These sailors aboard USS Constellation in Baltimore harbor show that tradition is never dead—it merely rests, waiting to be called upon. And called it was, with the recent decision made by CNO to return enlisted men—E-1 thru E-4 to the bell-bottom uniform. For more on this uniform change see page 18.
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Covers
Front cover: A member of Queen Elizabeth II's Royal Horse Guard stands watch in London. (Photo by PH2 Dwain Patton)
Back cover: Navy Recruiting Command, Arlington, Va., produced the back cover of Mariano G. Vallejo, an American hero-statesman of Spanish descent, for use during this year's National Hispanic Heritage Week celebration. Vallejo was born in Mexico in what is now Monterey, Calif. He rose to become Mexico's Commandante General and Director of Colonization of the Northern Frontier, but broke with Mexico to support California's struggle for annexation to the United States. California named the city Vallejo after him and the Navy named USS Mariano G. Vallejo (SSBN-658) in his honor in 1966.
Navy To Mark 202nd Birthday

The U.S. Navy will celebrate its 202nd Birthday on Thursday, Oct. 13, 1977. On that date in 1775, the Continental Congress authorized the fitting out of ships for the infant Continental Navy. A Navywide celebration is again planned this year in order to engender a greater appreciation of our Navy heritage and to renew our sense of pride in the accomplishments of the entire service — active and retired, regular and reserve, uniformed and civilian. This year’s observance will be limited to an internal commemoration. October 13 has also been designated Navy Uniform Day when all Navy personnel, including active duty, reserve, NROTC, NJROTC, Sea Cadets and retired members, are encouraged to wear the uniform, preferably service dress blue. This observance will allow the American public to see the extent of the U.S. Navy’s impact in terms of the great number and occupational variety of Americans who are Navy members. The weekend of 15-16 October is designated Navy Sabbath weekend when all Navy and Marine Corps personnel are encouraged to wear their uniforms while attending Navy Sabbath services.

Microwave Landing System Test Successful

An F-4J Phantom has made the first landing by a high performance Navy plane using a new Microwave Landing System (MLS). The system is capable of reaching out electronically and flying an airplane down to a safe landing without the pilot having to touch the controls. The F-4, from the Naval Air Test Center (NATC) at Patuxent River, Md., landed at the Federal Aviation Administration’s Test Center in New Jersey. NATC is testing the system to ensure it will be able to meet the unique requirements of Navy carrier-based aircraft. The system is the result of an international effort to provide aircraft with the capability of landing anywhere in the world in any kind of weather. The MLS can fly a plane in a variety of patterns and offer pilots a selection of approaches.

Petty Officer Quality Control Review Board Reports Its Findings

The Petty Officer Quality Control Review Board recently completed the review of 145,000 first and second class petty officers and has recommended administrative action to be taken in the cases of 1,498 members identified as substandard performers. Recommended administrative actions include two administrative separations, 100 reductions in rate and 17 transfers to the Fleet Reserve. Warning letters citing substandard performance were issued to 1,151 petty officers, 819 of which contained reenlistment restrictions requiring specific approval from the Chief of Naval Personnel for reenlistment or extension of enlistment. The Board referred 186 individuals to the Enlisted Alcohol Review Board and advised 320 to pursue actively a weight reduction program or be subject to a convenience of the government discharge. For failure to comply with the Navy policy on equal opportunity, 36 members were referred to the Human Resource Management section in BuPers. Sixty-two letters noting significantly improved performance were issued to individuals who received warning letters last year.
New Fleet

**Readiness Squadron Is Established** ● The Atlantic Fleet F-4/F-14 Fleet Readiness Squadron Training Program at NAS Oceana, Va., was expanded when VF-171 was commissioned in August as the new F-4 Fleet Readiness Squadron. Previously, training for F-4 and F-14 aircraft was conducted by VF-101. VF-101 will continue to operate as the Fleet Readiness Squadron for F-14 aircraft.

Veterans Administration

**Hospitals To Use Satellite Communication** ● The Veterans Administration (VA) will begin an experimental 15-month program to use space satellites for biomedical communications between 31 VA hospitals and as many as 10 other medical institutions in 11 Western states. Emphasis will be on two-way video transmissions linking hospitals and medical teaching centers. Television monitors within the hospitals will permit viewing by staff members. They will be able to pose questions or solicit comments from other broadcast participants using telephone conference lines. Broadcasts will cover a wide range of clinical problems and educational presentations. This will be the second phase of a VA program to enhance medical education and consultation in remotely located hospitals through the use of satellites as communications links.

Variable Reenlistment

**Bonus (VRB) Claims Procedures Announced** ● Eligibility criteria and claims procedures for personnel entitled to payments as a result of the June 1977 U.S. Supreme Court Decision on the Variable Reenlistment Bonus (VRB) Program were announced by NavOp message (089-77). The Supreme Court, in a decision referred to as the Larinoff Case, ruled that regular Navy enlisted personnel who agreed to extend their enlistments under the VRB Program are entitled to bonus payments despite changes in the bonus levels and the eligible ratings list, as well as the subsequent cancellation of the VRB Program in June 1974. The recent NavOp message details the two general categories of VRB entitlement for both current and former Navy personnel. It also details specific criteria that eligible personnel must meet in order to claim their VRB money. All active duty personnel who meet basic VRB eligibility criteria, and who are not named plaintiffs in existing VRB legal actions, are requested to submit a letter, via their commanding officer, to the VRB claims section of the Bureau of Naval Personnel. Individuals who have been separated from active service are asked to submit a letter to the same BuPers section to request an official application form. BuPers emphasizes that all personnel with valid VRB claims will be paid as rapidly as possible.

3 For 3 Rotation

**Approved for Most CPOs** ● Effective Oct. 1, 1977, the maximum 36-month sea tour/minimum 36-month shore tour policy for chief petty officers (E7-E9) has been extended to all ratings except CT, UDT/SEAL, and women CPOs. Members must complete 19 years of active duty service (not including constructive time) by the end of the third year of their current tour to be eligible. Until now, only selected ratings were included in the program which started in June 1977 on a trial basis. Navy women are not included in the program because of their current overseas tour length requirements. The CT community will have a one-for-one OUTUS/CONUS policy for CPOs meeting the above criteria. Present UDT/SEAL community SEA/SHORE tours must remain in effect due to the large number of sea duty billets.
Dr. Louis Gebhard

"GOING LIKE SIXTY" AT 81

BY JO2 DAN WHEELER

Louis A. Gebhard wasn't satisfied just "doing his 20 years and getting out of the Navy." So he did another 20.

Then another.

And now he is working on his fourth.

A pioneer in the development of radio broadcasting, radar and electronics, and holder of 90 patents, Dr. Gebhard has devoted more than 60 of his 81 years to Navy research. Currently serving as an electronics consultant to the Naval Research Laboratory in Washington, D.C., the scientist was superintendent of the lab's Radio Division for more than two decades after World War II.

"Of course, we don't say 'radio' anymore. Today we use the term 'electronics,'" Dr. Gebhard said.

"'Radio' came into use around 1910 in place of the word 'wireless' and now people rarely think of radio in a broad sense. Actually, radio is not just a small branch of electronics—it is the father of the science."

Gebhard's career in radio began while a teenager in Buffalo, N.Y., when radio was an esoteric infant. "I had been interested in radio for some time though I was still a high school student," he said. "In fact, I think I was more interested in radio than in studying. At any rate, I was building and collecting Marconi equipment when the new law went into effect requiring all operators to have a commercial experimenter's license. I believe I was one of the very first to get one."

When World War I began, Gebhard joined the Navy and was shipped off to Great Lakes for basic training. Since the Navy needed "wireless operators" with licenses, Gebhard was immediately placed under the tutelage of Dr. A. Hoyte Taylor, district communications superintendent for the Great Lakes Naval District. "I was assigned to his new research lab," recalled Gebhard. "Right then and there, I started my career in radio research."

Dr. Taylor, as one of the nation's leading scientists, was appointed head of the then-forming Trans-Atlantic Radio Communications System with headquarters at Belmar, N.J. The new system was used as an alternate means of radio communications to Europe since the trans-Atlantic cables were threatened to be cut by the Germans. Dr. Gebhard was assigned research work to improve the radio system under Dr. Taylor.

Dr. Gebhard stands at one of the first high-power, high-frequency sets.

ALL HANDS
"At Belmar, we tried to improve reception equipment so we could rely on it during the war. By this time the Navy had been ordered to take control of all Marconi stations in the nation with the exception of Army field stations. Tasked with this responsibility, the Navy became a pioneer in electronics development and research. There are many things the Navy has done in radio which few people recognize... like inventing the first American radar."

According to Gebhard, radar was developed by scientists working at the Naval Research Laboratory years before the British developed theirs, though the British are usually given credit for the invention. However, that project didn't start until after Gebhard left the Navy. "The best I made was chief petty officer. You know, they moved you up pretty fast back then, at least during the war. When I left active duty in 1919, I became a civilian laboratorian under then-Commander Taylor," said Gebhard.

Subsequently, he was transferred to the experimental lab at the Naval Air Station Anacostia, Washington, D.C. There Gebhard was involved in research with electromagnetic waves at high frequencies and consequently was broadcasting signals to sets operated by amateurs around the country. Amateur operators were asked by the Navy to report to NRL (as it is called today) the time, place and quality of reception. These experiments eventually led to the installation of radios in aircraft for air-to-ground communications as well as
communication links with remote areas of the earth. But there were other benefits.

"This operation actually evolved into the start of radio broadcasting as we know it today," said Gebhard. "Eventually, some of the local amateurs gave us discs (phonograph records) to play on the air so it would be easier for them to detect our signals. We played them... that put us in the broadcasting business. Soon, we began airing singers and instrumentalists—I think I was one of the first, if not the first, to ever play the violin over the air."

That was around 1920. Station KDKA Pittsburgh was the first to broadcast national election returns and soon entertainment aspects of radio began to catch on. Consequently, the Navy station broadcast Navy Band and Marine Corps Band concerts, weather information and nationwide time signals. Soon various government officials recognized radio’s potential for getting public service messages to the people and asked for air time.

"We let the head of the public health talk on our station. He spoke about venereal disease publicly back when ‘decent’ folks only whispered the word," said Gebhard. "Boy! That was really criticized by the newspapers."

Probably the most historical broadcast made on the Navy’s station came in 1922 when President Warren G. Harding dedicated the Lincoln Memorial and the sea service aired his speech live—the first time any president was ever carried on the air. Eventually, Dr. Gebhard moved on to other projects and the broadcast business was turned over to budding professionals to be developed to its potential.

The Naval Research Lab had not yet been established and Navy scientists were scattered throughout the country. High officials pushed for centralization. During World War I,
Thomas A. Edison was asked to head a consulting board to examine the possibility of developing a centralized lab where Navy research could grow to its technological potential. Edison became a major and outspoken proponent of an experimental military lab.

"Edison was so interested in the idea that he began to draw plans himself and even spoke to Congress about the wisdom of appropriating money for the lab," recalled Gebhard. "The board had many influential members from industry, however, who didn't agree with all of the inventor's ideas. Edison had the notion that the Navy should build its own submarines, for instance, without outside contractors and should turn out about one a week. He didn't have a real concept of the importance of an experimental lab which could do research in all fields—not just build ships and equipment."

After the war, government officials sided with the consulting board's majority and Secretary of the Navy Josephus Daniels ordered plans developed for a Navy lab at Anacostia. The contract was awarded in 1920 and by 1923 the building (today's NRL building 1) was dedicated. Edison would have nothing further to do with the idea. Though his bust now stands at NRL's gate, he never set foot on the lab's grounds.

Meanwhile, Dr. Gebhard, Dr. Taylor and other Navy scientists were experimenting with extremely high frequency radio waves and discovered that there was a noticeable and predictable disturbance in reception whenever a ship passed between an active transmitter and receiver. Further experimentation showed that ships and aircraft, though miles distant, also could be detected by directing radio waves in their direction and watching for interference.

Dr. Taylor wrote a letter to the Navy Department asking for support to continue this research, but the Navy wasn't interested in spending more money on it. Though radar would inevitably prove invaluable, the Navy couldn't see much use for it at that time.

"Though radar would inevitably prove invaluable, the Navy couldn't see much use for it at that time."

The stalwart scientists continued their experimentation as money was available and in 1934 demonstrated a crude type of radar (by today's standards) to the Navy. Even then, the Navy was reluctant to sink much money into the project because units were too bulky to place in ships. "We did manage to interest one congressman though," Gebhard said, "and he pushed through a $100,000 appropriation for the lab. Then the Navy became interested in the project. When the Army realized the aircraft detection potential of radar, they too became interested."

Gebhard was given the job of producing a practical unit sufficiently small to place in ships. In 1938, the XAF (experimental radio detector and ranging set)—known among sailors as the "flying mattress" because of its shape—was installed on the battleship USS New York. In early 1939, the XAF was demonstrated during fleet exercises in the Caribbean.

Rear Admiral A. W. Johnson, Commander, Atlantic Squadron, reported: "The XAF is one of the most important military developments since the advent of radio itself." He urged the Navy to go to radar-equipped ships as soon as possible and it was immediately installed on 19. "By the time World War II broke out," Gebhard said, "civilian contractors were producing our radar and the Navy took it to war."

Dr. Gebhard reached mandatory retirement age in 1966 and retired from his post as Superintendent of the Radio Division (a division subsequently split into several). Though he stayed on as a consultant, and continued to work every day, Gebhard devoted much of his time to compiling information for a book which he wrote about the Navy's many contributions to electronics. "It was a laborious job," said Gebhard, "however, in my estimation, the Navy had never been given credit for all the wonderful inventions it had created. Now they are documented," he said, patting his 452-page compendium.

After 60 years' service to his country, Dr. Gebhard finds it impossible to cite just one highlight of his career. "There were many highlights," he said. "You begin working on an idea and watch it develop into a concept and wonder if it will ever amount to anything worthwhile. Radar was like that at first. We just did our jobs and never really thought much about what would eventually develop. We were occupied with the 'doing' rather than the recognition."

Thanks to this NRL plankholder (the last) and thousands of Navy civilians like him who were more occupied with the "doing" than with the broadcasting of their talents, our Navy and country reaped countless benefits.
NRL NAVSTAR
PLOTTING YOUR COURSE BY SATELLITE
BY JO2 DAN WHEELER

Since the days of the Phoenicians, ships have lost their way. Too often, craggy shoals or deserted beaches were their undoing.

Though heavy seas frequently were the culprit, inaccurate charts were sometimes at fault, especially in the days of sail. Sometimes, too, navigation equipment was faulty or steering gear failed. Occasionally, a careless navigator took a hasty fix or plotted an inaccurate course and he, of course, was squarely at fault.

Equipment will continue to fail periodically, but the Naval Research Laboratory (NRL) in Washington is doing something to eliminate human error in navigation. In June, an NRL designed and built satellite—Navigation Technology Satellite II—was launched from Vandenberg Air Force Base in California. It was the first in a series of 24 which soon will form a global navigational network capable of pinpointing a ship's position instantly regardless of weather conditions.

Navigation Technology Satellite II (NTS-2), now in a 12-hour orbit around the earth, is by no means the first satellite designed or built by NRL scientists, engineers and technicians. Since 1955, NRL has been conceiving, designing and building for America's space programs and, in fact, this group was responsible for our second successful satellite, Vanguard I in 1958.

Vanguard technology paved the way for NRL's Timation I (TIME/navigATION) satellite, launched in 1967 to test the validity of an adventurous idea—formation of a navigation system capable of three dimensional position fixing via signals transmitted from satellites. Two years later, NRL launched Timation II to further test component parts and smooth out the rough edges of the theory.

The Air Force began work on a similar project in the early 1960s and, in 1973, their 621B project combined forces with the Navy's Timation project to form the NAVSTAR Global Positioning System, expected to be fully operational by the mid-1980s. NRL's Timation III satellite, built before the merger but not launched, was redesignated NTS-1 and put into orbit in summer, 1974. It is still functioning and sending data.

Even before NTS-1 was built, two Timation satellites already in orbit were being put to practical use by scientists. In 1972 and again in 1973, chronometers at the Royal Greenwich Observatory in England were synchronized with those at the U.S. Naval Observatory in Washington and those at the Division of National Mapping in Australia by means of a crystal oscillator in the satellites.

The introduction of satellites carrying spaceborne atomic clocks eliminated the necessity of having to fly an atomic clock from country to country in order to synchronize international timekeepers. Precise time has become increasingly important in recent years with the advent of international space
projects and abundant global navigation, each of which requires time accuracy measured to the millions of a second. Satellite time synchronization is "far more accurate and reliable" according to NRL scientists.

This same accuracy, tested and improved by Timation satellites, is important to NAVSTAR GPS, for without it, all positional readings would be inaccurate when based on satellite signals. Eventually, the 24-satellite system will be able to provide continuous global coverage for all users and will have the capability for an unlimited number of participants, as well as selective denial capability.

Additionally, the system will be highly resistant to jamming and it will also be unaffected by adverse weather conditions. Only authorized users will be able to monitor the satellites' signals (employing special receiver sets), and it would cost an enemy a great deal to build similar receivers. The signals, however, can be coded, scrambled or, if necessary to free world defense, discontinued altogether.

Late this year, the Air Force will begin launching five of their own Navigation Development Satellites to form a test system with NTS-2; selected users can evaluate, in a limited manner, the progress of the project. By 1981, NRL will build and launch one final Navy satellite for the system—the remainder will be of the NDS variety.

Once all 24 satellites are in orbit, the system will work like this:
- Three circular orbital planes will contain eight satellites each—all of which will be sending electronic signals to receivers.
- Navigators, instead of "shooting the stars" or "taking sun lines," will "shoot the satellites." (Each satellite will tell the navigator its own exact position and the navigator will assume, for the moment, that his clock is synchronized with the satellite's atomic clock.)
- By shooting three satellites, the navigator will get an equation with three unknowns—latitude, longitude and altitude.
- Once he has solved for those unknowns, he will shoot a fourth satellite to find the exact time and subsequently adjust his calculations for pinpoint accuracy and velocity.

This gives a rough idea of the NAVSTAR GPS capability. In practice, however, it doesn't work that way.

All of these calculations are done instantaneously by a tactical receiver and computer which provides data readout to the navigator. Even ground troops will be able to carry a "man-pack" small enough to perform the same function.

When all of the satellites are in orbit, there will always be at least five available anywhere on earth for position fixing. Even if several fail—and they will—some positional data will be immediately available and the rest—as other satellites pass overhead—minutes later.

Each satellite is expected to have an operational life of five years. During that time, partial and total breakdowns will create gaps in the signals. When this happens, new satellites will be launched assuring continuity of the system. Operational life and functional capability of satellites is expected to increase as the program continues.

This is just one more way that Navy technology is being used on a worldwide basis for peacetime improvements.

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**How the Satellite Works**

Most readers are satisfied just knowing that NTS-2 is a satellite used to fix positions of ground troops, aircraft and ships. Others, however, want to know more about how it works and the equipment it carries:

- **INITIAL LAUNCH VEHICLE TEST**—The NTS-2 launch provided the first test of the GPS launch system consisting of the Atlas Booster, the stage vehicle (which included two peri-gee kick motors and an apogee kick motor).
- **DEMONSTRATION OF GPS EQUIPMENT**—The GPS Navigation signal assembly on NTS-2 allows scientist to test the GPS ground equipment.
  - **ELEMENT OF DEMONSTRATION CONSTELLATION**—This satellite is an element of GPS Phase I demonstration constellation to provide the initial characteristics of GPS orbits and to provide needed signals in conjunction with other Phase I satellites, to demonstrate periodic three dimension navigation.
  - **TECHNOLOGY ITEMS**—In addition to providing data as part of the Phase I constellation, NTS-2 contains technology items that will be useful in later satellites: cesium beam tubes (atomic clocks) for the frequency standards; a nickel-cadmium and a nickel-hydrogen battery are used with the objective of flight qualifying the latter; two types of radiation dosimeters to measure radiation levels in space; an experimental solar cell package for space-qualification; and laser retroreflectors making it possible to check the satellite's position independently of radio signals and thereby measure the accuracy of the orbit as determined from radio transmissions.

And by the way, NTS-2 is in a circular type, 12-hour orbit with the satellite revolving at an altitude of 10,898 nautical miles with an inclination of 63 degrees.

Any questions?
When the NAVSTAR Global Positioning System becomes operational in the mid-1980s, a career dream of Roger L. Easton will have been realized. Easton, the Navy’s principal investigator for space technology in the NAVSTAR GPS program, conceived and directed the *Timation* satellite program in the 1960s and now has programmed it into a workable system as a basis for the NAVSTAR system.

The scientist joined the Naval Research Laboratory in 1943 and immediately began research on a blind landing system for aircraft. In 1945, he worked on a system to identify friend or foe (IFF) and distance measuring equipment.

Later, he designed the Minitrack system for satellite orbit determination and assisted in the development of a locator system for the Army Map Service.

Probably his most well-known achievement was the design of the *Vanguard I*, America’s second successful satellite and now the oldest man-made satellite still in earth orbit. Easton also developed the Navy Space Surveillance System which is used for the detection and determination of orbits of earth satellites.

Winner of the Distinguished Civilian Service Award, Easton has written 30 technical documents, holds nine patents for his work, during his tenure, and has designed 25 satellites.
A United States sailor and a British "Jack" stood on the sidewalk facing Portsmouth's harbor. The two were conducting an animated conversation, oblivious to the stream of tourists and other sailors who poured around them.

"That's ridiculous. I don't have an accent, you're the one with the accent," the American sailor said in distinctive Texas panhandle tones.

"I can hardly understand a word you're saying. You've got the accent," the Britisher said in a manner defying even phonetic spelling.

The two were conducting their own type of cultural exchange. They were immersed in the fascinating business of learning about other cultures by visiting other lands and talking with people.

They were only two of more than 30,000 sailors from countries around the world who had come to this historic English seaport city to commemorate the 25th Anniversary of Queen Elizabeth II's coronation.

The Silver Jubilee Naval Review, held off Portsmouth June 28, brought these sailors from 170 ships and 18 countries together.

It was an event that bore many similarities to last year's International Naval Review honoring the 200th birthday of the United States. But the Portsmouth event possessed its own distinction—distinctions that set it far apart from any celebration.

"The Hard," Portsmouth's main waterfront street, was focal point for many of the Naval Review festivities. The good natured crush of tourists and sailors, souvenir sellers and townfolk, fed the festive spirit born of a nation's respect for its Queen.

The 1,400 American sailors who had arrived aboard a seven-ship task group, immediately set about the business of taking a very close look at England. Among them were almost 400 midshipmen on their summer training cruise. These novice Navymen received not only the opportunity to visit foreign lands, but worked alongside experienced sailors as well.
The weekend preceding the review was filled with tours of London, Stonehenge, Stratford-on-Avon and other historical spots. Midshipmen and sailors studied Big Ben through their camera viewfinders.

"I'm probably as familiar with the sights of London as those of Washington, D.C., because I've seen pictures of them in books," said one midshipman as he stood in front of Buckingham Palace. "But there sure is a big difference between pictures and the real thing. I wonder what Washington really looks like..."

In Portsmouth, a weathered old man wearing a fisherman's sweater leaned against a pier stanchion and watched the ships gathering in the bay. Both the old man and his sweater had obviously spent many years at sea. "You know, I've not seen the likes of this since you Yanks were here getting everything together for the invasion of Normandy," he said. "The only thing missing is the barrage balloons and the cases of Coca-Cola when they got ashore in France."

Warming to his World War II recollections, the oldster puffed on a hand-rolled cigarette ("Can't abide the machine made ones.") and pointed toward the Royal Yacht Britannia. "It's a wonder how time flies. Her Majesty is celebratin' her 25th and it seems just like yesterday she was goin' on the radio and tellin' us—she was just a child, mind you—tellin' us we Brits would win the war."

The old man's deep affection for his Queen is shared by the majority of his countrymen. In addition to this affection is a shared heritage—one of more than 2,000 years of naval history that surrounds this island nation.

And as the ships reached their anchorages, these sea-going people lined the banks and scanned the seven-mile-long assembly with practiced eyes. The 100 Royal Navy ships included the 43,000-ton aircraft carrier HMS Ark Royal (soon to be decommissioned), four nuclear-powered submarines and the only ship present at the Queen's 1953 Coronation Review—the deep diving vessel HMS Reclain.

Ships from the navies of the Commonwealth, NATO, CENTO and EEC nations were there. The largest visitor was Australia's 16,000-ton aircraft carrier HMAS Melbourne; the one travelling the furthest was the New Zealand frigate Canterbury; and the only nuclear-powered surface warship attending was our own guided missile cruiser USS California.

Largest merchant ship present—indeed, the largest ship at the Review—was the huge 277,748-ton supertanker British Respect.

The morning of the Review was cold and blustery. Sheets of rain gusted back and forth across the water. A Royal Navy spokesman explained why this kind of weather was not unexpect-
ed even though the preceding days had been warm and sunny:

"Her Majesty has demonstrated throughout her 25-year reign that she is singularly possessed of uncommon bad luck when it comes to the weather cooperating with scheduled royal events," he said with a smile.

"During last summer's severe drought there was even some talk—perhaps a bit of it serious—about moving up her Jubilee Celebration to ensure some rain."

Rain or not, the Review began as scheduled. As the Royal Marine Band played "God Save The Queen," Britannia slipped from the pier and steamed toward the head of the line. Thousands of spectators, many waving "Union Jacks," cheered her along the shore, atop buildings and from countless small craft.

At 1430, Britannia—preceded (as dictated by tradition) by the Guild the Elder Brethren of Trinity House on board their ship Patricia—began the stately procession past the line of ships wedged between the Isle of Wight off Portsmouth and Spithead.

The two United States' ships, California and the nuclear-powered attack submarine Billfish, stood in the Solent Channel. The two were "dressed" with rails manned and anchored at mid-point along the southern line of ships.

As Britannia passed California, 385 Naval Academy and NROTC midshipmen followed the lead set by the British ships; they uncovered, waved their hats high, and gave the Queen three cheers. From California's fantail, a Navy band played the British National Anthem and apparently attracted Queen Elizabeth's attention—she made a special move to the rail of her ship and waved to California.

Next in line, Billfish, with limited space on deck for crewmen to line, seconded the wave and gave a cheer heard easily across the waters.

Reaching the end of the seven-mile line of ships, Britannia came about and headed down the other line of ships formed nearer shore.

With the Review completed, Britannia anchored at her starting spot and awaited the scheduled massive flyover.
by more than 150 Royal Navy and Marine helicopters and fixed-wing aircraft. Wave after wave of helos flew over the ships. Then came the airplanes turn. As if on cue, the clouds lowered, the rain began once again and the fixed-wing portion of the flyover was suddenly cancelled.

“It’s just what one might expect,” said a Royal Fleet Auxiliary midshipman with a sigh.

The review was over and all that was left were the final preparations for each ship to get underway for the next port call. California would continue on to Edinburgh, Scotland and Oslo, Norway; the amphibious troop transport USS Francis Marion got underway for Copenhagen, Denmark; and the others had their own arranged destinations to reach.

Shortly before Francis Marion sailed, two other sailors went over it once more, “Now let me see if I’ve got it right,” one said. “A ‘boot’ is the trunk of a car and a ‘lorry’ is a truck.”

“I think that’s right,” the other said. “But what if there was a trunk in a truck?”

Linehandlers standing by on the pier allowed this question would have to wait an answer when the ship called again in England. 

Photos by PH1 Jim Toon, JO2 Art Robb, PH2 Dwain Patton, PH3 Kevin Murphy, PH3 Bob Hamilton and JO1 Atchison.
Henry V’s Precedent

Fleets have gathered at Spithead for more than 2,000 years because of its unique location—a large sheltered anchorage with access to the sea at both ends, close to the rest of Europe and, yet, reasonably near to the ancient and modern capitals of England, Winchester and London. Roman ships from Portchester and Chichester would gather at Spithead before departing in company for Gaul (France) and a few centuries later Alfred the Great’s war vessels met there before leaving to fight the Danes.

More than 1,000 ships gathered in the anchorage in June, 1346 before King Edward III sailed to fight in France. It was not until 1415 that Henry V made the first Royal Review of his ships.

Queen Elizabeth the First reviewed a squadron at Spithead in 1582 and records indicate that this was the first time yards were manned and salutes fired.

Charles II inspected a fleet at Portsmouth in 1662 (brought there by his Royal Watermen from the Thames) and William III reviewed the fleet in 1693.

Other Reviews occurring near Portsmouth included:

- March, 1700—possibly the first mock naval battle was conducted to mark the visit of Peter the Great, Czar of Muscovy.
- June 1773—King George III took time out from his troubles with the colonies to review the fleet and to be saluted by a “triple discharge of cannon.”
- June 1794—Admiral Lord Howe arrived in Spithead with captured French ships under his command. This is the only authenticated Review of a victorious fleet by the sovereign immediately after the ships returned to harbor following the battle. With the fleet was HMS Valiant—her later “sister” was in attendance at this year’s Silver Jubilee.
- 1814—a Review of the fleet was held to celebrate the Treaty of Paris. This was the last Review in which only sailing vessels took part.
- 1844—French warships with King Louis Phillipe of France embarked, were met and escorted by British warships; Queen Victoria reviewed the combined fleets.
- 1845—a Naval Review of the Experimental Squadron at Spithead was witnessed by Queen Victoria and Prince Albert.
- 1853—the first Royal Inspection of a Fleet of steam warships was held.

At least 20 additional reviews were held at Spithead between 1853 and 1944 when the greatest, but probably least publicized assembly occurred. King George VI inspected the “D-Day” Isle of Wight anchorage area. On this occasion, the lines stretched up and down the Solent. More than 800 ships; most of them landing craft, minesweepers and auxiliary vessels, were making final invasion (Normandy landing) preparations.

On June 15, 1953, another fleet assembled for Queen Elizabeth II’s coronation review.

Queen Victoria was the only British monarch to celebrate both her Golden (50 years) and Diamond (75 years) Jubilees.

The Silver Jubilee celebration in honor of Queen Elizabeth II’s 25 years on the throne demonstrates that the British, as in years’ past, continue to perpetuate the proud traditions of the Royal Navy and the admiration they feel for the Royal family.
Chief of Naval Operations Admiral James L. Holloway III recently announced the Navy's decision to return to the traditional bell-bottom style uniform for sailors in pay grades E-1 through E-4. Personnel in this group were chosen because, in an official Navy poll conducted last year, they expressed the greatest desire as a group to return to the bell-bottom uniform.

During phase one of the return to bell-bottoms 20,000 fleet unit personnel will be issued and will wear bell-bottoms to evaluate the uniform for durability and ease of maintenance of new fabrics. Fleet commanders-in-chief will select specific Navy units to participate in the evaluation.

Both blue and white versions of the classic dress and undress Navy uniform with jumper and bell-bottom styling will be evaluated. Fabrics to be evaluated include a blue serge material and a white cotton-polyester blend. Blue melton material, from which previous bell-bottom blues were made, no longer is available in the quantity required, and the white cotton-polyester material is expected to be an improvement over the all-cotton whites worn before. The traditional white hat also will be evaluated in the cotton-polyester blend material.

By Spring of next year, it is expected that the new bell-bottom uniform will be available commercially also. At that time, other eligible personnel will be authorized to purchase and wear the new uniform.

The Navy will stop issuing the double breasted service dress blue coat to recruits during phase one. The current winter blue and summer blue uniforms will be authorized, as appropriate, for service dress wear during the evaluation period.

Final details of the full uniform conversion plan will be determined and announced following the evaluation.
When CNO announced the return to bell bottom style uniforms, one might have expected the “General Quarters” alarm to go off at the Navy Clothing and Textile Research Facility (NCTRF), in Natick, Mass.

But according to Mr. Seymour Lash, Director of Clothing Development, the Navy’s garment center is all ready to go to work on the jumper and bell bottom uniform. Patterns are now being cut and prepared to be sent to mills, and testing of the new uniform specifications is set to get underway.

In its laboratories and test chambers 19 miles west of Boston, NCTRF researchers and textile technologists are testing a wide variety of commercial materials proposed for Navy use.

It is anticipated that the jumper and pants will be made of a new 15-ounce, all-wool serge material—not the 100 per cent Melton wool previously used. “The reason,” Mr. Lash said, “is Melton is no longer commercially milled.”

The change in uniforms spotlights the research center’s responsibility of dressing up the Navy—keeping the sailor “squared away” from head to foot. But another very important mission of the activity is the design and testing of protective clothing to guard against the many hazards faced by sailors from the Arctic to the tropics. This has often meant that what they couldn’t find on the commercial market, they would have to concoct for themselves.

Researchers at the facility laid the groundwork for numerous innovations in the field of protective clothing and textiles. It developed such items as aluminized firefighting suits, a disposable covering for torpedo repairmen and submarine crew uniforms.

Every piece of fabric used for protective clothing and general dress undergoes extensive evaluation and testing. Facts about its tearing properties, its stretching properties, its fading properties, its washing properties and its “pulling” properties, are gathered from these assorted tests.

If everyone in the Navy had one size and shape, the jobs of the pattern-makers, designers and testers would be much easier. But they must deal with hundreds of thousands of sizes and shapes. And for this, a whole range of headless dummies fill in the spaces for the “average” sailor.

With their help, and with nearly three decades of experience, the Navy clothing and Textile Research Facility will go on helping to keep Navy sailors “squared away”—and safe.
Sure, everyone knows that the bell-bottom style uniform has been famous around the world for its ability to attract the fair young sex in any port. But did you know . . .

- **The Neckerchief**—The black kerchief or bandana historically began to appear during the 16th and 17th centuries and was used either as a sweat band or a simple closure for the collar. Black was the predominant color as it was the most practical shade and did not readily show dirt or tar. Unfortunately there are no records that support the persistent myth that the black kerchief represents a sign of mourning for Nelson's demise.

- **Two Stars on Back Collar of Dress Jumper**—During the 1840s, sailors voluntarily embellished their uniforms with devices and stars that were very popular. It was not until 1866 that stars at either corner of the flap were standardized and authorized for no other apparent reason than aesthetic design balance.

- **Three Rows of Piping**—Piping first appeared as a decorative device during the 1840s which sailors added to break up the drabness of their uniform. In 1866 the collar flap was extended to nine inches to accommodate a standardized system of white piping to distinguish petty officers (three rows), ordinary seamen (two rows) and landsmen and boys (one row). Corresponding rows were displayed on the cuff.

In 1876 the white tape on the collar was standardized to three rows for all enlisted wearing the jumper, with rank to be determined by the petty officer insignia, and cuff stripes for the seaman ranks. In 1947, cuff piping was standardized at three rows for all hands since rating badges and added piping (diagonal white, red, green or blue stripes on the left sleeve) to denote rank was repetitious.

Again, the legend of the three collar rows to commemorate Nelson’s sea victories is a myth and has no basis of fact in any authoritative history of uniforms. It evolved merely as a decorative device and, much later, served to distinguish between rates.

- **13 Buttons**—During the Civil War, trousers had either a fly front or a seven-button broadfall depending upon manufacturers. In 1899, the broadfall was enlarged and required 11 buttons to close. A further increase in depth of the flap sides for comfort would add two buttons for a total of 13. Although myth prevails that the number of buttons represented the original colonies, 13 buttons happened to be the final number.

- **White Hat**—In 1852 a white cover was added to the soft visorless blue hat. In 1866, regulations permitted a white sennet straw hat as an additional item for summer wear. During the 1880s, the white “sailor hat” appeared as a low rolled brim, high-domed item made of wedge shaped pieces of canvas; it replaced the straw hat. The canvas was eventually replaced by cotton as a cheaper and more comfortable material.

The Navy Uniform Board received numerous complaints about the shape and durability of the sailors’ white hat which, especially in hot climates, caused the low brim to droop and caused an unsightly appearance. The resultant corrective actions caused more stitching to be placed in the brim which, as well, caused the sides to be stiffer and stand upright. This practice of reinforced stitching continued to mold the hat into the present shape.

- **The Neckerchief Knot**—There does not appear to be any historical significance attached to this knot other than it being a standard square knot widely used by sailors in their work. This knot, naturally, allows for the proper appearance for the neckerchief. The actual description of the knot appears in the 1913 Uniform Regulations.
Any economist will tell you with an air of academic certainty that if you must sell and sell quickly, a buyers' market is created regardless of the product. It doesn't take a sea lawyer to tell you with equal assurance that if a military installation experiences a massive reduction in force, realignment action or closure, the price of real estate near that base is going to plummet.

Installation reductions and closures don't happen often, yet when they do, military and civilian employees who are forced to relocate are protected against sustaining substantial losses on the sale of their property by the DoD Homeowners Assistance Program. Enacted in 1966, this program authorizes the Secretary of Defense to make partial reimbursement to eligible members for losses incurred due to the forced sale of their homes. Not everyone employed on an affected base is eligible for assistance and there are some restrictions:

- Employees paid with nonappropriated funds, temporary employees and government contractor personnel are not covered by the program.
- There must have been a closure, reduction or realignment action (hereafter called "action") of sufficient magnitude to result in an adverse effect on real estate prices in the area of the installation. A mere announcement of a plan to study or consider an action doesn't qualify a homeowner for reimbursement for losses. An announcement stating that a reduction of some sort is definitely going to occur must first be made.
- At the time of the action, the homeowner must have been an occupant (owner-occupant) of his one- or two-family dwelling.
- Generally, trailer and mobile homes do not qualify as "one- or two-family dwelling" under the program since most can readily be moved to a new location.
- The site of a homeowner's new employment following relocation must be beyond normal commuting distance from the dwelling for which relief is sought. What constitutes "normal commuting distance" is determined by DoD.

The exact amount of government reimbursement is determined by the sale option a homeowner chooses. He may take a cash payment for losses incurred as a result of a private sale, or he may sell directly to the government, or—in rare instances—he may be reimbursed for losses sustained due to foreclosure.

Generally, a private sale by the owner or his agent is the most advantageous. If a homeowner sells his dwelling at a loss, the amount the government will reimburse him will not be more than 95 per cent of the difference between the fair market value before the action date and the fair market value at the time of sale (or actual sale price, whichever is higher.) All property values are determined by the government on the basis of comparable sales.

If a homeowner, however, can show that he has tried to sell his property at the government-assessed value and the most favorable price offered is lower, the actual sale price will usually be accepted as representing the true fair market value.

A homeowner may sell directly to Uncle Sam if he can demonstrate that no reasonable market for his property exists due to the reduction action. The government will then pay him not more than 90 per cent of the fair market value before the action date, less any outstanding mortgage. If the mortgage is greater than 90 per cent of the fair market value before the announcement, the government will still buy the home but will not pay any cash to the owner.

Off-base housing will not be purchased by the government when the reduction action takes place in a foreign country.

Reimbursement for foreclosure losses rarely occurs today. It became a part of the program in the beginning only because many persons had lost their homes before assistance was available. If a homeowner has not qualified for assistance in time to avoid foreclosure and is determined eligible at a later date, he may still be compensated for his losses.

To apply for relief under the DoD Homeowners Assistance Program, an individual must complete an application form (DD Form 1607), obtainable from any personnel office or field office of the U. S. Army Corps of Engineers (the administrators of the program for SecDef). Application must be made within three years after the announcement of a base closure, reduction in force or realignment action.
The Sailor of the Year Program, established in 1972, recognizes and rewards top-notch active duty Navy men and women in paygrades E-4 through E-6. The selectees are meritoriously advanced to the next higher pay grade by the Secretary of the Navy; receive a Fleet Reserve Association sponsored, all-expense paid trip to Washington, D.C. and five days R&R at the CONUS location of their choice; and assignment with their respective Master Chief Petty Officer of the Fleet. The Shore Sailor of the Year serves with the Master Chief Petty Officer of the Naval Education and Training Command.

The 1977 Sailors of the Year are:
(Shore) Chief Hull Technician Dale K. Lueck, nominated by the Naval School, Diving and Salvage, Washington, D.C.; (Pacific Fleet) Chief Boatswain's Mate Richard D. Knepper, Jr., SEAL Team ONE; and (Atlantic Fleet) Chief Hospital Corpsman Joseph B. Laskowski, Ocean Minesweeper USS Detector (MSO 429).

It wasn’t all the gold on the man’s arm or even the colorful doodads on his chest that made little Lisa Lueck back away from the uniformed man. She just didn’t understand that he only wanted to shake her hand— the hand that was holding her cookie.

Chief of Naval Operations Admiral James L. Holloway III immediately understood the child’s apprehension.

“You aren’t the only one who thinks I’m trying to take their cookie away,” he said, smiling.

Milk and cookies in the CNO’s office were the highlight of the day for Lisa, but for Chief Petty Officers Dale K. Lueck, Richard D. Knepper, Jr., and Joseph B. Laskowski, it was the highlight of their careers—they were being honored as the 1977 Sailors of the Year.

Lueck enlisted in 1969 and, after recruit training and Shipfitter’s “A” school, was assigned to the destroyer escort USS Bradley (DE 1041) (now FF 1041). While assigned to Bradley, he became interested in diving—an ambition that almost cost the Navy a good man.

“I submitted a number of requests for transfer to diving school, but they were all disapproved,” he said. “I got frustrated and decided I’d dive, in or out of the Navy!”

Fortunately, Lueck’s division officer came to his aid. He advised Lueck to forward the disapproved requests all the way through the chain of command.

He did and in 1971 his request was approved. He attended diving school in San Diego and graduated at the top of his class. Eventually, he went on to First Class Diver School in Washington, and, after paying his “dues” in the fleet, returned to Washington in 1975 as a ship salvage techniques instructor at the Naval School, Diving and Salvage. While working in underwater salvage demolition training, Lueck developed new demolition range training procedures and made major revisions to the training curriculum.

Underwater demolition and diving play a large part in Richard D. Knepper’s life too—although in quite a different way. He’s a SEAL.

Knepper entered the Navy in 1966 and spent a year on board the USS Horne (DLG 30) (now CG 30); he then volunteered for Underwater Demolition Team training.
Award for All

After basic UDT school training, he was assigned to SEAL Team ONE which he doesn’t (or can’t) discuss. The only way to describe Knepper’s nine-year tour with the team is—three tours in Vietnam, a Bronze Star, four Navy Commendation Medals (each with combat “V”), the Navy Achievement Medal and attendance of more than 30 schools including Army Ranger training, airborne and Survival, Evasion, Resistance and Escape (SERE) training.

It’s no wonder that Knepper, who has not been extremely active in community affairs, is the exception to the usual Sailor of the Year award winner. His commanding officer put it in perspective.

“He’s a dedicated sailor 24 hours a day . . . leaving little time for other activities.”

Joseph B. Laskowski believes his involvement in civilian projects, as well as his professionalism, helped him win Sailor of the Year for the Atlantic Fleet.

“It was especially through my drug abuse education classes that I came into close contact with the community,” he explained.

“I associated myself with the various community action groups and offered my services as a lecturer in pharmacology. One thing led to another. I would give lectures for area PTAs, church, civic groups and police departments. I affiliated myself with the Mental Health and Mental Retardation Board in Portsmouth, Va., and the city sent me to the University of Miami to learn about setting up a community awareness team.”

In 1968 Laskowski graduated from high school and headed straight for the Navy recruiting office. Fresh out of training, he was sent to Camp Pendleton, Calif., attended

Field Service Medical School and spent two years with the Fleet Marine Force in Vietnam, Okinawa, Taiwan, Japan and Korea.

When he returned home, Laskowski attended the Medical Service Technician School at Portsmouth where he developed an interest in pharmacology and drug abuse problems. He realized, however, that to be effective in many areas he would have to broaden his educational background. So, he enrolled in an off-duty study program sponsored by George Washington University and earned an associate degree in science.

The Sailors of the Year have many things in common—all are married, have children, were first class petty officers (before the meritorious advancement by SECNAV), are decorated Vietnam veterans and, as Laskowski summed it up:

“When we sailors of the year accepted the award it wasn’t just for ourselves and our families, but for all the enlisted people, and there are many who are outstanding.”
Toss a coin as to which one is most famous—heads it's Charlie Blair, tails it's his vintage flying boat, and, if the coin lands on its edge, then it's Charlie's wife.

Charlie and his plane go back to the 1930s and both accomplished an awful lot in the air. But to start at the beginning...

Charlie Blair's life in the skies started back in 1931 when he won his wings at Pensacola. But he didn't stay Navy too long. Instead, he flew flying boats as a chief pilot for American Export Airlines, later American Overseas Airlines. In the late '40s the airline was bought out by Pan Am and Charlie continued as chief pilot, crossing the Atlantic more times than he cares to remember.

In those years Charlie Blair made the first 25-hour, non-stop transatlantic flight—with passengers and mail—in a flying boat. And he has another claim to aviation fame: he made a solo hop across the North Pole in a P-51 Mustang (which is now in the Smithsonian Air Museum). He's accomplished work for the Air Force, racked up 35,000 hours in the air (he still gets in 1,200 hours a year), and he won the Harmon International Trophy, the Thurlow Award and the Distinguished Flying Cross.

Today he's still crossing the Atlantic. Seems Charlie's wife, actress Maureen O'Hara, has a yen to fly—by flying boat of course—to Ireland every year. Just this past spring, the Blairs made a leisurely crossing in a 42-passenger, 30-year-old flying boat, with Charlie at the controls and wife...
bird’s one-way ‘flight’
“Naval Aviation Museum... a good resting place for the Sikorsky.”

and friends as passengers. They left the old boat at Foynes in Ireland as a tourist attraction. So much for one flying boat.

The plane in this tale, however, is NC41881, a VS-44 Sikorsky—which has also made a sort of final “flight” this year—a one-way trip from the Naval Station, Roosevelt Roads in Puerto Rico to the Naval Air Museum at Pensacola. Charlie Blair, now president of Antilles Air Boats in the Caribbean, gave it to the Navy. The old craft once was piloted by Blair under contract to the Navy—during World War II—and was used to ferry troops and supplies across the Atlantic.

Secretary of the Navy W. Graham Claytor, Jr., wrote Blair, “On behalf of the Naval Aviation Museum, I accept, with great pleasure and personal appreciation, your offer to donate the Sikorsky VS-44 flying boat.”

Sailors and Seabees at Roosevelt Roads helped workers from Antilles Air Boats ready the ancient bird for its one-way trip to Florida by surface transportation.

The man and the VS-44 are one—Blair flew it all during the 1940s and, on Oct. 22, 1945, flew it to Foynes. The old flying boat was the last plane of its kind in and out of Ireland until the Blair’s returned in their private Sandringham flying boat in the 1970s. Now, even the Sandringham will no longer be airborne—gone is the era of the great clippers.

When Blair, as chief pilot for Pan Am in the late ’40s, started his second career as an airline owner/operator, he found a need for a flying boat and ended up leasing and finally buying his old friend, the VS-44 Sikorsky. Now Charlie and his plane have parted.

Pensacola was more than glad to get Charlie’s flying boat. Museum director, retired Navy Capt. Grover Walker, said, “The real significance of this aircraft lies in the fact that she is the last available example of the giant seaplane transport era of the ’30s. As such it should be preserved for future generations to view and appreciate.”

Blair, author of “Red Ball in the Sky,” belongs to the age of the big flying boats and props, not to the era of jets and in-flight movies. He has no need for the in-flight movies, anyway. Seems he doesn’t watch movies—even his wife’s.
Far left: Captain Charles Blair, president of Antilles Air Lines and donor of the Sikorsky VS-44; Left and below: the Sikorsky flying boat is prepared for her final trip, from St. Thomas, Virgin Islands, to Pensacola, Fla. (Photos by PH1 R. Boyle and LCDR A. Castro.)
**DISASTER**

behind

the scenes

look

BY JOI PETER SUNDBERG

"General quarters, general quarters, all hands man your battle stations, set material condition ZEBRA throughout the ship." The corpsman jumps out of his bunk and runs aft—there's been an explosion—men are hurt. Arriving on the scene, he immediately sizes up the situation: four men are down, one is seriously burned, in shock and has trouble breathing. The corpsman doesn't hesitate, he reaches for his battle bag, takes out a scalpel and cuts an airway in the man's throat to allow air to enter the lungs. The man breathes easier. The corpsman now faces another problem—that of keeping the airway open. He doesn't have the proper tool so he pulls out a ball-point pen, dismantles it and inserts the hollow cylinder into the man's throat . . .

Hundreds of miles away in Nebraska, a telephone rings. A man gropes in the dark for the receiver—his watch reads midnight—could he be calling at this hour?

"Hello?"

"Commander Hall, this is the district headquarters duty officer. There's been an accident on board a destroyer in the Caribbean—One of the seriously injured, Petty Officer 3rd Class Tony Mitchell, is from your area. You've been assigned as the Casualty Assistance Calls Officer (CACO). Please inform the next of kin (NOK) as soon as possible."

"All right, give me the details . . ."

In Illinois, the crew of an Air Force C-9 hospital plane has just returned to Scott Air Force Base from a routine MEDEVAC flight to San Diego. A message arrives saying that they are again needed, this time the mission is urgent and the crew members including two flight nurses and three medical technicians, rush to the C-9 and are once again airborne. Their destination, Guantanamo Bay, Cuba.

While helicopters hover over the destroyer and wait their turn to lift off and transfer the injured sailors to the hospital at Guantanamo Bay, Commander Hall is on his way to Mitchell's hometown in Nebraska to inform the young sailor's mother of the accident. Hall tries to think of words that will ease the blow—he's been a CACO before, but will never become accustomed to the unpleasant duty. He's studied the guidance provided by the Bureau of Naval Personnel's Casualty Assistance Branch and the Commandant of the Naval District many times, but there's no time to review it now. As in every case, the NOK has to be informed as quickly as possible. The mother has to be assured that everything possible is being done for her son and that he will soon be in the hands of experts at the National Naval Medical Center in Bethesda, Maryland.

In Miami, the Air Force C-9 taxis down the runway and waits for permission to take off and continue on to Guantanamo Bay. The flight crew spent that night at the Miami airfield due to nighttime flying restrictions imposed by the Cuban government. No planes are allowed in or out of Cuba after dark—regardless of the seriousness of the situation.

The flight crew is accustomed to such delays and, as a rule, won't fly at night if it can be avoided. It's been found that a patient's internal systems function better if he is allowed to rest at night, therefore, most cases are moved during waking hours. Although the C-9 is a fully-equipped hospital ward, the crew doesn't take chances. If something major should happen to a patient while in flight, the plane will land and transfer the patient to the nearest hospital.

The C-9 is one of twelve flown by the 375th Air MEDEVAC Wing assigned to Scott AFB in Belleville, Ill. The wing is responsible for medical evacuation of military personnel, dependents, retirees and their dependents, and Department of Defense employees in the continental United States, Canada and the Caribbean. Civilians, in a life or death case, can also be transported as was the case when two jumbo jets collided in the Canary Islands recently—two wing MEDEVAC flights transported the victims to Brooks Burn Center in San Antonio, Tex.

Meanwhile, at Guantanamo Bay hospital, the injured are awaiting evacuation to Bethesda; the Casualty Assistance Branch in Washington has fully implemented the Casualty
Assistance Calls Program (CACP) (see accompanying article); the medical center in Bethesda is ready for the victims; and three of the four NOKs have been notified—Mitchell's mother has yet to be informed.

Hall knocks again but still no response. Maybe the mother is still sleeping, it's only 0600. He knows this is the correct address—he verified it at the police station on his way into town. Could she be on her way to work, he thinks. No... in a town this size no one goes to work this early... or do they?

The next step is to check with the neighbors, regardless of the early hour. One tells him that she doesn't know where Mrs. Mitchell works, but he could find out at the service station up the street—Mrs. Mitchell's brother-in-law operates it. Hall drives to the gas station where Herman Mitchell tells him that she left late last night on a trip to Wyoming. Hall jumps into his car and heads for the police station where he makes two phone calls; one to state police headquarters asking for assistance in locating Mrs. Mitchell, the other to an NROTC unit commander located in Wyoming.

The state police issue an all points bulletin for Mrs. Mitchell and the officer in Wyoming assumes duties as CACO in the event the mother arrives there before she can be contacted. Three hours pass before the state troopers find Mrs. Mitchell. She calls her hometown police station where Hall waits. He gives her the news...

At Andrews Air Force Base in Maryland the noise of the helos warming up blankets the sound of the ambulances hurriedly being driven to the motionless C-9. Doors are flung open and four litters are carried from the plane and loaded onto the ambulances for delivery to the waiting helos. The helos take off, their final destination—the medical center at Bethesda where doctors wait. The next-of-kin are notified of the arrival of their son at Bethesda and advised of his condition at time of arrival. The next-of-kin then begin their long vigil at Bethesda.

Injury and death are not popular topics in Navy circles and you may regard yourself as one of the "it'll-never-happen-to-me" group, but accidents are an unfortunate fact of life in the Navy.

When they occur, a number of complex plans and procedures go into motion rapidly and effectively to insure that medical care is provided, and the needs of relatives are given sympathetic, professional attention.

(Editors Note: The incident described in this article is based largely on an actual MEDEVAC/CACO situation. Names and some details have been changed.)

September, 1977

Casualty Assistance Call Program

The Casualty Assistance Calls Program (CACP) of the Navy has been in effect since 1955. It provides for the personal visit of a Casualty Assistance Calls Officer (CACO) to the family of each person in the Navy who becomes a casualty while on active duty for training or inactive duty training. Courtesy assistance is not normally provided to retirees except when volunteers can be found to implement the program in the retiree's area and in certain special cases such as when the deceased was a Medal of Honor winner.

Originally, CACP was initiated to cover the problems arising from the death of a Navy person. It has since been expanded to include missing personnel, prisoners of war, and internees.

The CACO is the most important participant in the program. As a result of the performance of this duty, the next of kin (NOK) of the casualty will receive compassionate understanding and attention appropriate to the occasion and advice concerning rights and benefits.

As soon as possible after a casualty has occurred, messages are sent to the Chief of Naval Personnel (Casualty Branch), Chief of Bureau of Medicine and Surgery and the commandant of the naval district in which the primary or secondary NOK reside. The district commander will designate a CACO who will personally notify the NOK usually before the incident is reported by the local news media. In the case of death, provides needed advice and counsel on funeral arrangements, provides aid in filing the official claims for such benefits as death gratuity, unpaid pay and allowance, government insurance, I.D. cards, medical care, reimbursements for burial expenses, relocation of dependents and household goods, VA and Social Security benefits and emergency financial assistance. Since some of these entitlements may extend for many years, the CACO's efforts in aiding the family are very important.

When a person is listed as missing or is seriously injured or ill, the CACO acts as liaison between the NOK and the Navy. In addition to advising the NOK on their rights and benefits, the CACO will make regular reports to the NOK on the status of the casualty. In the case of missing members the CACO will be the primary liaison between the Navy and the next-of-kin for a period of years in some cases.

Whatever the case, you can be assured that the Navy will take care of its own. 

September, 1977

29
Bearings

Pegasus: Maneuverability, Speed and Weaponry

The winged horse—USS Pegasus (PHM 1)—joined the Pacific Fleet in July. The first of its class, this patrol hydrofoil missile ship (named after a figure in Greek mythology) is attached to Destroyer Squadron NINE in San Diego.

Pegasus is capable of very high speeds (40+ knots), and, because of her submerged foils and automatic control system, she can maintain this speed even in rough seas.

Carrying eight Harpoon missiles and an automatically controlled, rapid-fire 76mm cannon, Pegasus' mission is to operate offensively against major surface combatants and other surface craft. She is also meant to conduct surveillance, screening and special operations.

Pegasus is much more maneuverable than conventional ships. She can turn twice as fast in about one-third the distance in rough as well as calm seas, making her a much more difficult target to hit.

Manned by 21 personnel, the hydrofoil missile ship has a 131-foot overall length with a 28-foot beam. She is propelled by two diesel engines with waterjets while hullborne and one gas turbine engine with waterjet while foilborne.

Surviving the Initiation

"This initiation has long and cherished tradition in the Navy. Until the rite has been performed, an individual coming into our ranks remains an E-7 and not a Chief Petty Officer. If you are able to survive this initiation you may then, with the total respect of the chief petty officers of the U.S. Navy, call yourself a chief petty officer."

For civilian Harrison Page, the invitation was quite an honor and for Harrison Page, Chief Robinson of TV's "CPO Sharkey," it was an experience he won't forget.

In May, Page was invited to the Naval Technical Training Center, Corry Station, Pensacola, Fla., by the local CPOs to take part in a traditional initiation along with others joining the CPO ranks. After a 16-hour initiation, Page was the guest of honor at a dinner and was piped over the side as an honorary chief petty officer.

Page got a taste of the life of a real CPO during his stay. Before leaving, he told the CPOs, "I want to thank you again for having me here. Now that I've seen what the Navy is really like, I think now I can portray you in a true light as the humane people you are."
Final Flight for the A6A Intruder

The logbooks have been closed out, the last bomb has been dropped—an era has ended.

The "Arabs" of Attack Squadron 115, the last operational squadron to fly the Grumman built A6A Intruder, flew their final mission in an A6A from the deck of the aircraft carrier USS Midway (CV 41) in April to end this plane’s 13 years of service to the fleet.

The A6A, first envisioned by the Navy in 1958 as an all-weather attack aircraft, made its initial flight in 1960 and was introduced to the fleet in 1964. During the Vietnam conflict, the A6A Intruder lived up to its role as the Navy’s only all-weather aircraft.

With its long range search radar, inertial navigation system and ballistics computer, the A6A was able to penetrate enemy defenses and deliver its payload when most other aircraft were weathered in. Manned by a pilot and bombardier/navigator, and capable of flying at low altitudes and high speeds, the A6A, Intruder carried a major load of the Navy’s air war during its years in Vietnam.

The end of the A6A is not, however, the end of the “Arabs” of VA-115’s role as the Pacific Fleet Intruder Squadron—it’s the beginning of an era—with the newer and more reliable A6E.

'Jeff' May Become Marines’ Best Friend

"Jeff" looks too awkward to fly, much less swim, but “fly” it did—with the aid of eight centrifugal fans. Jeff is the nickname for the Amphibious Assault Landing Craft (AALC), an air cushion vehicle being tested at Tacoma, Wash.

Although strapped down, or “anchored” in place, during initial testing, further tests in the Tacoma area this summer will check the craft’s operation over open water.

Jeff’s maiden lift-off was “highly successful” according to Lieutenant Commander Richard D. Greenamyer, the Navy project officer for the 170-ton vehicle designed to transport marine vehicles and cargo ashore in support of amphibious operations. Jeff is capable of carrying up to 60 tons of cargo at speeds up to 50 knots on a cushion of air over water or land. At about 60 per cent power the eight lift fans boosted the craft five feet off the ground during the test. The AALC, 100 feet long by 60 feet wide, is propelled by four seven-foot propellers.
Four Rescued During Queen's Jubilee Review

Two days before the Naval Review, crewmembers from USS Francis Marion (LPA 249) rescued four persons, including a four-year-old girl, from the channel where the 150 ships were anchored.

Francis Marion's gig had just completed carrying guests to the nuclear attack submarine, USS Billfish (SSN 676), when the boat crew spotted a small powerboat overturned in the Solent Channel. They moved to the side of the capsized boat and brought the four on board.

The rescued—all British nationals—were taken to the nuclear-powered cruiser USS California (CGN 36), some 300 yards away, and attended to by the ship's medical officer. None were injured.

A boat from California retrieved the capsized craft, and examined it for hull damage. The cruiser's utility boat then took the four survivors to the Isle of Wight, with their powerboat in tow.

Liberty Crew Remembered

A memorial has been dedicated at the Naval Security Group headquarters in Washington, D.C., to honor the Technical Research Ship USS Liberty (AGTR 5) and 34 crewmen who died on board on June 8, 1967. Captain William L. McGonagle, Liberty's commanding officer, and Mrs. P. M. Armstrong, widow of the ship's executive officer, unveiled the memorial listing the names and hometowns of the dead, a Presidential Unit Citation pennant, photograph of the ship, the ship's wheel, and photograph of Capt. McGonagle.

McGonagle (since retired), speaking on behalf of the crew, expressed pride in his men and their sacrifice. He said, "These are the kind of men who have made the Navy what it is today and what it has been through the years. They held important positions of trust, duty, and responsibility and they carried them out under the most trying conditions. . . ."

Liberty was the victim of mistaken identity and came under attack by Israeli air and naval forces in the eastern Mediterranean Sea during the Arab-Israeli War of June 1967. The attack and resulting struggle to keep the ship afloat took a toll of 34 killed and 170 injured.

McGonagle earned the Medal of Honor, four crewmembers received the Silver Star Medal, seven were awarded the Bronze Star Medal and two earned the Navy Commendation Medal for their roles in saving the ship and helping their shipmates.
the Navy's STAMP on history

BY LT. TOM DAVIS

From the dawn of maritime history, man has recorded his seagoing adventures in various art forms. Paintings, coins, sculptures and medals have all provided glimpses of seafaring life through the ages.

A relatively new art form appeared in Great Britain on May 6, 1840—the world’s first adhesive postage stamp. Before this, letters were mailed “collect” and the recipient had to pay the postage. Adhesive postage stamps were inexpensive and provided for prepayment. The tremendous popularity of these experimental stamps led to the adoption of adhesive stamps by other nations; in 1847, the United States became the fourth country to issue them.

Persons, ships and events from the U.S. Navy’s 200-year history have been variously depicted on U.S. stamps for more than 100 years. Exploits from the days of sail have appeared, as have events of the nuclear Navy.

Foreign countries have also honored our Navy with postage stamp scenes lifted from American naval history ranging from the sinking of Bon Homme Richard to the battle between the ironclads to the Battle of Coral Sea.

Here, then, is a sampling of the U.S. Navy’s rich and proud heritage—all on postage stamps of the world.
In 1933 the United States issued a three-cent postage stamp in conjunction with Rear Admiral Richard E. Byrd's second Antarctic expedition.
This 10-sene Samoan Hurricane Commemorative postage stamp shows the HMS Calliope about to overtake USS Trenton during the 15 March 1889 hurricane which struck the Samoan Islands. During the storm, three American ships were lost—USS Nipsic, the gunboat Vandalia, and USS Trenton—as they, with four other ships, tried to put to sea.

The Battle of Manila Bay was commemorated by a two-peso postage stamp issued by the Philippine Islands (under United States administration) in 1935. This stamp depicts the Asiatic Squadron, led by Olympia, steaming past the Spanish fleet at the height of the 1898 battle.

This 16-centavo postage stamp of Commodore George Dewey was issued by the Philippine Islands in honor of the Battle of Manila Bay in 1898.
In August 1967, Papua and New Guinea issued four postage stamps to commemorate the 25th anniversary of the Pacific battles which ended Japanese attempts to take possession of the islands during World War II. One of those stamps, depicted here, pictures a moment from the Battle of the Coral Sea; Lexington is under attack on the left.

A romanticized painting of the sinking of the Bon Homme Richard after the Sarapis encounter provided the design for this 20-sene postage stamp. The 1976 commemorative issue of Western Samoa honors the American Bicentennial.

This seven-sene Samoan postage stamp of the 1970 Hurricane Commemorative issue pictures USS Nipsic, one of the three American ships lost during the 15 March 1889 hurricane which hit the islands.
Q. I am interested in applying for diver training and subsequent duty. Where do I find the requirements and procedures for applying for this duty?

A. Enlisted personnel who are petty officers or identified strikers in any of the source ratings specified in the BuPers Formal Schools Catalog; and unrestricted line officers, lieutenant and below, interested in applying for initial diver training should request their command to arrange preliminary screening at the nearest activity having facilities to conduct:

a). Physical examination, in accordance with article 15-30, Manual of the Medical Department. (Any Navy medical facility with the capability of conducting annual or reenlistment physicals.)

b). Recompression chamber pressure test, to 50 psig (112 ft). (AS, ASR, ARS, ATS class ship or a shore activity with an operable recompression chamber.)

c). Oxygen tolerance test, breathing pure oxygen at a simulated depth of 60 feet for 30 minutes (same locations as b).

d). A test dive in a diving suit, under the guidance of a qualified diving officer or master diver (AS, ASR, ARS, ATS class ship or any shore activity having a diving facility).

e). Interview by a qualified diving officer or master diver, to ascertain the motivation and attitude of the applicant (same locations as d). Applicants must be at least first class swimmers, not over 30 years old, possess a combined MEC + ARI of 105 (or ASVAB: MC + AR = 105), and in paygrade E-3-E-6.

References that should be reviewed include BuPers Manual, article 1410380; Manual of Medical Department, article 15-30; and BuPers Formal Schools Catalog (NavPers 91761-A1), all available through the ship's personnel office.

Upon completion of preliminary screening, submit an Enlisted Transfer and Special Duty Request (NavPers 1306/7) to Chief of Naval Personnel (Pers 5112), via chain of command and EPMAC for approval. Submit Medical Forms SF-88 and SF-93 and interview recommendation as enclosures to the NavPers 1306/7.

For officers, submit application, with preliminary screening documents as enclosures to Chief of Naval Personnel (Pers 412), via commanding officer.

Q. Can active-duty Navy and Marine Corps members use civilian medical facilities at Government expense?

A. Usually only in an emergency. Active-duty members are required to obtain their routine medical and dental care from a federal medical facility, even when the members are on leave or liberty. Federal medical facilities are those of the Army, Navy, Air Force, U.S. Public Health Service and Veterans Administration.

The Navy will not pay for routine care obtained from a civilian source unless prior authorization has been given by the cognizant Naval district medical or dental officer. Specifically, the Navy will not pay for civilian care if it is obtained after an emergency is over, because of personal convenience, or because of personal preference.

The Navy will not pay for civilian care provided to an unauthorized absentee unless the member returns to the actual or constructive control of a military authority before the care is completed.

These rules are spelled out in BuMed Instruction 6320.32B. General guidance is given on the reverse side of your leave papers.

Q. What kind of operations are carried out by Military Sealift Command (MSC) cargo ships?

A. MSC operates both dry cargo ships and tankers. They deliver all types of military cargo to worldwide ports serving the Armed Forces. They regularly support bases in the Arctic and Antarctic, Europe, South America, the Far East, anywhere U.S. Forces are stationed. They call at as many as 500 world ports, many of which are seldom visited by Navy combatant ships. In addition, the MSC tankers which normally are involved in point-to-point deliveries, often make consolidations or provide unrep services to MSC oilers or combatant fleet ships.

Q. I have used my 36 months of VA educational entitlement but I would like to go to graduate school. Do I have any entitlement left?

A. Effective Oct. 1, 1976, eligible personnel who have served 18 continuous months or more on active duty since Jan. 31, 1955, become entitled to 45 months of educational assistance if they have not been separated for more than 10 years.

Q. Is it true that veterans who served after World War II and before the Korean Conflict are now eligible for home loan benefits?

A. Effective Oct. 1, 1976, those with active duty after July 25, 1947 and before June 27, 1950, who served more than 180 days under conditions other than dishonorable or were discharged with less than 180 days because of a service-connected disability, became eligible for VA home loan benefits.
from Seaman to Admiral

Reflection on a 40-year career

BY KEN SINCLAIR

When 17-year-old Albert Monroe Sackett followed the advice of old salts back home in the farming community of Victor, Iowa, he joined the Navy to see the world. All he planned to do was “put in his twenty and retire as a chief petty officer.”

Al Sackett achieved these ambitions and then some. Not only did he do his “twenty,” he stayed around for a second twenty. Not only did he make chief petty officer, he achieved the rank of rear admiral.

At the time of his retirement he was believed to be the only flag officer on the active list who had progressed through every pay grade from seaman recruit to rear admiral. Rear Admiral Sackett concluded his career at the same place he had started it in 1937—at the Great Lakes Recruit Training Command. He was piped over the side during traditional retirement ceremonies on July 1 after receiving the salute of the graduating recruits as they passed in review.

Admiral Sackett said he stayed in the Navy because of the challenge. He achieved his first goal when he made chief in 1944. With World War II came a need for additional officers as well as trained, experienced shipboard personnel; an opportunity to become a temporary officer developed for then-Chief Machinist’s Mate Sackett.

“Naturally chiefs were among the first considered for the wartime officer program,” said Sackett. “I was commissioned ensign and assigned as engineering officer aboard USS LCI (R), 74 (Landing Craft, Infantry) in 1944. Six months later I was executive officer and by the time the war was over I was commanding officer of a landing craft (infantry) ship.”

After the war, then Chief of Naval Personnel Vice Admiral James Holloway (father of the present Chief of Naval Operations), created what came to be known as the “Holloway Plan” whereby temporary officers could apply for permanent commission. Personnel strengths remained greater than anticipated after the war, so some former enlisted personnel and reserve officers could apply for regular commis-
sessions. Sackett applied, was accepted, and went regular in 1946.

Although he had only a high school education this did not prevent the energetic young officer from climbing the promotion ladder. It was not until very late in his career that he was sent to George Washington University for four semesters and thereby earned a B.A. degree.

Becoming an admiral was not part of Sackett’s plans. He noted that “after I reached the rank of captain there was a time I thought I would never reach flag rank. I was one of the more senior captains when I was selected in 1970—for everyone selected there were a couple more who were equally well qualified.”

Admiral Sackett recalled the words of the president of his flag selection board, Admiral Ralph Cousins, who said, “If you make the rank of commander in this man’s Navy you have had a good career. If you make captain, you’ve had an excellent career. If you make admiral, you’re lucky.”

Sackett’s career pattern undoubtedly contributed to his “luck” in being selected. He had commanded numerous ships including an LCI (R); LSM 109; LST 990; the Destroyer USS Preston (DD-795); the Guided Missile Destroyer USS John King (DDG-3); and the Cruiser USS Gridley (CG-21). His last assignment was as Commandant Ninth Naval District and Commander Naval Base Great Lakes. Before that he commanded the Navy Destroyer School and served as the Navy’s Chief of Technical Training.

As a senior captain, he headed the Bureau of Naval Personnel’s Officer Distribution Division, where he was responsible for the duty assignments of 72,000 officers in the Navy.

The admiral observed numerous changes in his 40-year career, among them being the shift from conventional to nuclear power and the adoption of the chief petty officer’s uniform for all enlisted personnel. He noted that the latter change is now being re-considered and there may be a reversal to the old bell-bottom uniform yet in the cards. (Note: Since enacted by CNO.)

Another change currently being considered which particularly intrigues Admiral Sackett is the possibility that women may serve aboard ships other than auxiliaries. The admiral chuckled as he said, “It may have a traumatic impact on the Navy if it is allowed, but, if it comes, it will be worked out just as so many other changes have been.

“Now,” he said, “women are serving in nearly every rating specialty in the Navy, including machinist’s mate, engineman, boiler technician and even avionics technician. One factor which will greatly determine where and to what extent women will serve aboard combatant ships will be the Navy’s population pool 20 or so years from now.

“Population planners say there will be a significant drop in the number of eligible males available for the Navy in the 1980s. Whether we fill those possible vacancies with women is hard to tell right now.

“Leaving the Navy was an emotional decision for me,” admits Sackett. “I intend to be very supportive of Navy recruiting efforts in the future. I think it’s the responsibility of everyone to motivate young people to serve the nation.

“Naturally, being parochial, I say Navy. There are opportunities for education, advancement and vocational training.”

During his retirement ceremony, Admiral Sackett addressed the recruits who graduated that day from the Great Lakes Naval Training Center. He reminded them that—40 years before—he had stood where they were standing. He urged them to be hard working and dedicated and advised them to choose their friends wisely.

Upon retirement Admiral Sackett moved to Memphis, Tenn., where he joined a college staff as development director. He considers his second career position to be yet another opportunity to assist young people.

Al Sackett took great pride in having been both a chief petty officer and an admiral. He was a smalltown kid who came off the farm with a high school education and worked his way to the top rungs in the Navy.
Engineman Fireman Apprentice Michael Sperry's nervous hands twist the screwdriver against the governor buffer screw to smooth out the erratic idle of the G-71 GMC diesel engine.
The starter whirred the diesel engine into a throaty erratic growl and immediately the learning supervisor, Engineerman 1st Class Joseph Strafford, shouted, “Check the oil pressure.” Assuring his supervisor the pressure was up, Engineerman Fireman Apprentice Michael Sperry moved to adjust the governor buffer screw; nervous hands twisted the screwdriver against the screw until the growl became a smooth, consistent idle.

Smiles came quickly to the faces of Sperry’s classmates—it ran, it actually ran! For the past few days they had labored over, under and in the 6-71 GMC diesel, adding to the sheen of wear with their hands and wrenches. Strafford shut the engine down and turned the screw back out of adjustment for the next man.

Across the way, in another building, Machinist’s Mate Fireman Apprentice Steven Dahl traced a white, lagged pipe throughout a maze of valves and piping, looking down only to check his footing. Spotting the elusive valve, he strode confidently to it, checked the number and made the entry in his book.

Dahl was finished tracing the circuitous route of the 150 pounds per square inch (psi) steam line.

Both Sperry and Dahl are attending the Propulsion Engineering School, Service School Command, at Naval Training Center, Great Lakes. Each started in common core classes learning theory, then applying it in job-practice laboratories. Everything from simple nuts and bolts (called metal fasteners by the professionals) to pumps, purifiers, compressors, heat exchangers and of course oil pollution. The tools of the trade are reviewed and used in laboratories full of globe valves, centrifugal pumps and metal fasteners.

The common core classes are self-paced with each individual demonstrating satisfactory performance of every skill objective before progressing to the next lesson.

After approximately 20 days of the common core classes, the students complete Module 13 and begin to go their separate paths of learning. Engineermen, like Sperry, go on to study the intricacies of controllable pitch propellors, fire mains, reduction gears and the diesel engine.

The diesel engine receives most of their attention. Lube oil systems, air intake systems, fresh and salt water cooling systems—every nut, bolt, bearing and component is studied to ensure the proper function of each is understood by the student.

Each group of four to six work together disassembling one of the laboratory’s 6-71 diesel engines. Once the engine is apart, the students use measuring devices to check for wear on the main bearings, pistons and cylinder sleeves. The resultant measurements are compared to the past findings of other students to ensure accuracy. The measurements are necessary to help
the student learn the signs of wear and predict possible future breakdowns. Given the go-ahead from the learning supervisor, the group then reassembles the engine. When the first growl of the engine is heard, the smiles come quickly along with a few pats on the back.

“Most of the students have been backyard mechanics. Some have even held jobs as mechanics, but we had some that didn’t know the intake from the exhaust,” the learning supervisor remarked. “After they are through here, each knows the basics of the diesel engine.”

Learning the basics of maintenance and operation is a prerequisite to the use of the diesel as a means of propulsion. Every engineman is indoctrinated as Engineman Messenger of the Watch and Engineman Petty Officer of the Watch. The watches consist of more than watching the engines run. Simulated casualties of the engine’s various systems keep the watch standers on their toes. The casualties and the watches give the student a taste of what a watch may be like in the fleet.

Much like the Enginemen training on working diesels, Boiler Technicians and Machinist’s Mates train on functioning power plants. BTs and MMs are classified according to fleet needs, either as 600-psi or 1200-psi operators, leading the learning supervisors to speak of their men in terms of “He’s a 600-lb. MM” or “he’s a 1200-lb. BT” —no connection with their body weight.

Each BT or MM begins by learning the functions of the boiler and its components in the generation phase of the main steam cycle. Tracing the various pipes, pinpointing different indicators and finding the right valves are all a part of the learning process in both plants.

The learning process is formulated by three sources, the foremost being the Personnel Qualification Standards (PQS).

PQS outlines the areas of knowledge and skills required to operate propulsion engineering components and systems. In addition, it outlines the watch standing tasks for both rates. PQS takes the student to virtually every nook and cranny of the boiler and engine rooms. Master Chief Machinist’s Mate (SS) John Woods puts it, “PQS gives the total picture of what is happening on both sides of the bulkhead.” Learning what goes on in both the fireroom and the engineroom is vital in order to operate a propulsion plant efficiently and safely.

Once the systems and components are known, the student is ready for the operation of the plant.

Operation of a propulsion plant has a beginning, a middle and an end which translates into the Engineering

“Most of the students have been backyard mechanics.”

Operational Sequencing System (EOSS). Much like the pilot’s checklist before a takeoff, EOSS gives the MMs and BTs the proper sequence of operating a plant from start to finish.

“Opening a valve or bringing a pump on the line at the wrong time could cause damage to the plant or the personnel operating it. That’s why EOSS is important to both the plant and its operators,” according to Machinist’s Mate 1st Class Richard Decoster, one of the Tomich Facilities’ learning supervisors.

Operation of machinery takes its toll in wear and tear. Spotting the wear and preventing the tear is accomplished through the Preventive Maintenance System (PMS).

Each student is taught to perform preventive maintenance actions on the E-3/E-4 level using the various maintenance requirement cards for the common types of propulsion engineering machinery. Essentially every moving part and the vast majority of immobile parts must be checked for signs of wear or possible breakdown.
Knowledge and performance are brought together when the MM or BT goes through his watch indoctrination.

Watch indoctrination of the 600-lb. plant for the BT means eight hours of watch standing as the checkman at the upper level fireroom, eight hours as blowerman, eight hours as burnerman at the lower level fireroom and eight hours as the fireroom messenger of the watch.

"These watches are intended to give the student the basics of the various watch stations," said Chief Woods. "Most of our graduates must stand more indoctrination watches once they get to their ship just to learn the idiosyncracies of that particular ship's plant."

The more complicated 1200-lb. system requires more indoctrination and watch standing. 1200-lb. BTs spend three 8-hour watches in the fireroom's upper level acting as checkman, blowerman and feed systems operator in addition to three 8-hour watches on the lower level as burnerman, port and starboard systems. Two more 8-hour watches as the fireroom messenger of the watch.

"PQS gives the total picture of what is happening on both sides of the bulkhead."

The MM must complete a combined 40 hours of watch standing in the engine room lower level, at the throttleman position, with the ship's service turbogenerator and as engine room messenger of the watch in the 600-lb. plant. As with the 1200-lb. BT, the 1200-lb. MM also stands more watches in order to learn the more complicated 1200-lb. system. In addition to two 8-hour watches as messenger, students stand 8-hour indoctrination watches on the lower level, upper level, throttleman and ship's service turbogenerator.

Watch standing at the school is made to approximate, as closely as possible, standing underway watches on a ship. Both plants use huge water brakes to transmit the feeling of the screws in the water and the various loadings at the different shaft speeds. The inherent heat of the spaces matches that found aboard ship.

"We try to duplicate everything here that would be found aboard a ship," DeCoster concludes. "But we fall short on two things—we don't get under way and we don't have the rocking of the ship." Plenty of time for pitching, rolling and yawing after these graduates join the fleet.
Groundbound Pilots
The airspace above the airstrip is crowded with looping, diving and banking airplanes. A wrong move or awkward maneuver can send one of the small aircraft plummeting out of control toward earth and certain destruction. The pilot is concerned for the safety of his airplane. He doesn't worry about his own welfare, however, as he puts his machine through its paces... from the ground using remote control.

The groundbound pilot is Aviation Structural Mechanic 1st Class Scott Cedergreen, assigned to VA-128 at NAS Whidbey Island, Washington.

When Cedergreen became interested in radio-controlled flight two years ago, he began looking for someone to teach him the fine points of flying his plane. During his search for such an expert, Cedergreen found others interested in the hobby and formed the Whidbey Island Radio Control Society. Members drafted by-laws and instituted rules for club competition, limiting the size of planes and engines which could be used.

Cedergreen said: "The hobby can get expensive and this turns many people off. Kits start at $19 but can run as much as $200. Still, it's a one-time cost."

The hobbyists spend their weekends working on, testing and flying model planes in preparation for upcoming races. The Whidbey Island club members compete with other clubs throughout the year. A point system, similar to auto racing, is used and the member with the most points at the year's end is ranked number one.

Although still a novice, Cedergreen said, "I've learned many of the dos and don'ts by talking to other club members." With the planes flying at 75 or 80 miles per hour, any wrong move can cause the planes to crash.

Before a race, Cedergreen flies the plane to get out the bugs. Then it's pure competition until the horn at the end of the race.
About Little Rock

Sir: I would like to put the record straight. Your article "Busy Ship Right to the End," (January, '77) stated USS Little Rock was the only foreign warship to take part in the reopening ceremonies of the Suez Canal in June 1975. How did your correspondent miss HMS Abdiel, HMS Hubberston and HMS Sheraton who were in the Canal doing the final clearance from April 17th, 1975, to June 6th? HMS Abdiel, the Royal Navy Support Ship was also there for 7 months in 1974 along with USS Barnstable County and USS Boulder County. The French Navy also had at least one mine sweeper present in Lake Timsah on opening day. —MAA J.S.P., RN.

• You are correct in citing the other foreign ships which took part in the opening ceremonies. Unfortunately, the erroneous information was provided ALL HANDS by an outside source and not challenged. —Ed.

Screening Films

Sir: In the March 1977 issue of ALL HANDS, the Information Exchange feature on page 40 failed to mention one very important fact regarding selection of films for the Navy Motion Picture Service. Being a member assigned in BuPers, I have had the opportunity to "preview" movies pending input. I think it is of interest to Navy personnel that Navy men and women (officer and enlisted) preview every movie before approval for purchase. Comments, good and bad, with appropriate ratings, are made by each member viewing them. Movies are very expensive and this method of screening affords a general consensus of interest or acceptability for their Navy-wide distribution. —DPC C. A. Howe

Computerized Detailing

SIR: Why can't detailing of personnel be computerized? The Navy has the computer capability of computerized detailing. In today's Navy everyone has his name and different items already in the computer. The computerized selection would be fairer and would save manpower and expense to the Navy. It would also eliminate guesswork and personal feelings in the detailing of personnel. The Bureau could still have some detailers for special programs, and re-enlistments and assign the other detailers to other billets. —PN1 A.D.D.

• BuPers tells us that from 1966 to 1973 the Navy did research and prototype development to test the feasibility of fully automating the enlisted personnel detailing process. The Computer Assisted Distribution and Assignment (CADA) System was designed to match available personnel with requirements (by rate, rating and NEC) in accordance with policy guidance (BuPers Manual, Enlisted Transfer Manual, instructions/ notices, etc.) resulting in a set of enlisted orders. Problems were encountered with the excessive computer time required and the significant numbers of matches the computer could not resolve. Besides the difficult cases with complex variables, many others required decisions regarding personal situations of individuals which only a human being could make. The combination of these factors resulted in the elimination of the CADA System. Many facets of centralized detailing today do involve the assistance of computers from the production of management reports to the issuance of orders. The Chief of Naval Personnel decided to employ members of all ratings as detailers for members of their occupational specialty since that system was considered to be superior to an impersonal automated process. The annual detailer trips to the Navy's many homeports throughout the world where enlisted personnel can discuss their future assignment face-to-face with their detailer have been an outgrowth of this decision to make enlisted detailing a more personalized procedure. —Ed.

Marines at Tangier

Sir: Referring to a recent TV network show, "The Wind and the Lion," they had one scene showing the landing of the Marines in Morocco with a squad of Navy personnel with machine guns. Supposedly, this took place in 1908. I want to know why the squad was with the Marines, and if they were corpsmen, why the machine guns? —CM2 C.I.Q.

• We have been informed by the Naval History Division that the event referred to in your letter actually occurred in 1904. On June 8th of that year, Marines were landed at Tangier, Morocco, to protect the Belgian legation from attack by tribesmen. At the same time, an American citizen, Ion Perdicaris, was being held captive by a Moroccan bandit. There was no mention in the account of sailors being in this landing party. However, it was not uncommon for sailors to be used in landing parties. —Ed.

USS Norton Sound

Sir: In reviewing your June, 1976 issue ("For The Navy Buff"), I came across an interesting article on page 53 concerning "floating missile test launchers," or as we prefer to say, RDT&E ships. As commanding officer of USS Norton Sound (AVM 1), I was extremely pleased to see her mentioned; however, sad to note that reference was in the past tense.

As old as Norton Sound is (she was originally commissioned in 1945) she is
still very active in the Research, Development, Test and Evaluation community. Currently, she is involved in conducting operational tests of the Aegis system. Norton Sound not only “was” but still “is” in the forefront of the RDT&E Program.—CDR D. B. Dickmann.

Since we inadvertently spoke of Norton Sound in the past tense we’ve learned that she is very much alive and well. As a matter of fact, Norton Sound figured prominently in our ongoing coverage of the AEGIS system development as readers of the November ’76 ALL HANDS and Chinfo Newsgram are aware. In addition we’ve made note of Norton Sound’s continuing contribution in our “Backgrounders” that are sent to retired and Reserve flag officers each month. Ed.

Visit to Alexandria

Sir: The January 1977 issue of ALL HANDS contained an article stating the renowned USS Little Rock (CG 4) was “the first U.S. warship to visit Alexandria, Egypt, since World War II (See “You Know It’s The End of a Ship When...”). If my memory serves me right, USS Soley (DD 707), now with the mothball fleet, was the first U.S. warship to visit Alexandria, sometime in early 1962. I was then attached to Soley when we tied alongside a pier at Alexandria, to pick up needed U.S. AID supplies bound for the stricken people of Kenya, Africa.—DK1 F. C. D. V.

We throw your counterclaim out to our readers from Little Rock or any other ship that thinks they may have been the first to reach Alexandria, Egypt, after World War II. Any other claims?—Ed.

Largest Reservation?

Sir: Your April 1977 issue claims that the White Sands Missile Range is the “largest land-area military reservation in the United States.” Depending on your definition of “military reservation,” the largest could be Naval Petroleum Reserve Number Four on the North Slope of Alaska which encompasses some 37,000 square miles.—LCDR A. E. Corcoran

On the surface, it looks as though you win by some 33,000 square miles. White Sands Missile Range will have to bow to you on this one.—Ed.

Ye Ole Frocking

Sir: As a history buff of the U.S. and British navies during 1775-1850, I think I may have a plausible explanation for the term “frocking” mentioned in a recent “For The Navy Buff” article:

I have found that when a ship lost an officer, either through death, injury or as prize officers of captured vessels, commanding officers usually would fill these voids with midshipmen who had passed the lieutenant’s exam. These midshipmen were appointed “acting lieutenants,” wore the frock (coat) of a lieutenant, were called lieutenant and had a lieutenant’s authority. However, their commissions were pending the approval of the Admiralty or Congress. Since a midshipman usually wore a short jacket, it seems he was thus “frocked” to lieutenant but without the pay until authorized.—JO1 M.J.K.

Anyone else out there got any ideas?—Ed.

Warrant Retirement

Sir: I enlisted in the Navy on 21 Aug. 1963 and was appointed a W-1 in June 1972. In June of 1974, I was appointed a WO-2 and in April 1975 I was appointed a LTJG (Temporary) under the LDO program with a permanent grade of W-2.

(a) Must I have 10 years as an officer to retire as an officer?
(b) What will I be retired as if I retire after 20 years of service?
(c) Under current law, when can I retire as an officer if not (a) or (b) above.—CWO G. F. LeB.

Naval officers must serve at least 10 years as a commissioned officer in order to retire under 10 USC, Sec. 6323, in a commissioned officer grade. Under the provisions of 10 USC, Sec. 1292, a temporary or permanent warrant officer may retire after completing 20 years of active service. Under 10 USC, Sec. 1293, a warrant officer is placed on the retired list in the grade in which serving until he has served in a higher temporary grade. In that instance, he is retired in his permanent warrant grade and advanced on the retired list to the highest grade satisfactorily held, as determined by the Secretary of the Navy under 10 USC, Sec. 6151.—Ed.

Grade at Retirement

Sir: Is there a rule or regulation that says if a man is determined not medically qualified as a result of an advancement physical exam, then he would be retired in the pay grade to which he was scheduled to be advanced?

Yes. In cases of the nature described above, Title 10 USC, Section 1372, is applied: “Unless entitled to a higher retired grade under some other provision of law, any member of an armed force who is retired for physical disability under section 1201 or 1204 of this title, or whose name is placed on the temporary disability retired list under section 1202 or 1205 of this title, is entitled to the grade equivalent to the highest of the following: . . . (3) The permanent regular or reserve grade to which he should have been promoted had it not been for the physical disability for which he is retired and which was found to exist as a result of his physical examination for promotion.”—Ed.

Fireman to PO2?

Sir: Would you please tell me when the Navy changed its rating system to include PO3? I understand that at one time the ratings went from Fireman or Seaman to PO2—H. F. Shaffer.

The engineering ratings once went from Fireman to second class petty officer. These ratings were re-evaluated in 1926 and the third class petty officer rate was established at that time.—Ed.

Desert Navy

Sir: After reading your April 1977 article, “The Desert Navy,” we of the Navy Technical Assistance Field Team (TAFT), Bushehr, Iran, would like to
place ourselves on the list of "Desert Navy" organizations. With teams throughout Iran in some of the world's most desolate regions, the Navy TAFT provides vital advisory services to the Imperial Iranian Navy and Air Force on the technical application of many aviation and ships' systems.—LT J.H.K.

Proper Title
Sin: Is the proper title for warrant officer designator 714X: Repair Technician or Ship Repair Technician?
- The proper title for the warrant officer designator 714X is: Repair Technician (Surface), as outlined in Volume I, page B-13 of the Manual of Navy Officer Manpower and Personnel Classification (NavPers 15839C), as approved by SecNav in 1975.—Ed.

Reunions
- USS *Vincennes* (CL 64)—Planned reunion, contact Peter H. Capp, 29 Myrtle Ave., No. Plainfield, N. J. 07060.
- Naval Enlisted Reserve Association—National conference October 26-30 in Pittsburgh, Pa. Contact Joe Wasson at 6703 Farragut Ave., Falls Church, Va. 22042; Phone: (703) 534-1329 or D. Brock at (915) 332-7682.
- VPB 216-PBM Mariners — Reunion October 17, San Diego, Calif., in conjunction with Assoc. of Naval Aviators October 28-30 reunion. Contact Bob Smith, 6468 W 85 pl., Los Angeles, Calif. 90045.

The Log Book

Here are some more excerpts from ALL HANDS articles of days gone by.

35 YEARS AGO
- The USS *Wasp*, aircraft carrier, was sunk in the South Pacific on September 15th as the result of an enemy submarine attack. *Wasp* remained afloat for five hours after being attacked and sank at a time when there were no enemy forces in the vicinity. The announcement of her sinking was delayed since there remained a possibility that the enemy was unaware of her sinking.

   *Wasp* was torpedoed at approximately 2:50 o'clock in the afternoon; three torpedoes struck her magazines and gasoline tanks resulting in many explosions and serious fires. About 8 p.m., when all hopes of extinguishing the flames and saving *Wasp* had been abandoned, a U.S. destroyer sank her with torpedoes. About 90 per cent of her crew were rescued.

25 YEARS AGO
- Now being built at a New England shipyard is the first submarine in modern naval history to be designed primarily for training purposes. The completed vessel, designated SST-1, will be a 250-ton training and target submarine. SST-1 will be used both for crew training purposes and as a target submarine. Currently much larger submarines—including 1,500-ton fleet types—serve as target subs for both surface vessels and aircraft.

15 YEARS AGO
- Navy fliers who like Scuba diving have had a ceiling placed over them by the Naval School of Aviation Medicine. The school evaluated the effect of flying at high altitudes after diving to various depths. The study resulted in naval airmen being forbidden to fly higher than 18,000 feet within 12 hours after diving to depths of 30 feet or more, the report said.
- Thirteen ships of the U.S. First Fleet are participating in the 1962 Seattle World's Fair and Century 21 Exposition which opened at Seattle, Wash., April 21. More than 3500 men are embarked in the 13 ships. General visiting by the public was conducted aboard all the ships during their stay in Seattle.
Through the years, Navy people have developed a lingo of their own to describe daily occurrences. These illustrations suggest some of the more popular terms and phrases. How many can you identify?
The United States Navy Salutes

MARIANO GUADALUPE VALLEJO

Hispanic Heritage Week 11-17 Sept.