A Tactical Electronic Warfare Squadron 33 (VAQ 33) EA-4F Skyhawk attack aircraft from a wingman's point of view.
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Front: A photographic essay of flight training at NAS Pensacola; learning to fly is just one aspect of this rigorous educational experience. Photos by JO1 Jerry Atchison and PH2 Dwain Patton.
Back: PH2 Robert Swanson captures the beauty of White Sands, where the Navy tests missiles far from the briney deep.

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Time in Service

Requirements Lengthened  ● In response to revised Department of Defense Time in Service (TIS) requirements and Navy personnel management objectives, minimum Navy TIS requirements for advancement to enlisted paygrades E-6 through E-9 have been lengthened as follows:

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<tr>
<th>Advancement to</th>
<th>Previous TIS</th>
<th>Revised TIS</th>
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<td>E-6</td>
<td>6 years</td>
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<td>E-9</td>
<td>15 years</td>
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E-6 candidates who participated in the February 1977 exam but were not selected for advancement, and would not be eligible to participate in the September 1977 and March 1978 advancement exams because of the new TIS requirements, are granted an automatic waiver to compete in both exams. The new TIS requirements also apply to Reservists serving on active and inactive duty. Details are in BuPers Notice 1430 of 24 Feb. 1977.


Motion Picture

One-Stop Shopping To Begin May 1, 1977  ● There will be one-stop shopping for both entertainment movies and General Training/Information Films in selected areas after May 1, 1977. The Navy Motion Picture Exchanges listed below will issue these movies to fleet units and shore activities in their respective areas. This new service is part of a pilot project to determine the feasibility of supplying all types of films from Navy Motion Picture Exchanges rather than from various scattered source film libraries. Initial libraries will be limited to selected films considered to be of high demand. However, efforts are being made to stock all these Navy Motion Picture Exchanges with a full variety of required Training Films subject to their current availability and the availability of funds to reproduce a wide sampling. Navy Motion Picture Exchanges participating in this pilot project are: USS Holland (Holy Loch), USS Canopus (Rota), NMPX Philadelphia, NMPX New London, USS H. W. Gilmore (La Maddalena), NMPX Charleston, NMPX Guantanamo Bay, NMPX Roosevelt Roads, NMPX Naples, NMPX Mayport and NMPX Norfolk.
Shipboard Assignments

Proposed for Navy Women ● The Navy has developed a legislative proposal to amend Section 6015 of Title 10, U.S. Code, which currently prohibits the assignment of Navy women to duty on vessels of the Navy other than hospital ships and transports. The proposed change would permit the Secretary of the Navy to prescribe a greater variety of shipboard duty to which women members may be assigned. The modification would permit assignment of women to temporary duty on any vessels not engaged in combat missions, and to permanent duty on vessels similar to hospital ships and transports which would not be expected to be assigned combat missions. It is currently under coordination review by the other armed services, upon completion of which it will be forwarded to the Department of Defense for consideration.

Adjusted Selective

Reenlistment Bonus Program Levels Announced ● Selective reenlistment bonus award levels have been increased for 10 ratings in Zone A (ABE, AC, AT, CTI, CTM, DS, FTM, GMM, MM, and TD) and nine ratings in Zone B (CTM, DS, EM, FTB, FTM, GMM, GMT, MM, and STG). Additionally, seven ratings have been added to Zone B (ABE, AC, CTR, CTT, FTG, IC, and OS). Award levels for four ratings in Zone A (CTO, OM, OS, and OT) and one rating in Zone B (OT) were reduced or eliminated. In a change from previous years, the increased bonus levels are effective immediately. Details are in NavOp 025/77.

Navy Team Wins

North American Bobsled Championship ● A U.S. Navy two-man bobsled driven by NCC Robert W. Huscher and his brakeman, HTC Dennis G. Sprenkle, won the North American Two-Man Bobsled Championship Race at Lake Placid, N.Y., recently. The Navy has represented the U.S. at the last three Winter Olympics and seven world championships. Over the last 12 years, the Navy team has won nine North American and nine national championships at Lake Placid, site of the 1980 Winter Olympic Games.

Navy Housing

Policies Revised ● Effective this July, families of all enlisted personnel and officers 0-3 and below, will be assigned government housing based on family size regardless of pay grade. Officers 0-4 and above will continue to be assigned housing based on their rank as well as family size. Families already on housing waiting lists may continue to be assigned housing according to their original requests until July 1. This will provide a transition period to aid those personnel who would otherwise lose entitlement because of the change in criteria. However, no more additions to waiting lists may be made contrary to the new policy. Families on waiting lists who do not receive a housing assignment by July 1 will automatically be placed on the appropriate list to which they are entitled under the revised policy. In another housing eligibility change, families of eligible Navy men who receive orders for short, unaccompanied tours will be able to remain in government housing until their sponsors return home or report to the next permanent duty station not considered an unaccompanied tour. Full details on these housing policy changes are contained in NavOp 016/77.
VSTOL is Flexibility

BY LT PHILLIP KAZANJIAN

"Naval aviation must continue to be dynamic and flexible to continue to challenge those forces that would attempt to deny the United States free use of the seas."

Admiral J. L. Holloway III
Chief of Naval Operations
The Navy is planning to launch a bold new program for the development of vertical or short takeoff and landing (VSTOL) aircraft. It is expected that VSTOL aircraft will vastly alter the course of naval aviation because they can be launched from cruisers, destroyers, frigates and other fleet units, thereby expanding their capabilities.

Just what this will mean in terms of a better prepared and more effective Navy was explained by the Chief of Naval Operations. He said that the VSTOL aircraft will benefit the sea service in at least two major ways: “A marked improvement in flexibility of air operations and increased survivability of air assets.”

Greater flexibility is achieved through increased sea-based air power by deploying VSTOL aircraft on smaller warships in concert with large aircraft carriers. Such an arrangement will permit Navy air power to be extended to widely separated trouble spots without having to dispatch an overwhelming task force to any one specific area.

Survivability will also be enhanced by the Navy’s ability to disperse air forces over a large area with a minimum of ship involvement and without requiring the use of only one type of vessel to carry all aircraft. In such a situation, the loss of any single ship would not be decisive in a naval engagement.

The transition from conventional takeoff and landing aircraft to a VSTOL-oriented Navy is made easier because there are today more than 100 ships in the fleet such as aircraft carriers, cruisers, amphibious ships and replenishment ships which could operate VSTOL aircraft with slight or no modifications. Additionally, almost every new warship now in the planning stages will incorporate a fair-sized flight deck in its design. These decks, originally designed for use in helicopter operations, are big enough to accommodate a VSTOL plane.

VSTOL aircraft will also vastly expand the “horizons” of each combatant ship. Such expansion will be both in search and surveillance, and in actual ship-to-ship and ship-to-shore naval engagements.

Naval officials and VSTOL designers now believe that VSTOL and the supporting technologies have advanced to the stage where a few basic types of aircraft can be developed and missionized to meet specific missions, rather than separate designs being used to fulfill individual assignments. Basically, two types are envisioned:

- **Type “A” VSTOL** could consist of a general purpose subsonic aircraft; its missionized versions can be used for antisubmarine warfare, airborne early warning, air cargo delivery, marine assault, search and rescue operations, tanker and other missions. Thus, in one basic VSTOL airframe, the Navy and Marine Corps could have the flexibility of performing a variety of subsonic missions.

- **Type “B” VSTOL** would be a multimission, high performance tactical aircraft which can be missionized for fighter, attack, and reconnaissance tasks.

Admiral Holloway recently said, “With a substantial research and development effort, it is conceivable that a type “A” VSTOL aircraft could have an Initial Operational Capacity (IOC) in the fleet sometime between 1987 and 1992. With similar acceleration and emphasis on development, the type “B” could have an IOC somewhere between 1993 and 1997.”

Today's aircraft carrier is universally acknowledged as an awesome, powerful weapons system, but each carrier can only carry its aircraft to one area at a time; the number of carriers also is limited. Foreseeable commitments, plus the best estimates for contingencies that may arise, will require more than a dozen aircraft carriers, naval officials predict. VSTOL aircraft will operate equally well from the large aircraft carrier and offer it added flexibility. Additionally, VSTOL permits the design of smaller carriers and air capable ships with which to satisfy Navy worldwide commitments.

According to the findings of a recent National Security Council study, no more than a dozen large carriers will be available to the Navy through the 1980s and 1990s. The plan is to replace each large carrier phased out of the naval ship inventory with two or three smaller carriers which could be designed to exploit fully the advantages of VSTOL. These new carriers, along with other VSTOL capable ships are expected to give the Navy a multitude of functional air platforms at sea.

It is interesting to note that during World War II, the Navy had about 100 carriers of various types (mostly “jeep” carriers) compared to 13 large carriers in the Navy inventory today. With the introduction of VSTOL aircraft, however, the Navy may again have 100 plus aircraft-carrying ships as it enters the 21st century.
VSTOL is Flexibility

Since the Navy may one day be using VSTOL aircraft to the exclusion of practically every other type of plane, a number of aircraft manufacturers are investigating conceptual designs for VSTOL. Most companies are investigating a variety of designs with different propulsion systems. Since the Navy is still in the conceptual phase of the VSTOL program, there are no firm designs yet. A sampling of some of the current conceptual designs of VSTOL aircraft follows:

- A Boeing design for Type "A" VSTOL, model 1041, was designed for antisubmarine warfare missions. It has a gross weight of 37,000 pounds, a length of 48 feet and a
wingspan of 41 feet. The model 1041 is powered by two jet engines driving three lift/cruise fans, two located on the fuselage over the wings and one inside the nose.

- General Dynamics has designed a VSTOL Type “B” delta wing supersonic interceptor. Thrust for the aircraft is provided by two lift engines mounted behind the cockpit and a third engine designed for lift and cruise flight. According to General Dynamics, the aircraft can be used for supersonic intercept, subsonic surveillance and close air support.

- Grumman has a VSTOL Type “A” design which evolved from its NUTCRACKER studies. It is powered by two turbofan engines mounted
VSTOL is Flexibility

McDonnell Douglas

Rockwell "B"
in wing pods that rotate about the leading edge of the wing for vertical flight. Control in the hover mode is provided by aerodynamic surfaces in the exhaust flow.

- LTV is studying several Type "A" VSTOL designs. This design is powered by two turbine engines connected to three lift/cruise fans. The lift fan in the nose of the aircraft operates only during takeoff and landing.
- A Lockheed design for the Type "A" VSTOL aircraft uses a deck run of 400 feet for takeoff from large ships, as do all other Type "A" designs. For smaller ships such as a DD-963 class, the designs operate in vertical takeoff mode at a reduced takeoff weight. Landings, with fuel and stores expended, or cargo and troops offloaded, could be made vertically on almost any ship with deck space sufficient to spot an aircraft.
- McDonnell Douglas design model 260 is a Type "A" subsonic VSTOL aircraft powered by two turbine engines which provide thrust for three lift/cruise fans. The model 260 features the availability of three different fuselage sizes, allowing a broad spectrum of potential missions. Model 260 will be capable of flying higher and faster than the helicopters it is designed to replace, and carry payloads of up to 10,000 pounds.
- Rockwell International has designed and constructed a Type "B" VSTOL aircraft called the XFV-12A. This supersonic tactical prototype is powered by a single jet engine with engine air diverted by a valve to nozzles directed at the wing flaps.
- Rockwell also has under study several candidate Type "A" designs. The NA-410 design is powered by four turbine engines connected to four lift/cruise fans which are mounted in wing pods.
Transient Life
Moving Through the System

BY JOI JOHN YONEMURA

Sailors remember their boot camp days, their first ships and their first overseas assignments—times of mixed emotions, but generally pleasant ones. But one period many sailors blot from their minds is the short—or long—period they spent as transients.

Transients are a peculiar breed—they’re neither fish nor fowl, ship’s company nor permanent base residents. Traditionally, they are a ready source of manpower for any working party that comes down the pike. They have been assigned duty as messengers, watch standers, or supply handlers. Other times, they have been just plain idlers on whom time hung heavy. Today, however, the Navy traveler temporarily by the wayside can take heart. That is, if the Norfolk Experiment takes hold.

The experiment came about because the transient situation there called for drastic change. In 1974, there were upwards of 3,000 transients aboard the Norfolk Naval Station. Open-bay barracks offered none of the comforts of home. Sailors were rarely employed in rate-related work and duty assignments were menial. If, Davey Jones forbid, one’s record got lost, there was no telling how long a person might live the life of a transient.

Naval Station Commanding Officer Captain Paul L. Merwin started doing something about the situation when he arrived in September 1974. “One of the basic steps, as I saw it, was to have an organization which was set up to deal strictly with transients,” he said.

At that time, a single personnel department handled personnel matters for both ship’s company and transients, a population spread all over the base. Through Self-Help efforts, offices were constructed in a wing of an open-bay barracks, and the Transient Personnel Department (TPD) came into being.

Early in the revamping, Capt. Merwin discovered an unexpected asset, Senior Chief Personnelman John A. Simon, who was serving as a counselor at the local Correctional Center. Chief Simon had extensive experience in transient operations.

“The counselor program is very important, but I felt it was more important to put Chief Simon’s experience to work,” the captain said.

“The immediate emphasis for us was to drastically reduce the numbers of transients onboard,” said Simon. “Get the numbers down.” From 3,000 in 1974, the number dropped to an average of 500 transients onboard in 1975. It remained at that figure through the first three months of 1977.

Then, Commander Marvin L. Ball, Jr., became head of TPD in August 1975 and started refining the operation and the use of computer readouts as a management tool. The result was increased efficiency in processing transients.

“Data Processing Center, Atlantic provides us daily listings of everyone for whom we are responsible including their names, rates, social security numbers and why we have them aboard,” Ball said. “It tells me which office is handling a person’s record and who is responsible for moving him through the system.

“We are the only unit in the Navy
to have a locator system this complete for processing transients. I'd hate to run this operation without it.

By keeping the number around 500, Norfolk is processing people rapidly. A sailor awaiting further transfer for school or sea duty is used to count on two to three weeks in Norfolk. Today the stay is three to four days, depending on the individual situation.

One byproduct of the transient reduction was a corresponding drop in disciplinary problems—crime onboard the base. This was recognized by the local attorney association by giving Capt. Merwin The Liberty Bell Award for 1976. The award is for enhancing law and order.

While the number of transients was being reduced, control and security of the barracks was being improved. In order to keep tabs on who is doing what during the working day transients are now required to show ID cards to enter the berthing spaces. They must be on an access list as well.

So processing the transient has drastically improved. How about the living conditions?

The most common criticism of the open-bay barracks is the lack of privacy or the boot camp atmosphere. According to Ball, this type of berthing has proven to be the most efficient for transient operations simply because many are moving in and out every day.

Capt. Merwin agrees, “We have tried to give a little privacy with partitions between the bunks, but open-bay barracks are proper. It’s not the Hilton, but it’s clean.”

Unlike other transient operations, bunks are made up by the sailors checking out and these are ready for the new transients coming in. Gone is the sight of transients carrying linen between buildings.

Many transients still complain about impersonal treatment. “Just like any other job, we sometimes get into a rut seeing the same things day in and day out. It can get to you,” said Personnelman 1st Class Carl J. Riehn, Transient Receiving Supervisor. “But we are continually improving conditions,” he added.

Then, there are the work assignments. Wherever possible, rating is taken into consideration. Corpsmen and dental technicians are assigned to the base dispensary. Non-rated people are assigned to those jobs that have to be done, but for which no one is permanently assigned.

One problem in the past has been too much dead time, when transients had to “stand by,” but were given nothing to do. With the reorganization of the first lieutenant’s office in conjunction with TPD’s work assignment office, transients were given work assignments on a daily basis—painting and cleaning barracks, working in the mess hall and cleaning and maintaining the grounds. One result of this effort was the Keep America Beautiful Award won recently by the Naval Station (see All Hands, Feb. 1977).

First and second class petty officers, unless they are medical holds, are assigned as brig chasers for legal holds. They pick up, deliver or escort the restricted disciplinary holds whenever necessary. This is port and starboard duty—24 hours on, 24 hours off.

The masters at arms ensure that

the transients meet Navy uniform regulations and grooming standards on a daily basis. At least two formal inspections are held each week by senior officers.

“It wasn’t like this on my ship,” many say. But Interior Communications Electrician 1st Class Gary L. Himes, himself a transient, feels that the inspections are beneficial. “Some-
Naval Aviation Training

It’s more than learning how to fly

STORY BY JO1 JERRY ATCHISON.
PHOTOS BY PH2 DWAIN PATTON AND JO1 ATCHISON.

The Navy student pilot sipped his predawn cup of coffee and made some rather surprising remarks:

“Anybody can learn to fly an airplane. A person can pick up the routine things that often make flying no more complicated than driving the family car.”

It takes more than a year to train a Naval Aviator. It is a year filled with 18-hour days and hundreds of hours of instruction, study, flying and physical training. It all occurs at a pace that most would describe as brutal.

How can he call it all easy?

“Out there, teaching people ‘how to fly airplanes’ is not the real job. At Pensacola, teaching people how to become Naval Aviators is the name of the game . . . and there’s a whole world of difference.”

Naval Aviators—and, they now include a growing number of women—describe themselves unabashedly as “the best damn pilots in the world.” While their counterparts in the other services may not be so enthusiastic about that description, the notion exists that if a Navy pilot can’t do it in the air, then it probably can’t be done.

All Navy pilots share—besides their “Wings of Gold”—the common experience of flight training at the Naval Air Station, Pensacola, Fla. It is there that they learn the difference between being a “person who flies airplanes” and a Naval Aviator.

For many Aviation Officer Candidates (AOCs), the first step on the road to winning their wings is a hard landing at “INDOC.”

AOCs entering the program directly from civilian life step from the bus at Pensacola and are “greeted” by a Marine Corps drill instructor intent upon one thing—ensuring a quick transition from civilian to military life.

The head drill instructor, Master Sergeant Johnny Frady, explained why that change was so important.

“The AOCs have got to be ready to start training as Naval Aviators when they leave here. They are ready because my DIs teach them four things: drill, discipline, inspection and respect.

As Frady spoke, a shouted chorus of “YES, SIR” came echoing through the window.

“Of the four, discipline—particularly self-discipline—is perhaps the

(Continued on page 16)

Below: GOING, GOING . . . GONE. The new AOC gets a haircut and starts the process of Naval aviation training.
Top: The first “friend” of every aviation student is his drill instructor. Right: From the sea gull’s viewpoint, aviation students learn how to sail. Above: CDR H. E. Stafford heads the Survival Training Department... because he survived.
Top to bottom: Aviation students dash through the obstacle course, are shot from ejection seats, dragged from bed before dawn and prepare to fly under the instructor's watchful eye.
All Navy pilots begin with propeller driven aircraft. Some will go to jets (below) while others may become helicopter pilots, Navy flight officers or any of a number of other aviation jobs.

The most important lesson they will learn.

That lesson is quickly driven home to the fledgling candidates. During their week of “INDOC” they face full days of processing, classes and physical training. The conclusion of the day’s last class, they learn, does not mean training is ended, for, back at the barracks, their drill instructor waits.

“DI achieves another result,” Frady said. “They quickly learn that to get through the first 12 weeks, they’ve got to develop respect for their peers. They learn to count on each other.”

Teamwork is an important principle among Navy pilots. As one pilot, years removed from those first weeks of training put it: “It takes a mighty big team just to put a plane in the air. And it takes a team of pilots with trust in each other’s abilities to make the airborne mission a success.”

The AOCs quickly settle into training that moves along at a mind- and body-numbing pace. The two basic areas of their work are divided between officer training and aviation training.

Officer training includes classes in math, physics, naval history, world affairs, officer development and seamanship.
...if a Navy pilot can't do it in the air, then it probably can't be done.'

Seamanship for aviation officers?
"Pilots or not, the fact is that they are training to become Navy officers," one instructor said. "Besides, aviators go on to become ship's skippers in many cases."

Their aviation training time is taken up by engineering and aeronautics classes, aviation physiology (what can happen to the body in the rarefied atmosphere in which pilots fly) and survival.

The Survival Training Department is where many AOCs find themselves spending a great deal of time. They all get to know the department head who possesses a particular set of qualifications for his job—he survived.

As Commander H. E. "A" Stafford put it: "I survived a tour of duty in Hanoi as a prisoner of war. I think I'm qualified."

He was quick to say, however, that his department doesn't teach POW matters. "Somebody who's not as subjective about the whole thing would teach it far better than I," he said.

What Stafford's people teach is how to make sure the Navy pilot can deal with the "incidents" that could permanently interrupt a naval aviation career.

"The pilot needs to know how to use a parachute, how to walk a straight line in the woods. He's going to have to know how to catch a snake and cook a rabbit and how to build a tent with his parachute."

To learn these lessons, the students are shot down a rail and tipped upside down in a swimming pool aboard the "Dilbert Dunker"—a device that simulates ditching at sea. They practice simulated parachute drops into the water, are towed with a parachute harness behind a boat in the Gulf of Mexico and are "rescued" by helicopter from the water.

To top off their survival training, the students are sent deep into the woods of nearby Eglin Air Force Base where, for a day and a half, they learn to live off the land.

"Survival of the fittest is just one reason why we stress physical fitness," Stafford said. "You've also got to remember that it takes a physically fit man to stand the stresses of supersonic flight and, sometimes, muscle around a 25-ton airplane."

For many AOCs, meeting the physical standards can be the toughest obstacle they must overcome on the way to getting their wings. And the center of much of that trouble is—appropriately enough—the obstacle course.

"I've never been in such good shape in my life," one student gasped at the end of the course, "But I still haven't been able to get through this thing in the time allowed."

He kicked at the sand and, still fighting for breath, returned to the end of the line to await another shot at the course.

Those first 13 weeks of an AOC's life are filled with just about everything but flying airplanes. It is a time when those who can't meet the rigid standards of naval aviation fall by the wayside.

More important, it is a time when the students who meet those standards also develop an appreciation for their importance.

As one student said on the eve of receiving his wings, more than a year after leaving AOCs, "It may sound funny to the new AOCs, but outside of my flight instructors, the most important instructor I had was my DI—black heart and all."

"It's over," the newly commissioned ensign said as he fingered his shiny gold bars.

The commissioning ceremony capped the weeks of Aviation Officer Candidate School. But what the new ensign didn’t say in the excitement of the moment was, that far from having completed all training requirements, he was just beginning. Ahead lay months of primary, basic and advanced flight instruction. Only after successful completion of all that would a set of wings join the rank devices on his uniform.

Whiting Field is only 30 miles from Pensacola, but it holds a completely different world for the would-be Navy pilot. Rows of T-28 Trojan aircraft form its center.

With the new environment comes a new language:
"This FAM flight will give you a good chance to work on your VFR approaches," the instructor briefed the students as they headed for the flight line.

The candidate pilots are understandably excited about getting their hands on an airplane. But their initial excitement is tempered with a few weeks of ground school, complete with—more classes! This time, however, the subjects include the specific business of airplane flying.

The theory of the classroom soon moves toward reality in the flight simulators. Row upon row of simulators are located in the training aids building.

The looks of concentration on the students' faces underscore that these simulators recreate practically every aspect of flying—except...
You can back off the power now son, we've got you nice and safe.'

leaving the ground.

At ground school, also, many discover that the pressure previously provided by their AOC drill instructor has been replaced by the pressure of having to assimilate vast amounts of information required by a professional pilot.

"They handed me the texts and the course schedule and told me to get cracking," a Marine Corps Second Lieutenant said. "I took one look at the stack, went home and told my wife I'd see her in about six months."

But, as the Marine continued, it became evident that good can come from even the toughest situation.

"As my self-styled quizzer she's not only helped me to learn the information, but also knows as much about flying as I do."

"The other day we were driving down the highway when she turned to me and said with her sweetest voice, 'You've just suffered hydraulic failure at 10,000 feet. What are your emergency procedures?'"

"All I could do was pull to the side of the road and sit there shaking my head."

Training proceeds under the assumption that each lesson must be mastered before moving on to the next.

Because of this, many students felt much as one ensign did after he completed his first solo flight:

"No, I wasn't really excited about soloing. The only difference was, that on this flight, I had no one to talk to in the other seat."

It was not until later—during the basic training phase for jet students—that some real excitement popped up.

"They've got true-to-life simulators around here for every phase of flying but one," the jet student said. "There's just no way you're going to learn what it's like landing on a carrier flight deck until you've landed on that flight deck."

Two other students sitting around the ready room table shared that feeling:

"We had practiced landing in an area on land outlined as the flight deck. Our instructors kept telling us that there was still a big difference between that land mock-up and a ship moving through the water."

"The weekend before we were scheduled to land on Lexington, Bob, here, and I went aboard when she was tied up. A couple of sailors obviously knew we were jet students getting ready for our first trap (landing) because they came over and volunteered to show us around."

The three grew more animated as they described the day of the trap. Hands became airplanes banking, then leveling off for that first approach.

"First we did two 'touch-and-goes' to get the feeling of the deck," one said. "I came around that last time to make the landing and, just for a second, thought, 'Hey, this is what it's all about.'"

The student's brief thought about something other than the job at hand might explain why he "boltered. I just missed all the wires and kept right on going. I came around and set up for another shot at it."

"It all happens so fast. First I was just about ready to touch down and the next thing I knew I was on the flight deck and all these people in different colored jerseys were scrambling over my plane."

"Over my radio I could hear a voice saying, 'You can back off the power now, son, we've got you nice and safe.'"

Flight training goes on at a number of fields in the South. But Pensacola is the hub of that training. Jet pilots are trained. But so, too, are multiengine pilots, helicopter pilots, Navy flight officers, flight surgeons, aviation maintenance officers and many others. Thousands of teachers and instructors work together toward a common goal.

One newly designated Naval Aviator summed it up. "I couldn't believe it. I'd been through every conceivable training exercise and never got really nervous or upset. But there I was, the night before I received my wings, pacing around the BOQ in a cold sweat."

"All I could think about was 'Something's going to go wrong. They're going to figure out some reason why I can't get my wings tomorrow.'"

"I couldn't believe it. I go through a year and a half of training and the one time I'm a nervous wreck is after the training is over."

Those wings meant a lot to that pilot, as they do to all Navy aviators. They mean a lot because Pensacola didn't teach them how to fly airplanes. It taught them how to be Naval Aviators.

"... and that's a whole world of difference."
They Built Their Own

It's a fact. The faster something moves, the harder it's going to stop when it meets something immovable.

Two crewmen on the Navy's high-speed developmental hydrofoil High Point (PCH 1) decided that was one fact they didn't want to face, so they did something about it.

Operations Specialist 1st Class Richard Plumb and Electronics Technician 1st Class Richard Elmore designed and installed a unique Tactical Navigation and Collision Avoidance System they aptly named TANCAV.

To hear Plumb describe it, the idea behind TANCAV was very simple: “We can watch weather satellite pictures over the United States every night on TV so why not superimpose a radar video over our navigation charts?”

Why not? The idea was so successful that the two received letters of recognition from the President of the United States commending them for their vital contribution to improving government operations and outstanding example set in their work.

But coming up with a replacement for conventional navigation techniques that are insufficient and potentially dangerous at high speeds was only a start for the two.

They are still hard at work refining their TANCAV system with an eye toward the possibilities it holds for the fleet. Already the Patrol Hydrofoil Missile (PHM) program has recognized the significance of and the need for TANCAV and will be installing it on Pegasus (PHM 1) and follow-on hydrofoils.

Because of TANCAV's simplicity, large amount of information and data provided and huge dollar savings in manpower alone, it may some day benefit conventional naval ships as well as these advanced, high-speed vessels.

And if things do go bump in the night around High Point in spite of TANCAV, you won't be able to blame Plumb and Elmore.

Quits ‘See-Food’ Diet

“Tiny” is a nickname often tacked lightheartedly on overweight people. One “Tiny” who got tired of the nickname and all it implied is David Heinitz.

Heinitz, an Aviation machinist's mate 2nd class assigned to Attack Squadron 128, dropped 110 pounds over a nine-month period by cutting out sweets and starches, and by jogging up to 10 miles a day.

After he quit smoking awhile back he went on what he called a “see-food” diet. “Everything I saw, I ate,” he said. In less than a year he had put on 131 pounds—blossoming to a corpulent 338 pounds.

His diet began after his body started rebelling against the excess weight.
Bearings

High blood pressure and heart palpitations were the initial symptoms. Fainting spells that put him into the hospital convinced him he would have to put a stop to his "see-food" diet.

But health concerns were not the only reason for his diet. "I was scared I would be kicked out of the Navy," he said.

If Heinitz had left the Navy, he would have worn farmer's coveralls at his farewell party; they were the only clothes he could purchase to fit his exploding girth.

Today, 228-pound David Heinitz is small enough to have dropped the scornful nickname "Tiny" along with his weight. "Some people say I don't live," he said. "But believe me, I enjoy life and I want to be around when my kids are growing up."

One thing is for sure. As his kids do grow up, their father is going to have some interesting "see-stories" to relate.

Little Guy Does Big Job

Navy tugboats customarily do not include ice breaking as part of their duties. This is particularly true of Norfolk-based tugs. But what the Navy and two Naval Station, Norfolk tugboats didn't count on was the worst winter since 1917-18.

When the Coast Guard requested assistance in clearing the Potomac and James Rivers of ice, aiding shipping and plotting navigation channels, two Navy tugs went to work. The tugs—Anoka (YTB 810) and Wathena (YTB 825)—began round-the-clock operations that allowed commercial oil barges to transit the rivers and deliver their fuel to energy-starved communities.

On the James River, Anoka worked more than 30 hours breaking up ice four to six inches thick. As she pushed through the river to Richmond, Va., she reported ice conditions in the channel to the Portsmouth, Va., U.S. Coast Guard Station. They also plotted the positions of several channel marker buoys pushed out of position by the ice.

Anoka had two harbor masters aboard who switched duties during the long hours of sustained operations. Also aboard was a Coast Guardsman who plotted the position of the displaced navigation aids in the channel and corrected the charts for safety.

Meanwhile, Wathena was plowing her way up the Potomac, a river that one National Weather Service spokesman said hadn't seen ice in more than 20 years.

Navy tugboats—traditional work horses of harbors and jacks-of-all-trades—have one more job to add to the bag. They've proven their ability as ice breakers, thanks (but no thanks) to the winter of 1976-77.
Cochrane’s Threesome

What may be a record for a DDG-size ship occurred aboard USS Cochrane (DDG-21) when three chief petty officers were selected for Warrant Officer in a single increment. Trying on their new collar devices are (from left), WO2s Daniel Fugate (Ordnance Technician), Floyd Ramsey (Operations Technician) and Herman Benjamin (Engineering Technician). The only hitch was, that with their new ranks came orders to new duty stations.

They Swamped ‘Globe’

Can a rock dance band find happiness at a formal concert sponsored by the American Consulate in Karachi, Pakistan?

Members of “Globe,” an amateur group aboard USS Pharris (FF 1094) got a chance to find out lately when their ship made a routine port visit to Karachi in conjunction with the Central Treaty Organization Joint Exercise MIDLINK 76.

More than 600 people of all ages showed up at the Pakistani-American Cultural Center for the Globe’s performance. The band members, knowing that audience exuberance is not part of local custom, were a bit perplexed when their music started—first hand-clapping, then dancing in the aisles. If things weren’t disconcerting enough, “Globe” found themselves swamped by newfound fans backstage following a 45-minute encore.

“Globe” found that they had, in the words of one American Consulate official, “... done a job the United States can be proud of.”

Milwaukee . . . ‘Si’

Have you ever had shore patrol duty in a non-English-speaking country? If you have, you know it can be frustrating and often embarrassing (especially if you don’t speak the native tongue). But, if you’re a USS Milwaukee (AOR 2) crewmember, the language barrier is only a minor inconvenience.

On their last Mediterranean cruise Milwaukee’s Spanish-American crewmembers turned lingual problems into daily routine. They performed duties such as interpreting for the officer-of-the-deck and civilian pilots when entering and leaving port, translating for the commanding officer when VIPs and Spanish naval officers came aboard and, of course, as shore patrolmen in liberty ports.

Their bilingual value, already proven aboard Milwaukee, was amplified by an at-sea search and rescue operation during a stormy Mediterranean night. The Lolita Ferrer, a Spanish fishing boat with engine failure, was drifting between the coasts of Spain and Algeria. Milwaukee Seamen Julian Delgado, Elias Quintana and Bartolo Mendez spent 28 hours helping to coordinate the search, and guiding other ships to the scene by translating information passed by the fishing boat. Their fluency in a second language averted a possible tragedy, and underscored again the value of communication.

Mids Lead the Way

Navy men and women were among the thousands who participated in the Inaugural Parade that followed the swearing in of Jimmy Carter as the 39th President on January 20. Midshipmen of the U.S. Naval Academy (foreground) are followed by members of the U.S. Navy Band and representatives of the Naval Reserve.
Gen. MacArthur in the Movies

“This is the Voice of Freedom”

BY LT. P. J. GLOR

Anticipation filled the air as the wave of landing craft emerged from the morning haze. Photographers and newsmen elbowed their way across the battle-scarred beach toward the middle boat.

Soon, from a lowered ramp, General Douglas MacArthur strode through the surf, onto the beach and toward an awaiting microphone. “This,” he begins, “is the Voice of Freedom, General MacArthur speaking. People of the Philippines—I have returned!”

But wait! This is 1976, not 1944. And the battle-scarred beach was not in the Philippines, but rather Coronado, Calif., location for the filming of the forthcoming Universal Studios motion picture, “MacArthur.”
Above: Gregory Peck as General Douglas MacArthur wades ashore in a reenactment of the famous World War II scene. Opposite page: Peck shares a light moment with fellow actor Dick O'Neil (center) and Navy Captain A. J. Dillon who found himself cast in a cameo role as the boat officer of MacArthur's landing craft.

The scene depicting the return of General MacArthur, portrayed by Gregory Peck, was the culmination of a coordinated effort by Navy men and women from eight commands in the San Diego area and Universal Studios. Commander Naval Beach/Amphibious Refresher Training Group One, Captain A. J. Dillon, was designated project coordinator for the reenactment of the landing—originally at Leyte Gulf. Providing the beach, vintage landing craft, vehicles, and the beach party lifeguards was the responsibility of CAPT Dillon. He also acted as technical advisor on amphibious operations.

Close liaison between the film's producer, Frank McCarthy, and the naval beach group resulted in the selection of the southernmost area of Coronado's "Silver Strand," so as not to interfere with regular amphibious training being conducted on the northern end.

Conversion of the beach to a tropical jungle involved setting approximately 400 artificial palm trees individually in place by construction crews. An elderly local resident attested to the realism by interrupting his daily walk to inform the set foreman, "Planting those South Seas type palm trees here in California is a waste of time and money. They'll never grow here—it's too dry and the soil is not rich enough."

Inoperative vehicles normally used
in cargo handling training at the Naval Amphibious Base were transformed by the ingenuity of film crews into yellow, wrecked and abandoned "casualties" of the onslaught.

The studio's task force arrived on October 18, coincidentally the anniversary of the arrival of the naval task force at Leyte. Filming of sequences related to the landing and rehearsals occupied the first two days leading up to the historic return. The final day's filming was devoted to combat sequences, complete with pyrotechnic explosions and stunt men "taking hits" from enemy fire.

Spectator interest generated by the filming afforded the opportunity for...
"It is fatal to enter any war without the will to win it."

the Navy to demonstrate landing craft seamanship, modern beach party techniques and equipment.

Upon completion of the filming, the beach was restored to its original appearance by the studio's construction crew.

And, as it turned out, that local resident was right. Those trees never did take root.
"Sailors Read with a Purpose"

When life at sea gets boring there's always Tolkien's *The Hobbit*, Clavell's *Shogun*, or Woodward and Bernstein's *The Final Days*. These and much more are available to almost all Navy people afloat and ashore. The Navy general library program, instituted by the Chief of Naval Education and Training Support (CNETS), has provided over 500 afloat and nearly 200 ashore libraries with an inventory of more than two and a half million books.

Historically, the first books that sailors took to sea were navigational aids. The first libraries specifically for sailors were established by religious groups during the 18th century. These groups considered only the moral condition of seamen, believing their salvation to be imperative.

The warship USS *Franklin* was the first Navy ship to acquire a library—that was in 1821. The officers and crew purchased the books from the Seamen's Library Committee. Subjects in this afloat library covered voyages, history, geography, navigational aids and religious literature.

By World War I, the Navy Department had assumed official responsibility for the Navy general library program. Through the years libraries have contributed to the steady rise in the education levels of Navy men and women. But today, not enough sailors are using the service. "A lot of them just don't know the wide range of subjects covered in our libraries," said Miss Nancy Dickinson, one of the Navy's regional librarians.

Called the "Library Lady," Miss Dickinson periodically visits all Navy and Marine Corps libraries in the Potomac Region and Fifth Naval District which extends from Washington, D. C. to South Carolina and also includes the Naval Base, Guantanamo Bay, Cuba. In this way she ensures that books are kept current and that they offer the best possible selection.

"Sailors read with a purpose, not just for escape," she said.

Reading tastes lean heavily toward non-fiction. Subjects include arts and crafts, sports, business management, black studies, psychology, philosophy and history. Lighter reading includes science fiction, westerns and mysteries.

Every Navy ship has a library of sorts. Books are supplied by Naval Supply Center, Norfolk, which distributes all library books Navy-wide. The smallest ships, the mine sweepers, do not get hardbound books every month, but do receive paperbacks monthly. Miss Dickinson is currently outfitting the nuclear carrier USS *Eisenhower* (CVN 69) with a 10,000-volume library.

Libraries aboard submarines, though basically small, have reasonably complete reference sections. In the older SSNs, the libraries are sometimes no more than book carts in the dispensary or wardroom.

Shore libraries offer as complete a selection of reading and study materials as space allows. At Naval Station Norfolk's library, for example, George Washington Uni-
versity maintains a section of their textbooks for local students enrolled in their extension courses.

A service offered by some shore libraries to personnel in their areas is the Auxiliary Library Service Collection. Made up of about 2,000 volumes, this collection is available to any sailor who cannot get a book of professional interest in his particular ship or station library.

"If you are on a ship at sea and want a professional book on strategy, international relations, or the like, and it isn't aboard, you can write us and we'll mail it to you," said Mrs. Grace Deans, librarian at NavSta Norfolk. "It's a good service, but not enough people know about it," she added.

NavSta Norfolk's library also maintains a rental collection. This is a group of 200 books kept current by rotating 24 books each month. "This way we can get books into the library that are popular for four or five months, but which are deadwood after that," Mrs. Deans said. The library can purchase a book in this collection after six months at a much lower price if it desires.

National Library Week, with the overall theme "For a better-read, better-informed America," was initiated in 1958 as the first concerted nationwide effort to arouse interest in libraries and to emphasize the values of reading for people in every walk of life. This year it falls in the third week of April.

Miss Dickinson suggests that the Shipboard Information Training and Entertainment (SITE) System be used to promote shipboard libraries. "Once a month or so, they could review one of the books aboard," she said. "This way the crews would be kept apprised of what books are currently available."

As a young sailor said in 1831: "Consider for yourself the evil of being confined within the walls of a ship without having a single book to read." *

* Books Afloat and Ashore—Skallerup, Harry R.
Guantanamo Bay Library
Serves 6500

April 1977

BY JO2 DAN WHEELER

Guantanamo Bay's library means different things to different people. To some it's a place to spend lazy Saturday afternoons quietly perusing several of the 20,000 volumes. To others it's an escape into the world of stereo, listening to reel-to-reel or cassette tapes. Still others enjoy browsing among overcrowded shelves, thumbing through recent magazines or even pecking out a quick letter home on one of the available typewriters.

"Of the 6,500 inhabitants here," said Ms. Sharon C. Moroni, base librarian, "about 25 per cent use the facilities regularly; others are infrequent users."

On a good day the library will lend out 150 or more books; on an average day, about 90. There's a "swap shelf" for those who wish to exchange their own paperbacks for something new—no checkout required. Any of the 60 different magazines can be borrowed for periods up to two weeks. Musical selections can't be borrowed, but stereo equipment and headphones are available at no cost for listening on the premises.

Types of reading material people seek seem to be influenced by the recreational and cultural facilities offered on base. Since Gitmo boasts many clubs for special interest groups and a variety of craft classes for all ages, "how-to" books are popular, especially these on shell-collecting and short courses in auto repair.

Of course, best sellers always are in demand. "Roots," for instance, has a waiting list long enough for some readers to trace their own ancestry while they are waiting.

Scuttlebutt has it that Gitmo sailors lean toward western and detective serials, racy novels and tales of the sea,
but no supporting evidence can be found at Gitmo's library. Many sailors borrow from the paperback swap shelf—for which no records are kept—and even a cursory glance discloses a multitude of titles. Records maintained on "checkouts" indicate reading tastes among Gitmo library users are quite similar to those of the population in general—they read everything.

"Women dependents are among our biggest users," the librarian said, "and they like fiction and craft books for the most part. We also have about 200 books in Spanish for our Spanish-speaking users, and a limited selection of children's books. Most of the school-aged children do their research assignments and leisure reading at one of the two DoD school libraries on base."

The library's budget has been chopped by about 75 per cent during recent years, resulting in a smaller selection of new volumes. "We still receive between 25 and 30 books monthly from Chief of Naval Education and Training," Ms. Moroni said. "Most of our popular volumes, however, come from a rental service to which we subscribe. It's used by many libraries and costs about $900 annually for an inventory of 150 books."

Renting books has advantages. Through it, the Gitmo library is able to stock about 80 per cent of the titles listed on the best seller lists and keep them for as long as desired. After renting a book for six months, the library has the option of purchasing it for about 25 per cent of its original cost. "We get most of our best sellers that way," Ms. Moroni said.

Every family (and single individuals) on base is eligible to receive a library card. Serving so many people with various reading tastes, it's inevitable that someone now and then will want a specific book or class of book which the library doesn't stock. Due to financial constraints, the librarian can't special-order such a book unless there is a reasonable demand. Individuals desiring a limited-interest or professional book are usually asked to order it at their own expense. "Sometimes, in these cases, we can get an inter library book loan for the individual by sending a request to one of the stateside Navy libraries," Ms. Moroni said.

Gitmo can't compete with a metropolitan library when it comes to variety of services offered, but it compensates with a willingness to serve. The unwritten policy is never say "no" to a request when it's possible to say "yes," even when the request comes from a set of expectant eyes peeking over the countertop. "My daddy works here, but I forgot his number. Can I take this book home anyway?"

"Of course you can. What's your daddy's name?"

ALL HANDS
Reading on the Connie

Navy libraries—no matter how well stocked—are wasted on the sailor who can’t read as well as he should. Thanks to a recently completed pilot program onboard USS Constellation (CV 64), that ship’s library is probably getting a busier workout than it has in years.

Program developers from St. Louis High School of Honolulu, Hawaii, established the remedial reading course—the first aboard a Pacific fleet ship.

The course was designed to help both high school graduates and those working toward a diploma. Besides building reading comprehension, the class also provides skills in pronunciation, vocabulary and spelling.

A St. Louis High School reading specialist said the 60-hour course was designed to provide the student with a one-year increase in his reading skills. However, that isn’t what happened: “The results from our initial class were very good,” said Master Chief Personnelman Marv Wald of Connie’s educational services office. “We had an average increase of over two reading grades per student; one sailor increased his reading level by four years in just 60 hours of instruction.”

In the pilot project, men who participated did so partly during working hours. Now the course is taught early in the morning, at a time when educational specialists say learning capacities are at their peak.

Connie’s commanding officer was also impressed with the results: “Most of those participating have never had a successful learning experience, and we are convinced that by allowing them to participate in this class they will perform better at their regular assigned duties,” said Captain M. A. Peelle.

Onboard Constellation, if anyone wants to know “Why Johnny can’t read,” they’ll probably say there aren’t many “Johnnies” on Connie.
The Desert Navy at White Sands

STORY BY JO2 DAVIDA MATTHEWS
PHOTOS BY PH2 ROBERT W. SWANSON

Where Billy the Kid, Pat Garret and Geronimo once roamed, sophisticated radar and tracking equipment now dots the desert. The desolation which once frightened off many a settler in this corner of New Mexico was one of the chief reasons why the White Sands Missile Range was located here.

Robert Goddard first came to the desert in the 1930s with his liquid fuel rockets. Here, in the wide open spaces, he could safely conduct his testing without fear of endangering lives or starting fires where the rockets impacted.

The missile range was opened on July 9, 1945, near where Goddard conducted those first tests.

The Navy came to the range a year after that, to conduct experiments with the Army on captured German V-2 missiles.

“A desert Navy may have seemed a bit incongruous at first,” explained Captain Mell Peterson, commanding officer of the Navy detachment and deputy commander of the range for Navy matters, “but it was recognized early that the Navy needed a land-locked arm in its missile development program.”

On the desert, recovery for study of spent missiles was considerably easier than if tested at sea. The Naval Ordnance Missile Test Facility (NOMTF) soon became a permanent part of the White Sands Missile Range.

They even brought a ship along. “Well, not a real ship,” said Capt Peterson, “but for test purposes it is.”

USS Desert Ship, LLS-1 (denoting land-locked ship number one), is a low, blockhouse building, constructed in the 1950s in the same rough dimensions as a guided missile ship.

“This prototype was designed to test the feasibility of certain missile systems aboard ship,” explained Lieutenant Commander J. R. O’Sullivan, the Surface Missile Systems officer. “We use the same computer systems in our testing that would be used in a real situation, working under the same space limitations that would exist had the testing been done aboard ship.”

The desert ship comes complete with launch pads, hatches and ladders; from the inside she looks like any sea-going vessel. “It is a bit disconcerting at first to glance out a porthole and see nothing but sand, cacti and mountains,” Capt Peterson said, “but you get used to it after a while.”

The ship has been modified extensively in support of the Aegis weapons system testing program (see All Hands, November 1976). This program uses an advanced version of the Standard missile, commonly called the SM-2. “But we are still able to test the older Terrier and Tartar missiles, and Talos if required,” said LCDR O’Sullivan.

The search for better, more accurate weapons is an important part of
the Navy's reason for being here, but that's not the only reason. The Navy also maintains research rocket launching towers that enable scientists to perform accelerated research of the upper atmosphere and near space through the use of instrumentation packages in high-altitude rockets.

Chief Gunner's Mate Phillip Jones is the division officer in charge of research rockets. "My crew assembles rockets, fuels them and launches them for various agencies and, also, various purposes. Some of our recent customers have been NASA, the Naval Research Laboratory and the Air Force Geophysics Laboratory. Our latest project has been the Black Brant rocket for Bristol Aerospace in Canada and NASA. We will eventually support and launch a total of 15 of their rockets, with the testing ending about 1980."

The desert Navy is also currently involved in the Aries I, which recently set a new altitude record of 318.77 miles for single-stage rockets. This rocket complements another sounding rocket used extensively by the Navy—the Aerobee series. "The Aerobee is the oldest continuous rocket firing program at White Sands," explained executive officer Commander J. R. Roepke. "We started using the Aerobee back in 1947 and have fired about 500 different varieties for various research projects."

Payloads on the many rockets the Navy has fired are varied, but all serve the same general purpose—to increase man's knowledge of outer space and, eventually, aid him in space exploration.

Each rocket may carry any number of experiments, each acting independently of the others. Cameras, vacuum bottles, mirrors, grids, sensing devices, lenses and many other mechanical units have been carried aloft and returned for study. "Each launch brings us a step closer to understanding fully the properties of zero gravity and how
we can use it for our own benefit,” said Capt Peterson.

On this sprawling national range, hosted by the Army, the Navy has a relatively small contingent—only 85 military and 54 civilian members.

“We are a close-knit bunch,” stated Chief Jones. “Since we are so isolated, the base is more like a little community than a military installation.”

The majority of the Navy people are in seagoing rates such as fire control technician or gunner’s mate, so White Sands provides them with a much-welcomed shore duty tour with their families.

“Life on the desert isn’t exactly what I had in mind when I joined the Navy, but it’s so different, I enjoy it,” stated one Navyman.

(Continued on page 37)
Three...Two... ...One...Zero

The crisp morning air is strangely still. A truck coasts to a stop, its ignition switched off against the chance of igniting the rocket too soon. The braying loudspeaker begins the final countdown.

Three...two...one...zero.

For a split second, there is total silence. Then, with a roar that creates an almost uncontrollable urge to clap hands over ears, the thin cylinder rises above a fiery cloud.

A few seconds later, only a smoky spiral marks its path and the rocket turns into the wind. Another successful launch of a Black Brant rocket.

One hundred and ten miles above the desert, the rocket’s payload is activated. Automated experiments click into action, performing as programmed in the weightlessness of high altitudes.

In just a few short minutes, the rocket begins its descent, ending nine months of preparation, and beginning many more months of data analysis and study. The rocket is minutely tracked—when it lands, the payload will be recovered by helicopter and returned to scientists for analysis.

Mission is accomplished. The desert returns to its dreaming until the next launch.

This particular launch, third in a series of 15, contained five experiments dealing with the effect of zero-gravity on the processing of certain materials.

The rocket reaches speeds of seven times the speed of sound. At that point, thrust cancels the effect of gravity, producing a state of zero-gravity for a few minutes. It is then that the experiments are conducted.

For example, one experiment deals with processing beryllium. This element is lightweight, and strong at high temperatures, but at room temperatures, extremely brittle.

By processing the metal in space, removed from the effects of gravity, scientists hope to create a finer grained material on a microscopic scale. The result should be a less brittle metal that still keeps its properties at high temperatures.

Scientists can already see applications for the better beryllium, making it ideal for use in nuclear reactors.

Most of the experiments conducted with Black Brant rockets are the seeds of future space processing applications of Space Shuttle. By studying the reaction of zero-gravity on minute particles, scientists can apply the same logic and the same theories to larger payloads the shuttle will be able to carry into space.
The base provides a school, church, theater—everything a city could offer without the hassles of city life. "The pace is slower, too, he said, "and you just don't have crime here."

But the desert presents its own hazards. Prowlers in the night may not be human, but they are still there. The range has more than its share of dangerous creatures, including rattlesnakes and scorpions.

"We are constantly reminding our men and their families that the desert and its inhabitants are still wild and should be treated with caution and respect," said the captain.

"In the summer, it gets hot here, but the humidity is so low that it doesn't really bother you," he continued. "It's easy to forget how dangerous that sun is." Heat stroke, cramps and exhaustion are possible and very common if proper precautions are not taken.

But the danger is almost outweighed by the benefits the area provides. The southwest is rich in legend and history and abounds with places to go and things to see. From marveling at the beauty of Carlsbad Caverns to haggling good-naturedly with a street vendor in Juarez, Mexico, over the price of handcrafted goods, Navymen here are given a unique opportunity to enjoy a bit of Americana not seen by many of their peers.

In this land of contrasts, where forested mountains meet desert plains, it is perhaps appropriate that the Navy has found a niche. ♦️

**Largest Military Installation**

Surrounded by mountains and highlands, the White Sands Missile Range is located in the Tularosa Basin of south-central New Mexico. It takes its name from the White Sands National Monument located on the installation.

The Missile Range is over 100 miles long and 40 miles wide. It encompasses more land than the states of Delaware and Rhode Island and the District of Columbia combined, making it the largest land-area military reservation in the United States.

In addition to its 4,000 square miles, the range has had use of a 40-by-40-mile area adjoining the north range boundary since 1960. This extension is used about 20 times a year and allows for the testing of some of today's longer-range missiles.

The New Mexico desert was selected for the nation's first rocket center for several reasons and geographical advantages:

- The land was cheap and much of it government owned;
- The area has almost year-round clear weather and unlimited visibility;
- The desert is sparsely populated and affords relatively easy recovery of spent missiles.

The range has more than 1,000 precisely surveyed instrumentation sites and some 700 of the newest most modern types of optical and electronic instrument systems, including long-range cameras, tracking telescopes and radars scattered across the desert. Each launch and every move are carefully documented through these instruments for further study.

In the mid-50s, studies were initiated to extend White Sands Missile Range facilities to accommodate longer-range vehicles. Several flight corridors were considered but the final selection was an azimuth in a northwesterly direction, passing west of Salt Lake City, Utah, toward Yakima, Wash., and terminating in Alaska.

Initially established as White Sands Proving Grounds, the name was changed to White Sands Missile Range in 1958. The range is under operational control of the U. S. Army Test and Evaluation Command, Aberdeen Proving Ground, in Md., and supports missile development and test programs for the Army, Navy, Air Force, NASA and other government agencies.

Just a week after White Sands was opened, the world's first atomic device was detonated on the northern portion of the range. The now-historical spot, generally known as Trinity Site, is located within a missile impact area and is not open to the public except during a special open house held the first Saturday each October.
The first "attack" came from West German fighter bombers making diving runs on USS Truett (FF 1095). That attack was quickly followed by fast patrol boats supported by supersonic F-104 fighters. Truett received one blow after another. Strikes were launched by the surface attack groups while submarines also searched for Truett.

USS Truett had not fallen prey to an ally gone berserk. When she faced her annual Operational Readiness Evaluation (ORE) requirement, Truett was deployed as the United States unit in NATO's Standing Naval Force Atlantic (STANAVFORLANT). Multi-nation units were eager to help test Truett's men and systems under simulated threat conditions.

The ORE is normally administered and graded by a unit's immediate senior command. It usually lasts about one day at sea, and staff personnel are embarked to provide simulated contacts to radar, sonar and electronic warfare operators. Usually, the only "real" opponents are a few aircraft used in some antiaircraft and antiship defense exercises.

Problems arose when Truett came due for her annual ORE. STANAVFORLANT is designed to be a ready-alert force, not a training squadron. Yet, with special permission from U. S. authorities and through the enthusiastic cooperation of the head of STANAVFORLANT, Royal Navy Commodore J. M. H. Cox, Truett conducted her ORE in a manner both unique for U. S. forces and enhancing to international understanding.
Truett's ORE was scheduled to coincide with the West German Navy's Quarterly Federal Tactical War Exercise in which STANAVFORLANT forces opposed West German ships, submarines and aircraft. The result for Truett was two and one-half days of real confrontations with F-5 and F-104 fighter bomber aircraft, missile-equipped fast patrol boats, four attack submarines, and a surface force consisting of two DDs and one DDG.

There was obviously no need for simulated contacts in this ORE.

Embarked in Truett to grade the exercises was an international group of officers and senior enlisted personnel from the other ships in the NATO squadron. They came from the Netherlands ship Tjerk Hiddes, the West German ship Karlsruhe, the Canadian ship Ottawa, the Norwegian ship Narvik and the British ship Norfolk.

The first step was to teach the foreign evaluating personnel what to evaluate. In effect, the NATO officers and petty officers underwent training by Truett in how to give the ship its ORE. U. S. Navy publications outlining the conduct of exercises were made available and several training conferences were scheduled to aid the foreign officers in learning the differences between their own and USN standards.

At the same time, Truett people learned how the West German and NATO forces conduct their exercises. In the scenario for the West German exercise, the NATO units represented forces trying to reinforce a North Atlantic battle fleet. The West German ships and aircraft were the forces assigned to stop them.

During the two days of the battle problem segment of Truett's evaluation, she was tested continuously first by one threat and then another. Truett was subjected to multiple damage control exercises caused by simulated conventional and nuclear blasts around the ship. The supply of smoke generator devices brought onboard by the NATO observers seemed endless.

When the smoke had cleared, literally, Truett found herself with a satisfactory ORE. Perhaps more important, though, was the level of cooperation and exchange that evolved through an unusual and extensive international naval training exercise. J.
for the Navy Buff

USS Saint Paul (CA 73)
BY JO2 DAN WHEELER

Here is our third installment of a feature we call "For the Navy Buff." Letters, questions and comments generated by our second segment in the June 1976 issue proved again that Navy people enjoy reading and discussing those long-forgotten odds and ends concerning Navy life and lore. Here then are some more questions you'd never think to ask unless you thought the answers would enliven a mid-watch.

Q. Where did the term "slush fund" originate?
A. In the Old Navy, "slush" was the name given fat and grease from the galley which was used to lubricate masts and spars to waterproof and protect them. It was customary to sell excess slush to commercial shipping firms and use the proceeds for the benefit of the enlisted men.

With the advent of better lubricants (and, perhaps, more wholesome food at sea), slush funds were supported from monies raised through the sale of discarded clothes, items from the lucky bag, and personal effects left on board by deserters. Today, though, slush funds have been replaced by Welfare and Recreation Funds supported by profits from ships' stores, Navy Exchanges and other legitimate enterprises.

Q. Some say USS Saint Paul (CA 73) fired the last shot of World War II and others give the credit to USS Concord (CL 10). Is either correct?
A. No one really knows for sure which ship fired the last round in the war, but Saint Paul is officially given the credit for firing the last major salvo Aug. 9, 1945. Concord, however, did conduct a shore bombardment of the Suribachi Wan area Aug. 13.

Further complicating the matter, Task Force 38 was attacked by Japanese aircraft August 15 just after receiving orders to cease hostilities. They passed the word on to the Japanese with marked clarity. Which of these constitutes the last shot of the war depends on how you want to define "last shot." The Navy defines it as meaning the last major-caliber salvo fired and thus recognizes USS Saint Paul.

Q. Has an American sub ever been credited with sinking a battleship?
A. USS Sealion (LPSS 315) became the only American sub ever to sink an enemy battleship when she sank the Japanese Kongo off Taiwan Nov. 21, 1944. Only two other battleships—both British—were sunk by submarine torpedoes in World War II, His Majesty's Ships Royal Oak and Barham.

Q. When, if ever, may staff corps officers on board a command at sea be employed as officers of the deck?
A. Ready for the obvious? Whenever the skipper says they can, provided he feels they're qualified. There's no policy prohibiting the use of staff corps officers as OODs. Likewise, many Supply Corps officers are used as OODs in port and occasionally at sea. Additionally, we've heard that a few (a very few) medical corps officers have qualified for and stood underway watches on the bridge.

Q. I've heard a lot about the punishments in the "Old Navy" but other than keelhauling have heard very little about other specifics. Can you provide some examples?
A. About the worst punishment in the U.S. Navy was flogging with a cat-o'-nine-tails and many offenses were so punishable. The 16th century British and Dutch navies, on the other hand, probably hold the record for the cruelest reprimands at sea. A few offenses and their punishments as described in the Code of Oleron taken from The Black Book of the Admiralty follow:

- For blasphemy—offender gagged and tongue scraped or tongue branded with red hot iron.
- For murder on board ship—offender bound to victim and cast into the sea.
- For murder ashore—offender bound to victim and buried in the earth.
- For sleeping on watch (fourth offense)—offender placed in basket secured to bowsprit end of ship and given a sharp knife, bottle of beer, loaf of bread, and option of starving or cutting the basket free (to fall into the ocean while underway.)
- For theft—offender's head was shaved and boiling pitch poured upon it, promptly followed by a liberal dousing with feathers.
- Assault with a deadly weapon—offender's hand cut off.

Q. Is it true that a Navy captain hanged the son of a Secretary of War for an attempted mutiny?
A. Commander Alexander Sidell Mackenzie, captain of brig USS Somers did just that in November 1842 while Somers was en route from Liberia to New York. For attempting to incite a mutiny (to subsequently take the ship and go on a pirating expedition) Midshipman Philip Spencer and two fellow conspirators were hanged at the yard-arm. Spencer was the son of Secretary of War John C. Spencer under John Tyler.

Mackenzie was later tried by court-martial on the charge of murder, but was honorably acquitted and the verdict was approved by President Tyler. There has never been a successful mutiny aboard a U.S. Navy ship and this attempt is believed to be the only one ever.

Q. When did the practice of frocking Navy people in lieu of immediate promotion with pay begin and who was the first ever frocked?
A. We know that it's done, but we can't find out when it started or who was the first so honored. Any of you Navy history buffs out there have the answer?
Q. Why are sailors—especially the oldtimers—sometimes called "tars?"

A. Well, it's not because of the practice of using tar to seal the seams of the wooden ships. The slang word is actually a derivative of "tarpaulin," a canvas impregnated with tar or oil to waterproof it. In the days of sail, fabric for clothing was scarce on board ships so sailors made some of their clothes from discarded sail made from tarpaulin. The hats worn by salts were called "tarpaulins" since they were made from that material, and eventually the sailors themselves referred to each other as "tars"—short for tarpaulins.

Q. Recently I saw a Navy Birthday poster entitled "Eternal Vigilance." I assume that the title refers to the quote "Eternal vigilance is the price of liberty," but have been unable to find who first said the phrase. Can you help?

A. Maybe. The poster you're referring to was an American Revolution Bicentennial poster from the U.S. Navy Bicentennial Coordination Office painted by LTJG Bill Ray. "Eternal vigilance . . ." is one of the most widely quoted sayings concerning liberty and has been variously attributed to Thomas Jefferson, Patrick Henry, Voltaire and others. It doesn't appear in the writing or letters of any of these men and there is no proof that one of them originated the phrase.

On July 10, 1790, the Irish statesman and orator John Philpot Curran said in a speech, "The condition upon which God hath given liberty to man is eternal vigilance." Because of this, some historians attribute the statement in question to Curran and claim the popular version is a corruption of the original.

Other historians, however, give the credit to an American orator named Wendell Phillips who said "eternal vigilance . . ." in a speech given to the Massachusetts Anti-Slavery Society on Jan. 28, 1852. Phillips said it exactly as it now appears and when a dispute arose in the late 1800s about its origin, the American orator claimed authorship.

Q. I have an Army friend who insists that if a service member is unable to salute with his right hand due to an injury, for instance, he should not salute at all but instead bid his senior a courteous good day. I think the member should salute with his left hand. Who is correct?

A. Both of you. The Army and Air Force never salute with their left hand; the Navy and Marine Corps do so only when necessary. "When necessary" is defined as being in a situation wherein your right arm is injured or is so encumbered as to delay your salute too long. If both arms are injured or encumbered, stand erect and voice a cheerful greeting as appropriate.
Q. Which naval vessel holds the speed record for circumnavigating the globe?

A. USS Skate. She circumnavigated the world in less than 50 minutes in 1958. Her secret? Skate was about two miles from the North Pole and traveled around the top of the globe while maintaining the two-mile radius—all told, a distance of some 12 miles!

Q. Of all the animals in the world, why did the U. S. Naval Academy choose a goat as a mascot? Also, what do the stars on its blanket mean?

A. Pure chance and some mischievous midshipmen selected the lowly goat. As tradition has it, the Naval Cadets (as they were then called) were proceeding to the 1890 Army-Navy game at West Point when they happened upon a goat grazing in the yard of an NCO’s home. Full of mirth, the cadets “liberated” the animal for a noble cause (some claim they bought it for $1) and treated it to a front row seat at the game. When they won, they decided to keep the goat as a mascot.

Although traditionally named “Bill,” the first official goat was named El Cid and made his debut at the fourth Army-Navy game in 1893. The Navy won 6-4. Today, the official mascot wears an “N” blanket adorned with one star for each victory over Army it has witnessed. Also, its horns are painted blue and gold—need we explain why?

Q. Is it true that the Navy lost more officers to duels than in naval actions during its first 50 years?

A. Some historians say so. In any case, there are numerous documented accounts of duels involving Navy officers between 1775 and 1825. Commodores Oliver Hazard Perry and Stephen Decatur, in fact, both fought duels in the early 1800s and Decatur was mortally wounded while fighting a duel in 1820.

Dueling to settle affairs of honor among gentlemen was not solely the prerogative of senior officers; it was commonly practiced among junior officers and midshipmen as well. The “popularity” of this method of settling an argument or seeking redress for offenses was due more to a period book entitled The Code of Honor than to actual outrage over an offense in most cases.

In The Code of Honor, 39 articles outlined offenses which could be settled only by dueling and offered specific guidelines for proper dueling. The following quote sheds some light on why so many men went to early graves over trivial disagreements:

“No apology can be received for a blow. For being intentionally spit on; having wine, snuff, etc., thrown in the face, no apology is admissible, but redress must be sought by the duel, if the party aggressing ranks as a gentleman.”

So commonplace was dueling among the upper classes and so acceptable was it as the only gentlemanly method of settling “affairs of honor,” that President Andrew Jackson—himself an old soldier—suggested that it be outlawed for civilians and reserved as the special prerogative of Navy and Army officers.

Q. David Farragut was appointed to the rank of midshipman when he was nine and a half years old. Doesn’t that make him the youngest U. S. Navy midshipman ever?

A. He was indeed young, but not the youngest. Samuel Barron was appointed and given a midshipman’s warrant at age three years, four months (April 11, 1812). He served “on duty” at half-pay until, at the age of eight, he reported for active duty at the Norfolk Navy Yard. In 1820, he was ordered to USS Columbus for sea duty.

The Royal Navy can easily top Barron’s record, though. There are records indicating that babies were entered on the midshipmen roles when they were one year old. Their captain collected all their pays and allowances until they were actually ordered into active duty.
Q. When did the Navy begin awarding good conduct medals?

A. As we know them today, August 1888. The award actually had its beginnings some 23 years earlier and was known as “The Honorable Discharge Badge.” Those so discharged were entitled to wear a fouled anchor on the left sleeve of their jackets. The badge certified that the man had served his enlistment with “fidelity, zeal and obedience.” For each additional honorable discharge, a star was added to the badge.

That award was canceled in 1870 and an award called the “Good Conduct Medal” took its place. The medal consisted of a nickel maltese cross bearing the same insignia as its predecessor in the center and the recipient’s name engraved on the back. The medal hung from a red, white and blue ribbon. That award was canceled in 1888 and replaced by the one used today.

Q. How did the legend of the Flying Dutchman—that mystical ship guarding the Cape of Good Hope—get its start?

A. According to sea lore, if a sailor sights the Flying Dutchman it is an omen that sudden squalls, shipwrecks, illness and disaster will follow shortly. There are many legends describing the origin of the Flying Dutchman, but the most common is this:

It was believed to be a Dutch ship commanded by Captain Vanderdecken. He was taking her around the Cape of Good Hope when he sailed into one of the terrific storms common to that region. His crew pleaded with him to turn back and wait out the gale but Vanderdecken was determined to go on. Suddenly, a ghost appeared on the masthead and warned him to turn back, but the captain vowed that he would continue around the Cape against the wind if it took until Judgment Day. Evidently providence took him at his word, for to this day it is said that the phantom ship can be seen sailing against the wind with all sails set and Vanderdecken and crew now reduced to little more than shadows.

In another legend the Flying Dutchman was believed to be a ship carrying a precious cargo from the Indies when a plague broke out among the crew. Because of the disease, no port would allow the ship to enter and it was condemned to stay at sea forever.

Science offers a more plausible explanation for ship sightings in that area. Because of unequal refraction of light in the lower strata of atmosphere in the region, ships actually out of the range of vision can sometimes be seen by observers. These “ghost” ships seem to be hanging in midair near the horizon, and even today, there are sailors who have seen the Flying Dutchman.

Q. Which was the first American ship ever to sink a German U-boat?

A. The merchant ship SS Mongolia holds that distinction. On April 19, 1917, Mongolia was attacked by a German submarine. Lucky for her, the month before she had taken on an armed guard and was able to return the submarine’s fire. Her guns caused so much damage to the U-boat that it was forced to submerge and subsequently sink. This incident marked not only the first American vessel to sink a U-boat, but also it was the first time that an American ship had ever fought a German submarine.

On Nov. 17, 1917, the U. S. Navy destroyers Nicholson and Fanning made naval history when they became the first U. S. Navy ships to sink a U-boat—U-58, about 10 miles east of Queenstown, Ireland.

Q. Just exactly what was “Admiral Porter’s Dancing School”?

A. When Vice Admiral David D. Porter became Superintendent of the U. S. Naval Academy in 1865, he made many changes both in curriculum and ceremonies. Porter’s Dancing School alludes to a change the admiral made in the graduation ceremonies. Not content with the simple ceremony of past years, Admiral Porter made graduation week a season of festivity with dances, parades, athletic events and the presentation of the Colors to the Color Company. Some people resented the alteration of tradition and showed their displeasure by labeling the academy “a dancing school.”
Bon Homme [sic] and the Serapis” in 1825—some 46 years after the battle—that the now famous quote appeared in print and was attributed to Jones.

Did he actually say “I have not . . .”? No one knows for certain. Jones did make one well-documented statement later upon hearing that Pearson had been knighted for his courage in the engagement. Said Jones, “If I fall in with him again, I’ll make him a lord!”

Q. “A dollar a day is a sailor’s pay” is a refrain from an old song or sea chanty, but I can’t seem to find the rest of the words. Could you help?

A. The refrain you mention could have come from a number of old sea ballads, but one in particular seems most likely. Called “A Sailor’s Pay,” it’s an old sea chanty that goes like this:

A dollar a day is a sailor’s pay,
To pump all night and work all day.
The times are hard and the ship is old,
And there’s six feet of water in her hold.
The bosun shouts, the pump stand by,
But we can never suck her dry.
Oh, heave around the pump—bowls bright;
There’ll be no sleep for us tonight.
Heave around or we shall drown,
Don’t you feel her settling down?
The rats have gone, and we the crew,
It’s time, by God, that we went too.

Q. What does the “O” in A.W.O.L. stand for?

A. We thought this would be a snap since the “O” obviously stood for either “out” as in “without” or “official” as in “absent without official leave.” Our job, as we saw it, was to ascertain which was correct. According to George Stimpson in his book, A Book About A Thousand Things, neither, however, is correct.

“The United States War Department,” he wrote, “explains that A.W.O.L. was adopted instead of A.W.L. to eliminate the possible confusion with ‘absent with leave.’”

So, the “O” actually stands for nothing, which just about sums up what A.W.O.L. is all about anyway.

Q. Did John Paul Jones really say “I have not yet begun to fight” as an answer to Serapis’ Captain Pearson’s query concerning his willingness to continue the battle?

A. The battle, of course, was the Bonhomme Richard-Serapis encounter on Sept. 23, 1779. Though “I have not . . .” is attributed to Jones, it was not credited to him until many years after the battle. In fact, there is no evidence that Jones himself ever claimed to have uttered the now-famous saying.

At one time during the battle, Serapis’ captain asked Jones, “Do you ask for quarter?” Both vessels had been severely damaged and both crews had sustained numerous casualties by this time. In a letter written Oct. 3, 1779, to Benjamin Franklin concerning the battle, Jones wrote, “The English Commodore asked me if I demanded quarter, and I having answered him in the most determined negative, they renewed the battle with double fury.”

Dr. Benjamin Rush, a signer of the Declaration of Independence, credited Jones with having said, “No, sir, I will not—we have had but a small fight as yet.”

In American Naval Heroes (published in 1823), Samuel Putnam Waldo wrote that Jones replied, “Sink me if you can—if I must go to the devil I’d rather strike to him than you.”

It wasn’t until First Lieutenant Richard Dale wrote an article entitled “Particulars of the Engagement Between the
Mail Buoy

Orion Nebula

Sir: In the article, “The Nation's Timekeepers” (December 1976), I noticed two errors. First, the picture labeled the Lagoon Nebula is actually the Orion Nebula located around the middle star of the Constellation Orion's sword. Second, the picture of the Sombrero Galaxy cannot be 25 light years in diameter. It would have to be more (60,000 light years) because it would otherwise not be visible except for maybe a point of light and then only by the most powerful telescope.—AQ2 S. Timpson

The Deputy Superintendent of the Naval Observatory tells us you are right and the captioning information originally provided us from another source is in error. The distance to Sombrero Nebula Galaxy is 37 million light years while its diameter is 85,000 light years. A 40-inch Ritchie-Cretien telescope was used to photograph Orion Nebula.—Ed.

Retirement

Sir: I have 13 years continuous active duty. The last time I was discharged and reenlisted, I was a petty officer, 1st class. Since that time I have been reduced in rate to E-3. Upon retirement, will I retire at the highest rank held or will I retire at my present rate at the time of retirement? Also, in order to reenlist at the end of this enlistment, what pay grade will I have to obtain?—HN J.A.

We have been informed that provided you are recommended for reenlistment and are otherwise eligible, you may complete 20 years day for day service. Additionally, your retainer pay then will be based upon the pay grade held at the time of transfer to the Fleet Reserve.—Ed.

Reunions

• USS O'Bannon (DD 450)—Reunion September 25-October 2 at Virginia Beach, Va. Contact Carl Settlemyer, Rt. 1, Four Oaks, N.C. 27524; Phone (919) 689-2123.
• USS Alcor (AD 34) — Reunion September 23-25 in Portland, Me. Contact John S. Rogers, 51 Fourth Ave., Auburn, Me. 04210.

• USS Savannah (CL 42)—Planning eighth annual reunion for September 9-11, 1977 at Mobile, Ala. Contact O. J. Jindracek, 63 Thayer Dr., New Shrewsbury, N.J. 07724.
• USS Missouri (BB 63)—the 4th annual reunion will be held September 2-5 in Columbus, Ohio for all hands who were in any way connected with P. T. Boats. Contact P. T. Boats, Inc., P.O. Box 109, Memphis, Tenn. 38101.
• USS Wharton (AP 7)—Sixth reunion planned for August at Newport, R.I. Contact George H. Howlett, USS Wharton Assoc., 110 Central Ave., Malden, Mass. 02148.
• River Patrol Force (TF 116)—10th annual reunion of Gamewardens of Vietnam Assoc., Inc. on August 13-15 in St. Louis. Contact John C. Williams, P.O. Box 5523, Virginia Beach, Va. 23455.
• USS Valley Forge (CV CVA CVS 45/LPH 8)—Reunion July 28-30, 1977 in Long Beach, Calif. For information contact Bill Degischer, 18101 Tarzana St., Tarzana, Calif. 91356.
• USS Ticonderoga (CV CVA CVS 14)—Sixth annual reunion for crew and officers May 5-8, 1977 at Norfolk, Va. For information contact Edward G. Savage, 8008 Winstead Road, Norfolk, Va. 23518.
• Coral Sea Association—Commemoration of 35th anniversary of the Battle of the Coral Sea May 6-8, 1977 in Washington, D.C. For information contact William F. Surgi, Jr. at (301) 942-3608 or write in care of P. O. Box 1172, Rockville, Md. 20850.
• SS William Eaton—Reunion proposed for Armed Guard Unit and merchant seamen who served aboard from Dec. 1944-May 1945. For information, All-Navy Cartoon Contest

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All Hands
contact Mrs. Donald Saunders, 1501 Beacon St., Brookline, Mass. 02145.


- **Seabee Veterans of America**—Thirty-first annual national convention and reunion July 27-30, 1977 in Toledo, Ohio. For information contact Joseph A. Brimmer, 6125 Foth Drive, Toledo, Ohio 43613.

- **USS Newport News (CA 148)**—Anyone interested in a reunion July 29-31 in the Norfolk, Va., area, contact PNCM W. M. Keough, 3300 Ridgefield Dr., Norfolk, Va. 23518.

- **USS Concord (CL 10)**—Reunion planned for July 13-16 at Deadwood, S.D. For information contact Martin Schneider, 113 W. 9th St., Miller, S.D. 57362.


- **USS Density (AM 218)**—Reunion July 12-14, 1977. For details contact Sam Orr, Jr., 2515 North Nevada, Colorado Springs, Colo. 80907.

- **USS Washington (BB 56)**—Reunion July 11-14, 1977 at Dearborn, Mich. For information contact John A. Brown, Executive Director, USS Washington Reunion Group, Inc. (BB 56), Box 27035, Columbus, Ohio 43227.

- **USS Fletcher (DD 445)**—Reunion planned for July 1977. For information contact Keith E. Snyder, RD #1, Box 167E, Keeseville, N. Y. 12944.

- **USS South Dakota (BB 57)**—Reunion July 2-4, 1977 at Sioux Falls, S.D. For further info contact Ray Kanoff, 1210 N. 12th Street, Norfolk, Neb. 68701.

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**The Log Book**

From time to time, every sailor begins a sea story with the words, "Why I remember back in the Old Navy, we . . ." But how many really do? In an effort to polish up the brass in some tarnished memories, *All Hands* has scraped away the barnacles on issues of yesteryear and hereby reprints articles revelatory of life in the "Old Navy."

### 35 YEARS AGO

Delivery of the first experimental plastic-plywood training plane to be ordered by the Navy—a low-winged monoplane—was recently announced by the Navy Department. The new plane, 90 per cent wood and plastic glue, will now undergo flight and destruction tests at the Naval Air Station, Anacostia. If the final tests prove successful, and the plane is found airworthy, the sleek, yellow "Aeromold" model may be one of several types to be put in mass production to provide training for Naval air cadets.

Proponents of plastic-plywood declare that modern science has produced in the new material a substance stronger than steel. They point out that plastic glue, which impregnates the wood, prevents warping and buckling; that plastic construction does not necessitate riveting or over-lapping of plates, thus reducing or over-lapping of plates, thus reducing air drag; that plywood surface is highly resistant to oil, water and fire; that bullets striking plywood make clean holes instead of flowering; and that repairs can be made quickly and easily.

### 25 YEARS AGO

Certain women members of the Navy and Marine Corps may now request discharge for reason of marriage alone. Enlisted women of the Regular Navy or Naval Reserve on active duty may now be discharged solely on grounds of marriage subject to the following provisions:

- They must have served a minimum of one year in current enlistment.
- They must have served one year after assignment to duty for which a voluntary agreement to extend was executed.

### 15 YEARS AGO

A new Navy rigging record has been claimed by an oiler and destroyer serving with the Sixth Fleet. USS *Canisteo* (AO 99) and *Perry* (DD 844) rigged lines and hoses in two minutes and 20 seconds while refueling in the Med. Earlier the same day, *Canisteo* and *Ault* (DD 698) rigged lines in two minutes and 21 seconds, but *Perry* later came alongside and lowered the mark by one second.
Opportunities look in the future?

At all locations, I have spoken with enlisted personnel and was asked many questions concerning matters of enlisted interest. The following is a sample of the questions most frequently asked with my responses:

Q. How do enlisted advancement opportunities look in the future?
A. The overall opportunities for advancement are expected to be excellent for the next several years. However, the manning levels of selected ratings will continue to require CREO control to promote the best possible advancement opportunity. (Note: CREO, or Career Re-enlistment Objectives, is a program to reduce manning in overcrowded ratings and increase manning in undermanned ratings through established controls of enlistments.)

Advancements for E-7, E-8 and E-9 in Fiscal Year 1976, respectively, were: 4,500, 2,005 and 627. The advancement figures projected for E-7, E-8 and E-9 in Fiscal Years 1977 and 1978, respectively, are: 8,000, 2,500 and 800; and 6,600, 2,200 and 800. The figures for E-4, E-5 and E-6 in Fiscal Year 1976, respectively, were: 44,464, 26,631 and 11,621. The projected figures are: 60,700, 32,800 and 15,300 in Fiscal Year 1977; and 55,600, 28,500 and 14,000 in Fiscal Year 1978.

Q. Are we to continue to lose our benefits?
A. The Joint Chiefs of Staff and the Secretary of Defense have taken a firm, positive stand on the benefits issue and have recommended a one-year moratorium on changes to the compensation and benefits system. I feel that the pressure to erode benefits for military members will be reduced. Of course, this doesn’t mean that benefits will not continue to be carefully scrutinized for inequity, inefficiency, etc., and corrective plans formulated.

Q. Will the bell-bottom-and-jumper style uniform be authorized for wear again?
A. Many factors enter into the decision making process to return to the bell-bottom-and-jumper style uniform such as economic constraints, the length of time needed for the changeover, current uniform inventories, etc.

After careful assessment of all influencing factors, a final decision will be made.

Q. Do women in the Navy adversely affect sea/shore rotation?
A. No. In fact, women directly contribute to making rotation more equitable. Under the present OUTUS/CONUS rotation plan, which is described in detail in BuPers Note 1306 of 5 Feb. 1977, women are normally required to rotate to remote or preferred overseas shore duty following their prescribed shore tour. This affords men with a much better opportunity to be assigned a shore duty billet within the United States.

Q. Will women be assigned sea duty billets aboard combatant vessels?
A. Currently, public law does not permit the assignment of women to combatant vessels. However, the Navy has developed a proposal which would amend the law to permit the Secretary of the Navy to prescribe a greater variety of shipboard duty to which women members may be assigned. At present the proposal is being reviewed by the other military services. When the review is complete, the proposal will go to the Department of Defense for consideration. (See Currents.)

Q. Is the selection board process better than the old advancement-by-examination system?
A. The selection board process is far more valid and equitable. The old system advanced those who achieved the best test score, however, the best test-takers were not necessarily the best qualified individuals to advance. The selection board process recognizes this and advances members based on the “whole person” concept. This means that the individual’s total record of service from “day one” is considered. The most qualified members are promoted for the numbers of openings available; keen competition prevails.

No doubt, as time progresses and changes are instituted, many more questions will surface. By exercising effective communication at all enlisted levels, rumors will be dispelled, misunderstanding corrected and questions answered. Effective communication is a prime responsibility of the enlisted leader. I ask that every petty officer and chief petty officer do their best to actively assist in improving communication within the enlisted community.
Since the days of sail, mariners have been trapped into catching sea bats, barked into bearing a hand at the sound of bull horns, or wiled into working at the wildcat.

Fewer old salts can claim to have participated in dog fights or of being shellbacks or bluenoses. How many of you sea dogs can correctly match all of the following illustrations with their definitions?

1. Unidentified surface contact
2. Closed chock at the bow of a ship
3. Name given to the 1600-1800 and the 1800-2000 watches
4. A debt accrued by drawing advance pay
5. Small, but strong, two-stranded tarred line
6. Quick-release device used to secure anchor chair or towing cable
7. A cluster or clump of pilings used for mooring
8. Float used as a fender between two ships or a ship and a pier
9. Steel fitting connecting a gaff, a yard or a derrick to a mast
10. Float at the end of a minesweeping cable
11. Conical metal shield secured around mooring lines
12. Portable magnifying glass on a compass
13. Underwater demolition personnel