Midway (CV 41) recently to observe flight operations and learn about life aboard a U. S. carrier at sea.

Heading the group was Joji Omura, Minister of State for Defense. Others were Admiral Tsugio Yata, chairman, Joint Staff Council; Admiral Masaru Maeda, chief of staff, Maritime Self Defense Force; and Lieutenant General Yasuo Matsui, vice chief of the Air Staff; and six Diet members.

The visit began at the Naval Air Facility, Atsugi, Japan, where the officials boarded a U.S. Navy C-2 aircraft for the flight to Midway at sea. After an arrested landing, they were greeted on the flight deck by Captain Robert S. Owens, commanding officer.

After a command presentation explaining the ship’s operations, presented in Japanese, the group observed flight operations and toured the ship.

The visitors then boarded the C-2 aircraft for their return trip to Atsugi and were catapulted off the carrier’s flight deck, completing the cycle of launch and recovery, to end their visit.

Rear Admiral D. L. Felt, Commander Naval Forces Japan, said, “The successful visit by such high-ranking Japanese officials is a visible sign of the continued support of the government of Japan to U. S. forces stationed and deployed in the Western Pacific. The visit provided these defense-oriented officials the opportunity to view a first-class professional Navy at work and gave them great insight into the complexity of carrier operations.”

— By JOSN Russ Strasing

George Revitalized

In 1943 on Guadalcanal when the shout of “here comes George” was heard, all hell broke loose. Sailors and soldiers dove for cover as Japanese planes spat lead from 20mm cannon and 13.2mm machine guns. George, needless to say, was not well-received by men on the ground. George was the allied code name for the 18 cylinder radial engine powered Japanese N1K2-J Shiden Kai fighter plane.

Today, after much overhauling and repainting by reservists from Fleet Logistic Support Squadron 52, one infamous (and now silent) George sits on display at Naval Air Station, Willow Grove, Pa.

Though the N1K2-J fighter looks fit for the skies now, when VR-52’s maintenance officer first surveyed the project, he discovered George to be in sorry shape—laden with rust, dings, nicks and dents.

Undaunted by the challenge, 10 of the squadron’s aviation machinist’s mates, aviation electrician’s mates and aviation structural mechanics went to work (in their spare time) during active duty for training to return George to fighting trim—at least externally.

The crew did extensive research on correct paint schemes and lettering, even constructing a small model from which to work before tackling the real physical jobs of patching, filling and sanding. Finally, George was painted in all its authentic World War II livery.

Coincidentally, two Japanese journalists were visiting the air station to photograph another wartime relic in the Willow Grove collection, the B6N2 Jill torpedo bomber, and struck up a conversation with the VR-52 men. It turned out the visitors were authorities on Japanese aviation and knew the names of several wartime pilots who had flown the N1K2-J. One volunteered to letter a squadron commander’s name in Japanese on each side of the plane beneath the cockpit, thus adding a final touch to aviation history.

— Story by Cmdr. J. W. Swanberg
Models and Ships

A 250-pound, 18-foot-long brass model of the USS New Jersey (BB 62) has been constructed by craftsmen at the Navy Public Works Center, San Diego.

The only Iowa-class battleship to serve in three conflicts—World War II, Korea and Vietnam—New Jersey went into the shipyard at Long Beach, Calif., in early August in preparation for its fourth stint of active service. It seems the refurbishing of one New Jersey has led to the construction of another kind of New Jersey.

As shipyard work began on the 888-foot, 45,000-ton dreadnought, work was being completed on the somewhat smaller version in the PWC Model Shop.

Primary purpose of the model and other ship replicas fabricated by the shop is for research and development leading to designing the shape and placement of high frequency antennas. Testing of the model by the Naval Ocean Systems Center permits research engineers to predict antenna performance on the actual battleship. Such testing allows corrective action to take place in the planning stages, rather than making costly modifications later to the actual equipment. The accuracy of such predictions and recommendations is critically dependent on the model’s accuracy.

Complete with all guns, rocket launchers, boat davits and the like, the model is highly detailed. Antennas on masts and towers are connected to coaxial cables for electronic hookup during testing which is conducted at the NOSC Model Range at nearby Point Loma, Calif.

Working from blueprints, sketches and pictures, model shop craftsmen have built a fleet of such warships. These include cruisers, guided missile cruisers, destroyers, ice breakers, auxiliary craft and aircraft carriers, including the largest model—a 23-foot version of USS Nimitz (CVN 68).

One shop model, a 20-foot replica of the USS Missouri (BB 11) is on permanent display at the Harry S. Truman Memorial Library in Independence, Mo.

Slated to cost $326 million, New Jersey’s refurbishing includes installation of modern cruise missile systems, along with close-in weapons for self-defense, updated communications and electronic systems. These and other features add to the New Jersey’s already impressive arsenal of nine 16-inch and 20 five-inch guns.

DAT for Families

The renovated Midway Dependents Assistance Team Center (DAT) was officially opened recently at Fleet Activities, Yokosuka, Japan. It is one of two such organizations in operation—Naval Surface Forces Pacific DAT handles all Yokosuka ships other than USS Midway (CV 41).

The primary mission of the Midway DAT is to assist dependents of the crews of Midway and Carrier Air Wing Five, and according to Senior Chief William C. Hastings, officer-in-charge of Midway DAT, the word “no” is not in DAT’s vocabulary.

The services offered by Midway DAT are many and varied. One of the biggest is meeting arriving Navy members and their families at the airport and providing transportation. A DAT representative assists with children, baggage, customs and pets.

The DAT driver begins the family’s transition into a new way of life by explaining things during the three-hour ride from the airport. This helps new arrivals to better understand their initial impressions of some of the customs and traditions of the Japanese people.

Once the family has settled into a Navy Lodge, private housing or into military quarters, DAT continues to provide services—especially while Midway is deployed. A couple of the services frequently provided are issuing temporary ID cards and assisting the family in communicating with their service member aboard ship. The DAT also provides assistance in obtaining passports and visas and in the filing of temporary lodging allowance claims.

The team tries to make life as easy as possible for arriving sailors and their dependents. As Hastings puts it, “This builds morale and helps retention.”

Seaman Joe Spicer, a DAT member, adds, “The first impression I give to incoming people will be a lasting one. I want it to be favorable.”

With the renovations to its old building now complete, Midway DAT is able to offer a more pleasant atmosphere to arrivals to Yokosuka. The working staff members claim high job satisfaction, and their professional attitudes reflect Senior Chief Hastings’ words, “We do care; that’s what makes it work.”

—Story by JOSN Orion Gallagher
—Photos by PH1 Dennis Brockschmidt
Time to Say
Goodbye Again

When the aircraft carrier USS Constellation (CV 64) left its home port of San Diego for an eight-month Western Pacific deployment, crewmen faced the reality of saying goodbye to their loved ones. Photographer’s Mate First Class Michael Denson captured on film the emotional pain of parting.
Ensign Gledhill peered at the clock. Almost time, he told himself.

"Stand by," he called. "Mark."

"Time: 1332 and 30 seconds," someone responded.

"ARGO: 6932, 1957," came from another.

"Depth: 713 meters," called out a third.

Gledhill rapidly recorded the figures in the log book. The men of Hydrographic Survey Launch Two of USNS Chauvenet (TAGS 29) had just taken a sounding, one of millions taken during the course of the current mission of the ship.

The San Francisco-based Chauvenet is on a hydrographic charting expedition to Indonesia. The 131 men and two women on the 393-foot ship probe the depths of the ocean floor, transferring their findings into accurate navigation charts of the Makassar Strait, located between Kalimantan and Sulawesi in the South Pacific. The most recent charts are dated 1936, and Chauvenet is collecting data to be used by the Defense Mapping Agency in updating them.

"We began charting Makassar Strait in 1936. The sights and sound of Indonesia are a new experience for the surveying team of USNS Chauvenet off the Borneo coast."
1979," Lieutenant Junior Grade Sue Friess said. "The strait is important because it is an alternate route to the Indian Ocean."

Chauvenet is operated by 69 civil service employees, leaving 59 Navy people from Oceanographic Unit Four and five scientists from the Naval Oceanographic Office, Bay St. Louis, Miss., free to conduct hydrographic surveys.

While surveying, Chauvenet navigates "precise" courses, and its positions are accurate to within 25 feet.

"The survey control personnel are sharp," Chauvenet's third officer Jeffrey Hollinger said, "and when I request positions, I get them right away. We work together and come out with an operation that is feasible."

Using three shore-based radio transmitters operated by the Mississippi-based Navigation Aids Support Unit, people in Survey Control recommend courses, keeping the ship in the proper track. An on board computer receives both positional information and soundings from the transmitters and the ship's precision depth-finding sonar.

When waters become too shallow for Chauvenet, 34-foot hydrographic survey launches (HSLs) are put to work. These small vessels, which can operate in as lit-
tle as 3 meters of water, have the same navigational and sounding equipment as the mother ship, except for the computer. The launches collect the data, which is later fed into the ship’s computer.

"The deep-water navigation the ship does is important," said Gledhill, Oceanography Department head, "but it’s the boats that do all the shallow water operations. They’re out there for three to four days in a row in dangerous waters, gathering the data we require."

The small boat operations take a team of six dedicated people, all coordinating to achieve good soundings.

"It takes a knack," said Engineman Second Class Joel McKeen, coxswain of HSL number two. "Steering a straight-line course in calm water is easy, but when swells come up, you have a different situation. The waves move the bow off course, and if the HSL goes up too steep a wave, the generator goes out. Then the electronics trip off, and we have to start all over again.

"We operate in less than 10 meters of water and in as little as 3 meters. You need good bow lookouts because there are reefs, and the depth sometimes jumps from 20 meters to 3—instantly. After three days of boat operations you become fatigued; bouncing all the time and driving eight to nine hours a day takes a lot out of a guy."

The Automatic Ranging Grid overlay (used for accurate navigation of survey vessels) and the sonar and all the related electronics are maintained by a single Navy electronics technician in each HSL.

"I’m responsible for 10 pieces of electronics gear on the boat," Electronics Technician Third Class Mike Skinas said, "and without that gear, we wouldn’t do any survey operations. It is fairly reliable equipment, so my main job during opera-

tions is to monitor the gear and the readouts."

Civilian scientists from the Navy Oceanographic Office do all the data verification, plotting and final analysis aboard Chauvenet. They find the ship’s position, determine the depth and note it on a rough track chart.

The Makassar Strait is 140 miles wide and 360 miles long, and there are thousands of plots to do. Eventually, all the figures will begin to fall into place; new patterns and contours will emerge. Soon the charts will be completely updated, and navigators will be able to sail those waters more safely.

—Story and photos by JO1 Tim Lewis

The varied work aboard ship (opposite page) often continues into the evening hours, but on shore, time seems to move a little slower.
Up to the mid-1800s, sailing the seven seas was a good deal more risky than it is today. One reason was the lack of accurate, detailed charts.

Today, a U. S. Navy ship wouldn’t leave its home port without numerous charts aboard. If it did, the sea adage about the navigator insisting the ship was in the nave of Westminster Abbey could well become a reality.

The task of keeping the charts of the world’s waterways up to date falls on the Defense Mapping Agency. DMA, a joint defense agency, provides maps, charts and geodetic support to the armed forces, the intelligence community and other government agencies — plus providing charts to merchant mariners worldwide. Every ship, military or commercial, is required to maintain a designated supply of accurate charts and related publications which cover waters over which they are likely to sail. An aircraft carrier, for example, must carry more than 23,000 copies of charts; a destroyer, nearly 2,000.

However, a chart is no more accurate than the survey on which it’s based. DMA estimates that 8 million square nautical miles of the world’s accessible coastal waters have not been adequately surveyed in terms of present-day requirements.

Left: Cartographer Brian Cantwell plots “Notice to Mariners” changes on a correction guide to be used in preparing an updated chart. Right: A Sci-Tex system raster scanner reads a map and records on tape the visual detail.
When European nations once maintained extensive colonial empires, they surveyed trade routes in support of their slow, shallow draft vessels. Today’s ships have drafts up to 90 feet and lengths of more than 1,000 feet, and there is a constant demand for improved navigation information. Even so, the supply of such information cannot keep up with the demand. Also, because surveying and charting the world’s oceans is such a gigantic undertaking, only large maritime countries attempt to do the job.

One such country is the United States, and DMA is the largest mapping and charting agency in the Free World. The United States belongs to the International Hydrographic Organization and thus has chart exchange agreements with 49 member countries. DMA’s Hydrographic/Topographic Center is responsible for the production of charts and other printed material on the world’s oceans, coastlines and foreign ports and harbors for the military services, the maritime community and for pleasure-craft sailors. The waters of the United States and its possessions are charted by the National Ocean Survey, a component of the National Oceanic and Atmospheric Administration; charts are also distributed through DMA’s outlets to military users.

Established in 1830 as the Navy’s Depot of Charts and Instruments, the agency published its first work in 1837—four engraved charts of Georges Shoal and Bank off the New England coast. Today, the depot’s chart inventory numbers about 5,000, and, on the average, 1,400 new updated charts are printed each year.

During the past two decades, the nature of charts and their production have changed both in requirements and in the increased use of digital technology. Slightly less than half of the products published by DMA today are conventionally produced paper maps and charts, while the remainder are in formats adapted to computers and other specialized equipment. DMA digitized data is used extensively by the Navy in sophisticated navigational systems and for guidance of a variety of missiles, including Poseidon and Trident and the upcoming cruise missile. The increasing use of simulators in training navigators for both ships and aircraft also requires multiple digital charts. However, the number of paper charts has not diminished with the expansion of digital data. In fact, many charts are based on hydrographic surveys made in digital format; some are also compiled from digital tapes.
Even using state-of-the-art technology to produce charts faster, more efficiently and inexpensively, the varying demands of DMA's customers and the unprecedented degree of precision required of each product add up to a complex and challenging task. Even so, today's product still resembles the charts of the Flemish cartographer Gerhardus Mercator, the father of modern cartography.

In the making of nautical charts by both the conventional and digital methods, DMA begins by collecting, evaluating and storing navigational data. Source material comes from topographic maps, geodesy data, aerial and satellite photography, textual data and foreign charts. DMA uses information from foreign sources for 90 percent of its production. If the need requires, foreign charts may be reproduced. For example, several current charts of the North Sea are actually British charts modified and published by DMA.

Two basic types of nautical charts are published: conventional and special. Conventional charts are used by oceangoing ships simply to get from one place to another. Unlike the agency's topographic and air charts which are for military use only, these conventional nautical charts and related material can be purchased in almost any major seaport. Navy ships may replenish their supplies at DMA offices around the world.

Special charts are used by limited clientele as naval warfare planning charts and weapon systems guidance. The design of special charts is handled by the Hydrographic Requirements Division, the primary point of contact for the Navy's specialties. The division develops a chart or modifies existing ones based on Navy requirements. One example of this is the special series of bottom charts developed for Trident submarines.

Once a need is defined, a chart is kept of all data and changes made during the life of the legal document. The normal production of a new chart takes nearly 14 months; a "quick-response" order can be produced in 48 hours.

When a chart rolls off the press, how-
ever, the work doesn’t end there. The chart’s accuracy must be checked continually and must be updated as more information is received concerning navigational safety. As changes occur, corrections are made; new editions are issued based on number of changes, frequency of use and amount of shipping traffic in the area. Annually, about 1,000 new editions are produced.

For the quartermaster at sea who has to correct and update his ship’s charts, information correcting DMA’s charts and navigational publications can be found in the weekly “Notice to Mariners” compiled by the agency’s Navigational Department. More than 12,000 notices are mailed out each week to both Merchant Marine and military ships. Now digitized, the information also may be acquired computer to computer via landline or satellite by ships either in port or underway.

State-of-the-art technology will improve, and faster ships will be built; but as long as there’s an ocean to sail, there still will be the need for charts in one form or another.

—Story by JOC James R. Giusti
New rules set for brigs and CCUs

After more than two years of studying its entire corrections system, the Navy has announced new standardized policies and procedures for administering its brigs and correctional custody units.

Persons awaiting trial by court-martial, serving a sentence at hard labor ordered by a court-martial or serving a sentence of confinement on bread and water are detained in a brig. Those serving non-judicial punishment of correctional custody are physically detained in a CCU. CCUs do not have special security features.

The new CCU policy establishes a regimen that includes work, military training, counseling and physical training in an atmosphere of discipline and constructive guidance.

Both the new brig and CCU policies specify requirements for facilities, safety, training, internal communications, and selection and training of supervisory people. Although many of the requirements were already in general practice, the new policies are applicable Navywide.

Caribbean Command streamlined

On Dec. 1, 1981, the Commander Caribbean Contingency Joint Task Force located in Key West, Fla., was redesignated Commander, U.S. Forces Caribbean. Concurrently, the Antilles Defense Command located in Puerto Rico was disestablished. This realignment streamlines the unified command structure by placing responsibility for the Caribbean basin with one commander.

The Caribbean area of responsibility includes waters and islands of the Caribbean Sea, Gulf of Mexico and portions of the Pacific Ocean bordering Central America.

Under the realignment, Commander, U.S. Forces Caribbean will have an active naval component, Commander Naval Forces, Caribbean, headquartered in Puerto Rico. Army, Navy, Air Force and Marine Corps people will be assigned to the staff of the new command.

Commander, U.S. Forces Caribbean will report to the Commander in Chief, Atlantic. The Commander, U.S. Forces Caribbean will be Rear Admiral Robert P. McKenzie.

USS Saipan aids heart attack victim

Just after reveille on Nov. 25, the crew of the Dutch tug Salano contacted USS Saipan (LHA 2), on a Mediterranean deployment, and reported that the tug master, Captain H.S. Van Opzeeland, had suffered a heart attack.

Saipan’s CO, Captain J.W. Renard, after conferring with on board medical people, called the ship to flight quarters. A CH-46 Sea Knight from Marine Medium Helicopter Squadron 264 was airborne with medical people within minutes.

Upon arrival at Salano, crew chief Lance Corporal J.W. Scott assisted the pilot, Captain G.M. Russell, in maneuvering the aircraft so the stricken tug captain could be hoisted by litter. The evolution was made more difficult by the massive oil derrick which Salano had in tow and the cable which ran across the deck area. Search and rescue crewman Aviation Machinist’s Mate First Class M.T. Demetrius, assisted by the tug’s crew, placed the patient in the stretcher.

Once Van Opzeeland was safely in the aircraft, Saipan medical people began evaluation and treatment. Aboard Saipan, he was rushed from the flight deck to the intensive care ward in sick bay where his condition was listed as stable.
Appellate leave procedures changed

The Military Justice Amendments of 1981, signed by the president on Nov. 20, will give the Navy authority to place members who have been convicted by court-martial and sentenced to an unsuspended punitive discharge on leave, involuntarily, while their sentences await appellate review. Members now have the option of remaining on duty while appealing a discharge. Under the new law, effective Jan. 18, the member on appellate leave will stop receiving pay and allowances once accrued leave is used. If the sentence is set aside during the appellate process, the member will receive back pay and allowances.

Veterans dental care eligibility changed

Service members now have only 90 days from their discharge date to apply for VA outpatient dental care. Treatment will not be provided if the veteran was provided a dental examination and “appropriate dental services and treatment” were completed within 90 days of separation, according to recently passed legislation. Public Law 97-35, the Omnibus Budget Reconciliation Act of 1981, also requires that the veteran have served no fewer than 180 days on active duty to be eligible for any VA care. Under the new law, commands are required to counsel members at the time of discharge and file in service records signed statements acknowledging receipt of written explanations of the new changes. More information can be found in NAVOP 155/81.

Senate votes to fund Iowa reactivation

The Senate voted 51-29 to provide $91 million to reactivate the battleship Iowa (BB 61). The long-lead money approval means the Navy can begin to order items and procure services needed to reactivate Iowa, with an eye to recommissioning in 1984. When the $407.6 million refit is completed, Iowa will be capable of carrying up to 16 Harpoon and 32 Tomahawk missiles.

Iowa was first commissioned on Feb. 22, 1943, as the first of four Iowa-class battleships. In seven-and-one-half years of active service, it served in World War II and the Korean conflict. The ship is 887 feet in length, has a beam of 108 feet and displaces nearly 60,000 tons when fully loaded.

SGLI/VGLI coverage increases

Maximum coverage for Servicemen’s and Veterans Group Life Insurance increased to $35,000 on Dec. 1. Active duty members automatically receive maximum coverage.

If you previously elected reduced or no coverage, you also automatically will receive the maximum coverage. However, you must complete a new SGLI form if you wish to decline or have reduced coverage.

Insurance is available in $5,000 increments. Premium rates for SGLI remain unchanged at 75 cents per $5,000 coverage. For active duty members, the maximum monthly cost per $35,000 coverage is $5.25.

Premium rates for VGLI also remain unchanged. Rates for veterans under age 35 will be 85 cents for $5,000 coverage and $1.70 for veterans older than 35. Maximum VGLI rates for $35,000 would be $5.95 monthly for those under 35 and $11.90 for those 35 and older.
Worth mentioning...

Rear Admiral William O. Gallery, a veteran of World War II and a member of a famous Navy family, died recently in Chicago. He was preceded in death by his brothers Daniel and Phillip, also retired rear admirals. Daniel headed the task force which captured the only German submarine (U 505) seized in combat during World War II. One brother survives, Rev. John Gallery, a member of a Catholic religious order who saw service in the Navy as a chaplain. The frigate Gallery (FFG 26), named after the three admirals, was commissioned in December in Pascagoula, Miss.

Accident-free milestones reached. The “Roughraiders” of Fighter-Attack Squadron 125 completed one year of accident-free flight operations on Nov. 13. Rear Admiral G.W. Lenox, Commander, Light Attack Wing U.S. Pacific Fleet, said, “This achievement has even greater significance considering it was accomplished by a newly-established squadron flying the Navy/Marine Corps’ newest and most advanced aircraft, the F/A-18.”

Three days later, Tactical Electronic Warfare Squadron 131 completed 10 years of accident-free operations. Vice Admiral Robert Schoultz, Commander, Naval Air Facility Pacific Fleet, cited the “Lancers” for their “...professional attitude toward every daily task.”

On Nov. 26, Fighter Squadron 211, stationed at NAS Miramar, marked three years of accident-free operations. Rear Admiral G.M. Furlong, Commander Fighter/Airborne Early Warning Wing, Pacific, commended the “Checkmates” for an “aggressively prosecuted and effectively administered safety program.”

The following day, Training Squadron 10 logged seven years of accident-free operations, an accomplishment representing more than 109,000 flight hours in T-2C and T-39 aircraft. Rear Admiral Edward Martin, Commander, Naval Air Training Command, offered personal congratulations to the “Cosmic Cats” for their “superb contribution to Naval Aviation.”

Corfam shoes unsafe for hot-work areas. Recent tests at the Naval Safety Center, Norfolk, Va., have determined that shoes made of poromeric (Corfam) material may melt and burn when in contact with a flame. At least one person has suffered severe foot burns. The center recommends that Corfams not be worn in fire-rooms, enginerooms, BT shops, machine shops and any area where welding or similar operations occur.

Patrol Squadron 31 makes record CFC contribution. More than $42,000, said to be the largest amount ever donated by a Pacific Fleet patrol squadron, was contributed to the Combined Federal Campaign by Patrol Squadron 31, at NAS Moffett Field, Calif. Squadron CO, Commander K.D. Sullivan, said, “True voluntary giving is the free response of individuals to an appeal which gives them full knowledge of the human needs at stake and encourages them to contribute generously.” The contribution boosted the naval air station total to more than $100,000—its highest mark ever.

Four members of the NAS Lemoore, Calif., Search and Rescue Team were awarded medals recently for a daring rescue in Yosemite National Park. On May 22, 1981, the SAR office received a call for help in evacuating a 26-year-old woman who had been injured while rock climbing. Unconscious and suffering from a fractured skull, she was hanging in a climbing rope 1,500 feet above the valley floor on the sheer face of Cathedral Rock. The duty SAR crew, in a training area, could not be reached by radio, but within minutes a backup SAR crew was on its way. The pilot, Lieutenant Commander Daniel Ellison, was awarded the Air Medal; other crew members, Lieutenant Michael Helms, Aviation Structural Mechanic (Structures) First Class Rainer Streib and Hospital Corpsman Third Class Olga Misko, were presented Navy Commendation medals.
As she prepared to depart on her European odyssey in search of World Cup luge championship titles, Journalist Third Class Donna Burke was relaxed—"This year I feel like I know my competition and who they are. I'm feeling pretty calm."

This self-confidence is not unusual for Burke, who has held the title of U.S. Women's Luge Champion for the past three years. She is also the North American Women's Luge Champion.

Burke spent three months in Europe, competing as the only Navy member of the U.S. team in races in East Germany, West Germany, Austria, Italy and Luxenbourg. This February and March, she competes in the U.S. Nationals and the North American competitions in Lake Placid.

This season marks Burke's fifth year of serious competition; her interest in luge racing began in her early childhood. She recalls watching the Winter Olympics on television in her Rochester, N.Y., home and signing up for lessons in children's luge soon afterwards. Her instructor, Fred Hushla, was instrumental in developing luge racing into an Olympic event.

Several years later while working as a cartographer in Lake Placid, N.Y., Burke discovered the bobsled run. She borrowed a sled and helmet and was on her way. In the 1977-78 season, she placed fourth in the Senior Nationals luge competition and in 1978-79 she won first prize in the Seniors. After winning both the U.S. Women's Luge and the North American championships, Burke returned to Lake Placid as a member of the U.S. Olympic team.

Accidents have plagued Burke in recent seasons. In 1980, while competing in the World Championship in Hammarstrand, Sweden, she broke her ankle. In spite of her injury, Burke managed to place 18th. In 1981, as she neared the end of a luge run while training for her first race in West Germany, she went "airborne" and ended up with both a broken hand and a broken sled.

Although this injury and the adjustment to her newly-purchased West German sled were handicaps to Burke in earlier races this season, she managed to finish in the top 10 in the all-important Groser Preis held Dec. 5-8 in Igls, Austria. Her ninth-place finish was just .8 seconds off the mark set by the winner of the race, a Russian entrant. By placing in the top 10 in this first leg of the official World Cup circuit, Burke is practically guaranteed a seeding in this year's competition.

One of her goals is to work toward developing a luge team within the Navy. Her new West German luge will probably become the second sled available to prospective Navy sledgers once the damaged sled is repaired. The original, weighing 48 pounds, was custom made in the United States. So many modifications were made to her sled before her departure for Europe that she claimed it felt like a totally new sled.

Burke is assigned to the Navy Internal Relations Activity at the Pentagon in Washington, D.C. She enlisted in the Navy immediately after the 1980 Winter Olympics and is an enthusiastic supporter of all things Navy. "I love representing the Navy," she said, reflecting on last year's World Cup competitions. "I got an incredibly patriotic feeling racing against Europeans—this year will be even better."

—Story by Peggy Pearce
Near the head of Mobile Bay in the state for which it was named, the Alabama is permanently moored. Gone is its 2,500-man crew of World War II days. Gone, too, are the sounds associated with an active battleship: the pounding of feet racing to general quarters, the slamming of hatches, the sounds of gun turrets and mounts tracking targets. The guns are now silent, all 129 of them, from the 16-inch .50-caliber guns once used for shore bombardment to the 20mm single anti-aircraft machine guns.

The crew has been replaced by about a dozen people who open the ship in the morning and close it at night. The warship's sounds have given way to the light step of tourists and the clicks of their cameras. Alabama, now retired, is the main attraction of a Mobile, Ala., memorial park dedicated to those who served in World War II and in Korea. According to the ship's executive director, retired Navy Captain William J. Diffley, it's the number one tourist attraction in the state.

"We get a lot of young people who have never seen a battleship," Diffley said. "We also get people from inland who have never seen any Navy ship or who haven't had the opportunity to board one."

Commissioned Aug. 16, 1942, USS Alabama (BB 60) first saw service with the Allied Fleet in the North Atlantic. In mid-1943, it transited the Panama Canal to join the Pacific Fleet. The battleship earned nine battle stars before eventually leading the U. S. fleet into Tokyo Bay at the end of the war.
After four-and-one-half years' service, it was decommissioned in 1947 and placed in the reserve fleet at Bremerton, Wash. In 1964, following an announcement that it would be scrapped, Alabama Gov. George Wallace asked that the ship be donated to his state as a memorial. The Navy agreed.

Nearly $1 million was needed to tow the ship to Mobile and set it up in a park. This presented no great problem — the people of Alabama responded enthusiastically.

"School kids alone contributed about $150,000 with nickels and dimes," Diffley said.

In September 1964, Alabama arrived in Mobile after the long 5,600-mile trip. Early the next year, it was dedicated and officially opened to the public. During its 16 years as a public attraction, it has been operated solely on the money earned from visitors.

More than 4 million people have been aboard since it was established at Mobile — about 300,000 a year. The ship draws more than just civilian tourists, however. More than 20 sailors from USS Yosemite (AD 19), a destroyer tender undergoing overhaul in the area, were re-enlisted aboard Alabama since Yosemite arrived last year. And one Yosemite crew member even chose the ship as the setting for his recent marriage. People from the Naval Air Station Pensacola, 50 miles away, have re-enlisted aboard Alabama as well — so have crew members from USS Sierra (AD 18), a destroyer tender that was in Mobile before Yosemite arrived.

The battleship has its own special attraction — perhaps because, unlike today's modern nuclear-powered carriers and submarines, it has been tested under fire and survived.

Diffley adds, "Alabama carries an aura of glamor about it. To a lot of people, battleships are the ultimate in Navy ships. The big guns, the war record, the whole works. . . .

"And battleships are impressive. Reactivating battleships today is a good stop-gap measure until we can get more ships built for the Navy."

Certainly, there are no plans to reactivate Alabama. It has served its time and has earned its retirement. Although it will never head out to sea again, the battle-wagon still has an important job — it helped one generation of Americans win a war, and now it serves as a memorial for future generations.

—Story by J02 Brian Bell
All Hands receives many letters, some of which have nothing to do with the magazine. They are letters of great interest, however, because they touch on areas of human nature which should be of concern to all Navy people. Such a letter arrived recently from a Navy chaplain. All Hands wants to share that letter with all of its readers.

**Passing of an Era**

Sir: On Oct. 8, a great friend of the U.S. Navy and especially its shore patrol died here at Fenwick Pier in Hong Kong. This would be only another story if the person had not been 81 years of age and given of herself to the Navy for 68 years—working only for what was put in her piggy bank. HO Chuen Hunt was known to all as “Fat Mary” because, at the height of her career, she was able to put two shore patrol belts, connected together, around her middle.

As a young lady in Canton, China, she heard stories of these strange folk who wore white uniforms and always seemed to be very jolly. At 13, she went aboard her father’s sampan for her first meeting of one of these ships. She was immediately impressed with the sailors and their tales of travel and the lands that lay beyond her little world.

The ships spent longer periods in areas than they do today. Four years later, she met and married a very handsome yeoman first class. With him, she traveled around her country and finally wound up in Hong Kong when his ship was homeported there at Fenwick Pier in Hong Kong. This three-story building was replaced by smaller and smaller quarters until when she died, she lived in a small room.

She had many friends in old Wanchai. Among the most important of these was another Mary, Mary SO (Sue), the side-cleaner who died in 1972. Though this Mary died, her “girls” still do the painting of the visiting warships in the port of Hong Kong. It is their motto that they can paint out a ship in two days. How they can paint a straight water line while their sampan bounces up and down in the water is truly a mystery. Anyway, neither Mary could read nor write English or their own Cantonese for that matter. Mary SO came to Fat Mary and asked her to have her shore patrol contacts write letters of introduction to the ship captains.

On the day Mary died, she came to work as usual and served me breakfast, because she believed no one else could or would take care of me as she did. I was her “adopted” son and, in her mind, the embodiment of all the sailors of the past. She believed that the sailors and Marines of today are good, but those of yesteryear were better. After meeting my needs, she served coffee to her shore patrolmen. Then she went about cleaning the office.

It was one of those peculiar days that can only be seen in terms of the “hand of God.” I left the office to take some sailors on a shopping tour across the harbor on the Kowloon side. I had a beeper, but it never went off, though the office personnel said they tried several times. The shore patrol driver was in the office to man the telephones.

Later in the day, a shore patrolman came to tell the driver, John, that he could not understand Mary’s wishes. John replied that she sometimes talked to herself, but he went in to see her anyway. He noted that she was trying to put “white flower oil” on her temples and on her head...a sort of Buddhist anointing...so he finished for her. She then laid down and seemed to relax. With that, blood flowed from her nose and mouth. John went to the phone and called the magic number in Hong Kong, 999, and soon an ambulance appeared. The lady who manages the gift shop on the pier went along for the ride and stayed with Mary until her end about three hours later.

The funeral services were arranged by the side-cleaners, Shanghai or Sampan Sue (the Mary SO of Shanghai) and myself. The hospital fee was paid with a total layout of 5 Hong Kong dollars, about U.S. $1. Mary had all her funeral clothes laid out many years in advance, and in the 30-plus years that I had known her, I have never seen her dressed so well.

Buddhist services were held at the Queen Mary Hospital, attended by those close to her. Representatives of Servicemen’s Guides, the Navy, the Marines and the community all attended.

The son arrived later from Hawaii, and it was decided that the best memorial to Fat Mary would be to take any monies that would be given by her friends and establish a school for the side-cleaners to teach them to read and write. The present leaders of the side-cleaners have stated that the time is on the horizon when they cannot afford to paint out the ships any longer because they have to hire people, especially when large ships are present. The hiring costs eat up any profit margin at today’s prices.

Those who wish to aid in the costs of educating the side-cleaners in the “Two Mary’s School” may send contributions to me at the Office of the Chaplain, U.S. Navy Contracting Dept., Box 20, FPO San Francisco 96659...Cmdr. Harold L. Baar (ChC), USN