

# ALL HANDS



DECEMBER 1976



Photo by PH1 R. W. Beno

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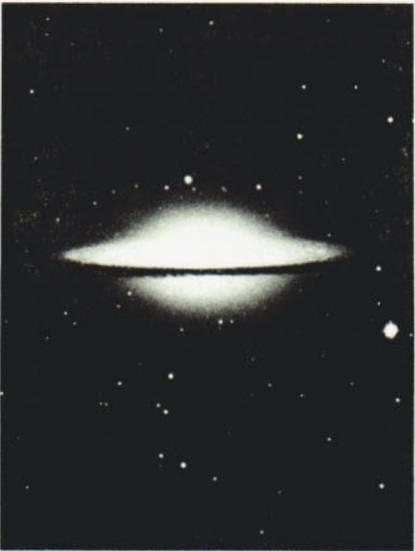
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Answers to quiz on page 48: 1. Round Seizing; 2. Double Blackwall; 3. French Bowline; 4. Wall; 5. Belaying; 6. Masthead; 7. Marling; 8. Surgeon's; 9. Man-Harness; 10. Back Splice; 11. Anchor Bend; 12. Packer's.



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# ALL HANDS

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DECEMBER 1976 NUMBER 719

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# Currents

## Long Delayed

**Honor Conferred on John Paul Jones.** In ceremonies held in the crypt of the Naval Academy Chapel, posthumous knighthood was conferred upon John Paul Jones by the Military and Hospitaller Order of St. Lazarus of Jerusalem. King Louis XVI of France wished to confer the knighthood upon Jones in 1779 after the Battle of Flamborough Head, but could not because the Order was Roman Catholic and Jones was Presbyterian. Today, however, the order is ecumenical; the knighthood was bestowed by the order in marking the American Bicentennial.

## Military Per Diem

**Rates Increased.** The Secretaries of the Uniformed Services and the Assistant Secretary of Defense have approved an increase in military per diem rates in the continental United States, and for travel from the U.S. to overseas areas. The rates were increased from \$33 to \$35. Per diem rates for high cost areas have also been proportionately increased. Also, Philadelphia, Penn., and Newark, N.J., have been added to the list of high cost areas. Per diem is a sum paid to personnel on military orders to cover personal expenses. Detailed information is contained in AINav 076/76.

## San Diego

**NASAP Underway.** San Diego began operation of its Navy Alcohol Safety Action Program (NASAP) recently with classes designed to help alcohol abusers before their abuse progresses to a state of alcoholism. It also treats those whose condition has become chronic. The San Diego program's initial efforts are being aimed at helping personnel convicted of driving while intoxicated (DWI) by the San Diego municipal courts. (See *All Hands* June '76 issue, "Combating the Evils of Demon Rum.")

## Scholarships

**Available For Navy Dependents.** If you have children attending or about to enter college, they may be eligible to compete in the Dependents' Scholarship Program for 1977. The program, managed by the Chief of Naval Personnel, includes more than 20 scholarship programs made available by Navy-oriented clubs and associations. Scholarships are awarded on the basis of financial need, scholastic record and students' character. All material concerning the Dependents' Scholarship Program, including application forms, is available from the Chief of Naval Personnel (Pers-7311), Navy Department, Washington, D.C. 20370. Deadline for applications and school transcripts to reach BuPers (Pers-7311) is March 15, 1977.

### Winners of the

**1976 All-Navy Cartoon Contest.** Our panel of judges in this year's All-Navy Cartoon Contest interrupted their chortling and chuckling long enough to tell us the names of this year's winning entries. Congratulations to Illustrator Draftsman Third Class Daryl J. Talbot of Fleet Intelligence Center, Norfolk. Daryl's winning entry appears on page 26 of this issue. Next month look for the second place winner by Master Chief Yeoman Gerald M. Avera and third place cartoon, also by Daryl. Honorable mentions, which will appear in succeeding issues of *All Hands*, went to DM1 Edwin E. Markham Jr., George C. Geisler, GMT1 James S. Little and EW2 Robert E. Poulk. Master Chief Avera also picked up one honorable mention.

### Replenishment

**Ship Roanoke Commissioned.** The Navy's seventh and last Wichita-class replenishment oiler, USS Roanoke (AOR 7), was commissioned at the Long Beach Naval Shipyard, Long Beach, Calif. Roanoke is 659 feet long and displaces 37,000 tons. Ship's cargo capacity is about 150,000 barrels of fuel oil, 365 tons of ordnance and more than 360 tons of dry and refrigerated stores.

### Naval District

**Commands to be Cut.** The Navy is reducing the number of Naval District headquarters commands from the present 12, to four "primary" naval districts. Headquarters of the primary districts will be at Philadelphia, Washington, D.C., Seattle and Great Lakes, Ill. Responsibilities of the other eight district commandants will be assumed as additional duties by other commands within the shore establishment. The change is a result of legislation reducing the funds available for administration of the naval districts and is designed to streamline their management.

### USS Jonas

**Ingram Rescues Seven Finns in Baltic.** The Finnish ambassador to Sweden conveyed the thanks of his country to USS Jonas Ingram (DD 938) for her rescue of the crew of a Finnish vessel that sank in the Baltic Sea. "The lives of these people were in the gravest peril and were saved only through your alertness and good seamanship," said the ambassador. The rescue occurred October 3 when a lookout on Ingram sighted a red flare from a liferaft carrying three men, two women and two boys, the crew of the 370-ton *Anja*. The *Anja* crewmembers were brought aboard Ingram and taken to Karlskrona, Sweden.

### Mediterranean

**NATO Exercise Ends.** The 13th activation of the NATO "Naval On-Call Force Mediterranean," an exercise called "Daylight Forty," was conducted during October and November. Ships from Italy, Turkey, the United Kingdom and the United States operated together during the month-long exercise. "Daylight Forty" was designed to test and refine Allied Command Europe's response in areas such as troop movement, supply and logistics. It also provided an opportunity to exercise Communications, Command and Control (C3) procedures.





# The CHALLENGE

Two years in the brig  
..... and now

Story by JO2 Susan Fisher

"This court sentences you to be confined at hard labor for two years, to be awarded a dishonorable discharge, to be reduced in pay grade to E-1 and to forfeit all pay and allowances."

The judge paused in his address to the young sailor standing before him, then continued, "By the way you have presented yourself in this court . . . I feel you are already on the road to rehabilitation. The Navy has a clemency and parole system that is there for your use—use it."

"I knew from that moment on that someday I would

be returned to full duty," said Petty Officer Bob Brown (not his real name), who is currently assigned to a West Coast Air Squadron.

In January 1974, while serving as a second class petty officer at Naval Station Cubi Point, Republic of the Philippines, Brown was arrested and charged with black-marketing and counterfeiting identification and ration cards used in the scheme.

Most would feel that a court-martial would be the low point of one's life. But Brown says he gained strength in a new set of values and began a successful two-year quest to be granted clemency and returned to full duty in the Navy.

"It was a blessing in disguise," he said, "and marked a turning point in my life."

Never mind the reasons why Brown got into the black market, the fact is he did it, he got caught and he got busted. He knew trouble would come eventually. "Human nature says, 'I'll deal with the consequences later.' You can let your emotions overrule your intellect," he said.

Toward the end, his illegal activities and his Navy job often forced him to work 23 hours a day. "I was

late for work every day. My quarterly marks nose-dived and I was finally busted for being UA and reduced to third class when things didn't improve.

"I wanted to quit because my nerves were shot. I developed tremendous headaches, couldn't sleep and nearly had a nervous breakdown. I figured I'd better lay off."

But two months later he decided to do one more deal. It was his last. There would be no more 23-hour days. He got caught.

During his confinement, he began to think about what he had done. "At first I couldn't figure out that what I did was wrong, but soon I had it broken down to where I knew it was not only morally wrong, but also it was legally wrong. The biggest factor was that it destroyed the confidence and trust that the Navy had placed in me as a petty officer."

Brown was sent to the Treasure Island, Calif. Correctional Center and from there transferred to the Navy Correctional Center at Norfolk, Va., to serve his two-year sentence. His wife and children were still in the Philippines—he hadn't been able while in jail to arrange for their passports and move.



"I wasn't getting paid, so they were living on what little savings we had. That was the most trying time in my life," he said.

At Norfolk, Brown began the long struggle back. His attitude was soon noticed by his superiors and he was granted base parolee status, the highest a confinee can receive. He was permitted on-base liberty during certain hours of the week. A chief who had known Brown in the Philippines and now worked at Norfolk was impressed with his steps toward rehabilitation and arranged a job for him with the master-at-arms.

He caught a bus to the base every morning and returned to the correctional center at night. His job included working with disciplinary action people, many with whom he was serving time.

As his weekly evaluations rose he was permitted to attend college on base in the evenings. Every two weeks he got a weekend of liberty, to be spent within the city limits of Norfolk.

Six months after his court-martial, Brown applied for clemency. "I wanted to return to duty, not to be sent home. I felt I could benefit myself and the Navy—not necessarily in that order—by staying in."

That request was turned down. According to Brown, "They didn't want to make a mistake." He still had more to prove to the Navy.

Undaunted by the denial of clemency, Brown continued to work and prove himself. When he once again asked for clemency, the center's Clemency and Parole Board endorsed his request for release and subsequent return to duty.

"(Brown) has adjusted to confinement as a model confinee (and it is) strongly recommended (he be given) immediate release from confinement and restoration to duty," the report stated. "The board . . . feels that Seaman Recruit Brown would be a credit to himself and the Navy if allowed to return."

Brown was allowed to return. He was reinstated as E-3 and directed to serve in probationary status for one year, at which time the dishonorable discharge would be dropped.

"It took me 15 minutes to pack and leave the correctional center," Brown said.

Today he is serving with another air squadron on the West Coast. Thus far he doesn't feel a conviction and prison record have hindered his progress.

"The squadron gave Brown a chance to prove himself and he has done just that," said his present commanding officer.

Today, Brown's plans include retiring from the Navy as a chief petty officer and returning to college for a degree in sociology.

In July, Brown's probation ended and his dishonorable discharge was dropped.



"Before, I was always looking for a challenge, a fast buck, anything to prove to myself that I was better than others. I don't need that any more. Now I have confidence in myself, I know I can do the job. The opportunities are there; it's up to me to succeed." ↴

# Giving up Pizza for Rattlesnakes & Cacti



**Story and Photos by PH2  
Dwain Patton**

There's a Boy Scout camp in Southern Iowa that enjoys tremendous popularity because it's just down the road from an all-night pizza shop. During the summer months the place is packed with scouts tired of burnt-on-the-outside-raw-in-the-inside hot dogs and hamburgers. Convinced they have suffered enough for their cooking merit badges, the lads eagerly order and

consume giant combination pizzas and quaff gallons of root beer.

Pensacola's Boy Scouts have no such luck, particularly a group of fellows from Troop 642. They took part recently in a segment of training at the Navy Aviation Survival School. Not only did they not get pizza that weekend, but also they didn't have any food to burn. The order of the day was to go into the woods and swamps, and forage through the countryside for food.

# ...Survival for Pensacola Scouts



## The weekend got off to an auspicious start

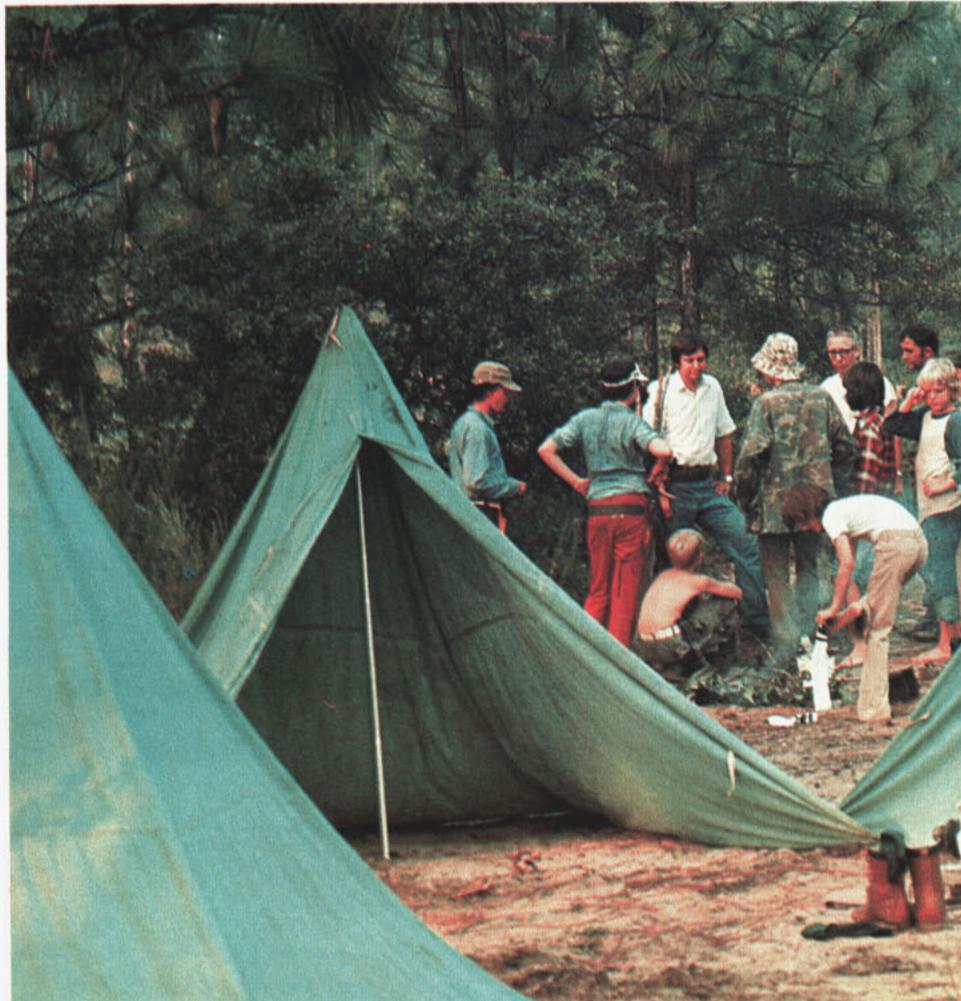
If, by some quirk, they had been able to make a pizza that weekend, the ingredients might have included rattlesnake meat, palmetto plant and prickly pear cactus, not the traditional pepperoni and mushroom varieties.

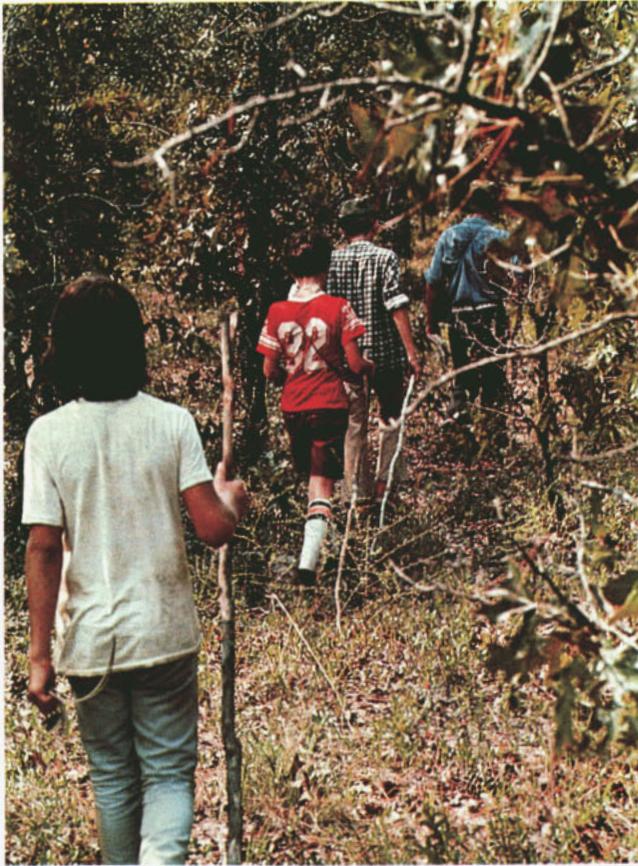
Harry Salzer, a retired chief hospital corpsman, is leader of the 11-boy Troop 642 which made the trip. Making arrangements for the event, he contacted Boiler Technician First Class Raymond Lamarche who teaches the Navy's aviation officer candidates how to survive in the wilds. Lamarche agreed to guide the kids in the woods.

After the weekend-long experience the Boy Scouts returned to civilization perhaps a few pounds lighter and with a few comments about living off the land.

"I got hungry but it was a lot of fun."

"I got hungry and stayed hungry."





## The next morning dawned on a group of soggy, yet stalwart lads

“I didn’t get hungry—I had some candy bars in my pack.”

The weekend got off to an inauspicious start. The boys were shown by Lamarche how to prepare jerky. This is a process of slicing and drying meat either in the sun or over a slow fire for at least five hours.

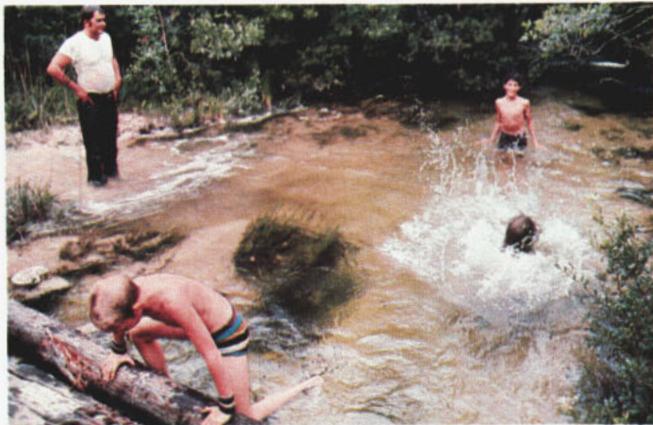
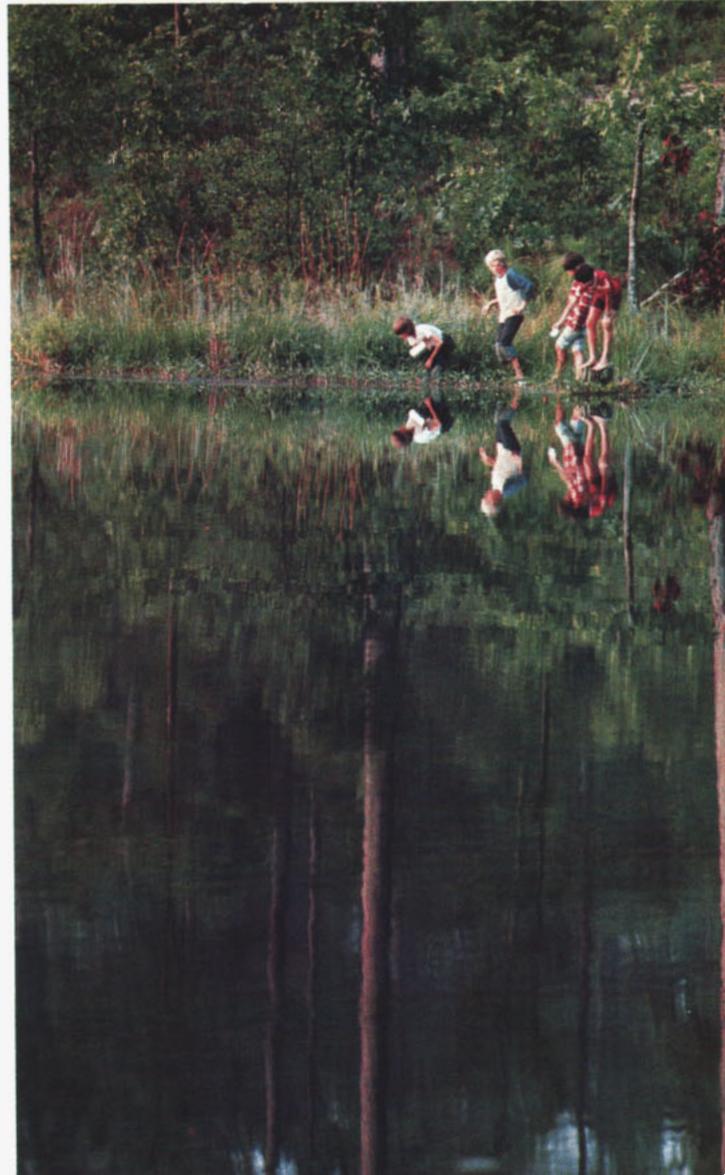
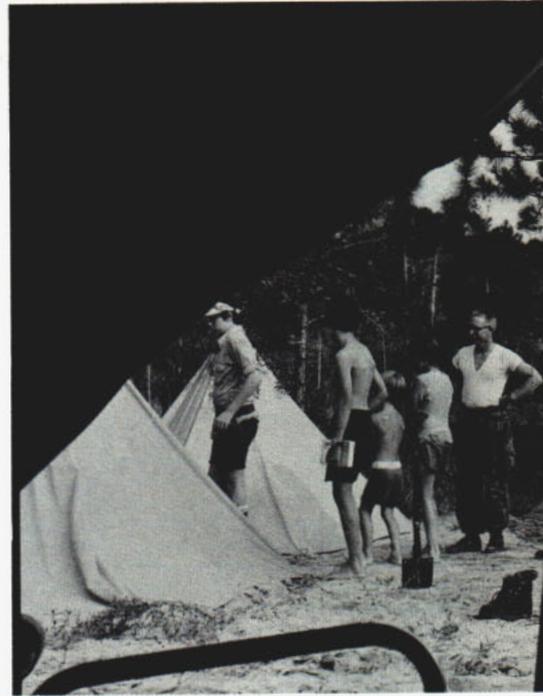
They set up a tent for drying the meat, got a smoldering fire going inside, and sat back.

But that’s when the deluge hit.

Rain and wind pelted the campers all night, put out the fire, threatened to demolish their tent and sweep them all into the Gulf of Mexico.

The next morning dawned on a group of soggy yet stalwart lads. They seemed stalwart, that is, until it struck them that they would not be starting the day with their usual eggs and bacon. Their food, they discovered, was in the dilapidated tent; Lamarche brought out the small strips of dried meat. (→)

Boys and water go together





"It tastes like jerky," said Scott Wilson, "But it's got sand in it."

Charley Tyson, however, was busy cramming his pockets full of the dried beef. "I got a feeling I'll need this later," he said.

After "breakfast," the boys gathered around Lamarche and got their first lesson in using a compass and in map reading. So armed, the scouts set out on a trek through the woods and a survival lesson. They had gone no farther than five steps when they spotted an undersized rattlesnake.

Using a forked stick, Lamarche showed the boys how to pin the snake and cut off its head. He explained the rattlers' habits (they spend a great deal of time sunning themselves) and how to handle them without "getting bit." He also mentioned casually that rattlers were a prime source of food in a survival situation. He dropped the snake into a can and the march resumed. Lamarche continued to point out important food sources as a prickly pear cactus—a good source of starch, and a bull needle plant—tasting much like a carrot.



Throughout that day and the next the boys traveled from checkpoint to checkpoint on the map, occasionally stopping to cool off in a stream. As one scout jumped in the cold water, his leap disturbed a turtle which, in turn, scared the boy.

For the boys the weekend was not just a lesson in survival. Three of them earned survival merit badges and two others earned scouting's trail merit badge. And, of course, they all tasted prickly pear carrot, or was it cactus? ⚓

# A GLIMPSE OF DAYLIGHT



Top: USS Puffer (SSN 652). Above: Two officers determine range and bearing of a mock surface target.

When most Navy ships return from a long deployment, there is frequently a good deal of fanfare—bands playing, wives and children waving and holding signs of welcome. At home, the sailors indulge in telling endless sea stories about their travels.

The lot of the submariner is different. The bands and fanfare are not always present to greet units of the "Silent Service." Deployment in a submarine often means long and lonely patrols, with a minimum of visits to foreign ports and faraway lands. The nature of their mission, mixed perhaps with an inbred penchant for secrecy, sharply restricts the information and entertainment value of a submariner's sea stories. All of which raises an interesting question: What's life like out there, or should we say "under there?"

While much of the answer may remain a mystery to the uninitiated, the following report from one attack submarine may shed some light.

The fast attack submarine *USS Puffer* (SSN 652) is designed to operate against enemy submarines and surface ships should the need arise. In addition to her attack capabilities, *Puffer* can also perform reconnaissance, lay mines, support UDT operations, transport troops and equipment, coordinate with surface ships and aircraft in conducting antisubmarine operations, and carry out at-sea rescue missions.

Weeks may pass before the modern attack submarine pops to the surface where her crew can catch a glimpse of daylight after practicing with other ships or operating entirely on her own.

*Puffer*, in fact, spent the entire 1975 Christmas holidays submerged. The crew's first view of 1976 came nearly a month later when the nuclear-powered sub surfaced after a 45-day patrol.

The "feel" of a fast attack submarine underway is not dissimilar to that of an airplane. A pair of controls, similar to those of an aircraft, tilt diving planes in the sub's sail and stern, causing the boat to rise or sink. A turn to port or starboard involves a roll similar to that of an aircraft.

"About the only time you experience any noticeable sensation of movement is when there is a sharp change in course, which we call 'angles and dangles,' or when we are near the surface and the sea is choppy," said Chief Quartermaster Joe Ada.

"Other than the fact that *Puffer* is not quite as maneuverable as an airplane, it's a fairly smooth ride," he added.

"They used to call us 'steely-eyed creeps of the deep,'" Mess Management Specialist First Class Tom

Jones recalled. "Duty aboard a diesel boat was no picnic and, after a run, I guess we looked as though we were on the verge of going stir crazy. Compared to the old diesel boats, the nukes are luxury liners."

*Puffer* is not a luxury liner, but her immaculate interior reflects the crew's desire to keep their environment as pleasant as possible.

*Puffer* is filled with some of the most sophisticated detection, communications, navigation, propulsion and computerized weapons systems yet devised by Navy scientists, but their effectiveness still depends primarily on *Puffer's* crew. While on patrol, the sub's crew stands watches on a rotating shift of six hours on and 12 hours off for the duration of the patrol.

"Stand watches, sleep, and eat . . . that's the way



FAST ATTACK-  
ANGLES  
&  
DANGLES

it goes," says Machinist's Mate Second Class P. Scott (Scotty) Mitchell. "We really look forward to chow time. Our food is served 'family style,' he said, "and it's almost as good as any home-cooked meal."

One of Scotty's shipmates, Chief Interior Communications Electrician Robert Oberting claims that most of the *Puffer* crewmen tell the time of day by the meal being served.

"If it's a snack-type meal, like soup and sandwiches, then it is probably midrats. If it's bacon and eggs, then you know it's morning," he said.

What of off-duty time not spent eating or sleeping? According to Electronics Technician Second Class Tim Polich, "We read, listen to music, watch movies, write letters and play games—cribbage, acey-deucey, chess, checkers and dominoes among others."

"And we study, study, study," Lieutenant Commander Gary Satterfield added. "To become nuclear qualified, you literally have to know every system on the sub, whether it directly pertains to your job or not. You never know when your knowledge might be tested in a crucial situation.

"You can't know enough," Satterfield stressed. "We are constantly breaking out the manuals and having brainstorming sessions about the systems."

Machinist's Mate First Class Henry Lemieux added, "The older, experienced crewmen are more than willing to help the newcomers learn the tricks of the trade. In this business you have to be able to take advice as well as give it."

About the only reason *Puffer* has to visit a port is to restock her pantries. "The only limitation in the 'Silent Service' is that the crew itself is not nuclear-powered. Human beings can't stay down indefinitely," said Chief Mess Management Specialist Edward Joynes, the man who heads *Puffer's* food services department.

IF IT'S BACON  
& EGGS  
...YOU KNOW  
IT'S MORNING

These occasional port calls allow the crew a chance to "recharge their batteries," said Chief Joynes. "As with all sailors, we like our liberty and our visits to foreign ports."

Perhaps the relaxed living style, the best food the Navy has to offer, and up to \$200 a month extra pay are incentive enough to volunteer for and stay with submarines. Maybe the compensation is enough for the extra days in confinement. One major compensation the submariners have is the close-knit camaraderie on the subs which is well known throughout the Navy.

The fanfare and the bands are usually missing when *Puffer* returns from patrol but then, her officers and men are used to doing things quietly. ⚓



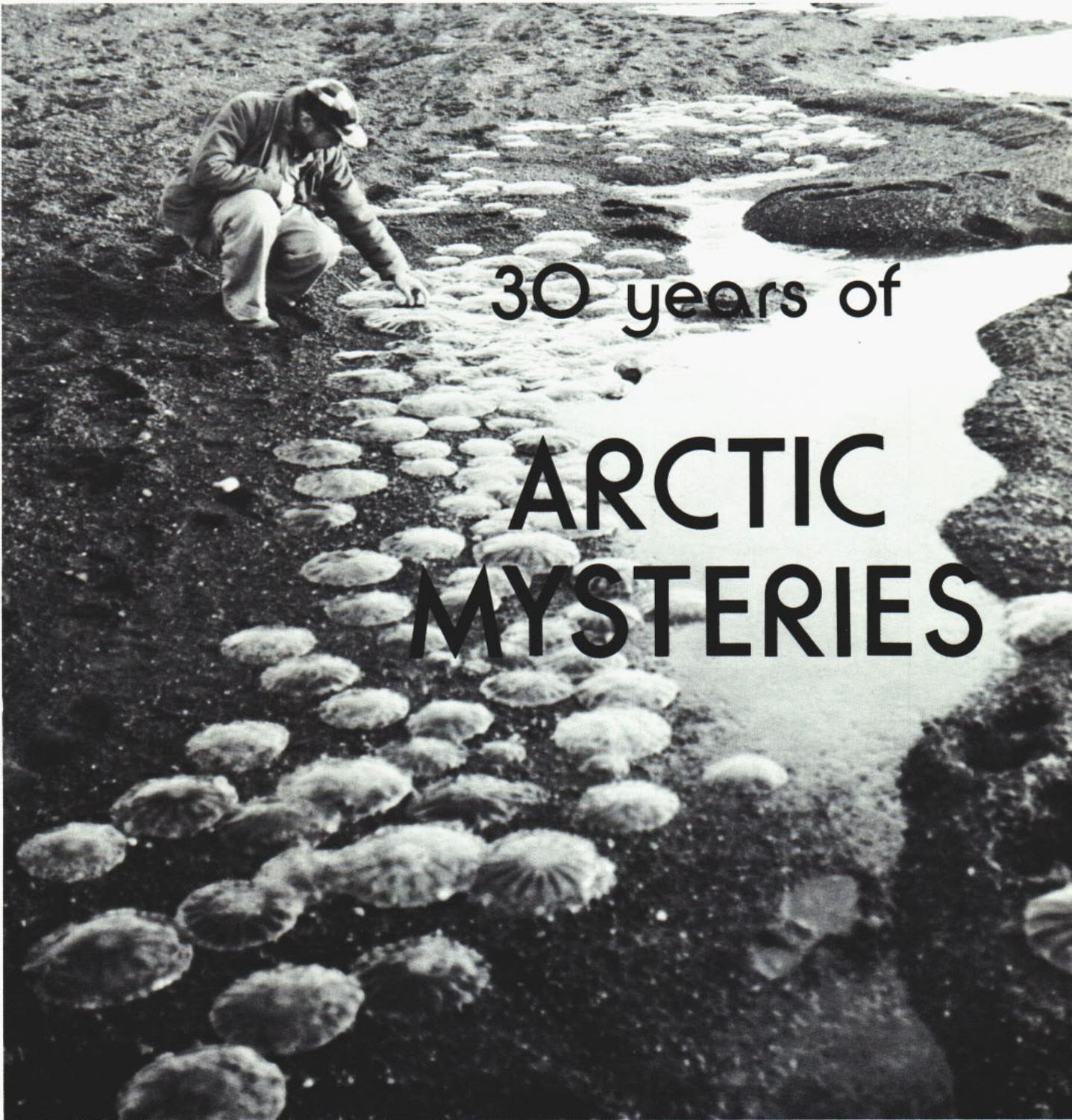


Opposite page: A Puffer crewman selects a choice cut of meat.

Above: Electronics Technician Third Class Albert C. Williams reads during off-duty time.

Left: Crewmen monitor various dials, gauges and meters.





30 years of

# ARCTIC MYSTERIES



Jellyfish cast on the beach are examined at the Arctic Research Laboratory.

### By JO2 Dan Wheeler

The Aurora Borealis—those eerie northern lights that appear to shine down on the remote Arctic—illuminate a land of contrasts.

It's a land whose terra firma has never been seen—permanent snow and ice cover the highlands and shrubs and grasses grow in a mixture of ice and earth in the lowlands. Across the Alaskan plains to the south stretches the North American Tundra, a wasteland permanently frozen to a depth of 1300 feet except for a few inches of permafrost that thaws ever so briefly during the summer.

The sun sets in November. Temperatures plummet to minus 50 degrees Fahrenheit and darkness covers the ice. In January daylight returns.

During the three months of continuous summer sunshine, temperatures soar to 60 degrees. Caribou make their annual trek to the feeding grounds with their ancient foes, the wolves, tracking closely behind.

This bleak region has been the home of the Naval Arctic Research Laboratory (NARL) for nearly 30 years. Under the command of the Office of Naval Research, this contractor-operated research facility is located in Barrow, Alaska, some 300 miles inside the Arctic Circle. NARL was established to collect data about the Arctic environment for use in Navy polar operations. Additionally, scientists search for clues which will unlock secrets that will provide an understanding of the ecological chain which enables Arctic animals to thrive under conditions impossible for human survival.

Beginning with a staff of six scientists working in a single laboratory, NARL today is the home of

nearly 200 scientists, military members and civilian support employees. The facilities consist of 116 permanent and semipermanent structures housing every type of research from oceanography to veterinary medicine.

Largest facility of its kind for Arctic research in the U.S., NARL supplies information and direct support to several government agencies and private institutions both American and foreign. Among the domestic agencies using the laboratories are the Air Force; Coast Guard; Environmental Protection Agency; and Department of the Interior. Additionally, NARL operates a far-flung network of field stations and Distant Early Warning (DEW) Line sites of varying sizes and capabilities.

Afloat, the laboratory has supported a number of passive oceanographic platforms utilizing ice floes to gather information enhancing our knowledge about marine geology, geophysics, biology and hydroacoustics about the Deep Arctic Basin.

All research conducted at Barrow contributes to scientific knowledge, providing data that may some day benefit the Navy and mankind directly. Among the more interesting NARL projects.

- Data is constantly being gathered about how ice grows and decays under the influences of atmosphere and ocean stresses, and the effects of ice movement on ambient noises, currents, salinity and temperature. This type of research, coupled directly with acoustic studies, is essential to the understanding of how sound reacts in Arctic waters—a must for submariners who depend greatly on sound to deter-



mine ranges, bearings and position.

- NARL pioneered the operational use of aircraft in polar regions and developed techniques for ice landings for both light and heavy aircraft. These developments made it possible to gather data from both the Arctic Basin and the North Slope of Alaska. C-46s have been replaced by C-117s and a small fleet of newer, specialized aircraft, but the landings are still made by flying a coastline approach to runways constructed of pierced-metal matting laid on coarse beach gravel. NARL's aircraft are used for transporting fuel, food, equipment and people into Barrow.

- Animal physiology has always been an important mainstay of the biological research program. In the lab's early days, Arctic animals required for study were kept only as

long as needed for study and then released. This proved an expensive procedure, and an uncertain one since the animal supply was dictated by Arctic seasonal conditions. In 1963, NARL established its own facilities to keep indigenous Arctic species on a permanent basis making them available to researchers year-round. Currently the Arctic animal compound houses about 20 species of Arctic animals including wolves, a lynx, golden eagles, a polar bear, and a variety of smaller mammals.

- Research continues seeking ways to make adaptation to Arctic climate easier for men from temperate regions or urban areas. In order for large-scale development of Arctic resources to be effected, men must learn the secrets of grappling with extreme and prolonged

cold, extreme day/night cycles, and stresses encountered while living in remote regions.

Knowledge gained from these experiments was used recently to improve conditions encountered by oil industry employees engaged in laying the trans-Alaskan pipeline. "One only had to witness the turnover rate of workers at remote Arctic sites, despite high wages, to realize the potential value of this type of environmental adjustment research," said one Navy scientist. The Navy, of course, constantly applies this information since it maintains several remote stations.

- Navy scientists are tackling the problem of oil contamination on land through a program of research which anticipates the consequences of a break in the trans-Alaskan pipeline and resulting flooding of



pollutant nature or not) has any effect on solar radiation levels. If these tests prove that solar radiation is affected, scientists want to know what that effect has to do with weather conditions on earth.

These studies represent but a few of many areas in which scientists are delving. NARL has made scientific research not only possible in the Arctic under optimum conditions, but through the years has also introduced improvements to time-tested techniques and equipment.

Because of the facilities at Barrow, scientists don't have to be "Arctic heroes" as in days past to perform in their respective fields in the Arctic Circle. Through Navy initiative, Arctic science has become more attractive to larger numbers of skilled specialists who, in turn, are searching for ways to improve men's living conditions and knowledge of the planet on which they live. ↓

**Far left: Gary Seiler feeds wolf pack. Left: Drums of fuel are loaded aboard an aircraft for delivery to research site. Below: Dr. Michael Philo (left) conducts immunization program.**

the tundra with oil. So far, seven years of research into this problem has been conducted and continues because of widespread applicability in other parts of the world. Currently, the Navy has a patent pending on a recently developed "fertilizer" which will microbiologically destroy crude oil spilled on ice, water or soil.

• Inroads are also being made into curbing air pollution and cleaning the air once it is polluted. This research was given impetus when pilots flying over Barrow reported a recurring band of yellowish-brown haze like that found over metropolitan areas. Whether the haze is a natural phenomenon or pollution is not known at this time, but vacuum pumps are collecting samples for study. Scientists are trying to determine if the haze (whether of a





# KATHLEEN Storm Imperial

Photos by PHC Ken A. George and PHAN Pat Sweeney

Early Friday morning, September 10, a devastating storm whipped through Imperial Valley, Calif., killing three people and injuring several more as ravaging floodwaters followed in its wake. Homes were torn from their foundations and automobiles were tossed about like toy boats. Seventy per cent of the small community of Ocotillo was buried under 10 feet of mud.

By late afternoon Typhoon Kathleen had passed and Ocotillo's residents—mostly senior citizens—began the grueling task of digging out debris and restoring their homes. Sailors from the nearby National Parachute Test Range in El Centro (which also was flooded) volun-

teered assistance and moved in to help with 20 four-wheel drive vehicles and three aircraft. Braving storm waters and mud, these Navy men and women became heroes to the unfortunate residents as they labored side by side during the next week.

They shoveled mud from living rooms, pumped water from basements and did everything possible to restore a sense of normality to the community.

"I just don't believe it," said one grateful resident. "Three days ago I wished I had been washed away with my possessions but, now, I should be able to move back home thanks to the Navy's help." ↴



# Bearings

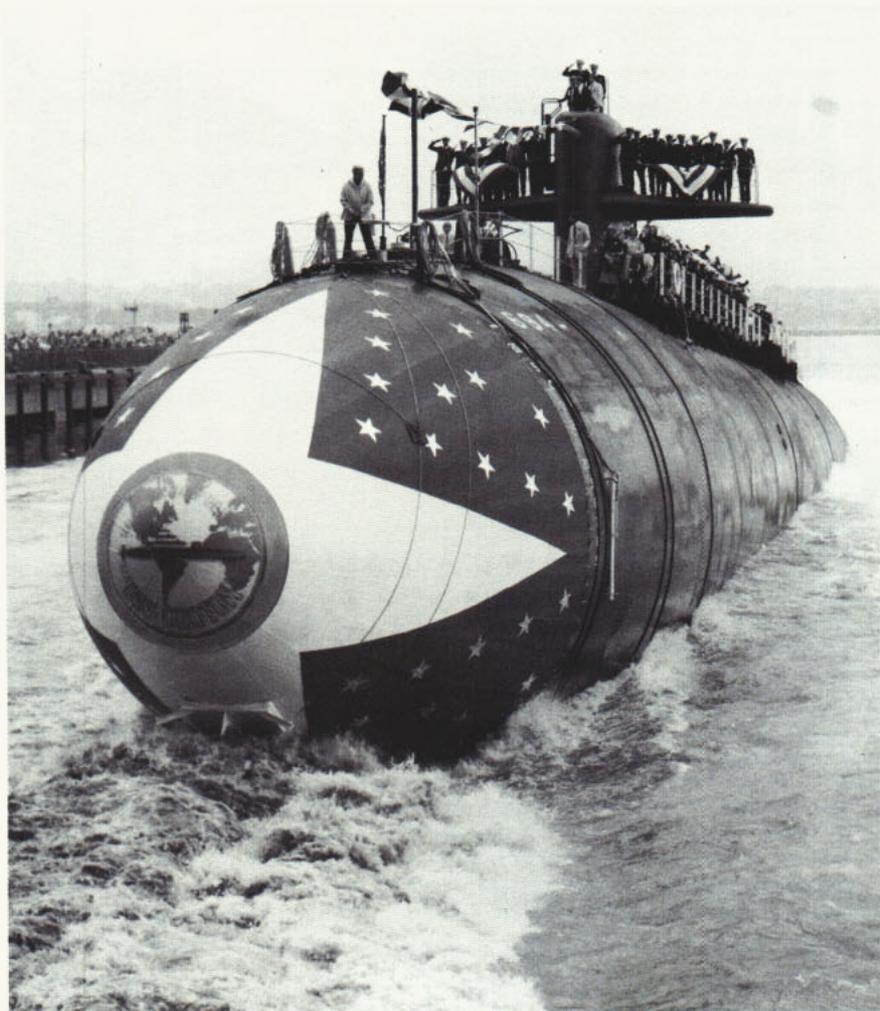
## 694 Honors Submarine Capital

After launching more than 150 submarines, Groton, Conn., finally has one it can call its own—SSN 694 has been named after Groton. The boat was christened and sent splashing into the Thames River—where else but at the Submarine Capital of the World.

*Groton* is the 49th nuclear-powered submarine to be launched by

the Groton shipbuilders. During World War II, the shipyard launched one submarine every two weeks. In recent years it has built more than a third of the Navy's operational nuclear submarine fleet.

There are now 14 submarines under construction in Groton including *Ohio*, lead ship of a new class of *Trident* missile submarines.



## Among the Best



(Photo by PH2 Terry Breckford)

The Legion of Merit is the second highest peacetime award and is given "for exceptionally meritorious conduct in the performance of outstanding services." One who recently received this award is Boiler Technician First Class Andrew Gallagher for his actions aboard *USS Belknap* (CG 26) during the *Belknap*/*USS John F. Kennedy* (CV 67) collision in November 1975.

Gallagher, now assigned to the Naval Amphibious Base, Little Creek, Va., was supervisor of the watch in *Belknap*'s number two after boiler room at the time of the collision. He directed and assisted the men of his watch section in securing the fuel oil closing valve and fuel oil service pump in the burning boiler room, thus preventing the ship's fuel from feeding the fire. He then directed the men to safety.

By remaining behind to ensure that everyone got out of the compartment, Gallagher suffered severe injuries and, as a result, was hospitalized for three months. He is still required to wear elbow-length gloves as a cover for his burns.

As a result of his actions, Gallagher was credited with greatly limiting the damage to *Belknap* and with saving the lives of many crewmembers. In addition to the Legion of Merit, he was meritoriously advanced to first class.



## Recruiter's Windfall

Small-town recruiting is nothing new to most Navy recruiters. But when five young men from the Indiana community of Windfall, population 1150, opted for enlistment within days of each other, they represented a real windfall for the recruiting station at nearby Kokomo.

Windfall provided a real windfall for Navy Recruiter Aviation Electronics Technician Second James E. White. His new recruits were: Rex E. Long, Robert H. Whitehead, Jr., Kevin R. Richards, Dave R. Hall and Kim E. Ford. (Photo by JOC John D. Burlage.)

## Paint-by-Numbers Cost Effectiveness

There's a sailor at NAS Lemoore, Calif., who number paints on ground support equipment (GSE). He's not an artist, and he's not painting by-the-numbers. The numbers he paints represent the cost of the pieces of equipment. The idea is to remind people that they're handling expensive gear, paid for by American taxpayers.

All this is the brainchild of Aviation Machinist's Mate First Class Mike Carter.

"To save the Navy and the squadron money I thought we needed a program to combat neglect and abuse," said Carter, VA-122's GSE division supervisor.

"We think of it as a low-cost program with a high potential benefit."

The squadron's GSE personnel handle from 2000 to 4000 items of support gear a month, including tow bars, mobile electric power plants (MEPP) and several different kinds of trucks. Under GSE's supervision, the gear is checked in and out to

squadron personnel. The person signing out for the equipment has total responsibility.

There's no such thing as an inexpensive piece of ground support equipment. Prices range from \$1200 for a tow bar to \$47,000 for an MEPP. But does the simple act of spray-painting a piece of gear

make an individual more responsible?

"I believe it does," says Carter. "I've had people make comments like 'does an MEPP cost that much'? You could buy a nice house for that. Consequently, they begin to be more careful with it, proving the program works."

(Photo by PH3 Phil Knouf)



## He'd Give His Teeth To Fly. . . and He Did

"Winning is depressing," said Commander Buddie Penn, skipper of Tactical Electronic Warfare Squadron (VAQ) 33 at Naval Air Station Norfolk.

CDR Penn, and his squadron fulfill a unique role as the Navy's "professional enemy," conducting air attacks against fleet air and surface defenses.

"Our job is to train the ships and aircraft of the Navy to operate effectively in an electronic warfare situation. When we lose, it means that we are accomplishing our primary tasks."

"We win too often," he said recently. "We prefer to lose. Losing means the fleet's defensive capability is 100 per cent. There would be no way for the enemy to penetrate our defenses."

CDR Penn, a decorated veteran of the air war in Vietnam, is no loser himself. But he has suffered losses before to get what he wanted. Take those six teeth he used to have.

When he went to Naval Aviation Officer Candidate School at Pensacola to ask about becoming a Navy pilot, he was told by a medical officer he couldn't be a pilot or even receive a commission because his back teeth didn't meet correctly.

"They told me I could become a seaman. But seamen don't fly and I was determined to fly," he said.

Penn went home to Peru, Ind. and into the office of an orthodontist who said he could correct the problem with braces but it would take three years. Instead, Penn had six teeth pulled and in six months went back to the Navy and Pensacola.

"You can do anything if you want it badly enough and I wanted to be a Navy pilot. The Navy people were absolutely amazed I would pull my teeth to get into the program."

Today, CDR Penn—minus those six teeth—is actively engaged in the "depressing" business of winning.

**First Place: DM3 Daryl Talbot**

**1976 All-Navy Cartoon Contest**



**"THERE'S NO SUCH UNIFORM AS SUMMER CASUAL!"**

## Yarnell Visits Romanian City

Amid the thunder of a 21-gun salute, USS *Harry E. Yarnell* (CG 17), the second Navy ship to visit Romania in more than 50 years, steamed into Constanta for a four-day visit in September.

Few American sailors get the opportunity to sail the Black Sea and even fewer make liberty calls there. Despite a Romanian law prohibiting its citizens from fraternizing with foreigners, a desire to communicate and a curiosity for anything American was evident as more than 3500 visited *Yarnell*.

Besides official dinners and receptions in honor of the visit, the Romanian Navy provided tours for the crew to resort areas, and to archaeological sites and museums. Unfortunately, Dracula's Castle was too distant to reach by bus, but a wide range of sights close by Constanta were more than anyone could cover in the four days.

*Yarnell* left on the morning of the fourth day amid the same pomp and formality that marked her arrival. Her crew carried back to Norfolk sea stories of an adventure few sailors experience—a visit to a Warsaw Pact nation on the Black Sea.

## Dinky Size All Right For Sailing Dinghies

Determination and agility are two important prerequisites of crewing on the small, sloop-rigged dinghies that are most common to college sailing. Naval Academy Midshipman Janet Kotovsky, the first woman to compete on an Academy varsity team, possesses those two characteristics, and one other—her small size.

According to Graham Hall, director of sailing, Midshipman Kotovsky, at 5 feet, 3½ inches, is a perfect size to sail dinghies in the moderate winds of the east coast.

Midshipman Kotovsky was crew for First Classman Skip McVay in a sailing meet in September at the University of Delaware. They won

against teams from University of Delaware, Penn State, Dowling, Villanova and Franklin and Marshall.

After the regatta, Kotovsky and her skipper received the traditional sailor's dunking—a toss into the Delaware River by their competitors and teammates. ⚓



# MAC...

## Space-Available Travel



There are no Pucci-dressed flight attendants to ask if you'd like champagne with your breakfast. Instead of the carefully coordinated plaids and florals of most airplane interiors, the cabin is plain. A pallet of cargo is securely netted into the spot where the movie screen should be, and the few seats are facing backwards.

Then why are military personnel willing to wait sometimes days for a flight, reading paperback books, eating at the cafeteria, and taking catnaps in a hard chair? Because the airline is the Military Airlift Command (MAC) and the flights are free. But flying free on MAC aircraft isn't a right, it's a benefit that is a by-product of military missions that may have unused space

after hard mission requirements are met.

It's possible for military personnel and their families to fly to Hawaii, Okinawa, Germany, Australia, in fact, nearly anywhere that MAC flies, for the cost of a couple of box lunches from the inflight kitchen.

The Military Airlift Command, operated by the Air Force, runs scheduled and unscheduled military flights and charters commercial planes for transporting personnel and cargo. After cargo and all the military passengers on official orders are on board, if any space is left over, space-available hitchhikers get their chance. Most flights depart Travis AFB, Calif.; Norton AFB, Calif.; McGuire AFB, N. J.; and Charleston AFB, S. C.

Unless your passport, visas and immunizations are up to date, Space A trips take some planning. An Air Force pamphlet (AFP 76-37) can help you. It is available through administrative channels or at any MAC aerial port. The pamphlet provides information on registering for flights, passport, visa and immunization requirements, travel priorities, customs and prohibited items.

Unless you're going to Hawaii, the first thing you'll probably need **“... if you're a gambler at heart, waiting is half the fun.”**

is a passport. Passport applications are available at county courthouses. The application must be returned with a certified copy of your birth certificate, available by writing to the Recorder's Office of the county in which you were born, and two passport photos. Have additional photos made if you're planning to visit countries which require visas. A visa is a permit for entrance into a country and requires photos also. Entry requirements to any country

can be obtained by checking the Foreign Clearance Guide at your local personnel or transportation offices.

The photo lab at some naval installations is able to take passport photos, or they may be obtained from a commercial photographer.

To reenter the United States after your trip, you should have had a smallpox vaccination. Other immunizations are recommended for particular countries. Most naval hospitals can give the inoculations. Make sure you get an immunization record and make sure it is kept up to date. It is required for reentry into the United States and for entry into some foreign countries.

You'll probably want to visit a travel agent to arrange for visas and for a return ticket. Unless you have unlimited leave, you'll want a guaranteed return. It's usually more difficult to hitch a ride back to the United States Space A than to get to a foreign country; however, if you're lucky and don't have to use your return ticket the cost is refundable in most cases.

After you have your passport, immunization record, visas, leave papers and luggage in hand, you head for the Air Force base from which your flight departs and settle down to wait. If waiting and uncertainty are traumatic for you, take some good light reading material or something to occupy time, or take a commercial flight. But if you're a gambler at heart, waiting is half the fun.

- Free snacks are provided on all scheduled C-141 *Starlifter* overseas passenger missions. These are limited items, not the type found in purchased box lunches.

- Reduced check-in times. An hour and a half versus the old two hours prior to departure.

- MAC Passenger Service people are receiving special training in

customer relations. The classes have been received enthusiastically by terminal people and by all accounts have helped them to better

**“MAC . . . does not try to compete with the airlines.”**

assist the hundreds of travelers they see daily.

To aid the military traveler, MAC has also produced several informative pamphlets which can be obtained through administrative channels or at terminals. TRAVEL TIPS, Air Force Pamphlet (AFP) 76-34, lists telephone numbers for billeting and flight information at the five major stateside terminals, and it includes addresses and phone numbers of major shipping facilities used by PCS travelers. It also explains dress requirements, baggage allowances and check-in procedures.

Two other AFPs—76-36 and 76-37—offer information on international space-available travel to senior officers and regular passengers, respectively.

Since MAC's primary mission is strategic and tactical airlift, it does not try to compete with the airlines' plush interiors and terminals, but it hopes to make up through service what it lacks in amenities. Should you be one of the 25 per cent of passengers selected to fill out a questionnaire, the Passenger Service Committee will be happy to receive your suggestions to improve service. (—>)

# Your Ideas May Fly High with MAC



By SSGT W. Ray Huesman

While Military Airlift Command (MAC) flights aren't capable of competing with civilian airlines in terms of luxury, many improvements have been made in 1976. In January, the MAC Passenger Service Improvement Committee received special emphasis within the command.

The committee is headed by MAC's deputy chief of staff for Air Transportation, Brig. Gen. Charles B. Knudson, and it has been acting on suggestions submitted by the users of MAC aircraft. These suggestions come from 25 per cent of all passengers who are asked to fill out critiques. Common problems are then identified and acted on.

Some of the improvements currently underway are:

- X-ray machines to speed baggage processing through security

checks have been installed at the larger terminals.

- Roving passenger ambassadors have been assigned to all major air terminals to help passengers.

- Families traveling overseas are given more desirable departure times, whenever possible.

- Passengers can now select seating in smoking or nonsmoking areas.

- Some military aircraft used for passenger flights have been improved by adding better lighting, carpeting, coat racks, separating passengers from cargo areas and improving cabin temperature control.

- National magazines are available on all passenger flights. These include those normally found on newsstands throughout the United States dealing with family life, homes, sports and children's reading. Service magazines such as *SOLDIERS*, *AIRMAN*, and *ALL HANDS* are available.

The key to Space A travel is

flexibility. Ideally you should have visas for every place you're willing to go, and for all the countries in which you might wish to stop en route. You can sign up for a maximum of five destinations, and it is advisable to take the first flight for which your name is called. If you pass up a seat on an unscheduled flight to wait for a particular scheduled flight, you may hear the common announcement, "There will be no seats for Space-Available passengers on this flight." Your next turn may come up in a few hours or a few days or, on occasion, longer. If, however, you elect not to travel on a scheduled flight or you are not in the terminal at the time a seat becomes available, your name will be removed from the list and you will have to start over again.

The single military traveler has the best chance of getting on a free flight. The next best chance is for two military travelers, and then a military sponsor and a dependent. The more people in a group or family, the smaller the chances of staying together. If a couple or family are determined to get to a destination, they might consider splitting up, with the sponsor taking as many in the family as he or she can, and the rest taking a commercial flight. Dependents cannot fly space available unless accompanied by their sponsor.

Space A flights are among the best privileges available to military personnel. But, it is important to remember that the flights do not exist to take leave-status passengers on vacations. They have a military mission. Space A is a gamble and there's no guarantee you'll win. So be prepared to pay for your return trip, and look at any leg on which you can fly MAC as a favor, not a right. If you're lucky, you can fly the friendly skies of MAC. ⚓

from the desk of the

# Master Chief Petty Officer of the Navy

## Advancement— The Need for Leaders

The Navy wants you to advance. It needs skilled petty officers in today's technical Navy to operate and maintain its ships and supportive technology; to handle its planes; to feed its sailors and care for them medically; to construct its buildings; to play its music; to take its photographs; to do its counseling. Skilled petty officers are essential in all the Navy's ratings—from Aerographer's Mate to Yeoman—for without them it cannot function. The Navy is more than hardware, it is people.

In addition to know-how, petty officers must have the ability to lead people. Leadership is a necessary characteristic of all petty officers who wish to move up the advancement ladder.

The first step in the succession of advancement from E-3 to E-9 is the third class petty officer. Obviously, one does not advance to higher levels of leadership and responsibility without attaining positions of leadership and responsibility at the lower levels. Advancement to all petty officer grades requires successful completion of a Navy wide examination; however, the final decision as to whether or not a person will be advanced rests with the commanding officer. Based on his or her experience, the commander determines if an individual has the ability to work effectively in the next higher pay grade.

The newly advanced third class petty officer encounters a variety of new experiences. He or she gains the necessary authority to perform duties requiring more responsibility and expertise, the petty officer becomes a leader and can gain the respect, prestige and satisfaction of being a good one.

Also, benefits and entitlements are more attractive for the E-4. For example, if you have over two years of service you are entitled to government paid transportation for dependents and dislocation allowance.



MCPON Robert J. Walker

It is true that at present the pay difference is not great between E-3 and E-4, but the only route to second and first class petty officer is through third.

As you advance through the rates you will have a chance to develop and exercise your leadership ability. And, regardless of whether or not you remain in the Navy for an entire career, every organization will demand to some extent that you display leadership. You must also consider the personal reward of knowing you can advance and succeed.

Remembering that the quality of the Navy to a great degree is dependent upon the quality of its petty officers, you should want to advance. The Navy cannot be more efficient, more ready for action or more responsive to its members than are its people in positions of authority—positions that begin with the third class petty officer. Also, if you wish to have the Navy's existing regulations applied as equitably as possible, you must become part of the system that administers them.

The Navy's need for leaders and your desire for the benefits, tangible and intangible, that can be derived from advancing complement each other well. But, much of the responsibility to encourage and assist Navy men and women to advance lies with their seniors. Our young sailors cannot all be expected to take the proper steps for advancement without someone showing them the way to succeed. Leading petty officers can show by example what it means to be in a position of authority and leadership. I strongly urge all leading petty officers to encourage sailors to take the required correspondence courses, perform the practical factors and participate in the Navywide examinations for advancement.

Historically, one of the primary leadership traits has been concern of leaders for their people. I feel there is no better way for leaders to demonstrate that concern than by showing their sailors the way to success through advancement. ↓

### Reminder—

**All aliens must  
register during  
the month of January.**



**By PH2 Terry C. Mitchell**

When was the last time you "exercised" your camera? Yes, that's right—"exercised" your camera. Cameras, like other good mechanical instruments, need to be exercised periodically to increase their reliability.

But how do you "exercise" a camera?

Easy. Select the slowest shutter speed and fire the camera a few times, gradually moving up to the fastest speeds, until you have fired a few at each speed. Then turn the f/stop ring back and forth a few times. Putting the camera through these paces will evenly distribute the internal lubricants.

But exercising your camera is just a small part of keeping it in an "up" status. The overall picture is preventive maintenance. Sure, preventive maintenance just like that performed on a gun mount or an anchor windlass or even, for that matter, your own teeth.

The primary rule is simple—Keep It Clean! Dirt, dust and even oil from your hands are some of the camera's worst enemies. Keeping your camera clean involves a very small investment in time and money.

When you purchased your camera, whether from the Navy Exchange or in a foreign port, you should have purchased these additional items: a linen handkerchief, a bottle of lens-cleaning solution, a soft camel's hair brush (preferably with rubber squeeze bulb) and a skylight or ultraviolet filter for each lens.

Take the new handkerchief and wash it repeatedly (do it yourself—don't send it to the ship's laundry) in soap and water until it will dry soft. The handkerchief will serve in place of (scratchy) lens tissue. Now you are ready to start preventive maintenance on your camera.

First remove that roll of film that has been in there for the past three months. You should have sent it to the processor immediately after taking the pictures, but that is another whole story in itself. While you have the camera back open, use the brush to remove any dust or film chips inside the camera. Use extreme caution here—avoid brushing the shutter curtain at all times. Injury to this delicate membrane could ruin your camera, and cause a staggering repair bill later. So if there is any dust on the shutter curtain, gently—repeat—*gently* blow it away.

After making sure all dust and film chips are removed, close the camera back. Now turn your attention to the exterior. That dust and dirt on top could work their way into shutter controls and rewind cranks. Take a lightly dampened cloth (not your new handkerchief) and wipe down the outside of the camera

except for the lenses. Hard-to-reach spots are easy to get to by using a cotton swab on a stick.

Next, check the battery. This is the heartbeat in many of the new cameras today. If it is not up to snuff, replace it. If it checks out okay, keep it. One tip here is to remove the battery from the compartment and gently polish it with the eraser from a pencil. Check the contacts in the camera to make sure they are bright and shiny. After polishing the battery, wipe it off with a clean, dry cloth (not your new handker-



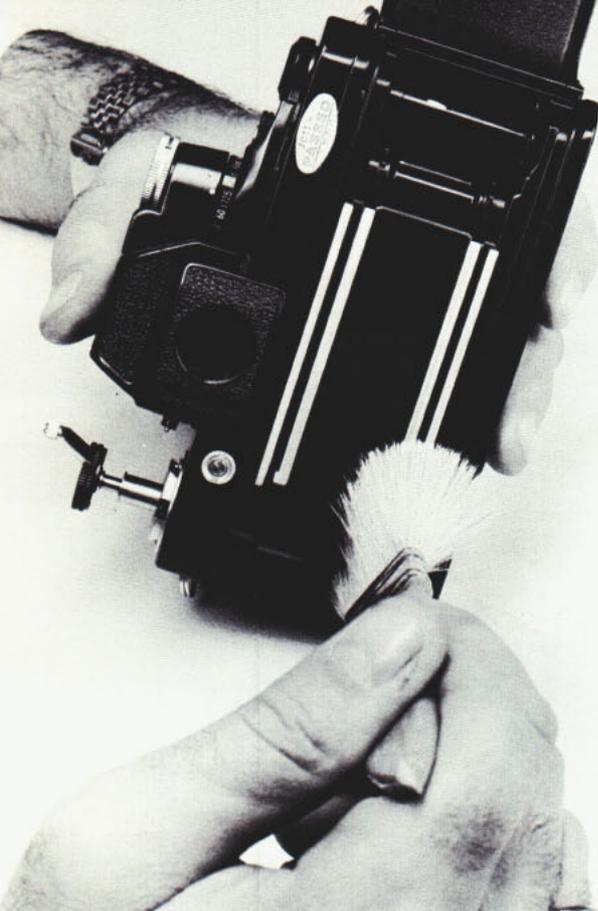
**Camel's hair brush, soft handkerchief, bottle of lens-cleaning solution and a pencil are essential camera accessories.**

chief) and replace the battery in the compartment, using the cloth to handle the battery. The acids in your hand oils may affect the battery casing.

Now that you have the camera body pretty much in shape, move on to the lens mount area. In single-lens reflex cameras, the mirror for the viewfinder system is here, immediately behind where the lens would be. This mirror is coated and will scratch very easily, so use your blower brush to remove dust or lint. Once this area is clean, place the camera face down on a clean surface.

Now turn your attention to the lenses. With the lens caps on, wipe down the lens barrel with the same cloth you used on the camera body. In order to clean the whole barrel, turn the focusing ring until the lens extends to its maximum length. Once the barrel is cleaned, remove the lens caps and use your blower brush to remove any dust or dirt from the glass surfaces. If the lens has a fingerprint or smudge on it, place a drop of cleaning solution on your new, soft handkerchief. Using the handkerchief, polish the lens

**Left: Camera cases come with foam that can be cut to suit your needs.**



**Left:** A camel's hair brush removes dust or film chips from inside the camera; use extreme caution in the area of the shutter curtain. **Below:** Polish the battery contacts with a pencil eraser to ensure good electrical connection with the camera contacts. **Right:** Many manufacturers make a foul weather jacket for cameras; you can improvise by using a clear plastic bag.



surface lightly until it is absolutely clean.

Never put the lens-cleaning solution directly on the lens! The solution may seep into the lens mounts in the barrel and destroy the cements used to hold the lens elements in place.

Put the clean lens aside for a moment and clean the interior of the lens cap. Put the cap back on the lens to keep out dust until the next step. Take that new skylight or UV filter and clean it the same way as the lens surfaces. Once the filter is cleaned, remove the lens cap and install the filter semipermanently. The filter will protect the lens surface from dust and dirt and is much cheaper to replace than a new lens if scratched.

Okay, that takes care of the front of the lens, but how about the back?

Simple; use the same procedure, only this time twist the focusing ring until the rear lens elements are extended. Once the lens is cleaned, check the mount for signs of dirt or wear. If everything is okay, install the lens on the camera body.

The camera is now clean and you prefer to keep it that way. Sometimes this is hard to do on a ship, with the salt spray in the air, or at a naval air station with sand and grit being whipped around the flight line. Again, a little prevention and protection will help.

First, use that ever-ready case that came with the camera. The case will cover most of the camera, keeping out dust and dirt, and it will absorb some of the hard knocks that are sometimes hard to avoid.

For foul weather photography or as a means to keep out some of the dust and dirt, make a raincoat for your camera out of a transparent plastic bag. That bag your blues came in from the dry-cleaners is ideal and cheap. Position the bag on a hanger. Cut one hole approximately the size of your lens in the front of the bag. Put your camera in the bag, with the lens protruding from the hole in the front. Cover your arms with the bag, and bring the camera to your eye as if to focus. Mark where the eyepiece is on the bag and then cut a U-shaped flap at that mark.

The flap should be hinged at the top in order to keep out rain. Lift the flap away from the eyepiece to focus or the plastic may affect your visibility.

If you plan to do a lot of shooting in foul weather or in dusty areas and you think the bag isn't durable enough, your camera's manufacturer may offer a protective cover of thicker gauge plastic as an accessory.

When leave or TAD puts you aboard an airplane, take your camera bag with you as carry-on luggage. Despite many assurances and fragile stickers, baggage that goes into the luggage compartment can get rough treatment and your camera could be damaged.

When going through the security check at the terminal gate, insist on a hand search; don't subject your camera and film to the x-ray machine. Even though one pass through the machine may not fog the film, repeated exposure will.

As your camera system expands with each purchase, you may decide that you can't go on carrying it all in



a brown paper bag. Buy a large camera case. When you do buy a case for your system, consider these three things; protection, longevity and expansion. How well will the case protect your equipment? Will the case you are considering be large enough for future expansion of your equipment? Is the case durable enough to last until you deem it necessary to buy another one?

Many cases come with foam rubber which can be cut and fitted to your particular needs. The foam is easy to replace when worn out or you need to expand some more.

But what if you don't want to take your camera along with you on deployment or extended TAD and you must store it for a while?

Simply give it the good cleaning it deserves first. "Exercise" the camera to distribute the lubricants, but make sure that you don't leave the shutter cocked. (Tension on the shutter springs over a long period of time could cause gross errors in shutter speeds after you remove the camera from storage.) Then remove the camera's battery. Over a long period of time, many batteries will deteriorate and leak chemicals into the compartment. This could cause corrosion and permanent damage to the camera.

With the camera in its case, carefully wrap a plastic bag around the entire assembly. Care should be taken that the camera is not stored in an area that will be subjected to abnormally high or low temperatures. Normal room temperatures are best. If the climate

in your storage area has a particularly high humidity, place a small package of dessicant (silica gel) in the plastic bag with the camera.

During the storage period, "exercise" the camera at least once a month or arrange for someone to do it for you. Also, install a fresh battery and subject the camera meter to varying lighting conditions so that the needle will move the full scale.

Remember that your camera is a precision machine with a carefully designed and manufactured optical system. Treat it as such and it will reward you with long and faithful service.

The best prescription for its care is the proverbial ounce of prevention. ↓

# NAVAL OBSERVATORY

## The Nation's Timekeepers

LCDR Wm. McAllister, USNR-R

Photos by PH2 Terry C. Mitchell

In one division, workers spend their days watching the clock.

In another, workers lie down on the job, and in a third, as often as not, workers prepare a publication that is no sooner used than it is torn apart.

Does the Navy tolerate such behavior?

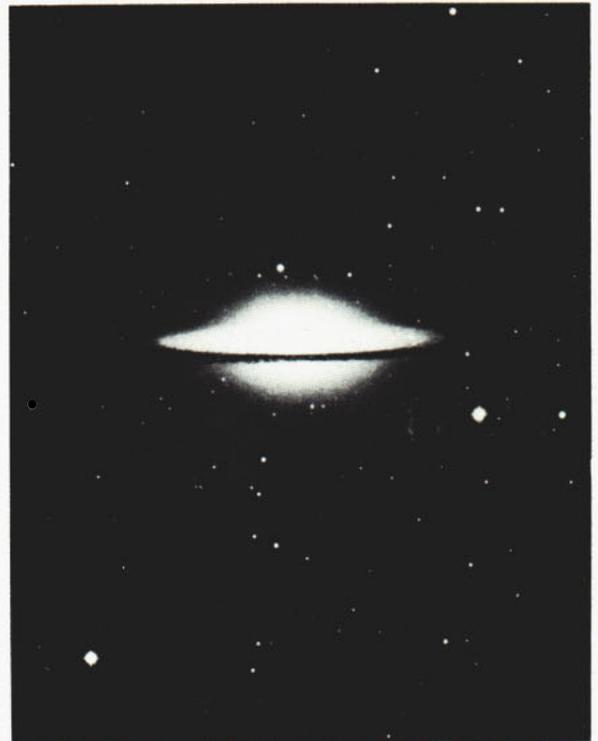
Not only is such behavior tolerated, but it is welcomed at a small, little-publicized Navy command in Washington, D.C. At the Naval Observatory, each of those tasks is essential to the nation's defense efforts and to fleet operations.

The clock watchers are the Navy's—and the nation's—official timekeepers. The people lying down on the job are astronomers, who often have to lie down on small couches as they peer through telescopes and plot the stars and planets.

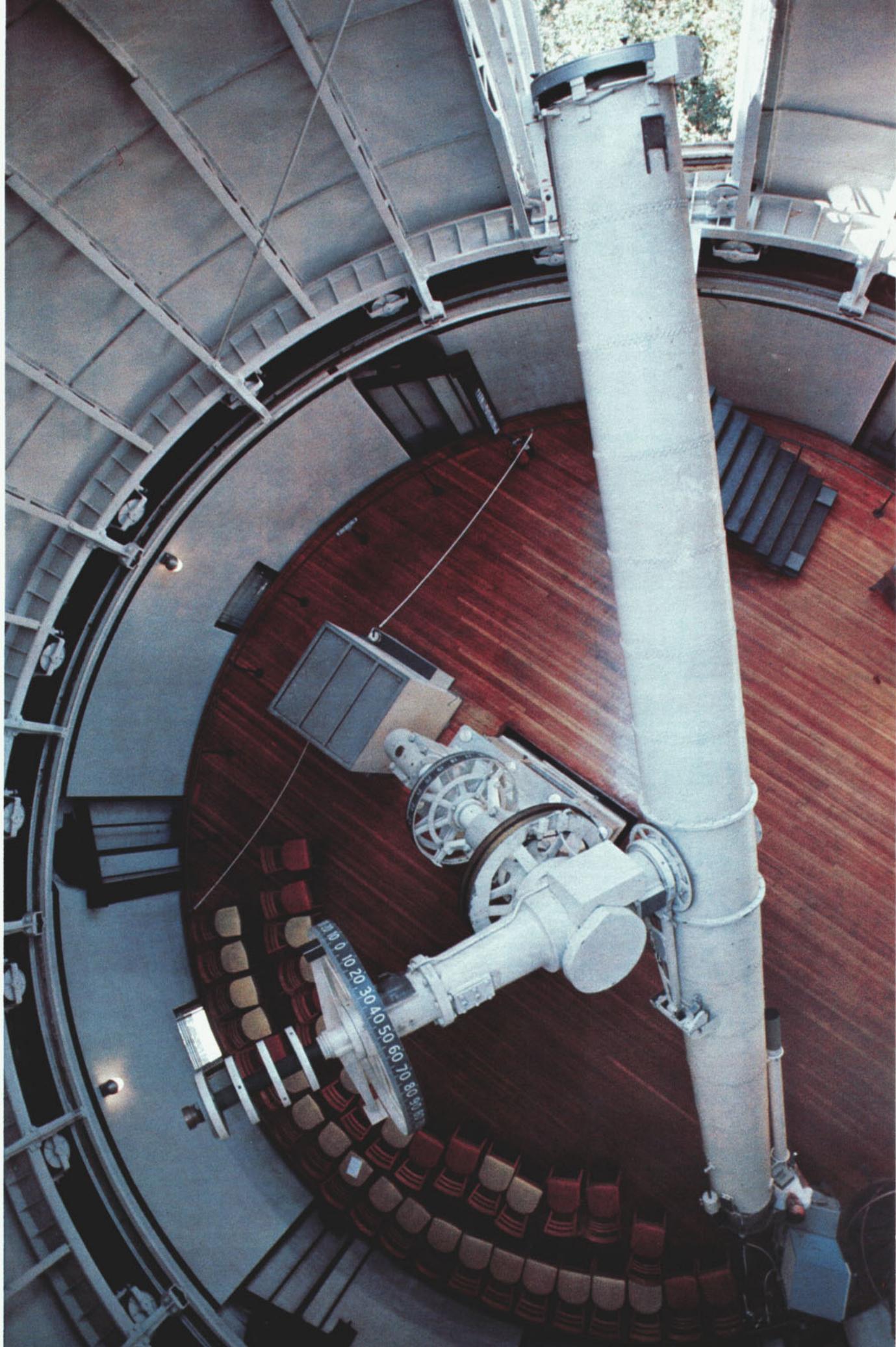
And the Navy publication that is frequently ripped apart—as it is used—is the Nautical Almanac which, with its sister publication, the Air Almanac, is essential to ship or aircraft navigation.

These functions are often taken for granted by members of the fleet. They are performed with scientific precision and detailed accuracy by the staff of the Naval Observatory. It is located on a tree-covered knoll along Embassy Row in northwest Washington.

To most Washingtonians, the observatory is best known, now, as the official residence of the Vice Presi-



Above: Sombrero Nebula galaxy, 14 million light-years from earth, is 25 light-years in diameter. Right: Twenty-inch refractor at the Naval Observatory is used to study double stars.

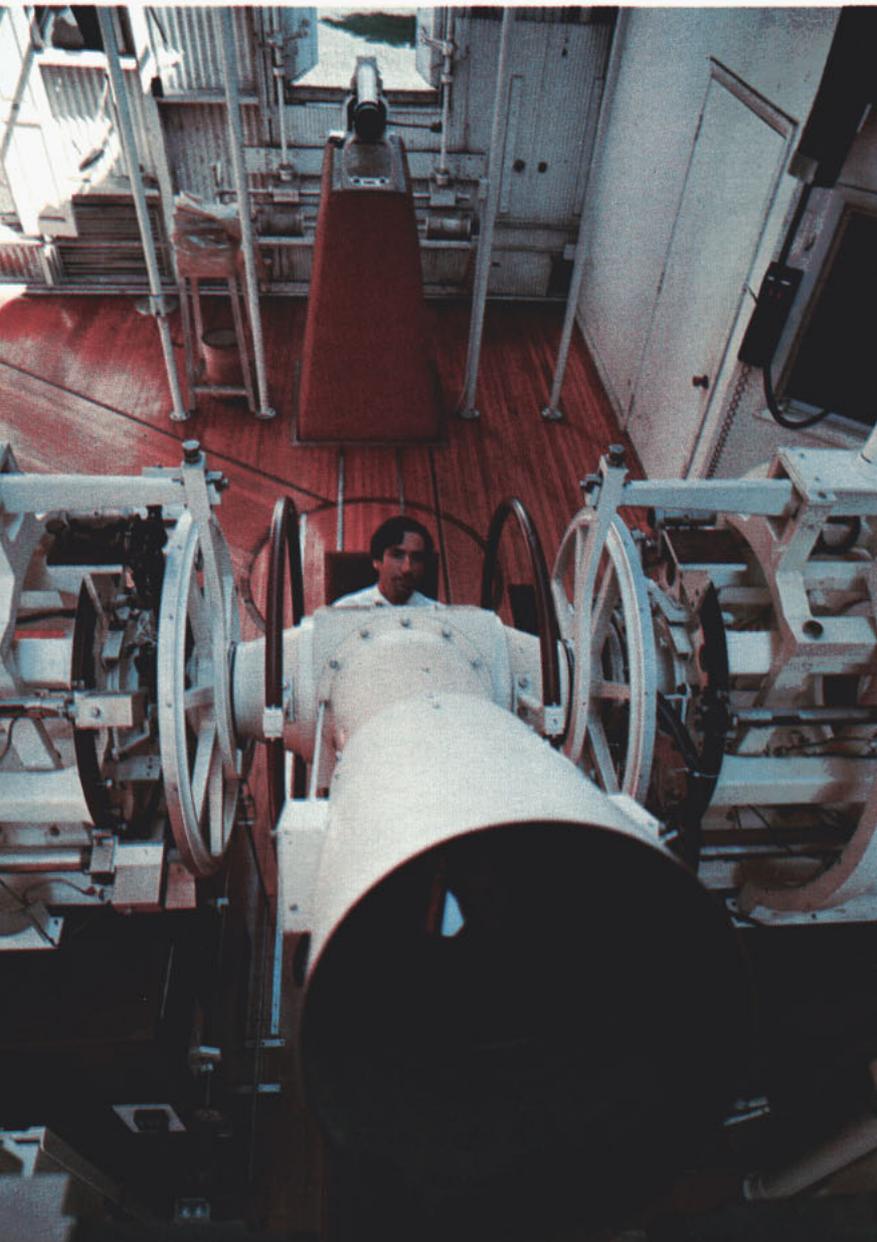


dent. Vice President Nelson Rockefeller moved onto the observatory grounds last year, occupying the handsome, white Victorian house that was for years the official residence of the Chief of Naval Operations.

Although the observatory boasts of being the oldest scientific organization in the Navy, its functions are unknown to the majority of naval personnel. "Most people think we have something to do with meteorology and astrology," chuckles Commander James R. Wachob, USN, the observatory's deputy superintendent.

Despite its age (the observatory traces its origin to the establishment in 1830 of the Navy Depot of Charts

**Dome at Naval Observatory (right) houses 20-inch refractor telescope (below). Another building houses the six-inch transit circle (far right) used by astronomers to determine position of stars in the sky.**





and Instruments at the Washington Navy Yard), its functions actually became more crucial as the Navy moved to more sophisticated navigation and weapons systems. Today's modern navigation, weapons systems and high-speed satellite communications depend on accurate timekeeping.

Observatory superintendent, Captain S. J. Sleeper, notes no one keeps better time than the Naval Observatory. Indeed, the time kept by the Navy is so accurate that clocks at the facility are measured to the nearest millionth of a second.

So accurate are the Navy's clock watchers that one

civilian supervisor at the observatory says his main worry is that the staff will spend all its time watching the decimal points after the seconds and forget to watch the second hand.

The observatory has been designated by the Defense Department as its keeper of "precise time." The exact time supplied by the observatory is used as source for all standard time in the country.

Precise time is required for sending high-speed messages around the world, thereby avoiding jamming by enemy forces. With time as precise as that kept by the observatory, "it's virtually impossible to jam" mes-



sages that are being sent between two communicating stations at predetermined times.

Such systems are vital for fleet communications, especially for submarines which must operate with an almost-total communications blackout.

But no ship in the Navy, and very few ships in the world, in fact, can operate without some of the information produced by the Naval Observatory.

For example, the Nautical Almanac is used by navigators to pinpoint their positions as they journey across the sea. The almanac contains the positions of the sun, moon and all the visible planets which are used for navigation for every hour of the year. There are tables for calculating the times of sunrise and sunset, moonrise and moonset as well as for twilight. In addition, there is a list of correction factors for sextant observations.

Today computers assist Naval Observatory astronomers in predicting the locations of the major stars in the celestial sphere at any given time and date. The observatory's almanac staff compiles celestial data four years in advance of the printing of the Nautical and Air Almanacs, assuring that the publications will be in the fleet well in advance of the dates they are needed.

The observatory publications, which include "The American Ephemeris and Nautical Almanac" for astronomers and for land surveyors, are printed annually by the Government Printing Office and are among GPO's best sellers. The printing run of the Nautical Almanac numbers about 30,000 copies and it can be found on the bridges and in chart houses of all U.S. ships along with those of other nations.

Under cooperative agreements, the Naval Observatory and the Royal Greenwich Observatory supply many nations, including the Soviet Union, with advance sheets of the publications. The other countries often reprint the material, changing the language of the heading and explanation and adding information about local conditions and holidays.

Because calendars are an essential part of timekeeping, the Naval Observatory not only serves as the nation's official timekeeper, but also as its calendar setter. Civil holidays, such as Labor Day and Memorial Day, are established by Congressional acts, but dates of religious holidays often vary.

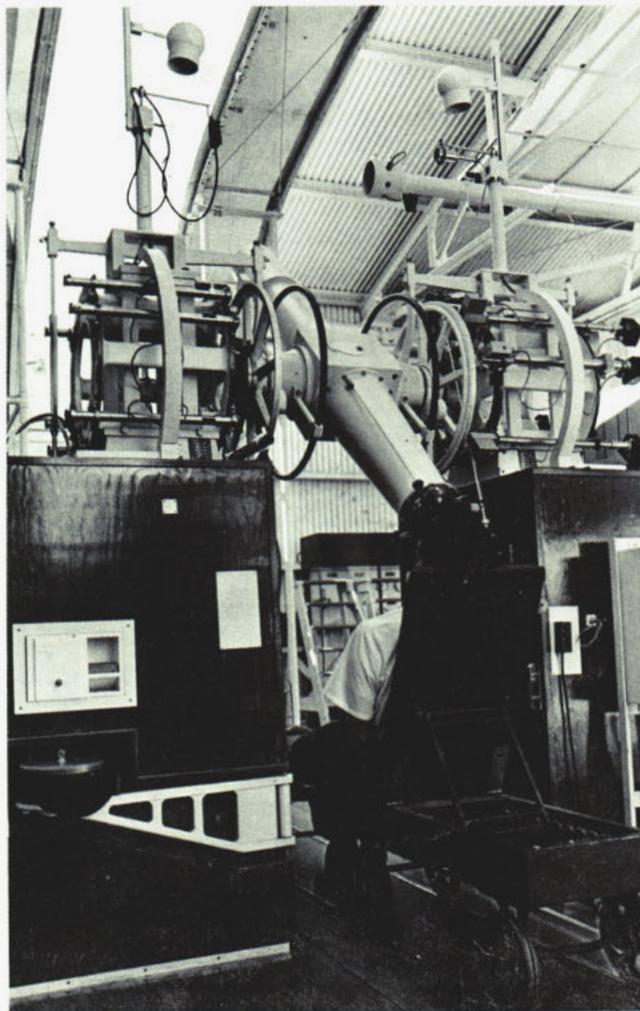
The observatory's almanac office calculates the dates on which these events will occur four years in advance, using time-honored rules established by the various

religions. Moslem holidays, for instance, are dictated by the phases of the moon and thus the observatory's astronomers are helpful in calculating the dates.

Astronomers are, of course, the backbone of the observatory's staff, supplying the data from which calculations on the precise locations of the stars and planets may be based. Observations of the stars are made not only from telescopes at the observatory's Washington grounds, but also from the observatory's largest telescope near Flagstaff, Ariz.

Naval observatory astronomers have been instrumental in major astronomical discoveries, but emphasis today is placed on exploratory development efforts and not new research. Today the Naval Observatory is engaged in updating and purifying long-standing hypotheses about the proper motion of planets and stars so precise navigational information can be given to units of the fleet.

This does not mean that the observatory's scientific



Left: Photographed with a 40-inch Riley Critien telescope, Lagoon Nebula looks closer than 2,500 light-years from earth. Right: Astronomer tracks a star.

staff is not engaged in research. On the contrary, many staff members devote long hours of their time in the enhancement of their professional development, Wachob notes.

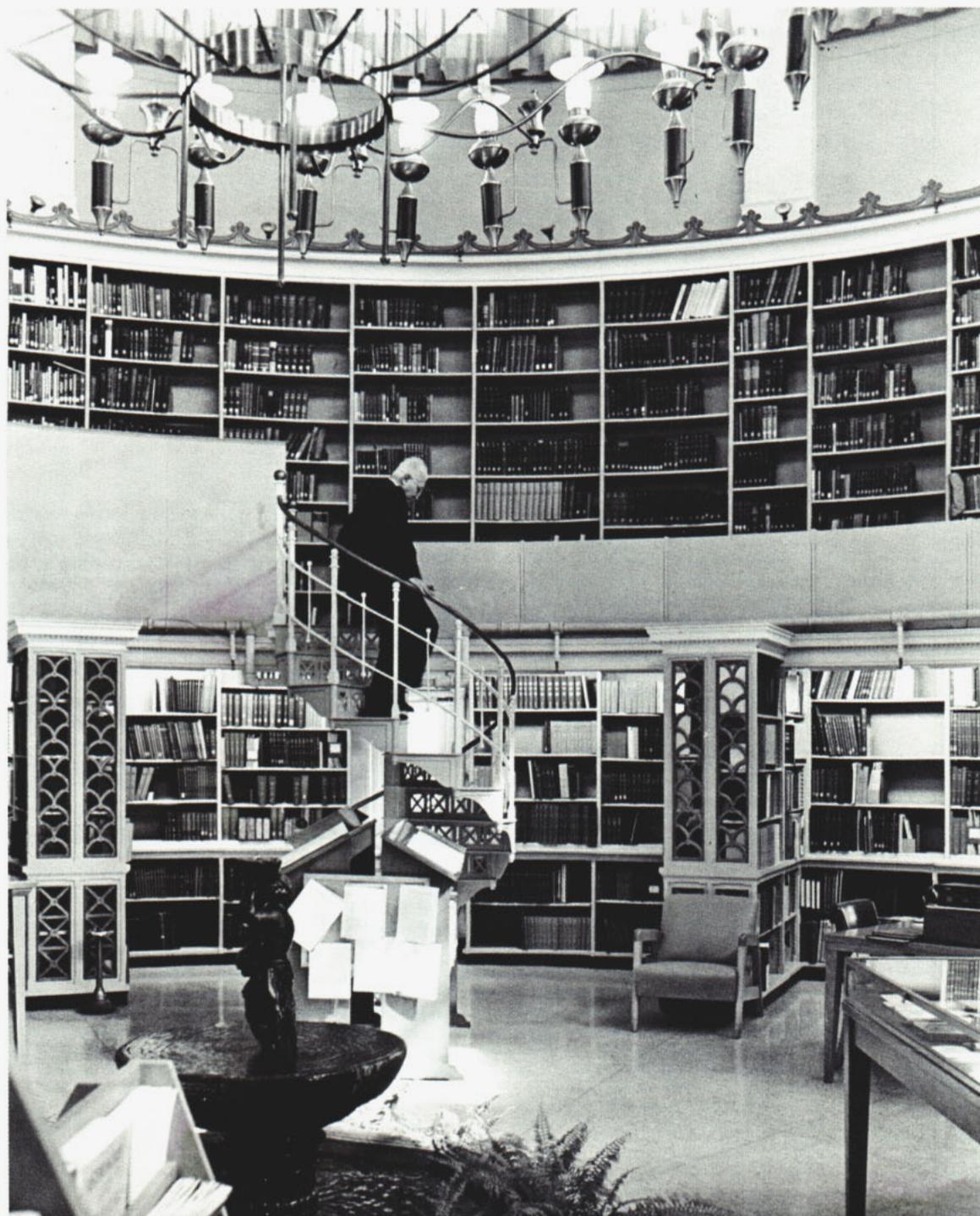
Astronomers' work is often "not glamorous" agrees Dr. B. L. Klock, head of the Observatory's Northern Transit Division. The 11 astronomers who work under Dr. Klock must spend five to seven years making

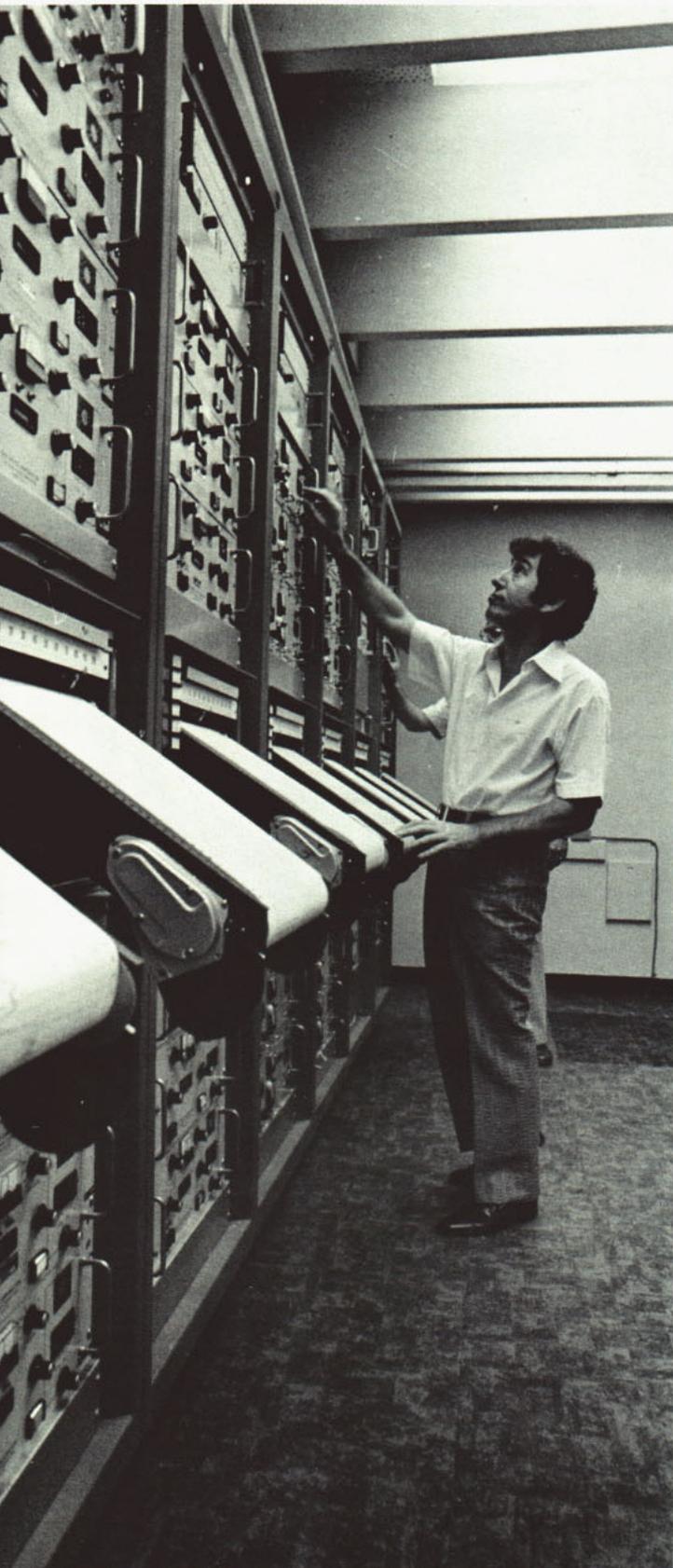
**Below: The Observatory's library contains more than 75,000 volumes, some dating back to the 15th century. Right: Master clock room where time signals are monitored from around the world to ensure keeping of exact time.**

observations before they can consider a project completed.

Often the work is lonely, performed from midnight to seven a.m. in an unheated telescope dome with the stars as their only companions. (Telescope buildings have to be unheated to prevent heat distortion of the images received by the telescopes). In winter, observers at the facilities wear special thermal suits to fight off the cold.

Still, the work is rewarding and visitors to the observatory find the workers interjecting pride in their accomplishments during most conversations. "Our time





is the best time in the world," CAPT Sleeper tells a visitor. An international association that keeps the world's time gives the observatory's time a higher rating than that accorded any other nation's timekeeping facility.

Even the library of the observatory ranks high, according to observatory officials. It contains more than 75,000 volumes and some works date back to the 15th century, which makes it one of the world's major astronomical libraries.

The Time Service Division maintains 16 atomic clocks in the Washington Observatory alone and, even though these keep the most accurate time known, they require constant attention. "They're clocks, too, just like your wristwatch," says Dr. R. Glenn Hall, the division's assistant director.

Time is "a complicated subject," Dr. Hall says. "Most people think it is just there and have no idea of where it comes from."

At the Naval Observatory three kinds of time are kept: Mean Solar Time (standard time), Ephemeris Time, and Atomic Time. Ephemeris Time is time used by astronomers in making their observations and is determined by observing the moon's position relative to the stars. Atomic Time is based on the readings of the atomic clocks.

Budgetary actions have forced the observatory to reduce its staff to about 167 civilians and three military officers. Even so, Superintendent Sleeper says he has no doubt about the quality of the work the staff produces. ⚓



# Rights & Benefits

## Retirement

Samuel L. Peabody, age 65, recently retired after 43 years of punching the clock at a major corporation whose location hasn't changed in 75 years. He now looks forward to spending time reading about faraway places he will never see, fishing occasionally as his budget and health permit, cashing his monthly retirement check to which he contributed 2236 times, and telling time by his gold watch inscribed "To Sam— 43 years' service."

Senior Chief Electronics Technician Brian Salty, USN, age 41, also retired recently after 20 years of traveling, living in various foreign countries and throughout the U.S., and working at a profession that offered growth and management opportunities. He now looks forward to opening his own radio and TV sales and repair business, revisiting some of the countries he's seen, and investing his retirement check in his new business. He didn't receive a gold watch at his retirement ceremony, but he did become heir to numerous benefits.

Some of his entitlements as a Navy veteran include:

- Exchange, commissary, theater and recreational facility privileges. Retirees may also frequent clubs and messes subject to limitations set by facilities (use of foreign commissaries and exchanges is limited according to applicable Status of Forces agreements).
- Free medical care at Uniformed Services facilities. Medical care is also available from civilian sources under the Civilian Health and Medical Program of the Uniformed Services until age 65, and extension of CHAMPUS benefits after age 65 if the member can provide certification from the Social Security Administration of non-entitlement to hospital insurance benefits. These medical benefits apply also to dependents.
- Retired pay unless waived to receive compensation or pension from the Veterans Administration or to credit active military service under the Civil Service Retirement Act.
- An opportunity to leave a portion of retired pay to survivors under the Survivor Benefit Plan (SBP) at a reasonable cost.
- Shipment of household effects upon retirement to home of selection and payment of a travel allowance to his new home.
- Free travel on board MAC flights to overseas locations for the member and his dependents (providing dependents are accompanied by their sponsor) upon

presentation of the retired ID card, DD Form 2 (Gray). MAC flights within the continental United States are reserved for retirees only, on a space-available basis, and not for dependents. (See page 28.)

- Dependent enrollment in overseas dependent schools on a space-available basis.
- Use of naval correspondence courses if taken to maintain professional proficiency.
- Educational benefits as provided by the GI Bill.
- VA benefits including VA-guaranteed home loans and Veterans Group Life Insurance.
- Disabled veterans receive disability compensation from the VA if the member was disabled by injury or disease incurred in, or aggravated by, active service in the line of duty. In addition to compensation, disabled veterans are eligible to receive: vocational rehabilitation; specially equipped automobiles; "wheelchair" home allowance; aid for the blind; prosthetic devices; and educational assistance for children or spouses if members are permanently and totally disabled as a result of service.
- Social Security benefits including Medicare, retirement payments and disability payments.
- Burial in a national cemetery. The VA will provide an American flag to drape the coffin of a deceased veteran.
- Military legal assistance on a space-available basis.
- Use of military titles in connection with commercial enterprises as long as their use in no way casts discredit on the military service or the Department of Defense. Such use is prohibited in connection with commercial enterprises when it gives rise, with or without intention to mislead, to any appearance of sponsorship, endorsement, sanction or approval by the Navy or DoD. The military departments may restrict retired personnel from using military titles in connection with public appearances in overseas areas.
- Wearing of the Navy uniform displaying the rank held at retirement and that which appears on the retirement list. The uniform may be worn only on appropriate occasions and not in connection with nonmilitary, personal or civilian enterprises, or activities of a civilian nature.

As you can see, your Navy career is much more than a day-to-day job with pay; it's a vocation whose benefits extend as long as you live. ⚓



## 'SHIPSHAPE' ...OR SHIP OUT

**T**here's more to physical fitness than pressing your own weight or running 10 miles a day. Anything that prevents you from efficiently performing your job makes you unfit.

"There's no question that the person who keeps himself in good physical condition will be better prepared to handle stress," said Secretary of the Navy J. William Middendorf II, "whether it be in peacetime or under combat conditions. Obesity causes depression, inhibits performance of duty, results in a sloppy appearance, and can mean the end of a Navy career."

Throughout the military establishment, physical fitness generally is an individual thing. Therefore, to benefit from it, you must challenge yourself, both physically and mentally. But, many individuals have passed the "overweight and out of shape" stage and are either fat or heading in that direction.

In an effort to help the fat sailor, the Navy encourages and, in certain instances, will order a man to participate in Operation Shipshape, a 90-day program of continuing diet and exercise. During this medically supervised program, the sailor is

given the opportunity to lose weight realistically and is taught how to maintain an acceptable weight level once the program is completed.

The first two Navy Shipshape groups were established in October 1974, based on the guidelines of Overeaters Anonymous. This organization, a national group, is much like Alcoholics Anonymous with special adaptations to solve the overeating problem. The Navy-sponsored groups make the same advantages convenient to Navy personnel. More than 50 Shipshape groups are currently in operation overseas and in the U.S. Operation Shipshape guidelines are contained in joint BuPers-Inst 6110.2/BuMedInst 6110.10 series.

An individual who exceeds the weight standards as listed here, will not automatically be declared fat and a candidate for Operation Shipshape. Determination of obesity will be tied to a medical examination which will include consideration of body build, muscular development and bone structure.

Maintaining a condition of physical fitness that will enable you to perform your duties and, at the same time, present a sharp, trim, military

appearance can be as fun and painless as you want it to be. Aerobics, designed to stimulate cardiovascular activity, could be the answer to your weight problem. The aerobics program isn't new but it has

Males (regardless of age)			Females (regardless of age)		
Height (inches)	Weight		Height (inches)	Weight	
	Min	Max		Min	Max
60	100	140	58	90	121
61	102	145	59	92	123
62	103	150	60	94	125
63	104	155	61	96	127
64	105	160	62	98	129
65	106	165	63	100	135
66	107	170	64	102	136
67	111	175	65	104	140
68	115	181	66	106	144
69	119	186	67	109	147
70	123	192	68	112	152
71	127	197	69	115	158
72	131	203	70	118	162
73	135	209	71	122	168
74	139	214	72	125	171
75	143	219			
76	147	225			
77	151	230			
78	153	235			

been updated. OpNavInst 6100.1 outlines the basics of the program and includes "point charts" for a wide variety of sports and exercises.

Try it—what have you got to lose, besides weight? ↴

# Mail Buoy



## Why Only Four Stars?

SIR: I noticed that the photos you printed in "The Midway Story" (June 1976) depict Henry Fonda portraying Admiral Nimitz at the Battle of Midway, yet Fonda is wearing only four stars. I believe ADM Nimitz was a fleet admiral during World War II and entitled to wear five stars. Is this correct?—HT1 T. Gearhart

• Admiral Nimitz was a four-star admiral at the Battle of Midway; he was promoted to five-star rank later in the war—December 14, 1944.—ED.

## Ships of Ice?

SIR: After reading about a ship with wooden cannons in "For the Navy Buff" in the June issue, I decided that my question wouldn't sound as foolish as I first thought. Is it true that during World War II the Navy actually built, or thought about building, a ship made of ice cubes?—LT J. R. R.

• It sounds like one for Ripley's *Believe It Or Not*, but it's true. In late 1942, British, Canadian and U. S. Navy ship designers collaborated to build an "aircraft carrier" made of ice cubes to combat the German submarine threat in the North Atlantic. The ice was to be kept solid by refrigeration machinery installed in the ship's hull and was to be made from a combination of water and wood pulp called "pykrete." The chief advantage of an icy ship was a predicted ability to withstand torpedo attack—it being estimated that a "tin fish" exploding against its frozen hull would dig only a three-foot crater.

Although the full-sized carrier was never built, a prototype named Habbakuk was constructed in Canada. The model was 60 feet long, 30 feet wide and 20 feet deep.

In December 1943, however, the plan was put on ice (so to speak) because the U-boat threat was considerably less than at the plan's conception. Unlike the wooden guns you mentioned though, our sources indicate that Habbakuk would have been functional in antisubmarine warfare.—ED.

## Bicentennial Medal

SIR: Some time ago ALL HANDS printed information about how to obtain a Navy Bicentennial Medal. Could you reprint that information?—LCDR F. L. Languell.

• The medal was shown on the back cover of our May 1976 issue. The medal is available at Bureau of the Mint sales outlets in Philadelphia, Pa.; Washington, D.C.; Denver, Colo.; and San Francisco, Calif., for \$6.

For mail orders, list quantity desired and specify U. S. Navy medal number 534. Include check or money order (not cash) for \$6.25 each, payable to Bureau of the Mint, 55 Mint Street, San Francisco, CA 94175.—ED.

### Promotion Barrier?

SIR: It has been alleged—even stated quietly by the NavSup Op “Road Show”—that no Supply Corps officer can be promoted to commander unless he has served at least one tour of independent duty. Is this correct?—LCDR A. E. Overfelt

• *The Secretary of the Navy has not directed any Supply Corps selection board to consider a tour of independent duty as a prerequisite to selection; therefore, no such policy exists.—ED.*

### Wants a Waiver

SIR: I was advanced to E-5 in February 1974. Shortly after I made the rate, requirements for advancement to E-6 were modified so that members are now required to have six years' time-in-service. Since I made the rate before the change was made, can I get a waiver allowing me to take the next E-6 exam or must I wait until February 1978?—RM2 M. Laude

• *Sorry, we have been informed that the revised time-in-service criterion of six years for pay-grade E-6 is a requirement for all E-6 candidates. Waivers of this requirement are not granted because a member was advanced to E-5 before the change was made.—ED.*

### Souvenir Hunting

SIR: Regarding your August '76 article, “Authorized Souvenir Hunting,” I recall reading an article about 10 years ago about an ATF going through refresher training that required a part for its antiquated main battery. The gunner on board recommended the Amphibious Museum display as just what he needed and, with much publicity on someone's part, received permission to cannibalize the gun. I would venture it was a bushing he needed.—LCDR G. H. Coshow

### Are We Penalized?

SIR: My husband and I are both in the Navy, stationed in the same area, and well satisfied, except for one thing: when he goes to sea, we lose money. Why are we penalized just because both of us are in the service? We both collect single BAQ. But we lose his when he is gone for more than 30 days. A man whose wife is not in the service, though, continues to receive full BAQ when he has to go to sea. Additionally, we receive no separation pay and I am expected to maintain a household on about one-half of our housing income. This simply is not fair.—TD3 J. Love

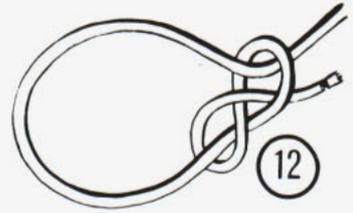
• *The BAQ inequity has been long recognized by the Navy and attempts have been made to change the laws prohibiting payment of BAQ to members without dependents and to members in your situation. To date these attempts have been unsuccessful. However, the Navy still considers correction of the inequity a high priority item.*

*Regulations governing BAQ entitlements for married service members are based on two sections of public law. While a spouse may normally be considered a dependent under one of the sections, there is another (Title 37, United States Code, Section 420) which states that “a member of the uniformed service may not be paid an increased allowance . . . on account of a dependent for any period during which the dependent is entitled to basic pay . . .” Therefore, neither married member can receive BAQ at the “with dependents” rate since this constitutes an increase in allowances.*

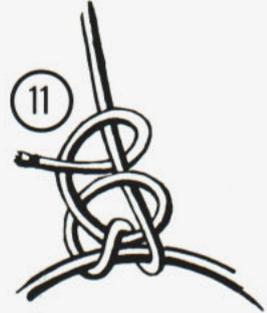
*Another section of the United States Code prohibits payment of BAQ to members without dependents while on sea duty. Consequently, your husband does not receive BAQ while at sea since he is treated as a member without dependents.*

*The same laws also prohibit payment of separation allowance in your situation, since to do so would result in an increase in allowances received by your husband.—ED. ⚓*

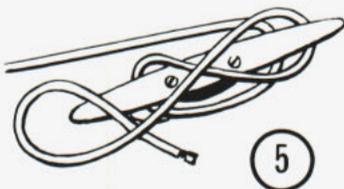
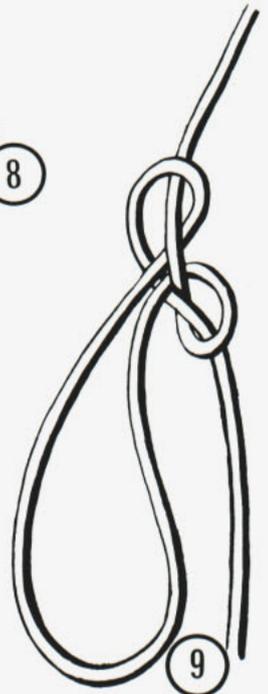
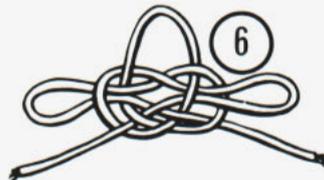
# Stern Shots



Nobody knows who tied the first knot, nor in most cases how specific knots received their names. However, the word "knot" itself comes from Old English, as did the word "bend." Regardless of how they were named, knots play an important part in daily shipboard routine. Identify the various knots on this page by matching the number of the knot to the name. Answers are inside front cover.



- |       |                         |       |                      |
|-------|-------------------------|-------|----------------------|
| _____ | <b>Man Harness</b>      | _____ | <b>Marling</b>       |
| _____ | <b>Masthead</b>         | _____ | <b>Wall</b>          |
| _____ | <b>Anchor Bend</b>      | _____ | <b>Packer's</b>      |
| _____ | <b>French Bowline</b>   | _____ | <b>Surgeon's</b>     |
| _____ | <b>Back Splice</b>      | _____ | <b>Round Seizing</b> |
| _____ | <b>Double Blackwall</b> | _____ | <b>Belaying</b>      |



If you have an idea for Stern Shots send it to: Editor All Hands, Crystal Plaza 6, Room 1044, 2221 Jefferson Davis Highway, Washington, D. C. 20360.

# GRAINS of SALT

## "The other fellow just blinked"

By LT Tom Davis

Startling an unsuspecting nation, President John F. Kennedy told the American people on Oct. 22, 1962 that Soviet missile bases had been constructed in Cuba, a mere 90 miles from our mainland. To combat this "unacceptable military threat," he established the U. S. Naval Quarantine Force to blockade Cuba and prevent the continued delivery of aggressive armaments, particularly intercontinental ballistic missiles and long-range bombers, to that island country.

On that very day, ships of the U. S. Navy got underway for an indefinite period to form the Naval Quarantine Force. These naval units quickly began recalling men from liberty and leave, loading supplies and equipment, and making all necessary preparations for carrying out the President's orders.

By the morning of the 24th, Navy warships had formed a 500-mile arc extending from the eastern tip of Cuba out into the ocean. Twenty-five Soviet ships turned back after encountering the blockade.

During the next month, two powerful attack carrier groups with destroyer screens and supply ships were dispatched south of Cuba while the Atlantic Fleet Marine Force embarked aboard amphibious assault ships and put to sea. Navy dependents were evacuated from the Naval Station at Guantanamo as U. S. Marine defensive units reinforced the base. Antisubmarine elements of the U. S. Navy located and tracked Soviet submarines and merchant ships while airborne Navy patrol forces maintained surveillance over the ocean areas between Cuba and Europe, reporting upon the

locations and movements of all Soviet Bloc shipping.

Sixty-three ships at one time or another participated in the Naval Quarantine Force, part of the 183 U. S. Navy ships in the Atlantic and Caribbean during the operation. These U. S. ships were reinforced by ships of the navies of Argentina, Venezuela and the Dominican Republic. The quarantine itself went remarkably smoothly; ships of many nations were stopped, boarded and inspected without serious incident.

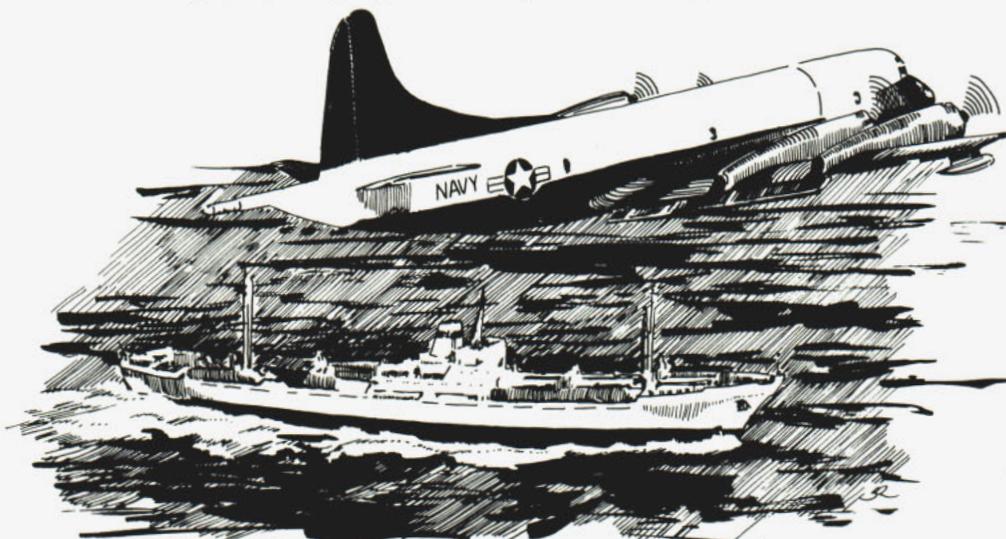
Encounters with Soviet vessels went well also, even to the point of friendly greetings between the Soviet and American vessels.

In spite of the cooperative attitude prevailing on the quarantine line, everyone knew that a life-and-death issue was being decided. Six days after the quarantine's establishment, the Soviet Union agreed to dismantle its bases in Cuba and remove its missiles and bombers.

Secretary of State Dean Rusk's assessment of the tense situation was succinct but accurate, "We're eyeball to eyeball, and I think the other fellow just blinked."

By November 8, all known offensive missiles had been removed, and the naval quarantine was lifted November 20 when the Soviets agreed to withdraw all jet bombers within 30 days.

This dramatic performance of the United States Navy in the establishment and maintenance of the Cuban quarantine served notice to the world that seapower remains a dominant force in international affairs, and that the U. S. Navy stands ready and able to carry out the policies of its government. ↓





The CNO visits  
Western Pacific

GRAND OPENING  
CUBI HOBBY SHOP  
11 Oct 1976