ONE OF THE MOST potent weapons of the Navy today is its naval air force, extending, as it does, over the seven seas and most of the continents. It is manned by some of the best airmen in the world who fly the best planes available.

Neither would be worth two hoots and a holler if these planes were not in the peak of working order. It takes only one man to fly a plane, but it requires the combined talents of 10 to 20 skilled technicians to keep that aircraft in condition to leave the ship, accomplish its mission and return.

The success of the Navy's air missions depends on three essentials—airplanes, pilots, and maintenance men. Supplying these maintenance technicians for the Navy's air fleets around the world is the job of the Naval Air Technical Training Command.

Headquarters for this command, and also the site of many of the schools, is the Naval Air Technical Training Command, Memphis, Tenn. In all, the NATTC Command consists of 43 schools, from the Basic Airman Preparatory School to the highly technical Aviation Electronics Technician, Aviation Fire Control Technician and Aviation Guided Missileman schools.

The foundation for all technical training for the Navy's enlisted airmen is set in the Airman Preparatory School. In the AN "P" School, the Navy insures that Airman Doe does not get channeled into the job better suited for Airman Smith, and vice versa. And the process of helping each man choose his career field isn't hurried. Final choice is not required until the end of 200 hours' instruction.

The Airman Prep school serves as the groundwork for his future in naval aviation. Here he's exposed to the fundamentals of aviation seamanship and becomes acquainted with the basic skills of every aviation rating. He also learns the principles of survival equipment, passes specified swimming tests and determines the shape of his future as he goes through a series of screening and rate selection tests.

In all, the embryonic airman is given the basic knowledge which prepares him for the next level of training—Class A School.

Upon entering one of the 14 Class A Schools run by the Naval Air Technical Training Command, the student begins to specialize as he learns the fundamental principles of his particular rating.

Today, this Class A level of training has been further specialized with the activation and training of men in Selective Emergency Service Ratings. The SESR program also includes a number of general service
ratings. Besides reducing the basic training time in school, specialization intensifies the knowledge and capabilities of the school graduate within his specific field, instead of giving him a broad, but thin, understanding of all the facets of his rating.

All of the Class A Schools in the NATTCCommand, except for Aviation Storekeeper, Aviation Guided Missileman and Aerographer's Mate schools eventually will be divided into two or three courses. The Air Controlman and Aviation Electronics Technician schools are divided into three courses. All other Class A Schools are divided into two courses. (The list of Selective Emergency Service Ratings which have been activated may be found in BuPers Inst. 1223.1.)

Under the SESR Program, all of these schools use training equipment and accessories similar to the ones now in use by the Fleet. The training under SESR is not a "broad brush" treatment, but rather, limited and intensive so that the students may be available for work in a much shorter time after reporting to their duty stations.

As the Airman advances up the promotion ladder to petty officer second or third class, he again becomes eligible for another class of school conducted by the Naval Air Technical Training Command. These
WEATHER WATCHERS — Left: AN in Class A school for AGs. Right: AGs in Class B school study in special plane.

are the Class B Schools, which, in effect, are post-graduate courses to train junior petty officers for advancement to PO1 and CPO.

Then there are Class C schools and courses which train personnel in a particular technique or on a specific phase of a rating. Typical of some of these schools and courses are Ice Observer Course, Camera Repair School, Target Drone School and Ground Controlled Approach Courses.

The Naval Air Technical Training Command has been turning out these masters of maintenance for the Air Navy for almost 15 years. The organization came into being on 11 Sep 1942 with headquarters in Chicago, Ill. Like many another Navy project it had its inception at the outbreak of World War II.

Before that time, naval aviation maintained service schools which taught such subjects as engine upkeep and repair, ordnance equipment, sheet metal work and similar aviation specialties. These schools were small, however, and proved incapable of coping with the stepped-up naval air program.

During World War II the NATTC Command produced more than 360,000 skilled technicians in some 21 various aviation ratings. The Navy's 14-1 shoot-down record in the Pacific might be attributed in part to the excellent work by the graduates of NATTC Command.

The first "president" of the Navy's "Air University" was Rear Admiral Albert C. Read, USN, who early acquired a thorough respect for maintenance as a result of his world's first transoceanic air crossing in the famous NC-4.

After the war, the NATTC headquarters was moved to NAS Pensacola, Fla., then finally to its present quarters at Memphis. In reality, the Center is 18 miles north of Memphis, in Millington, Tenn. Other technician schools under NATTC Command are located at Pensacola and Jacksonville, Fla.; Glynco, Ga.; Olathe, Kansas; Lakehurst, N. J.; Norman, Okla.; Glenview, Ill.; Philadelphia, Pa.; and El Centro, Calif.

All formal technical aviation training in the Regular Navy, except the actual instruction of student pilots, comes under the command of the Chief of Naval Air Technical Training. Last year, this vast training outfit graduated more than 21,000 men from its schools.

As these graduates spread out to their various duty stations in aircraft carriers, air stations, and squadrons, they step into jobs which require nothing less than the best work they can produce. When the pilot signs his plane captain's clearance sheet before take-off, he is saying that the maintenance men have done their jobs to his satisfaction.

The skin, structure and hydraulic systems of the plane have been checked and repaired by the AMs. The engines, (or turbines), carburetors and propellers have been put in top working order by the ADs. AEIs have tested, checked and repaired the various electrical systems and AEIs have insured operation of the other electrically controlled gear and instruments.

Fighting weapons and ammunition that bite hard at the enemy have been prepared, repaired and loaded onto the planes by the AOs, who also have insured the split-second operation of bomb release mechanisms. If the aircraft carries guided missiles, the GFs have insured their perfect operation.

The plane's fire control systems have been checked and adjusted by

HERE'S HOW — Aviation Structural Mechanics in Class B school at Memphis, learn from instructor how pump works in hydraulics system of a P2V-5 Neptune.

ALL HANDS
the AQs. Airborne electronic devices—radio and radar—are serviced and operated by the ATs. Parachutes worn by pilots and crew have been packed and tested by PRs. These men also have checked the survival gear aboard the plane.

Pilots know wind and cloud conditions before they leave the deck of the carrier because AGs have collected and prepared aerological data. Targets have been photographed by PHs and the photos have been interpreted by Photo Interpretation Officers. The second strike of planes to leave the deck will carry other PHs, who will photograph results of the mission.

Long before the pilot even stepped into the aircraft, he made a number of familiarization flights in a simulated trainer, operated by a TD.

As the pilot returns from his actual flight, he is guided to the carrier deck either by an LSO aided by an AC or by an AC operating the Carrier Controlled Approach equipment.

Once spotted by ABs, the plane is swarmed over by maintenance men putting the aircraft into shape for the next operation. Tools, spare parts, and other needed accessories are issued to the technicians by the AKs.

All in all, it's a team operation, and only excellent training and constant practice can get the team in top efficiency. The practice part is taken care of in the Fleet. And the maintenance men have had excellent training, thanks to the work by the Naval Air Technical Training Command. — Rudy C. Garcia, JOC, USN

RADAR AND RADIO are taught to ATs (above and lower left) at Memphis. GCA school (below) is in Kansas.
MEN DESCEND TO THE OCEAN DEEPs for a variety of reasons. Some look for sunken treasure. Others salvage valuable cargo. Still others—scientists—study the bottom's flora and fauna. But the sailors of Uncle Sam's submarine rescue ships, designated ASRs, lower themselves to the ocean floor to recover that most precious treasure of all—human life.

The most spectacular submarine rescue mission was accomplished by *USS Falcon* (ASR-2). That was in 1939, when 33 crewmen of the stricken *USS Squalus* (SS 192) were hoisted to the surface from a depth of 240 feet. To insure that feats like the *Squalus* rescue can be repeated if necessary, the Navy maintains 10 ASRs, including *USS Greenlet* (ASR 10), pictured here. Each is manned with a crew of about 80 that includes at least a dozen expert deep-sea divers.

The ASR is a small ship, only 251 feet in length, but easily distinguishable by her large pontoon buoys, heavy booms and intricate rigging gear. She carries every type of salvage equipment required for the rescue of a damaged submarine, chief item of which is an improved version of the "McCann diving bell," the device that brought *Squalus* men to safety through 40 fathoms of icy water. Much of the ASR's time is spent performing routine tasks like target-towing, torpedo-retrieving, mine recovery and small salvage operations, but her crew trains continually to become expert at a task that they hope will never have to be performed—getting men out of a sunken submarine alive.

Periodically a submarine is appointed to act as "victim." She sets out from harbor, making the periodic contact reports an underwater warship is required to file. Then, without any warning, she stops sending them and glides to the bottom, there to wait until an ASR comes out to "save" her crew. Her actual position is known only by the officer scheduling the exercise.

As soon as these regular contact reports stop coming in, the submarine is presumed to be missing and all Sea-Air Rescue units are alerted. These units are composed of aircraft and surface craft that assist in searching for the submarine and render logistic support to the ASR while conducting rescue operations.

The ASR heads out to sea carrying her 11-ton steel cylindrical diving bell. The bell stands over 10 feet high, is seven feet in diameter, and has a two-man crew. In the charthouse the navigator and his assistants check the position of the submarine's last contact report, and use this as the center of a search circle. The circle's radius is the distance the submarine could have traveled since that contact report, and its area will be the search area.

The ASR then races to the circle's center and begins a rectangular search, each leg becoming increasingly longer until the ship's track looks like a Chinese maze. This insures that every square yard of the bottom is checked by the rescue ship's sonice equipment. Underwater sound devices are employed until a particular "ping" comes over the sonarman's phones.

The submarine has been found. It remains now to place the ASR in position over the "sunken" submarine. Using underwater communication devices, she asks the sub to send up smoke bombs, which she does. Then she requests that the underwater craft release a special buoy

READY FOR ACTION — Submarine rescue ship USS Greenlet (ASR 10) is one of ten sub rescuers in Fleet.

AWAY WORK BOAT—Personnel launch is lowered to assist in locating stranded sub. Boat may be used to mark sub's position during rescue operation.

ALL HANDS
fixed to its deck. When this buoy surfaces, its cable is cut and attached to the underside of the diving bell to give direct connection with the sub. As a triple check, a diver may be sent down to locate the sub by actual touch. This is possible, however, only when the "sunken" ship's depth is not more than 500 feet.

Four heavily anchored spuds (stilt-like timbers) are placed in position by the ASR to keep her held squarely above the "sunken" submarine, and the massive bell is hoisted out into the water, where positive buoyancy keeps it bobbing gently beside its mother ship. To it are attached electrical, air and telephone lines, as well as heavy cable from its top to the ship's boom. While the lower downhaul cable is the bell's contact with the submarine, the upper backhaul cable helps the ASR to control it. Two operators then climb into the giant bulb, and start down to the sub.

The McCann diving bell has two chambers, upper and lower, separated by an air- and water-tight hatch. The upper compartment is enclosed; its occupants depend on the ASR's compressors for air, while the lower compartment, called a "skirt," is open to the sea. In the lower is an air-powered winch, and along its sides are ballast tanks for taking in and expelling sea water as necessary. Around the edge of the bell's bottom is a thick rubber gasket. By adjusting valves so that their ballast tanks take in sea water, the bell's operators give their teardrop-shaped "elevator" negative buoyancy. Then they use an air motor to spin the winch, reeling in the lower cable and actually towing them down to the submarine's deck.

When their bell rests directly over the rescue fitting they flood ballast tanks to increase its weight and hold it in place. Then, using air pressure, they blow all water from its skirt and bleed excess air from the skirt into the bell. Thus gravity, plus underwater pressure, work together to keep the diving bell fixed in the proper spot.

Now it's time for human hands to complete the rescue. One of the bell's operators opens the hatch to the skirt and drops through. Using a wrench he tightens down on four special fittings at the rescue hatch to clamp the bell mechanically on the submarine. Then the bell, for all practical purposes, becomes an additional compartment or room of the submarine itself.

Should it be desired at this point actually, to remove men from the "sunken" submarine, the bell's operators simply reach down, open the submarine hatch, and say to the men clustered inside, "Going up?" In a real rescue the bell can carry up to seven passengers at a time.

Ascent of the bell is a reversal of its descent. The submarine's hatch is closed, clamps removed, and the bell's skirt flooded with water to break suction. Then the ballast tanks are blown partially free of water to reduce negative buoyancy and the ASR takes up the slack in the overhead cable and starts to haul it in. The bell starts for the surface, where "survivors" climb out through its top hatch and onto the rescue ship's deck, where ASR crewmen get them warm clothes and hot food.

ASR sailors, though part of the submarine fleet, do not enjoy in many eyes the glamor of men who man the underseas ships. They are, however, in a real sense a "man's man." When a submariner goes to sea, he does so in the knowledge that while he is prowling the murky depths his brothers in the submarine rescue ships are on the surface, working and training so they can help him should affairs go afoul.

—Hanley Norment, JO2, USN; William Hinds, JOSN, USN.

The bell starts for the surface, where "survivors" climb out through its top hatch and onto the rescue ship's deck, where ASR crewmen get them warm clothes and hot food.

SLICED BELL—Upper compartment houses two operators, maximum of seven passengers. Lower half has suction gasket, attached sub hatch cable.
It's not always possible to provide training facilities for all Seabee ratings at a Training Center and thus it's often difficult for some ratings to get checked out in their practical factors. For an example of a project which satisfied both needs, take the one in which CB Division 11-1, San Diego, Calif., took part.

A Civil Air Patrol squadron needed additional building facilities for their installation at the National City Airport and the Navy had surplus Quonset huts which would serve the purpose. On a Group Active Duty Training project over a weekend, the Seabees provided the skill and, with equipment borrowed from NAS Miramar and NAS North Island, carried out the program.

More was involved than a mere physical move of Quonset huts from NAS Miramar to National City Airport, however. The exercise provided opportunity for officers and chiefs to handle the administrative details in conjunction with local and state agencies.

AMBASSADORS

When you can carry out a training exercise and at the same time provide a service for someone else, that's a good deal—and Seabee Reservists know a good deal when they see one. Year after year, reports from all over the country tell of community projects which were turned into Group Active Duty Training. Seabees have pitched in during times of disaster, helped restore Boy and Girl Scout camps, rehabilitated run-down recreation areas, and the like, all the while improving their technical skills.

It's not always possible to provide training facilities for all Seabee ratings at a Training Center and thus it's often difficult for some ratings to get checked out in their practical factors.

For an example of a project which satisfied both needs, take the one in which CB Division 11-1, San Diego, Calif., took part.

A Civil Air Patrol squadron needed additional building facilities for their installation at the National City Airport and the Navy had surplus Quonset huts which would serve the purpose. On a Group Active Duty Training project over a weekend, the Seabees provided the skill and, with equipment borrowed from NAS Miramar and NAS North Island, carried out the program.

More was involved than a mere physical move of Quonset huts from NAS Miramar to National City Airport, however. The exercise provided opportunity for officers and chiefs to handle the administrative details in conjunction with local and state agencies.
With Hammers and Saws

necessary. Because of the 50-mile distance from Las Vegas to the camp site, some of the Division members left Friday evening and spent the night in sleeping bags in the camp’s dining hall. Others followed early the next morning. The Reservists installed a new 10,000-gallon water-tank, overhauled machinery for the camp’s deep freeze, and rebuilt the front steps of the main building. As a result of the Reservists’ efforts, hundreds of youngsters may enjoy a safer, happier summer.

In the Los Angeles area, NRCB Division 1-22 Reservists have been assisting the local Scout Council for many years. The over-all project, to develop a 12,000-acre camp site, was started in 1950 when men of the Hawthorne, Calif., CB Reserve unit volunteered their weekends, without pay. Work was interrupted during the Korean conflict and a fire in 1955 caused an additional setback. This spring, the CBs got back to work, cutting and widening a roadway which will connect the old camp site with two new sites. When the road is finished, other units will come in to work on sanitation, rehabilitation of firebreaks and laying wire for a communications system.

A little farther east but still in California, NRCB Division 11-10 of San Bernardino, turned to on a face-lifting job of a camp ground near Lake Arrowhead. In addition to digging foundations and pouring concrete for 16 fireplaces, they built picnic tables and surveyed and staked roads and parking.

When time was the important factor in Sacramento, Calif., members of NRCB Division 12-6 were on the spot, ready to put a “finger in the dike.” As host for a cross-country track meet, Grant Union High School had the responsibility of seeing to it that a regulation course be laid out, but time was running out. The Seabees accepted the challenge and made the survey in time to permit the meet to take place as scheduled. For performing this public service, the officers and men who took part received a letter of thanks from the coach and a “well done” from the district commandant.

Here’s another example, which—

although not a community project—shows the readiness and cooperative spirit for which the Seabees have become noted. Up in Eugene, Oreg., a Navy patrol plane made an emergency landing on a federal reservoir. In an attempted take-off—after necessary repairs and refueling—the plane struck a partially submerged object, rending the hull in several places. By lowering the water level, the plane was beached. However, a heavy snowfall threatened to submerge the plane, which would have resulted in a loss of more than one million dollars.

The call went out to NRCB Division 13-8 in nearby Eugene. Although the emergency arose over a weekend, 16 men volunteered to tackle the job of excavating under the plane and repairing the damage. Because of the possible hazards involved in the job, the division’s commanding officer asked that the volunteers be placed on AcDuiTra. The men worked more than four days in below-zero weather—accumulating more than 300 man-hours. After excavating under the plane—a job made more difficult by the lake ooze—it was necessary to

GOOD DEED—Navy bulldozer operator of Reserve CB unit gains valuable experience in road construction while cutting the way into Scout camp.
NAVY'S MR. FIXIT—Hammer-wielding sailors square away a run-down scout camp, keeping their Navy skill in shipshape condition during weekend drills.

man a hand-pump around the clock, build pallets, cradles, bases and frames for the repair crew. The plane, of course, was rescued from its muddy plight.

On the east coast, men of NRCB Division 1-2, Portsmouth, N. H., came to the aid of the Girl Scouts. A new central building was needed at the Scout camp and the Seabee Reservists decided to make this their summer project. Instead of meeting at the Training Center in Portsmouth for their regularly scheduled Tuesday-night drill, some 600 members gathered at the camp site to work on the building. Interest was so great that some Reservists made the trip from distant points in New Hampshire, Maine and Massachusetts. The undertaking was well organized, complete with hospital corpsmen and a walkie-talkie communications link with the Training Center at the Portsmouth Naval Base.

Down in Boston, Public Relations Company 1-1 heard about the Kiwanis Club's "Camp Allen," in Bedford, N. H., a camp for blind girls. Once destroyed by fire, it had been rebuilt; but dead timber and other debris strewn on the grounds presented a constant fire hazard to the new buildings and the girls. NCRB Division 1-3, Manchester, N. H., got the word from Boston and volunteered to rectify the situation. "Operation Blind Girl," took about six months to complete but, when finished, the hazard was removed and the grounds made shipshape. Both Public Relations Company 1-1 and CB Division 1-3 received "Distinguished Service" trophies as a tribute to their "good neighbor policy."

In New London, Conn., NRCB Division 3-23 was recently awarded a commendation by the local Girl Scout Council. Early in December, the Seabees decided that a road the girls needed at their summer camp would be a worthwhile weekend project. Building a mile-long road is quite a task, but the New London Reservists tossed it off with typical Seabee "can do" spirit. They got right down to work clearing underbrush and trees, hauling tons of gravel, grading the roadbed and building a culvert to drain off the swamp land to make it smooth sailing for the Girl Scouts.

Many of these undertakings would have been next to impossible for the local organizations themselves to accomplish, because of lack of funds, manpower, or equipment. In each of these incidents, the Seabee Reservists had what was needed, when it was needed, to make the difference between something nebulous and something concrete, an idea and a reality.

By taking part in these community projects, the Reservists have increased their varied abilities and their mobilization potential. And they've built up an important by-product—valuable good will toward Seabees in particular and the Navy in general. —Robert S. Marx
In order that they may carry on in the footsteps of their famed predecessors of WW II, Seabee Reservists of the Eighth, Ninth, and 11th through 14th Naval Districts receive two weeks of "rugged" combat training at the Marine Corps Recruit Depot in San Diego, Calif.

The "old men," as they are affectionately known, won the respect of Marines and other fighting units by proving in training and in combat that they were as handy with a rifle or machine gun as they were with a bulldozer or transit.

After the first morning of introductory lectures, construction men swing right into the actual training with close order drill and instruction in the M-1 rifle, its function and breakdown. By Thursday of the first week, the Seabees are ready for the night defensive problem. As part of the maneuver, recon and combat patrols are sent out, while Marine personnel harass and snipe at the defensive unit throughout the night.

A critique is held early the next morning followed by preparations for the offensive problem which is conducted at night. Again the exercise is reviewed and criticized after which the "warriors" move back to camp for inspection, food and weekend liberty.

Their second week is spent on the range. This phase of training consists of firing the rifle, both M-1 and Browning automatic, pistol and hand grenades.

It is followed by demonstrations in the flame thrower, rocket launcher, machine gun and other types of weapons. After continued rifle position exercises and firing practice, the Reservists shoot for record on their last day. The highest score achieved is entered in their administrative records.

At the end of their training there is a final inspection, and the Reservists leave for home, which may be anywhere from Iowa to Hawaii.

—Jack Harmon, TSgt, USMC.

Techniques of grenade launching are taught to class of active duty Seabees on a deserted rocky hill.

Efficiency is high as maneuvering Seabees fire rocket launchers and (below) automatic light machineguns.
So You’re Going to the Naval

Don’t look now, but the man working next to you may be an Academy graduate in a few years. He will have received one of the finest educations available in this country today, at no cost to him. When he receives his commission as ensign, USN, or second lieutenant, USMC, he will also be awarded a Bachelor of Science degree. He will have to work hard, but the rewards are worth the labor. From that time on, he’ll have the prestige and stature of an Academy man. He’ll also have a top-flight academic training behind him.

Pretty lucky, you say. Must be a genius, or have plenty of influence, to get in on a deal like that. Not so. You can have the same deal yourself if you are qualified, willing to work hard—really hard—and take the trouble to apply.

Many enlisted men in the Navy today are ignoring the possibility of an officer’s career simply because they believe the odds against entering the Naval Academy are too great. Admittedly, the standards are high. Yet, each year, more than a thousand men in the service or in civilian life are selected for appointment. You’re just as good as the next man. Some 160 enlisted men on active duty in the Regular Navy and Marine Corps, plus an equal number of Reservists may be appointed by the Secretary of the Navy.

The Academy is unique. Essentially an engineering college, at the same time the Academy is based upon a broad, fundamental education—one which supplies the foundation for higher learning on the postgraduate level. It is the only institution in this country devoted to the sole purpose of providing career officers for the naval service.

In the words of Admiral Holloway, the “U. S. Naval Academy educates young men to be admirals—not just junior officers.” At the same time, the Academy provides a background and heritage of the service that goes hand in hand with an engineering curriculum. These, together with continual emphasis on the humanities, lead to a balanced course of studies necessary for a well-rounded career officer.

The educational program will give you a Bachelor of Science degree. This degree is accredited, based upon the humanities and sciences, together with the knowledge and concepts of the naval profession.

A break-down of the courses shows 37.1 semester hours of social-humanistic studies; 77.1 semester hours of scientific engineering; 37 hours of military-professional work, and 4.8 hours of physical education, for a total of 156 semester hours during the four academic years, exclusive of summer terms.

Quite an education, you say? But what’s it all for? Perhaps a quote from the Chief of Naval Personnel will answer that question: “The Academy is a place where young men are imbued with the motivation for service which makes them dedicated naval officers.” Not only dedicated, you must be able. The two go hand in hand. And ability is strengthened by the study you do.

So suppose as an enlisted man

STUDY TIME—For each hour in class Academy students study for an hour.
you are appointed to the Academy. What then, what can you expect?

For one thing, you can expect one of the very finest collegiate educations. You can also expect to work at your utmost capacity for the next four years. From Monday morning until Saturday afternoon, you'll be heaving around.

You will follow a tight, well-planned routine from reveille to taps. This rigorous routine and discipline is one of the primary differences between the Academy and a civilian college or university.

The typical daily schedule runs something like this: Up at 0615, you have 30 minutes to get yourself squared away for breakfast formation. Until 1630 you are busy with study and recitation. You are then free to indulge yourself in exercise or to work at extra-curricular activities or sports—either varsity or intercompany—until 1900.

Socially speaking, the high point of the day is the evening meal. Then, you have a study hour. That ends at 2145. Fifteen minutes later you are turned in. This, generally speaking, is the plan-of-the-day repeated the next day, and the next.

Your day is divided between individual study and group recitation and practical drills. Your time is allocated so you will have one hour of preparation for each hour of class work.

(Don't assume that you can slide by without using that hour of preparation for class, either. Classes are usually limited to 14 students and it is assumed that every man is prepared to make an intelligent contribution to each day's studies. If you're the type that learned to "cramp" before an exam, forget it. It won't work at the Academy. In a sense, every day is exam day.)

You'll have to learn to stand on your own two feet and answer the tough questions that will undoubtedly be cast your way. You'll have to know your subject by digging out the meaning of the text, and you must be capable of presenting it to the class (and the instructor) in a logical fashion.

But you'll survive. It will even start to look easy. Then, when you become a First Classman (senior)
It's tough. But as a former enlisted man, you'll have one big advantage over those entering the Academy directly from civilian life. Much of the Navy talk, Navy way of saying and doing things, and ordinary naval routine will be familiar to you. Take watch standing, for instance. You know all about that. Before you make ensign, you'll know more.

**WILL YOU GET ANY FREE TIME?**

Certainly. Your weekend will begin on Saturday noon and will end at evening meal formation on Sunday night.

All midshipmen have an Annapolis liberty on Saturday afternoons, and the three upper classes also have Sunday afternoon liberty. When you rise to the lofty First Class, you are even allowed several weekends for out-of-town leave and may also leave Annapolis on holidays.

So you've had all this free time. Now back to work. What will you learn during your four years?

You will have two distinct types of instruction. One consists of the purely professional subjects relating to your naval profession. Seamanship, navigation, marine engineering, naval ordnance and electrical engineering are some of the included subjects you'll study in this field.

The second field covers the disciplines to develop the mind, the body, the character. Mathematics, chemistry, physics, English composition both oral and written, literature, foreign languages, history including naval, modern and diplomatic—these provide mental discipline. Physical training provides the bodily discipline, and military training the character discipline.

That isn't all, though. A large part of your training is going to come from your summer cruises. Here again, if you are a former enlisted Navyman, you will have a big advantage over your more lubbery classmates.

During the three months of summer cruise time, you will find billets in operating ships, either a cruiser, destroyer, or aircraft carrier. One summer you will take part in an amphibious exercise and in naval aviation indoctrination.

**ALL VERY NICE, YOU SAY.** A fine college education, and a career as a naval officer. But what are the basic qualifications?

Here you are. To be considered, you must:

- Be a citizen of the United States.
- Be not less than 17 nor more than 22 years of age on 1 July of the calendar year in which you plan to enter.
- Be unmarried and never have been married.
- Be of good moral character.
- Meet the educational qualifications and U. S. Naval Academy aptitude tests.
- Be recommended by your commanding officer.

Now—if you can meet the above qualifications, check the following entrance methods which may apply to you:

- **Direct from active duty**—The Secretary of the Navy is authorized to appoint each year 160 men from the Regular Navy or Marine Corps and another 160 men from the Reserve components.

As a rule, if you are on active duty at the time of your nomination, you will enter the Academy via the Naval Preparatory School at Bainbridge, Md. Application is made via your commanding officer. Then you take a test.

The results of the exam and your CO's recommendation are forwarded to the Chief of Naval Personnel, who makes the selection.

When you are selected, you are enrolled in the Naval Preparatory School which commences usually in the first week of September.
prep course will help you prepare for the Entrance Examination which is given in March of each year.

The educational requirements for active duty personnel are three years of high school (or the equivalent) and credit of two years of either algebra or geometry, or one year of each.

- **From inactive duty**—Naval Reservists on inactive duty are eligible provided they were members of the Naval Reserve at least one year by 1 July of the year in which they are appointed. Drill attendance must be satisfactory and they must have performed at least 14 days' active duty for training. Applicants must be recommended by their COs and must meet the same mental and physical requirements as other candidates. Inactive personnel are also required to take the entrance examinations given in March. The same rules apply to the Marine Corps Reserve.

- **By Presidential or Congressional appointment**—The President makes 75 appointments each year from the United States at large to sons of Regular service personnel. The Vice President and each Senator, Representative and Delegate in Congress is allowed a maximum of five midshipmen at the Naval Academy at any one time.

- **Sons of deceased veterans (Regular or Reserve),** if the parent's death can be attributed to service in World War I or World War II.

- **Sons of holders of the Medal of Honor.**

On being admitted as a midshipman, you must deposit $100, which will not be refunded. The sum of $600 will be advanced to your account to pay for your uniforms, clothing, textbooks and miscellaneous items. This will be considered an obligation against your account until enough credit has accumulated from your salary to liquidate the debt. You may, however, pay this amount from your own funds at any time.

You will be paid $115.15 a month, plus a ration allowance. The ration allowance (now $1.35 a day) takes care of your board, and your pay is intended to provide your uniforms and clothing, textbooks and equipment, sundries, services such as laundry, tailor, cobbler and barber, allowance for extra-curricular activities, leave money (but only if you have a healthy balance in your account), payment of income tax, and the purchase of necessary uniforms and equipment for your graduation so that you will be ready to assume the duties of a commissioned officer. Medical, dental and hospital services are, of course, provided without charge.

You won't be living a life of ease and plenty. It is not intended that you do. You will, however, be living well. And—you will live within your income.

So—you graduate. You become an ensign in the Navy or a second lieutenant in the Marine Corps. You are well prepared for your career in the naval service. You have faced some of the most interesting—and toughest—years of your life. You are prepared to serve your country, you are prepared to take higher degrees at a naval postgraduate school or at a large civilian university. You are not only trained in engineering and the sciences, but you are up to date in history and the other social sciences.

You are prepared, you are the future admiral.
ARRIVING AT NAVAL STATION, Treasure Island, with orders from the Chief of Naval Personnel to teach Biological-Chemical defensive measures at the Damage Control School, CDR John H. Stover, MC, USN, had the bright idea that simulated "real-life" shipboard conditions would be a big help in teaching the course. That idea, plus plenty of willing hands, plus help from Navy headquarters, resulted in Pandemonium. Here's the story:

There was no ship in the area that could have answered the needs of the course.

Even if there had been, it would have been a tough job to obtain exclusive use of it for class-room studies.

But—parts of ships would provide the same desired simulated effect in demonstrating the use of modern techniques. There was a deck house handy, and it was not in use.

From various naval installations in the area came promises of "junk," surplus gear, scraps for enlarging the "mock-up" to include a partial deck, some old guns, winches and a bit of hull at the bow.

As soon as the promised materials began to arrive, labor was performed by the personnel of the service school command and through the Naval Receiving Station in the form of transient personnel. Soon students "came aboard" for training, learning through actual demonstration and practice.

Through the chain of command
application was made to the Bureau of Ships for funds to sink pilings and raise the deck to the level of an actual PC-type vessel for better simulated working conditions. BuShips, realizing the value of such a project, made the funds available. Later, pilings were sunk and the deck house and partial deck were hoisted into place upon them.

This odd-looking vessel with only deck house and partial deck, looked somehow like a house on stilts, with no underpinning.

But now more scraps began to arrive, metal pieces, hatches, and fittings. Plans and photographs of a PC-type vessel were procured, and construction continued.

Fifteen months later, in February, 1957, the “ship” had progressed to an undreamed-of stage. She now measured 173 feet in length, 24 feet at the beam.

BuShips provided money for steel, a wash-down system and utilities and had given cooperation in procuring the many miscellaneous items of equipment.

Bureau of Medicine and Surgery gave financial aid and equipment for shipboard laboratories. BuPers provided funds for shore connections to run the utilities to the ship, and aided by procuring items of equipment including surplus guns, compasses, electrical gear, flags, sextants, and binoculars. A “ship” was taking shape.

On 1 Feb 1957, ceremonies for christening the strange craft were held at the Atomic-Biological-Chemical Defense section of the Naval Schools Command at Treasure Island.

The name Pandemonium had been decided upon, since it best described the little ship’s decks immediately following a simulated attack by enemy forces.

At the ceremony, the Twelfth Naval District Band struck up the National Anthem, the Jack was hoisted, and USS Pandemonium (PCDC-1) swept down the ways. Here, thanks to a bright idea, students will sail through many years of classroom studies learning defensive measures against biological and chemical attack.

—H. Ellis, JO2, USN
**Battleship Broadsides**

**Sim**: Can you dig up answers to the following questions? 1) Can a modern U. S. battleship, while cruising on a straight course at full speed, and with both forward turrets trained dead ahead, fire both turrets without damaging the turrets themselves or the surrounding structure? 2) Can a battleship fire a full broadside while cruising at either full or minimum speed without causing undue handling difficulties? 3) Can a battleship, while executing a hard turn, fire a full broadside in the direction of the turn without causing excessive roll? 4) And, finally, how far is a battleship pushed by the recoil of the turrets themselves or the surrounding structure? J. G.

- With the Navy's Bureau of Ordnance located in the same area, we didn't even have to dig. Their experts read your letter and furnished the following answers:

1. A modern U. S. battleship can, while cruising in a straight line at full speed, fire both forward turrets at the same time with both turrets facing absolutely straight forward without damaging the turrets or their surrounding structure.

2. A battleship can fire a full broadside while cruising at full or minimum speed without experiencing any undue handling difficulties.

3. Providing she does not endanger her own ship structure (whereby firing cutout cans would become engaged), a battleship can fire a full broadside while executing a hard turn.

4. The recoil of a full broadside would push the ship over about two feet.—Ed.

---

**First Fleet-Wide Examination?**

**Sim**: What was the date on which the first service-wide competitive examinations for advancement to PO3, PO2, PO1 and CPO were held after World War II? I understand the first exam for CPOs was held in 1948; others say it was first held in 1950. Who is correct?—D. C. G., SMG, USN.

- It just depends on your definition of terms. A form of competitive service-wide examinations for advancement to CPO was established in 1946 by BuPers Circular Letter 191-46 but it was not the same as that in use today. The form of the CPO exam used in 1948 closely approximated that now in use; however, the current service-wide examining system for all petty officer pay grades did not go into effect until July 1950 under BuPers Circular Letter 12-50. This letter, which became effective 1 Jul 1950, established the examining system in essentially the same form as it exists today.—Ed.

**Travel Authorization by Transceiver**

**Sim**: My question concerns the authorization of travel via privately owned vehicle between two permanent duty stations under the transceiver system of transfers. Is it still necessary to obtain specific approval to travel in this manner? If so, how is the authorization cited in the transceiver system of transfers?—C. W. L., PN1, USN.

- When the transfer directive (including directives received under the transceiver system) does not specify any instruction prohibiting the use of a privately owned vehicle, the detaching commanding officer can grant permission to you to travel in your own automobile between your old and new permanent duty stations. The officer is authorized by Art. C5017(2)(b) of “BuPers Manual” to approve such means of travel. You will find this authority emphasized in paragraph 8 of BuPers Inst. 1306.58A.—En.

---

**Enlisted Precedence**

**Sim**: I have several questions in reference to your article, "Enlisted Precedence," on page 11 of the July 1956 issue of ALL HANDS.

To my mind, Article C-2102 of the BuPers Manual does not clarify these questions.

In the case of personnel in pay grade E-7 who have broken service (E-7 when discharged and E-7 upon re-entry into the service): 1. Would the time in pay-grade E-7 be considered continuous, regardless of the amount of actual day-for-day service?

2. Would the date of precedence change because of the broken service?

3. Would the date of precedence change if he went into the active or inactive Reserve during his period of broken service?

4. Would an involuntary recall to active duty have any bearing on the above questions?—R. S. G., AEK, USN.

- Article C-2102 has been revised to clarify this question. It will be promulgated by Change No. 24.

In the case of a man who has broken service, time in pay grade would not be considered continuous. His precedence in pay grade would date from reenlistment after broken service. Also, the date of precedence would change if he were to go into the active or inactive Reserve during his period of broken service.

Precedence, in this case, would start with the date of commencement of continuous service, including both active and inactive naval service.

Involuntary recall to active duty would have no bearing on precedence which is based solely upon time of advancement to present pay grade, provided continuous service conditions have been maintained.—Ed.
G.I. Bill and MOP

Sir: I enlisted in the Reserves in April 1953 and attended meetings in a drill pay status until Sept 1955, after which time I began serving my two years of obligated service on active duty. I believe a great many Reservists, including myself, would appreciate some information on the following:

First—Am I entitled to any of the benefits of the GI Bill?
Second—Will I be entitled to mustering out pay when I'm separated from active duty?
Third—Will I be compelled to attend drills with my Reserve unit upon completion of active duty?
Fourth—Why is it that some Reservists have a six-year military obligation, while others are obligated for eight years?

—H. T. D., SN, USNR.

The answers to your first two questions are both negative (and unfortunately, in this case, two negatives don't make a positive.

To be eligible for either the GI Bill or mustering out pay you must have been on active duty during the period from 27 Jun 1950 to 31 Jan 1955 (inclusive). Therefore, since you didn't go on active duty until after the cut-off date, you're out of luck on both counts.

The answer to your third question is also negative—according to BuPers Inst. 1610.3B, persons who were members of the Reserve before 10 Aug 1955 have no obligation to participate in a training program at any time. However, you may voluntarily enter any training category in a training program for which you are otherwise eligible, and naturally you are encouraged to do so.

The date, 10 Aug 1955, also figures in the business of the six and eight year military obligations. Under the Reserve Forces Act of 1955 (Public Law 305, 84th Congress) a man who enlists in the armed forces for the first time on or after that date has a six-year obligation. The status and obligations of those who were members of the armed forces before 10 Aug '55 have not been changed. Consequently, they're still under eight-year obligations.

Now, is it safe for us to come out of the isolation booth?—Ed.

Philippine Awards for WW II

Sir: I wish to inquire about the congressional approval necessary for individuals in the naval service to accept and wear decorations awarded by the Republic of the Philippines for service during World War II. I am aware of the regulations concerning the presentation of decorations and awards for the Korean conflict, but I have not been able to learn the approval needed for such awards during World War II.

—J. B. Carpenter, Jr., LCOL, USMCR.

The Philippine Presidential Unit Citation awarded to naval personnel for service during World War II has recently been approved by the Secretary of the Navy. Official information concerning this authorization will be published to the service in the near future.

As for individual Philippine decorations, Private Law 850, 84th Congress, approved for certain members of the armed forces (listed within the law) the acceptance and wearing of decorations which had been tendered by the Philippine government. However, since this law did not provide "blanket" authority, the names of any recipients of Philippine decorations awarded after the passage of this law must be presented to the Congress for approval in additional legislation.—En.

Quapaw the Best

Sir: We have been following your articles about length of time away from the United States with great interest. In the August issue you published an article about uss Metacoe (ATF 86) returning to the states after serving continuously for three years in the Western Pacific; in the December issue uss Quapaw (ADG 11) wrote that they too have served in the Western Pacific since 1950, which is over six years.

uss Quapaw (ATF 110) has been away from the United States since 1950, which is a better record than Ampere, as Quapaw is a rotated vessel.

We are as proud of our ship as any sailor could ever be for the below reasons:

1) 1956 Quapaw had seven reenlistments, five of them first reenlistments.
2) There has been no disciplinary problems because of the excellent morale of the crew.
3) We have such an excellent training program that in a two-year period the average of personnel passing and getting rated has been 75 per cent.
4) Of our five officers, and 66 enlisted personnel we have 42 dependents living in Pearl Harbor where we are home-ported.
5) Recently we were awarded our fourth consecutive award for being in the top 10 per cent of our class of ships in Comservpac. (We believe this is some-what of an achievement in itself.
6) Quapaw steamed 19,666 miles in '56, and was at sea for 3312 hours.

Our motto is "No job too large, no task too small." We go anywhere, anytime, and can do anything. However all this is just routine for a ServPac ship for we serve the Fleet.

With due modesty we believe that Quapaw is one of the best (if not the best) ship in the Navy.—J. R. V., YN2, USN.

Any comments from Ampere or Matoco or other contenders? Please note that Quapaw is exercising "due modesty."—En.

Raising of USS Maine

Sir: To settle an argument with one of my cronies, can you furnish the year and date on which uss Maine was towed out of Havana Harbor and sunk in the Florida Straits?—J. F. P., LCDBR (Ret.).

According to the Naval History Division, Congress on 5 Aug 1910 passed a bill authorizing the War Department to raise Maine. She was finally floated on 2 Feb 1912, towed out to sea and sunk in the Gulf of Mexico on 16 Mar 1912.—En.

---

AT REST—uss Maine lay in Havana harbor from 15 Feb 1898 until she was floated on 2 Feb. 1912. On 16 Mar 1912 Maine was sunk in Gulf of Mexico.
Recording and Transcribing

Sin: I have a question concerning acceptable means of passing the stenographic requirements for YN1 and YNC. The BuPers 1400 Series and the Manual of Qualifications for Advancement in Rating states that any stenographic means, including machines, may be used.

My Chief in Charge says that tape-recording machines are not acceptable. I contend that they are. Who is right—T. R. F., YN2, USN.

* That all depends on how you use the tape recorder.

The Quals Manual (NacPers 180068, Revised) provides that "a machine for the purpose of taking stenographic notes is acceptable." This refers to an instrument of the Stenomask type, which records (for later transcription) the stenographer's own voice as he repeats what is said by the person giving dictation.

However, a tape recorder would be acceptable provided it accomplished the exact function of the Stenomask. This means that the tape recorder would have to be used to record only the voice of the individual taking the dictation. If the voice of the speaker were included in any way, it would not be the equivalent of Stenomask equipment and would not be acceptable.

The performance test is designed as a gauge of your speed and accuracy in recording and transcribing material spoken by someone else. Therefore, you'd be defeating the purpose of that test if you were allowed to record the voice of the person giving the dictation, since this would show only your ability to transcribe his words, and not your ability to record them.—Ed.

Shipping Over Early

Sin: I reenlisted for four years in September 1953, but in order to complete a cruise I signed an agreement to extend my present enlistment until December of this year. Since the normal expiration of my enlistment is in September, is it possible for me to ship over three months early? Or am I obligated to serve until December before I can ship over? What shipping over privileges will I lose, if any?

I would also like to know if it is possible to take leave outside the continental limits of the United States—J. M., SM2, USN.

* BuPers Inst. 1133.4A states that persons who have agreed to extend their enlistments may be discharged up to one year before the extension would become operative.

Reenlistment benefits are not affected when discharged within three months of normal expiration of an enlistment, or expiration of an enlistment as extended. In either case you would be considered as having fulfilled your enlistment contract and would not lose any privileges.

A Navymen with leave papers is permitted to leave the United States in accordance with the policy contained in Article C-11107 of the "BuPers Manual."—Ed.

Crew Member Recalls Salty Anecdotes about USS Cole (DD 155)

Sin: In the July 1956 issue of ALL HANDS, Master Sergeant L. L. V. A. had a query concerning the old four-stack destroyer, USS Alexander Dallas (DD 199). In your reply you revealed some interesting history relative to the North African campaign.

Perhaps you and ALL HANDS readers would be interested in some further sidelights on this action in which the four ancient Greyhounds took a special part.

The four (there may have been five —USS Ellis (DD 154) may have been along in another group) were recruited from Destroyer Squadron 30 of which Dallas was flagship. The other three, Cole (DD 155), Dupont (DD 152) and Bernadou (DD 153) were from Div 60 of that Squadron.

While Dallas and Dupont were having their troubles in the Wadi Sebou area, Cole and Bernadou were finding it equally exciting with the Southern Attack Group in a little town called Safi in French Morocco.

In Cole and Bernadou each carried two hundred specially trained night fighters and their mission was to land the troops in Safi harbor, take over key installations, and neutralize resistance before the dawn landings of the main assault force.

The two ships were especially overhaul for this mission and among other refinements their masts were sheared off at flying bridge level to reduce the silhouette to the horizon line. At 0400, 8 November, we commenced our approach on Safi harbor which required finding an extremely narrow entrance in total darkness. Here we had our first look at infra-red lighting in practical use, as a free French patriot had swum out before our arrival and lighted the harbor entrance buoy with that invisible light.

Bernadou was in the lead with Cole some 1000 yards astern. All went well until we were abreast of the entrance jetty when we were suddenly raked with machine-gun fire from all sides, and pandemonium broke loose ashore. At this point we fired a roman candle that was supposed to burst over the sleeping city, unfurling an American flag to float down on a parachute, thus indicating to the rudely awakened townsfolk the identity of their invaders.

However, much to the disappointment of the fireworks lovers, this device didn't work, not that there weren't plenty of fireworks anyway. Bernadou returned the machine-gun fire and lobbed 3-inch 50s into the northern ridge that was known to be fortified, and with a burst of speed, crossed the small harbor and made an amphibious landing on a sand spit projecting from the eastern shore. In a matter of minutes our troops were ashore, including one of our seamen who went AWOL for a few hours to join the fighting. Each man was armed with a .45 caliber pistol and either a sub-Thompson, BAR or carbine for, according to plan, if we lost our ship, or if the raiders met stiff resistance, we were to join the fighting ashore. Fortunately, this plan was never placed into effect.

Meanwhile, as we sat high and dry on the sand bar, Cole was trying to make it alongside the dock at the north side. Naturally there were no line handlers standing by, and the ship was having some difficulty making the dock against the ebbing tide. She finally succeeded in getting a line with a grappling hook attached over and, with the grapple caught on a train track, was hauling the ship alongside. By this time, the soldiers were landed and had advanced to the dock area and one of them, seeing the ship struggling with a line caught on the dock, whipped out his knife, slashed the line, and with a wave of his hand, dashed off into the darkness.—Ed.

Just So It's Spelled Right

Sin: There has been a bit of controversy in our office regarding typist initials on official Navy correspondence. A few of my co-workers say that the initials of your first and last name are to be used.
I was taught at my first duty station to use the first and last letters of your last name.

I have checked every available manual concerning Navy correspondence and have been unable to solve the question.

Can you tell me who is correct on this matter?  — T.F.B., YN 3, USN.

• The "Navy Correspondence Manual" (Chapter II, paragraph 2a), states that the initials of the originator and typist are not required. A great deal of Navy correspondence does, however, have the typist’s initials on it. Although there is no set procedure, the first and last initials are generally used.

It is a matter of local policy. In other words, do it the way its done at your ship or station.—Ed.

and Other Four-Stackers Which Won Fame (and PUC) in World War II North African Campaign

With Cole’s troops landed, and with the first light of dawn, while our topside men exchanged small-arms fire with a few snipers concealed in the breakwater wall on the south side, our attention was drawn to the shore fire from heavy gun emplacements on the ridge running north of the town.

This finally evolved into an artillery duel between, I believe, uss New York and one remaining shore battery dug into the cliff on the western point. From our position midway between the two duelists, we could observe the results of each salvo climbing the cliff closer and closer to the target. At last a salvo landed squarely on target and we cheered as the cliffside crumbled and a cloud of smoke hung over the point.

But our cheers turned to disbelief, then admiration, as a few moments later the shore battery returned the fire. New York landed at least three more salvos that appeared to be direct hits, and each time, as the black smoke cleared away and we knew it was the end, the battery answered the fire. Some of the men on deck actually cheered. Finally, the battery was stillled, but I saw men hours later casting searching looks at the northwest point. We learned later that the French offered only token resistance in North Africa, but that unknown gun crew apparently didn’t get the word.

When the tide came in about noon, Bernadou was floated free with no serious damage, and we had no personnel casualties, despite the fact that the crew was armed to the teeth and the opportunity was present from all sides. The assault forces had landed, the beachhead was secured and the mission of the four-stackers was accomplished. All four were returned to the U.S., refitted, and went on to serve throughout the war.

There is one other four-stacker incident I should like to mention, and it is in the form of a legend which has persisted since I’ve been in the Navy. It runs like this:

When the same Cole was first commissioned, she was doing a full power run on her sea trials. During this run she clocked the measured mile at 55 knots. Understandably enough, the engineers and designers were astounded and ordered the ship back to the Navy yard where they tore down her engines in an effort to find the cause of this miraculous power. They found nothing however, and Cole’s moment of glory had passed, for when the engines were reassembled, she could do only a humble 31 knots as four-stackers were supposed to do.

Is this only a mythical legend, or is it perhaps true? Or, does the truth lie somewhere in between? Perhaps All Hands or All Hands readers (pre-World War II vintage) can shed some light on this one.—Charles L. Lawrence, QMC, USN.

• Mister, you really picked yourself a ship and our thanks to you for bringing Cole to our attention. It’s yarns like yours that make our job really worthwhile.

However, you neglected to mention another little incident that occurred only about a week later. In company with uss Stansbury (DD180), Cole was ordered to meet uss Electra (AK21) and escort her to Fedala, French Morocco. Shortly after the rendezvous Electra was torpedoed and, 10 minutes later, asked Cole to come alongside and remove her crew as she was sinking. Within 15 minutes, some 336 crew members had been taken to the doubtful safety of Cole’s decks, leaving a salvage party of 70 still on board.

In spite of her overflow of guests, Cole remained on anti-submarine duty while various means were tried to keep Electra from sinking. uss Cherokee (ATF 66) came alongside and pumped water from flooded compartments and then attempted towing, later returning to pump again. Meanwhile, Stansbury attempted to tow but was not too successful. uss Bristol (DD 453) joined with the other destroyers and her skipper took charge of the salvage operations.

uss Auk (AM 57) and Raven (AM 55) were ordered alongside to pump while Cherokee towed. This method proved successful. Electra and her flotilla arrived in Casablanca the following day.

We also learned that, after the war, Cole was converted to a miscellaneous auxiliary with the designation AG 116. Not long after that, with 26 years of successful service behind her, she was decommissioned on 1 Nov 1945 and later sold.

For the incident you described, she received the Presidential Unit Citation and, in addition, earned three battle stars on the European-African-Middle Eastern Area Service Medal.

With this record behind her, there’s little wonder that she should be reputed able to log 55 knots. However, the actual records are usually unkind to fantasy gossip and this is no exception. We quote here from the memo submitted by our contacts in BuShips:

“Our experts believe that this story is just a legend and nothing more. Her trial speed is given in the 1945 Ships Data book at 32.5 knots. uss Litchfield (DD 338), for example, has a top speed of 35.5 knots at 30,600 shp (shaft horse power). A speed of 55 knots would require 170,000 shp at 5.5 times her maximum power.

“One of the Bureau’s personnel was on board Cole in the Philadelphia Naval Yard while she was moored with other four-stackers. He was told then that Cole was the fastest ship in the Navy and had made 35 knots. The 35 knots is obviously impossible. It is apparently a distortion of the earlier figure, 35 knots.”

It’s fellows like that who say there could never be such a thing as the Flying Dutchman.—Ed.
Ship Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying the Editor, All Hands Magazine, Room 1009, Bureau of Naval Personnel, Navy Department, Washington 25, D. C., four or more months in advance.

- uss Mulhall (DD 528)—The first annual reunion for all former crew members will be held on 21 and 22 September in New York City. For further information, write to David Keller, 276 E. Houston St., New York 2, N. Y.
- uss Owen (DD 536)—A reunion will be held at the Hotel Sinton, Cincinnati, Ohio, on 31 August, 1 and 2 September. Because of space limitations, reservations should be made well in advance. If you plan to attend, send acknowledgement to John Horst, 10214 W. Armitage, Melrose Park, Ill.
- 18th Seabees—The next reunion will be held at the Mark Hopkins Hotel, San Francisco, Calif., on 19, 20 and 21 July. For details, contact 16th Seabee Association, 1246 Addison St., Berkeley 2, Calif.
- 24th Naval Construction Battalion—A reunion will be held at the Hotel Statler, New York, N. Y., on 10, 17 and 18 August. For additional information, write to C. G. Fitzpatrick, 16 W. 10th St., New York 11, N. Y.
- uss Douglas A. Munro (DE 422)—All former shipmates interested in holding a reunion, contact E. S. Stevens, Box 140, Litchfield, Conn., and state preference for time and place.
- uss Brooklyn (CL 40)—A reunion for all former shipmates will be held 27 July 1957 beginning with a picnic at 1000 in Fleet Park, Hampton Blvd., Norfolk, Va. For further information, write to C. V. Wells, PNC, usn, 1316 Oakpark Ave., Norfolk, Va.

Making Weather Entries in Port

Sir: Knowing that the Bureau of Naval Personnel is interested in the accuracy of the Ship’s Log, I would like to make a suggestion.

On DDs or smaller ships, there are often not enough quartermasters to keep the Weather Sheet in port, wouldn’t it be more practical to make an entry such as “Same as SOPA in uss Bennington (CVA 20)” rather than letting some untrained man keep up the sheet?

The need for keeping up this sheet in a port where there are no naval facilities is clearly seen, but in places like San Diego, Seattle and Long Beach, it seems to me that “Same as SOPA” would be a lot easier and much more accurate.—T. E. S., QM3, usn.

Since early 1954 the Ship’s Deck Log and requirements pertaining to it have been under study in an effort to reduce the paperwork involved, yet still retain the essential elements for a complete log. In this connection the requirements for recording weather data are being revised and simplified. Weather observations recorded in a port where there is a Fleet Weather Central or other well-established weather agency are not generally used in weather research or forecasting. However, these observations are needed for the ship’s daily operational use and certain legal purposes (since the log is sometimes used as evidence before courts and legal bodies).

Even where actual safety is not involved, possible damage to the ship, small boats or equipment can be minimized through precautions based on accurate weather observations. For example, if the Officer of the Deck is not aware of unfavorable changes in the weather he might allow small boats to be dispatched without adequate preparation for bad or squally weather, personnel might be endangered, the ship might drag anchor, mooring lines might part or small boats could become adrift—even though the weather isn’t bad enough to warrant warnings or other alerts.

At the discretion of the CO, hourly weather entries may be omitted under these circumstances:
- “When in a naval shipyard undergoing overhaul.”
- “When two or more ships are moored in the same nest or in the same general group while moored alongside a pier and the senior officer present in this group or nest has designated one of these ships to take the hourly weather observations. A ship thus designated should be assigned additional responsibility to see that other ships of the group are adequately informed of any changes in the weather or weather trends that may affect the safety of the ships, their small boats, personnel or equipment. Other ships in the group should make an entry in the weather table; i.e., “See log of uss . . . .”

In addition to all this, making weather entries in port is excellent training and helps to keep the watch on its toes. And, there should be no such thing as an untrained man keeping up the weather sheet, for instruction in weather characteristics is supposed to be a part of every seaman’s training.

On the surface your suggestion would appear to be a good one, but as you can probably see by now, the Navy has some pretty sound reasons for handling this matter the way it does. Don’t give up though—suggestions like yours sometimes turn out to be diamonds in the rough.—En.

Sailor from ‘Old Ironsides’

Sir: As much as I have read your magazine I have never come across any article on my ship, and she is one of the best known in the Navy—uss Constitution (IX 21).

“Old Ironsides” has a great record behind her. She has been in 40 naval engagements and four major battles, including her famous fights with the British ships, Guerriere, Java and Cyane and Levant.

This October will be the 160th anniversary of her launching, and she is the oldest commissioned ship in the Navy today.

I am really proud of her, as is everyone else in her crew. We have some 2400 visitors on board each weekend, so she must be pretty popular.—J. R. S., SA, usn.

- Perhaps you haven’t been reading All Hands long enough, or you’d have seen Constitution mentioned plenty of times. If all the words we’ve written about her were laid end to end, we could probably fill seven or eight volumes with her history. However, if we did, we’d be listing the accomplishments of many other ships with fine records.

It’s easy to see why you’re so proud of your ship, but as you say, “she is one of the best known in the Navy.”

Incidentally, the history books have covered her lengthy career in detail.—En.

Final Multiple in Exam

Sir: In a letter to the editor published in the Oct 1956 issue of All Hands, you stated that all personnel are advanced to pay grade E-7 in strict accordance with their numerical standing on the final multiple listings for their particular rate.

If the Bureau practices what it preaches, why then was an individual who took the exam in January 1955 advanced with a 96.34 multiple while another with a final multiple of 97.34 was not? . . . W.H., YN1, usn.

- Sounds as though you have a logical gripe but . . .

As we previously stated, all candidates for CPO are advanced strictly according to their final multiple standing provided they fulfill all requirements for advancements. This includes attaining a passing score on the examination.

It is possible in some instances for persons who fail their examination to get a higher final multiple than others who pass. That’s what happened in the case you cited. If you pay close attention to the examination results sent out by the Examining Center, you’ll notice that in addition to giving your final multiple they will show whether you failed or passed your exam.—En.
Temporary and Permanent WOs

Sir: I have four questions: Can temporary or permanent warrant officers voluntarily revert from one status to another? If so, when? When can a temporary WO become eligible for permanent appointment? I understand that if an enlisted man in the E-6 pay grade is temporarily appointed WO, and involuntarily reverted, he could only be set back to the E-7 pay grade. Is this correct?—C. A. J., YM1, (SS) USN.

- A temporary warrant officer may revert to the enlisted status; permanent WOs may not.
- The temporary warrant may request at any convenient time to go back to the enlisted status.
- A WO in a temporary status need not continue as such for any certain length of time before becoming eligible for a permanent appointment; but the former status does not necessarily lead to the latter.

A man in the E-6 pay grade who is temporarily appointed a WO may be promoted to E-7 upon completion of his tenure in the warrant grade. He must, however, have the required amount of time in the E-6 grade and be recommended by his commanding officer before his reversion to qualify for this jump in pay grade.

This subject is covered in BuPers Inst. 1437.B.—E~.

K-9s in WW II

Sir: I have a few questions regarding the dogs used by the Army during World War II. Were the K-9s insured for 10,000 dollars with the beneficiary being the owner of the dog? Did the dog and its trainer receive corresponding pay with the dog’s pay going to the owner? And were the dogs progressed in rank at the same time as their trainers? I would also like to know what the ration allowance for a dog was per month.—A. H. E., AO1, USN.

- Dog-gone if you don’t ask some rough questions. According to official Army sources dogs were not advanced in rank nor were their owners paid on the same basis as the Army trainers. Also the dogs were not insured for 10,000 dollars.
- The amount of rations for the K-9s depended entirely upon the current prices of meat and dog biscuits. One and one-half pounds of each was the basic ration for a dog.—ED.

Next Step Up the Navy Ladder

Sir: I participated in the special examinations in November for critical or emergency rates and was rated in Feb. ’57.

Will I be permitted to take my exam for second class in August or November?—J. F. B., RM3, USN.

- If you were rated PO3 (E-4) on 16 Feb 1957, you will be eligible so far as service requirements (time in pay grade) are concerned, for advancement to pay grade E-5 on 16 Feb 1958—when you have completed at least one year in pay grade E-4.

This means you’ll be eligible to participate in the February ’58 exams and be advanced in May ’58 if qualified in all other respects. Even if you fulfilled your service requirements at an earlier date, Feb ’58 would be the earliest you could take your exam, as examinations for pay grade E-3 are conducted only twice each year—February and August.—ED.

Making Permanent Chief

Sir: I have been puzzled as to what’s necessary to have my acting CPO appointment made permanent. Do I have to initiate action or what?—G.E.L., MMCA, USN.

- Well, Chief, if you have completed three years’ service in pay grade E-7, your CO should submit a request to the Chief of Naval Personnel recommending that you be issued a permanent appointment. Paragraph (9) of Part 1 of Enclosure (2) to BuPers Inst. 1430.7C spells out the normal procedure.—Ed.
LOOK SHARP -

HAIR—Keep sides and back closely trimmed. Top hair to be not more than three inches long. Shave daily.

NAME SLEEVE MARKS to be worn on the right sleeve of blue dress and white jumpers by all shipboard enlisted personnel below CPO. Marks shall be worn parallel to and with top edge ¾" below lower row of stitching on right shoulder seam centered on the outer face of sleeve.

HAT—Wear squarely on head, button edge horizontal. Do not roll, bend or crush brim. Keep spotless. Replace when permanently spotted or frayed. Wear your correct size. Wear white hat with diagonal woven seam of brim to the rear.

NECKERCHIEF—Press and roll only. Do not press flat after rolling. Upper edge of knot should be even with point of V on the jumper. Tie large knot. Knot ends even.

PROPER FIT—Uniforms must be made according to regulations. Avoid tailor-mades that are too form-fitting that you will soon grow out of them. Cloth should fall straight. Keep them neatly pressed.

BREAST INSIGNIA—Wear centered and immediately above ribbons.

RIBBONS—Wear regulation only. Don't use cellophane covered or plastic impregnated types. Wear in proper order. Bottom row ½" above pocket and centered. No space between rows.

UNDERSHIRT—Wear regulation style only, clean, close-fitting and not hayed.

NAME SLEEVE MARKS is not worn unless specified in plan of the day.

SHIRT—Should not be worn unless specified in plan of the day.

JUMPER—Should fall flat (not form-fitting) and should cover all but lowest side button of trousers. Should hang naturally with no break and bottom front barely touching bottom part of shoe lacing.

TROUSERS—Check proper length. They should hang naturally with no break and bottom front barely touching bottom part of shoe lacing.

SOCKS—Wear regulation black only. White no longer authorized.

SOCKS—Wear regulation black only. White no longer authorized.

POSTURE—The straighter you stand the better you look. Hold that waistline in. Shoulders back!

SHOES—Keep them in good condition. Solid soles and heels.

DRESS BLUES

UNDRESS BLUES

Prepared by ALL HANDS Magazine
WEAR IT RIGHT!

INSIGNIA—Only military insignia are authorized on the uniform. Check Uniform Regulations for position.

WHITE HAT—Wear square on head with bottom edge horizontal. Do not roll, crush, or bend brim. Wear your correct size. Wear with diagonal woven seam to the rear. Keep spotless. Replace when permanently spotted or frayed.

PERSONAL GEAR—Pencils, identification cards, cigarettes, jewelry, wallets, should not be carried where they can be seen. Wrist watches, ID bracelets and inconspicuous rings are permissible.

BLUE WORKING CAP (baseball type) is now authorized for wear with durgases.

STENCIL with care in proper place. See ALL HANDS Magazine August 1955 for complete details on stenciling all your gear.

"IRON-ON" RATING BADGE worn by all petty officers except CPOs. Center vertically between elbow and shoulder line. Raw edge of badge to be lined up with the side view center line of sleeve.

NECKERCHIEF—Press and roll only. Do not press flat after rolling. Upper edge of knot should be even with point at V on the jumper. Tie a large knot. Keep ends even.

NECKERCHIEF is worn with undress whites unless otherwise specified in plan of the day.

RATING BADGE and other insignia should be worn in accordance with Uniform Regulations.

SLEEVES should be long enough to reach the wrist joint. Do not roll up. Cuffs should be buttoned at all times. For exceptions, see your safety manuals.

BELT—Wear regulation black web only with regulation buckle.

BELT—Wear regulation white web only with regulation buckle.

DUNGAREE TROUSERS—Should be clean and not torn or frayed. Bottom edge should be cuffless and neatly hemmed. Do not roll or fold up bottom except when job requires it.

SOCKS—Wear regulation black only. White no longer authorized.

DUNGAREES

SHOES—Keep them as clean and as smooth and as shiny as possible. Check each shoe for condition and tread. Keep your shoes in shape. See ALL HANDS Magazine, November 1955 for details.

UNDRESS WHITES

FOLDING YOUR UNIFORM properly helps to insure neatness. See ALL HANDS Magazine, September 1955 for details.
Sixth Fleet's Sailors and

AMPHIBIOUS LANDING CRAFT, “Sea soldiers” and naval support ships have all been combined in drill to give another resounding wallop in beach landings.

Sixth Fleet sailors and Marines demonstrated how they keep in training during Fleet assault maneuvers on the beach at Porto Scudo, Sardinia. The exercise was labeled MedLandEx.

For two days before “assault” day, minesweepers such as USS Sagacity (MSO 469), Vital (MSO 474), Pinnacle (MSO 462) and Nimble (MSO 459) cleared the landing lanes, while underwater demolition teams from USS Burdo (APD 133) removed obstacles and provided beach reconnaissance. Shallow-water areas of mines were cleared by using small landing craft especially equipped with minesweeping gear.

Marines taking part in MedLandEx were put ashore by a 14-ship amphibious task force. Landing exercises were designed to give training in various phases and techniques of amphibious warfare to both sea soldiers and bluejackets operating
amphibious ships. Wearing full combat uniform, the men received instructions on invasion procedure.

Poised off shore with strong-arm support were USS Salem (CA 139), Wadleigh (DD 689), Remey (DD 688), Monssen (DD 798), and Cassin Young (DD 793).

Close air support for the “assault” landing was furnished by the Attack Carrier Force of the Sixth Fleet.

Amphibious Beach Groups landed with the troops on the assault beach during the operation and helped make possible the smooth transition of an amphibious invasion from a water-borne to a land-borne operation. They set up radio communications on the invasion beaches, salvaged disabled landing craft in the surf zone and beach area, brought in the gear for unloading heavy vehicles, and directed traffic in the beach area—boat traffic in the surf zone and vehicular and personnel traffic across the beaches themselves.

Two hours after the first boat wave hit the beach, Marine troops had steadily progressed inland to join forces with other Marine units north of the objective area. This clinched a job well done.
FUELING AROUND THE MED—USS Mississinewa (AO 144) returned to the States after a year with Sixth Fleet leaving a record she can be proud of.

Zuni Joins the Fleet

A new five-inch, high-velocity aircraft rocket named Zuni has been approved for operational use in the Fleet. It will replace the World War II “HVAR” (High Velocity Aircraft Rocket) in new, high-performance aircraft.

The new rocket has twice the velocity of the HVAR and its folding fins permit a plane to carry four times the former number of rounds.

Zuni was developed for the Bureau of Ordnance by the Naval Ordnance Test Station, China Lake, Calif. It is a folding-fin, solid-propellant rocket to be used on fighter and attack-type aircraft and is designed for both air-to-ground and air-to-air attack.

Extensive testing of Zuni has been conducted. These tests have proved that Zuni, in air-to-ground attack, will be effective against tanks, pillboxes, gun emplacements, trains, motor convoys, ammunition and fuel dumps, and small ships. As an air-to-air weapon, it will have a high kill-potential against aircraft because of its high velocity and consequent short time to target. One Zuni is capable of bringing down a jet plane.

The Naval Ordnance Test Station also developed the Zuni launcher, which holds four rockets and is used for transporting and storing the rocket as well as launching it. This will result in greater speed in rearming planes as they return to their bases between combat strikes and will, at the same time, bring about considerable money savings by eliminating the need for the conventional packing crates.

Accomplished Miss

When USS Mississinewa (AO 144) returned to the United States after a year in the Mediterranean area with the Sixth Fleet she probably left a record behind her that other tankers will find difficult to break.

Her accomplishments included refueling over 700 ships in her first nine months; 26 of these in one 24-hour period. In another 24-hour stretch she transferred 89 passengers by highline.

Her refueling operations were done in broad daylight with perfect weather as well as in the middle of the night with darkened ship and 40-knot winds. The task of transferring 1,000,000 gallons of fuel to carrier USS Forrestal (CVA 59) was not too big for Mississinewa. On the other hand, no job was considered too small, as she also delivered to minesweepers and smaller ships.

DD to the Rescue

Destroyers always make a good appearance slicing through the high seas, but one Sixth Fleet DD looked especially handsome to the crew of a coastal vessel fighting rough seas off the south coast of Italy.

The destroyer USS William C. Lawe (DD 763) was en route with three other destroyers from Valencia, Spain, to Taranto, Italy, when an “SOS” sent her racing at flank speed to the assistance of the Italian coastal vessel Giacomo H. Altieri which was sinking 20 miles off Cape Bonifati, Italy.

Lawe was 80 miles from the sinking ship when she received the distress signal.

Altieri’s hull had been ruptured by the rough, high seas, which flooded her lower decks and were to send her to the bottom not more than three hours later.

On approaching the disaster scene, the destroyer was guided by two Italian seaplanes to a 12-foot dinghy carrying seven men and a dog, survivors of Altieri.

The ship’s master, carrying the ship’s papers and logs, reported the dog was the first to discover the ruptured hull and also the first to
sight the rescuing destroyer steaming through 10-foot waves toward the dinghy.

After taking men, dog and dinghy aboard, Lawe reversed course to Messina, Sicily, original destination of the sunken ship.

**Fueling Around in Mid-Air**

Fighters and attack bombers can be quickly converted into aerial tankers, thanks to the new self-contained refueling unit now available for naval use. The in-flight refueling tank, carried under the fuselage, has been flight tested and is in production.

The torpedo-shaped aluminum unit is approximately 17 feet in length, is powered by a ram-air turbine driven by a four-bladed propeller on the nose, and contains hydraulic motors, fuel pump, a flexible hose on a reel, a collapsible drogue and, of course, fuel. The tank can be jettisoned in an emergency.

The Navy has selected this unit for use on the propeller-driven AD Skyraider attack bomber and the A4D Skyhawk, midget jet bomber.

The refueling operation is controlled by the pilot of the airplane carrying the unit. Refueling is accomplished by the probe-and-drogue method.

The Navy is considering the usage of the tank for the so-called “buddy-mission,” whereby two airplanes of the same type deploy together, with one refueling the other at mid-point and then returning to base.

Should an aircraft carrier or airfield be fog-bound, for instance, or a carrier-deck be temporarily unavailable for landing, airborne planes could be kept aloft for extended periods by refueling from this tank.

**Super-Radars to Guide Missiles**

Super-radars have been installed aboard USS Canberra (CAG 2) for guidance of her Terrier missiles. The massive, turret-like antennas for the new radar, resembling a gigantic searchlight, will provide the Navy's newest missile ships with added punch and power through increased accuracy and range.

The new radar system (called SPQ-5) gives exceptionally high performances for tenacious, stable guidance of supersonic missiles whether fired singly or in salvos.

The two SPQ-5 systems aboard Canberra combine many automatic radar functions in each unit. Either system can control the missiles from a single launcher or battery which fires the Terrier missile, or both radars can track different target groups simultaneously.

The SPQ-5 systems include flexible modes of scanning air-space miles beyond the horizon, providing the advantage of early warning. Individual targets can be selected from close-flying groups and tracked at great distances, while the missiles are launched and guided with extreme accuracy.

**Nuclear Cruiser Contract**

Work on the nuclear-powered guided missile cruiser (CGN) has taken another definite step forward with the contract award of the main propulsion turbines and gears. Announcement of the contract award for the construction of the ship was made in October 1956.

The present contract includes construction of the propulsion turbines, steam separators, reduction gears, condensers and associated turbine equipment.

Twin screws will propel the ship. The cross-compound steam turbine will drive double-reduction, locked train gear sets for each shaft. The propulsion gears will be of a design which has been incorporated in five of the nation's largest attack aircraft carriers.

The saving in weight gained through the use of such gears will increase the ship's capacity for carrying more electronics and fire control equipment.

**New Director for Waves**

The Waves will have a new director in August. CDR Winifred R. Quick, USN, succeeds CAPT Louise K. Wilde, USN, who has held that post since June 1953.

At present, CDR Quick is stationed in London where she is attached to the staff of the Commander in Chief, U.S. Naval Forces, Eastern Atlantic and Mediterranean. When she assumes her new post, she will become the fifth director to head the Waves since women entered the Navy in July 1942.

CAPT Wilde and CDR Quick were members of the first class for Waves at midshipman school in Northampton, Mass.

**PIONEERS of Navy's future nuclear powered Fleet, USS Seawolf, SS(N)575, and USS Nautilus SS(N)571, head to sea.**
STILL GOING STRONG—USS Hancock (CVA 19), showing effects of Japanese suicide plane, leads in donations for Navy-Marine Memorial Stadium Fund.

Stadium Fund Nears Half-Way Mark

Two Fleet units—USS Hancock (CVA 19) and Lake Champlain (CVA 39)—have replaced "Boston Homage Richard" (CVA 31) as leaders in the Navy-Marine Corps Memorial Stadium Fund donations and have also replaced SubPac in largest donations per man.

Hancock of AirPac has forwarded $6500 and Lake Champlain of AirLant has donated $5000 to the Fund. Many other units are being heard from for the first time; others are increasing their initial contributions. A pledge of $1000 for a plaque has been received from former crew members in the name of uss Barb (SS 220) which accounted for more than 250,000 tons of shipping sunk and damaged during World War II. Loaned to the Italian government in 1952, Barb is now known as "Henrique Tazzoli."

The total donations received as of 1 June amounted to $402,380 toward the $2,000,000 set as the goal of the Drive. These donations from ships and stations, added to the $1,000,000 set aside toward the project by the Naval Academy Athletic Association, give the fund a total of $1,400,000 of the $3,000,000 needed to build the Stadium.

Based upon the reports received, below are listed the ships and stations who are the leaders in their class as of 1 June:

- USS Hancock (CVA 19) $6,500.00
- USS Lake Champlain (CVA 39) $5,000.00
- USS Leyte ( CVS32) $777.00
- USS Tarewa (CVS40) $500.00
- USS Thetis Bay (CVHA1) $1,200.00
- USS Seaplane (CVL48) $1,000.00

BIG CONTRIBUTORS—Marines from around the world have come through with gifts for Stadium Fund.
Turbo-Catapult

A revolutionary new method of launching high-speed aircraft from short airfields in less than one-fifth of their normal take-off runs has been made possible by a turbo-catapult powered by six jet engines, developing 60,000 horsepower.

The engines are arranged in a circle with the exhaust gases flowing into central launching turbines that drive a drum cable system mounted on the same drive shaft. With the engines set at a predetermined rpm, the flow gate, diverts the powerful exhaust gases into one of the launching turbines.

The drum cable system drives a shuttle guided in a track in the runway with the aircraft attached to the shuttle by means of a bridle such as those used on carriers.

Aircraft boosted by the turbo-catapult can attain flying speed long before it could be reached using only their own power.

The turbo-catapult, which is only one-fifth the weight of a comparable steam catapult, has the advantage of using readily available jet engines. Economy is derived by using jet fuel or low-grade gasoline now on hand.

It has no clutches or complicated gear boxes and is basically simple. Any aircraft fitted for carrier operation can be launched from the turbo-catapult without modification.

Tops in Trampolin and Tumbling

LTJG Jeff Austin, Physical Fitness and Survival Instructor at the U.S. Naval School of Pre-Flight, Pensacola, Fla., has capped first place honors in both the tumbling and trampolin competition at the 1957 National AAU Tournament.

The 24-year old JG has completed a feat which no other American has ever accomplished—placed first in both the NAAU tumbling and trampoline events.

Victory for LTJG Austin, however, was three years in the making. He was runner-up in trampoline and third in tumbling during the 1955 and ’56 national finals. This year, persistence paid off and the climax came during the National AAU Tournament at the University of Chicago.

One might say that LTJG Austin—literally and figuratively—“tumbled” into marriage since his wife, the former Susan C. Hill, was the runner-up in the 1955-56 NAAU Women’s Tumbling Championships.

JULY 1957
A device that locates Arctic crevasses—camouflaged "canyons" which can consume men, equipment and supplies—has been developed by Army Engineers. The unit creates an electromagnetic field which is distorted by the presence of a crevasse.

Basically, the device consists of four "electrodes" placed at approximately 20-foot intervals. Its motive power is a Weasel, an over-snow vehicle that carries special electronic equipment, moves three electrodes in the form of disk-shaped sleds about four square feet in size, and acts as an electrode itself.

The search head is pushed ahead of the Weasel. The other sleds are towed behind. The rearmost sleds combine to create the electromagnetic field. Power is provided by a generator.

In operation, the driver keeps a watchful eye on a special recorder as the Weasel moves over the ice. So long as the meter stays steady, it means the terrain is uniform. When the search head reaches a crevasse, the difference in the air in the crevasse and the surrounding area causes a noticeable change in the recording. The alarm is distinct when the Weasel is about 10 feet from the danger point.

Since the vehicle travels only about three-to-five miles an hour, this is sufficient warning.

The detector located all known crevasses and some new ones during tests covering more than 100 miles of the Greenland Ice Cap last summer. A detector made from Army Engineer drawings has also been used by Task Force 43 operating in the Antarctic.

The glow of the night-time sky does not entirely depend on the moon. Carrying on the rocket experiments at Alamagordo, N. M., an Air Force research team has verified the theory that the light of the night sky is due to a photochemical process involving sodium vapor in the upper air.

Scientists have long known that moonlight and starlight alone could account for only a fraction of the light reaching the earth from the sky at night. Sensitive instruments could detect the night-time glow characteristic of the sodium element. A recent rocket experiment at the New Mexico site has now revealed data about the cause of the sodium glow.

Previous rocket flights furnished studies of sodium behavior at twilight when the sodium vapor, ejected from a rocket at high altitudes, was still in the direct rays of the sun. The New Mexico flight, however, was a true night-time sodium emission experiment, the first of its kind.

When the rocket reached an altitude of 30 miles, sodium vapor release was begun. This continued to the peak of the trajectory at 85 miles and back down again to 45 miles. Approximately four pounds of sodium vapor had been distributed along the rocket's trajectory.

A yellow trail clearly visible to the eye was formed in the region from 30 to 60 miles in both the upward and downward portions of the rocket trajectory. Above 60 miles, however, there was no visual effect produced by the sodium.

The visible portions of the trail were photographed by special cameras. These cameras allow for the determination of the altitude and motion of the trail.

The rate at which the glow faded, the intensity at various altitudes, and the sharp upper limit of the visible glow will furnish Air Force scientists information which may help them to determine the exact processes which take place in the upper air.

An emergency partial pressure suit for high-altitude flight has been announced by the Air Force.

The new suit, which comes in two versions, already has been used successfully for several record flights. It was used by Air Force pilots flying the X-2 rocket research aircraft; it was used by a naval officer, LCDR M. Lee Lewis, USN, and a meteorologist for the Office of Naval Research, Mr. M. D. Ross, who set a balloon altitude record of 75,000 feet (ALL HANDS, January 1957, page 17), and by another Air Force officer who ascended to 198,770 feet in an altitude chamber test.

The suit gains its comfort and mobility from an improved design. With only 12 standard sizes almost any man can be fitted perfectly. This is accomplished by two sets of lacings down the front, which can be tightened or loosened to mold the suit to the contours of the body. The result is a garment that permits almost normal breathing.

In the assembly, which includes a pressurized helmet, all electrical leads are carried in one small hose. One version, the MC-3, is designed for bomber crewmen, while the MC-4 has a built-in anti-gravity suit for fighter pilots. Both also include pressurized gloves.
THE AIR FORCE has worked out designs for a new coupling device that makes refueling in flight faster and safer.

This new coupler increases the rate of fuel flow and reduces the amount of fuel spilled during aerial refueling. It is the first standardized Air Force refueling coupler and will be used with future tactical fighters having the probe-drogue refueling system.

With the coupler it is possible to increase the maximum rate of fuel flow from 300 to 1200 gallons per minute. As a result, probe-drogue refueling time has been cut about 75 per cent.

Aerial refueling is made safer by the reduced amount of fuel spilled. The coupler spills only about 25 cubic centimeters of fuel during normal operation as compared to some 400 cubic centimeters spilled by earlier devices.

A GIANT SOLAR FURNACE that can concentrate the sun's rays to produce temperatures comparable to those of an atomic explosion is to be erected at Natick, Mass., by the Army.

Designed to test materials intended for protection against the thermal effects of nuclear weapons, the furnace is expected to reduce the time and cost of development.

A solar furnace collects the sun's rays and directs them into a small target area just as a magnifying glass produces a hot-point focus.

Present standard sources of intense heat, such as high-current electric arcs, gas-fired panels, and burning magnesium are not adequate for present day experiments.

Consisting of four elements occupying an area 125 feet by 40 feet, the sun furnace has an automatic positioning device keeping the system aimed directly at the sun at all times.

At one end of the assembly is a tremendous mirror which receives the sun's rays and reflects them to another bank of mirrors.

The rays are channeled into a chamber in a four-inch beam where articles can be exposed to the heat.

TRANSPARENT RUBBER is being tested by the Air Force as a way to beat the heat on airplane windshields.

The rubber will be used as an interlayer in windshield glass of new supersonic aircraft. With this new material airplane windshields will be able to withstand twice as much heat from air friction at high speeds.

Since airplanes have surpassed the speed of sound, surface temperatures have greatly increased. Frictional heat can reach such intensity that the flexible, transparent plastic now used as a windshield layer softens and begins to lose strength. When its strength is gone, the interlayer is unable to prevent the glass from shattering if cracked.

The new rubber interlayer retains adequate strength up to 350 degrees Fahrenheit as compared to the 180-degree Fahrenheit limit on present plastic interlayers.

At the other end of the temperature scale, the new interlayer retains its shatter-resistance properties at the sub-zero temperature of 65 degrees Fahrenheit, whereas the present interlayer becomes brittle and possesses no shatter resistance at that temperature.

The rubber interlayer is a bit cloudier than the plastic material and up to 160 degrees Fahrenheit has less shatter-resistance. However, strength of the plastic interlayer falls off so sharply that at 200 degrees Fahrenheit the rubber interlayer is already more than twice as effective.

THE ARMY TRANSPORTATION CORPS is experimenting with an outsize rubber bag known as a “rolling fluid transporter” for moving bulk liquids and fuels.

The transporter consists of a series of collapsible fabric reinforced rubber bags centered on axles connected with a towing yoke. Several can be towed with no loss of cargo space of the truck body, or need for heavy equipment to lift them aboard.

When towed behind vehicles, the transporters present no greater problem of maneuverability than those encountered in handling conventional auto trailers. Although a transporter has a capacity of 500 gallons and weighs 4100 pounds fully loaded, six can be towed on level ground by a conventional jeep.

Eleven were used last summer at Thule Air Base, Greenland, moving fuel 1100 miles over snow and contributed greatly to the Arctic transportation operations.

NEW TYPE LOCATOR—Army's new radar mortar locator uses beam technique to spot enemy mortar placement.
THE WORD

Frank, Authentic Advance Information
On Policy—Straight From Headquarters

- NEW OFFICER CAREER SECTION—
A Reserve Officer Career Section (Pers Bblf formerly B15r) has been established in the Aviation Liaison Branch of this Bureau.

The new section has been set up to provide information concerning increased opportunities for Naval Reserve officers in grades up through lieutenant, with date of rank for lieutenant of not earlier than 1 Jul 1953, to return to or remain on active duty. Opportunities include improved promotion plans, special training and indefinite retention on active duty.

The section will provide current, factual information on every facet of these subjects to commands, groups and individual officers; and will encourage and assist those interested in returning to or remaining on active duty.

Aviators interested in this program may write to the Chief of Naval Personnel (Attn. Pers Bblf).

- OFF TO COLLEGE SOONER—You may now be separated from the Navy up to three months early to resume or begin your college education. Earlier, 30 days was the maximum.

There are, however, certain requirements which govern your chances for an early separation. The first, which should be submitted in writing by either the applicant or a college or university official, is proof of undue handicap if you are unable to commence or continue your schooling until after the date of expiration of your active service.

For instance, if you are scheduled to be separated in November 1957 and the school to which you apply for entrance could not then accept you until September 1958, an “undue handicap” is recognized.

The school you plan to attend must be a recognized, accredited institution of higher education at which your course of instruction will lead to a baccalaureate degree or higher (i.e. a Master’s degree or Ph.D.). The Chief of Naval Personnel will determine if the selected college or university meets these standards. Trade schools, night schools, or part-time schools are not included in the accredited category.

Your conduct and performance of duty while in the Navy must have been “sufficiently meritorious to warrant special consideration.”

Requests should be made to the Chief of Naval Personnel via your commanding officer not more than three months before the date on which you request separation. You will not be separated more than 10 days before classes at your college or university convene.

Details may be found in BuPers Inst. 1910.12A. Provisions of the instruction are only applicable to enlisted personnel.

- EMERGENCY SERVICE RATINGS—
Six new selective emergency service ratings have been activated for E-4s. They are: Fire Control Technician G (Missile Guidance Systems), Aviation Electronics Technician R (Radar), Aviation Electronics Technician S (ASW), Aviation Electronics Technician N (Communications and Navigation Equipment), Trafficman R (Repairman) and Trafficman I (Instructor).

Complete information may be found in Change No. 3 to BuPers Inst. 1223.1.

- OPEN MESSES OPENED FOR E-5s and E-6s—Shore commands may now establish open messes for petty officers in pay grades E-5 and E-6. This will give the top three enlisted pay grades club privileges comparable to those of noncommissioned officers of the other services.

Where possible, these messes will be quartered in separate buildings or in portions of EM Club buildings restricted for their exclusive use. Appropriated funds for construction of new mess buildings or for alterations to existing EM Clubs may be used according to regulations.

Commanding officers may submit requests to the Chief of Naval Personnel for approval of expenditure of local recreation funds in excess of $5000 where appropriated funds are not available.

The Board of Administrators of the BuPers Central Recreation Fund will consider requests for loans, when funds are not available from local or command recreation funds. However, don’t let your dreams of future glory run away with you. Present demands upon the BuPers Central Recreation Fund are so great as to make it difficult to authorize grants or loans for construction of new buildings or large-scale alterations to existing buildings.

The official details may be found in BuPers Notice 1746 of 17 Jan 1957, SecNav Inst. 7310.1A, and the Manual for Chief Petty Officers Messes and Enlisted Men’s Clubs Ashore, 1955 (NavPers 15500).

- ENLISTED PROMOTIONS HIGH—
The advancement of more than 58,000 enlisted men has been authorized by the Chief of Naval Personnel as a result of the February 1957 examinations. An additional 5819 non-rated men have been designated strikers.

Here’s a breakdown of the over-all enlisted promotion picture: CPO—5745; PO1—4785; PO2—20795; PO3—26900.

All PO1, PO2 and PO3 promotions and striker designations will be effective 16 June. The new chiefs will get their hats in five groups, with the first being rated on 16 June.

Additional E-4 promotions resulting from 2 May exams are forthcoming for those in 38 “critical” ratings. It is planned to rate all who pass.

- LIABILITY INSURANCE—All naval personnel must have adequate automobile liability insurance before they can be issued a permanent permit to drive their cars on any naval installation. This requirement was made a part of the off-duty traffic safety program for all service members who operate their own automobiles.

Certain states now require the owner of a motor vehicle to have public liability insurance coverage before he is allowed to register his car; other states require a driver to prove he is covered by liability insurance or show other evidence of financial responsibility if he is involved in an accident.

If you are unable to obtain adequate liability coverage from a commercial agency you may take out an “assigned risk” policy from the state in which you reside and in which you make application to your State Insurance commissioner.
UNIFORM CHANGES — Five further uniform changes have been approved by the Secretary of the Navy.

Authorization to wear ship name sleeve marks has been extended so that enlisted personnel below the grade of CPO may wear the identifying marks of their units while serving with aircraft squadrons.

The specialty mark for the new general rating of Nuclear Weapons Man will be a falling bomb with two electrons revolving around it. The new specialty qualification of deep sea diver will have a distinguishing mark composed of a diving helmet and breastplate with the letter D centered in the breastplate.

Also, the U.S. Navy Band has been authorized to wear a new parade uniform which consists essentially of: a gold-colored, single breasted coat with standing collar, waist belt and shoulder marks; dark blue trousers with gold stripe and a combination cap with gold-colored band and black, patent leather chin strap.

Another change, of interest to officers, provides that the white scarf, formerly an optional article of uniform, is now required. Also, officers may wear academic regalia above the BA and BS degree level with the naval uniform upon occasions of academic ceremony. This authorization does not apply at USNA graduation exercises.

RIGHTS AND BENEFITS ISSUE — The Chief of Naval personnel has ordered reprint of the entire contents of the 80-page May 1957 issue of ALL HANDS to be distributed to every man and woman on active duty.

It will be issued in the same format, but will be titled Rights and Benefits of Navymen and Their Dependents (NavPers 15885-A). You may expect to receive your personal copy some time after mid-August.

OFFICER FACT BOOK — Information concerning the Navy as a career for young officers has recently been made available in the Officer Fact Book (NavPers 15898).

Distributed to all commands and senior officers for their use in counseling, the book provides factual information on the Navy as a profession and a way of life for all Regulars and Reserves, no matter what their designator.

Included among the subjects discussed are: Career, retention and recall opportunities; active duty officer programs; promotional opportunities; educational opportunities; assignment and rotation patterns; Navy pay and allowances; and benefits.

BuPers Notice 1040 of 9 Apr 1957, reminds each command that it has a continuing responsibility for insuring that each officer is aware of the opportunities, responsibilities and rewards offered by continuous active duty. The book is issued in loose-leaf form, to permit revision each year.

There are plenty of sea duty billets available for women Hospital Corpsmen. The eligibility list for duty aboard dependent-carrying MSTS transports is depleted at present and, if you meet the qualifications to be found in BuPers Inst. 1306.10B, you may expect almost immediate assignment. Submit your letter request to the Chief of Naval Personnel (Attn: Pers B21222).
Latest Navy Uniform Changes Approved by SecNav, Include New Insignia, Medals

Ten recommended changes to the U. S. Navy Uniform Regulations submitted by the Permanent Uniform Board have been approved by the Secretary of the Navy.

The changes include approval of additional officers to wear the musician's lyre, a new boilermaker insignia, wearing of large medals by enlisted personnel, authorization to wear the Merchant Marine World War II Victory Medal and adoption of a smaller officer and chief petty officer tie clasp.

The insignia for the newly established boilermaker rating will be similar to the present boilerman specialty mark, but will have a wrench superimposed. Wearing of large medals by enlisted personnel on dress blue and white uniforms upon the same occasions and in the same manner as now applies for officers will be required on the following dates: chief petty officers, 1 Jul 1957; first class petty officers, 1 Jan 1958; second class petty officers, 1 Jul 1958; third class petty officers, 1 Jan 1959; and nonrated personnel, 1 Jul 1959.

Personnel appointed to commissioned grade for temporary service in the Navy Music Organization and Warrant Officer Bandmasters are now authorized to wear the musician's lyre. Earlier, only leaders and assistant leaders of the Navy Band and Naval Academy band and the officer-in-charge of the School of Music could wear the lyre.

Added to the list of awards authorized for wear on naval uniforms will be the Merchant Marine World War II Victory Medal, which will take precedence after the Merchant Marine War Zone Bars.

A gold, undecorated bar style tie clasp, long enough to cover the tie, will replace the present clasp. Knee-length socks were approved for wear with tropical khaki and tropical white uniforms for male officers and chief petty officers.

The U. S. Navy Band (based in Washington, D.C.) will now have a winter and summer concert uniform consisting basically of a blue or white jacket, blue trousers, cummerbund, white shirt and black bow tie to replace the present full dress uniform.

Personnel attached to outstanding Naval Reserve units which have won National Trophies will be authorized to wear the Navy "E" during the year following annual competition. A specialty mark consisting of the letter "A" centered in a diamond for the exclusive emergency service rating of Aircraft Carburetor Mechanic has been approved. The dungaree jacket will no longer be authorized after 1 Jul 1958.

Philippine Presidential Unit Citation May Now Be Worn, Eligibility Requirements Set Up

Final authority has been granted in BuPers Inst. 1650.7 for certain members and former members of the Navy to accept and wear the Philippine Republic Presidential Unit Citation Badge. The badge consists of a ribbon only.

Units cited by the President of the Philippine Republic were those participating in combat operations in the Philippine Area during World War II and those engaged in the defense of the Philippines between 7 Dec 1941 and 5 May 1942; those units which participated in the liberation campaign during 1944 and 1945; and certain submarines that had maintained physical contact with guerrilla forces during the Japanese occupation of the Philippine Islands.

The ribbon may be purchased at most uniform shops. It will not be stocked or furnished by the Navy Department. Additional distinguishing devices are not authorized for service in two or more cited units.

In precedence, the Philippine Republic PUC ribbon will be worn after United States small-arms ribbons and before the Korean Presidential Unit Citation Badge. This award was officially tendered by the Philippine Government in 1948. However, authority to wear the ribbon at that time could not be granted because the wording in the accompanying citation implied that it had been tendered on the basis of a personal decoration to individuals concerned. A recent review of this situation resulted in a reversal of the opinion, permitting the Secretary of the Navy to authorize wearing of the ribbon.

Verification of eligibility for USN and USNR personnel to wear the ribbon can be made through service record data, orders, or by a sworn affidavit.

If you are an officer and eligible for the award, your commanding officer will issue a letter authorizing you to purchase and wear it. A copy of this letter should be sent to the
Chief of Naval Personnel (Attn: Pers E 2) for inclusion in your jacket. If you are an enlisted man, after being informed of your eligibility and an entry has been made in your record, you may purchase the ribbon.

Marine Corps personnel may go through the same steps as USN enlisted personnel in addition to being informed of your eligibility.

Little Red School House - Overseas

A little over six years ago the doors of a Navy dependents school in Naples, Italy, were opened for the first time. The original student body consisted of 90 children and, recalls one of the original faculty, “We had pupils, teachers and desks, but nothing else.”

Since that time the school has grown to be the largest Navy overseas dependents school in the world. Housed in a modern brown-stone building overlooking the Bay of Naples, it now has 42 classrooms and a large cafeteria which doubles as an auditorium and teen-agers’ club. It also has a year-round program of sports and recreation which includes almost everything from horseback riding to boxing.

But, classrooms, extracurricular activities and the high academic standards it maintains aren’t all this school has to offer, for it’s also giving its students some first-rate lessons in international harmony and understanding.

At latest count there were 1168 youngsters enrolled in the school’s elementary, junior high and senior high classes. Most of these boys and girls are Americans, but 32 of them are children of Greek, Turkish and British personnel stationed at NATO’s Allied Forces Southern Europe headquarters in Naples. A number of Italian children have also attended the school. (Tuition for the foreign students is paid by their parents or governments.)

It is impossible to distinguish the foreign youngsters from their American classmates. They sport saddle shoes, bobby socks, bright plaids and crew cuts, and speak Americanese. They look like the kids you’d see at a school back in the States. A boy from Athens hurries down the corridor, his red lunch box in hand with Davy Crockett’s picture in full display. A Turkish teen-ager chats with her American girl friend about tonight’s movie. Yet, less than a year ago many of these children knew little or no English.

Besides what they learn about foreign countries from their classmates, the American kids get plenty of first-hand knowledge from the field trips which supplement classroom instruction. The Naples area abounds in antiquities of the Roman civilizations, and students make regular trips to Pompeii and Herculaneum, both covered by the eruption of Mount Vesuvius in 79 A. D.; the Royal Palace at Caserta; the world-famous San Carlo opera house; Cumae, where Greek civilization penetrated Italy; and Solfatara, with its pools of hot water bubbling from the crater of a dormant volcano.

Grade-school students watch great freighters from ports of the world being loaded along the Naples waterfront. Some visit the air terminal at Capodichino and other groups tour places like the Naples aquarium and the National Museum.

Almost ever since it opened, the school has been known as the Forrest Sherman school, in honor of the Chief of Naval Operations who died in Naples on 22 Jul 1951. However, it wasn’t until this year that the name became official. Since Admiral Sherman strongly supported establishment of the school and was a great advocate of international harmony, the name couldn’t have been more appropriate.

Correspondence Course in Aviation Medicine Practice

The correspondence course Aviation Medicine Practice (NavPers 10912-A) has been completely revised and is now available for enrollment. It replaces the earlier NavPers 10912-A.

Presented in six assignments, the new course is evaluated at 18 points credit for Naval Reserve personnel. The course covers physiological stresses and requirements; special medical problems in flight; flyers’ equipment; physical and psychological standards in personnel selection and placement; aviation dentistry, and air evacuation.

Applications should be submitted on form NavPers 992 (Rev 2-56 or later) with appropriate change in the “To” line, forwarded via official channels to the Commanding Officer, U. S. Naval Medical School, National Naval Medical Center, Bethesda 14, Md.

JULY 1957
Check These Tables On

Opportunity has gone and come again and, first thing you know, it will be time to consider the possibilities of further advancement in rating.

If you are considering your future in the Navy you might as well make up your mind right now that you'll never become a millionaire unless you manage to get on a quiz program. However, if you're looking for a good, solid career in a responsible profession, the Navy is as good a bet as any. There's always room at the top for a good man.

Here are the hard facts and figures to prove our point.

In Table I you'll find the actual numbers of Navymen, by rate and pay grade, who passed the examinations held in February 1957 and the number who were included in the quota for advancement to each rate on a service-wide basis. You'll find the totals impressive. For example, 39,067 passed the E-4 exam and 26,900 were advanced; 26,393 passed the E-5 exam and 20,795 moved up one step; for the E-6 grade of the 14,137 who passed 4785 were advanced; of the 13,769 who passed the E-7 exam, almost half, or 5745, went shopping for a new uniform and hat.

Tables II and III give estimates of the anticipated results of the August 1957 exams (see page 39-40 for details). These estimates are really shrewd guesses, based on available statistics, study of past performances and a considered estimate of all the variables which might affect the number of men who can be included in the advancement quotas. You should do half as well at Pimlico.

Bear in mind, however, that the information contained in Tables II and III is only an estimate. It is subject to change as circumstances may require, but it will give you as good an indication of your opportunities and the amount of competition as it is possible to provide at this time.

If you give Table III a little thought, you'll come to the conclusion that, in general, advancement opportunities are pretty good. You'll find that, although there is some decrease in advancement opportunities in some rates, there are 29 E-4, 30 E-5 and 26 E-6 rates in which it is expected that all or nearly all who
Advancement Odds

pass the examination will be advanced.

Take a good hard look, for example, at the advancement opportunities in the QM, SM, RD, SO, RM, CT, MM, IC, CE, UT, AT, AQ, AC, AE and AM ratings. Advancements to those rates where there are no limiting quotas will be determined strictly upon your own merits. Pass the exam, and you're in. If you're not in those ratings, things will be a little tougher. You'll have competition for your higher billet and may the best man win.

Here Are Three New Enlisted Correspondence Courses

Three more new Enlisted Correspondence Courses are available.

Enlisted Correspondence Courses will be administered (with certain minor exceptions) by your local command instead of by the Correspondence Course Center.

If you are on active duty, your division officer will advise you whether the course for which you have applied is suitable to your rate and to the training program you are following. If it is, he will see that your application (NavPers 231) is forwarded to the Correspondence Course Center, which will supply the course materials to your command for administration.

If you are a Reservist on inactive duty, your courses will be administered by the Correspondence Course Center. Use application form NavPers 560.

The first two courses are: Driver, Chief (NavPers 91576-1) which may be retaken for repeat Naval Reserve retirement credit, and Aviation Ordnanceman 2, Vol. 2 (NavPers 91665).

A new correspondence course, Chief Storekeeper, in seven assignments, is now available to all enlisted personnel in the SK rating.

Chief Storekeeper (NavPers 91433-1) is evaluated at 21 retirement and promotion points. It may be retaken by Naval Reservists on inactive duty for repeat credit.

These two courses have been discontinued: Quartermaster 3, Vol. 2, (NavPers 91285-1) and Quartermaster 2, Vol. 2, (NavPers 91287-1).

**TABLE I (cont.)**
NUMBER WHO PASSED AND ADVANCEMENT QUOTAS FOR EACH RATE AS RESULT OF FEBRUARY 1957 EXAMINATIONS

<table>
<thead>
<tr>
<th>RATE</th>
<th>No. who passed E-4</th>
<th>No. who may advance E-4</th>
<th>No. who passed E-5</th>
<th>No. who may advance E-5</th>
<th>No. who passed E-6</th>
<th>No. who may advance E-6</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQ</td>
<td>—</td>
<td>—</td>
<td>12</td>
<td>12</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>AQP</td>
<td>25</td>
<td>25</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>AQB</td>
<td>14</td>
<td>14</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>GF</td>
<td>31</td>
<td>31</td>
<td>3</td>
<td>3</td>
<td>39</td>
<td>4</td>
</tr>
<tr>
<td>AC</td>
<td>—</td>
<td>—</td>
<td>158</td>
<td>158</td>
<td>59</td>
<td>59</td>
</tr>
<tr>
<td>ACR</td>
<td>16</td>
<td>16</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>ACT</td>
<td>157</td>
<td>157</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>ACW</td>
<td>89</td>
<td>89</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>AB</td>
<td>—</td>
<td>—</td>
<td>587</td>
<td>300</td>
<td>175</td>
<td>5</td>
</tr>
<tr>
<td>ABU</td>
<td>1153</td>
<td>1153</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>ABG</td>
<td>410</td>
<td>410</td>
<td>427</td>
<td>427</td>
<td>125</td>
<td>125</td>
</tr>
<tr>
<td>AEM</td>
<td>565</td>
<td>565</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>AEI</td>
<td>87</td>
<td>87</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>AM</td>
<td>—</td>
<td>—</td>
<td>639</td>
<td>639</td>
<td>330</td>
<td>234</td>
</tr>
<tr>
<td>AMS</td>
<td>885</td>
<td>885</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>AMH</td>
<td>430</td>
<td>430</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>PR</td>
<td>—</td>
<td>—</td>
<td>50</td>
<td>50</td>
<td>366</td>
<td>235</td>
</tr>
<tr>
<td>PRM</td>
<td>86</td>
<td>86</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>PRS</td>
<td>50</td>
<td>50</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>AG</td>
<td>146</td>
<td>146</td>
<td>220</td>
<td>220</td>
<td>59</td>
<td>59</td>
</tr>
<tr>
<td>TD</td>
<td>103</td>
<td>103</td>
<td>209</td>
<td>209</td>
<td>53</td>
<td>53</td>
</tr>
<tr>
<td>AK</td>
<td>857</td>
<td>857</td>
<td>291</td>
<td>291</td>
<td>103</td>
<td>103</td>
</tr>
<tr>
<td>PH</td>
<td>—</td>
<td>—</td>
<td>279</td>
<td>279</td>
<td>88</td>
<td>88</td>
</tr>
<tr>
<td>PHA</td>
<td>136</td>
<td>136</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>PHG</td>
<td>381</td>
<td>381</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>HM</td>
<td>2388</td>
<td>2388</td>
<td>1805</td>
<td>1020</td>
<td>822</td>
<td>53</td>
</tr>
<tr>
<td>DT</td>
<td>362</td>
<td>362</td>
<td>186</td>
<td>186</td>
<td>84</td>
<td>85</td>
</tr>
<tr>
<td>SD</td>
<td>1399</td>
<td>1399</td>
<td>1127</td>
<td>34</td>
<td>646</td>
<td>51</td>
</tr>
<tr>
<td>TOTALS</td>
<td>39067</td>
<td>26900</td>
<td>26393</td>
<td>20775</td>
<td>14137</td>
<td>4785</td>
</tr>
</tbody>
</table>

**TABLE II**
ESTIMATES ON NUMBERS WHO WILL PARTICIPATE AND NUMBERS WHO WILL PASS AUGUST 1957 EXAMINATIONS

<table>
<thead>
<tr>
<th>Rating</th>
<th>To Pay Grade E-4</th>
<th>To Pay Grade E-5</th>
<th>To Pay Grade E-6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Take Exam Pass</td>
<td>Take Exam Pass</td>
<td>Take Exam Pass</td>
</tr>
<tr>
<td>BM</td>
<td>4050 2500</td>
<td>3000 1500</td>
<td>3665 1540</td>
</tr>
<tr>
<td>QM</td>
<td>580 360</td>
<td>520 260</td>
<td>225 95</td>
</tr>
<tr>
<td>SM</td>
<td>475 300</td>
<td>400 200</td>
<td>165 70</td>
</tr>
<tr>
<td>RD</td>
<td>1130 700</td>
<td>1340 670</td>
<td>535 225</td>
</tr>
<tr>
<td>SO</td>
<td>420 260</td>
<td>720 360</td>
<td>295 125</td>
</tr>
<tr>
<td>TM</td>
<td>305 190</td>
<td>420 210</td>
<td>450 190</td>
</tr>
<tr>
<td>GM</td>
<td>2380 1475</td>
<td>1770 885</td>
<td>1965 825</td>
</tr>
<tr>
<td>GS</td>
<td>35 25</td>
<td>90 45</td>
<td>50 20</td>
</tr>
<tr>
<td>FT</td>
<td>1300 650</td>
<td>570 240</td>
<td></td>
</tr>
<tr>
<td>FTG</td>
<td>25 15</td>
<td>170</td>
<td>170</td>
</tr>
<tr>
<td>FTM</td>
<td>210 130</td>
<td>210</td>
<td>210</td>
</tr>
<tr>
<td>FTU</td>
<td>345 240</td>
<td>240</td>
<td>240</td>
</tr>
<tr>
<td>FTA</td>
<td>310 190</td>
<td>310</td>
<td>310</td>
</tr>
<tr>
<td>FTL</td>
<td>100 60</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>FTE</td>
<td>100 60</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>MN</td>
<td>185 115</td>
<td>250 125</td>
<td>145 60</td>
</tr>
<tr>
<td>ET</td>
<td>1700 685</td>
<td>1700</td>
<td>1700</td>
</tr>
<tr>
<td>ETN</td>
<td>405 250</td>
<td>405</td>
<td>405</td>
</tr>
<tr>
<td>ETR</td>
<td>590 365</td>
<td>590</td>
<td>590</td>
</tr>
<tr>
<td>ETS</td>
<td>100 60</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>IM</td>
<td>80 50</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>GM</td>
<td>40 25</td>
<td>40</td>
<td>40</td>
</tr>
</tbody>
</table>

(continued on page 40)
### (TABLE II (cont.))

**ESTIMATES ON NUMBERS WHO WILL PARTICIPATE AND NUMBERS WHO PASS AUGUST 1957 EXAMINATIONS**

<table>
<thead>
<tr>
<th>Rating</th>
<th>To Pay Grade E-4</th>
<th>To Pay Grade E-5</th>
<th>To Pay Grade E-6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Take Pass</td>
<td>Take Pass</td>
<td>Take Pass</td>
</tr>
<tr>
<td>TE</td>
<td>675 420</td>
<td>720 360</td>
<td>320 135</td>
</tr>
<tr>
<td>RM</td>
<td>1410 875</td>
<td>1360 680</td>
<td>475 200</td>
</tr>
<tr>
<td>CT</td>
<td>655 405</td>
<td>1150 575</td>
<td>405 170</td>
</tr>
<tr>
<td>YN</td>
<td>2540 1575</td>
<td>2180 1090</td>
<td>1120 470</td>
</tr>
<tr>
<td>PN</td>
<td>2420 1500</td>
<td>820 410</td>
<td>415 175</td>
</tr>
<tr>
<td>MA</td>
<td>210 130</td>
<td>120 60</td>
<td>120 50</td>
</tr>
<tr>
<td>SK</td>
<td>2080 1290</td>
<td>1430 715</td>
<td>630 265</td>
</tr>
<tr>
<td>DK</td>
<td>525 325</td>
<td>400 200</td>
<td>145 60</td>
</tr>
<tr>
<td>CS</td>
<td>1735 1075</td>
<td>2180 1090</td>
<td>2740 1150</td>
</tr>
<tr>
<td>SH</td>
<td>1855 1150</td>
<td>1260 630</td>
<td>1035 435</td>
</tr>
<tr>
<td>JO</td>
<td>225 140</td>
<td>60 30</td>
<td>35 15</td>
</tr>
<tr>
<td>LI</td>
<td>200 125</td>
<td>140 70</td>
<td>85 35</td>
</tr>
<tr>
<td>DM</td>
<td>200 125</td>
<td>80 40</td>
<td>35 15</td>
</tr>
<tr>
<td>MU</td>
<td>280 170</td>
<td>260 130</td>
<td>95 40</td>
</tr>
<tr>
<td>MM</td>
<td>2740 1700</td>
<td>2900 1450</td>
<td>1010 425</td>
</tr>
<tr>
<td>EN</td>
<td>2500 1550</td>
<td>2000 1000</td>
<td>1370 575</td>
</tr>
<tr>
<td>MR</td>
<td>580 360</td>
<td>450 225</td>
<td>165 70</td>
</tr>
<tr>
<td>BT/BR</td>
<td>3160 1960</td>
<td>1900 950</td>
<td>550 230</td>
</tr>
<tr>
<td>EM</td>
<td>1870 1160</td>
<td>2140 1070</td>
<td>800 335</td>
</tr>
<tr>
<td>IC</td>
<td>550 340</td>
<td>720 360</td>
<td>285 120</td>
</tr>
<tr>
<td>ME</td>
<td>925 575</td>
<td>610 305</td>
<td>560 235</td>
</tr>
<tr>
<td>FP</td>
<td>1085 650</td>
<td>920 485</td>
<td>395 165</td>
</tr>
<tr>
<td>DC</td>
<td>840 520</td>
<td>620 310</td>
<td>595 250</td>
</tr>
<tr>
<td>ML</td>
<td>80 50</td>
<td>30 15</td>
<td>15 5</td>
</tr>
<tr>
<td>SV</td>
<td>65 40</td>
<td>60 30</td>
<td>35 15</td>
</tr>
<tr>
<td>CE</td>
<td>130 80</td>
<td>40 20</td>
<td>20 7</td>
</tr>
<tr>
<td>CD</td>
<td>160 100</td>
<td>160 80</td>
<td>50 20</td>
</tr>
<tr>
<td>CN</td>
<td>645 400</td>
<td>520 260</td>
<td>355 150</td>
</tr>
<tr>
<td>CH</td>
<td>485 300</td>
<td>250 125</td>
<td>130 55</td>
</tr>
<tr>
<td>BU</td>
<td>525 325</td>
<td>400 200</td>
<td>215 90</td>
</tr>
<tr>
<td>SW</td>
<td>135 85</td>
<td>110 55</td>
<td>60 25</td>
</tr>
<tr>
<td>UT</td>
<td>145 90</td>
<td>120 60</td>
<td>120 60</td>
</tr>
<tr>
<td>AD</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>ADJ</td>
<td>1910 1185</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>ADR</td>
<td>2000 1240</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>AT</td>
<td>—</td>
<td>—</td>
<td>1500 750</td>
</tr>
<tr>
<td>ATN</td>
<td>1200 745</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>ATR</td>
<td>700 435</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>ATS</td>
<td>100 60</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>AO</td>
<td>—</td>
<td>—</td>
<td>1090 545</td>
</tr>
<tr>
<td>AOT</td>
<td>210 130</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>AOU</td>
<td>1105 665</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>AQ</td>
<td>—</td>
<td>—</td>
<td>30 15</td>
</tr>
<tr>
<td>AQB</td>
<td>20 10</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>AQF</td>
<td>60 45</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>GF</td>
<td>100 65</td>
<td>10 5</td>
<td>35 15</td>
</tr>
<tr>
<td>AC</td>
<td>—</td>
<td>—</td>
<td>320 160</td>
</tr>
<tr>
<td>ACR</td>
<td>125 75</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>ACT</td>
<td>200 125</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>ACW</td>
<td>120 75</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>AB</td>
<td>—</td>
<td>—</td>
<td>1160 590</td>
</tr>
<tr>
<td>ABG</td>
<td>575 355</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>ABU</td>
<td>1925 1195</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>AE</td>
<td>—</td>
<td>—</td>
<td>860 430</td>
</tr>
<tr>
<td>AEI</td>
<td>550 340</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>AEM</td>
<td>265 165</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>AM</td>
<td>—</td>
<td>—</td>
<td>1280 640</td>
</tr>
<tr>
<td>AMH</td>
<td>380 235</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>AMS</td>
<td>1250 775</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>PR</td>
<td>70 40</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

---

**List of New Motion Pictures Scheduled for Distribution**

**To Ships and Bases Overseas**

The latest list of 16-mm. feature movies available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn 1, N. Y., is published here for the convenience of ships and overseas bases. The title of each picture is followed by the program number.

Those in color are designated by (C) and those in wide-screen processes by (WS). Distribution began in April.

- The Opposite Sex (794) (C)
- Four Boys and a Gun (786)
- The Women of Pitcairn Island (795) (WS)
- Oklahoma (799) (C)
- Oklahoma (799) (WS)
- The Peacemaker (797)
- The Happy Road (798)
- The Girl in Black Stockings (801)
- Scandal Inc. (802)
- Toward the Unknown (803)
- The Teahouse of the August Moon (804)
- Friendly Persuasion (805)
- The Young Stranger (806)
- Don't Knock the Rock (807)
- The Tattered Dress (809)
- Above Us the Waves (810)
- Not of this Earth (812)

**Drama**
- Comedy Drama; June Allyson, Ann Sheridan.
- Drama; Frank Sutton, Tarry Green.
- Drama; James Mitchell, Rose Marie Bowe.
- Drama; Gene Kelly, Barbara Laage.
- Musical; Gordon MacRae, Gloria Grahame.
- Drama; Victor Mature, Anita Ekberg.
- Drama; Lex Barker, Anne Bancroft.
- Drama; Robert Hutton, Paul Richards.
- Drama; William Holden, Virginia Leith.
- Comedy; Marlon Brando, Glenn Ford.
- Drama; Gary Cooper, Dorothy McGuire.
- Drama; James MacArthur, Kim Hunter.
- Musical; Bill Haley, Alan Freed.
- Comedy; Eddie Fisher, Debbie Reynolds.
- Drama; Jeff Chandler, Jeanne Crain.
- Drama; John Mills, John Gregson.
- Drama; Betty Hutton, Dana Andrews.
- Science Fiction; Paul Birch, Bev Garland.
- Drama; Eleanor Parker, Richard Boone.
Scholarship Sponsored for Navy Daughters By Women's Group

A $300-a-year, four-year scholarship for girls has been set up by the Naval Academy Women's Club. To be eligible an applicant must be the natural born, legally adopted, or stepdaughter of a Regular Navy or Marine Corps officer (either on active duty, retired or deceased) or of a USNA faculty member. Preference will be given to daughters of deceased personnel.

The award is made on the basis of scholarship, character and need. It may be used to supplement other scholarships and its annual renewal during the girl’s four-year college career is contingent only on the maintenance of scholastic standards and compliance with the requirements on which the original grant was based.

Application forms may be obtained from the Bureau of Naval Personnel, Washington 25, D. C., or scholarship has been awarded, and the Naval Academy Women’s Club, Annapolis, Md. Final selection of award-winners will be made by the Naval Academy Women’s Club. One scholarship has been awarded, and future selections will be named from applications submitted not later than 20 March of each year.

### TABLE II (cont.)

<table>
<thead>
<tr>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay Grade E-4</td>
</tr>
<tr>
<td>Pay Grade E-5</td>
</tr>
<tr>
<td>Pay Grade E-6</td>
</tr>
<tr>
<td>Pass</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>PRS</td>
</tr>
<tr>
<td>AG</td>
</tr>
<tr>
<td>TD</td>
</tr>
<tr>
<td>TDI</td>
</tr>
<tr>
<td>TDR</td>
</tr>
<tr>
<td>AK</td>
</tr>
<tr>
<td>PH</td>
</tr>
<tr>
<td>PHA</td>
</tr>
<tr>
<td>HM</td>
</tr>
<tr>
<td>DT</td>
</tr>
<tr>
<td>SD</td>
</tr>
</tbody>
</table>

### TABLE III

<table>
<thead>
<tr>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay Grade E-4</td>
</tr>
<tr>
<td>Pay Grade E-5</td>
</tr>
<tr>
<td>Pay Grade E-6</td>
</tr>
<tr>
<td>Advance to</td>
</tr>
<tr>
<td>Pay Grade E-5</td>
</tr>
<tr>
<td>Pay Grade E-6</td>
</tr>
<tr>
<td>Advance to</td>
</tr>
<tr>
<td>Pay Grade E-5</td>
</tr>
<tr>
<td>Pay Grade E-6</td>
</tr>
<tr>
<td>Advance to</td>
</tr>
<tr>
<td>Pay Grade E-5</td>
</tr>
<tr>
<td>Pay Grade E-6</td>
</tr>
</tbody>
</table>

*JULY 1957 41*
Report on Living Conditions for Navymen Headed for Madrid

Swimming, Golf, Tennis, Bowling, fishing, hunting, and skiing, sightseeing, bullfights and soccer, night clubs and theaters—all this and more are available to naval personnel stationed in Spain. Life there has many attractions and charms and, although living conditions may be somewhat expensive, with the customary frustrations and annoyances to be found in any foreign country, a tour of duty in Spain is well worth while. This is what you can expect:

Climate—Madrid is usually characterized by extreme dryness and sudden changes in temperature in all seasons. The winters are moderately cold, clear and sunny, with temperatures rarely much below freezing. There are occasional light snows which rarely stay on the ground for more than a few hours. The rainy season occurs in April and May. It is damp and chilly, and warm clothing is required during this period. From the middle of May to the middle of September, the temperature may range from 80 to 95 degrees in the middle of the day, to 70 degrees in the evening. During the summer months, there is a general exodus from the cities on the part of those who find it possible to go.

Language—Few Spaniards speak or understand English and, if time and facilities are available, it would be well to acquire as much Spanish as possible before leaving the States. A basic knowledge of the language is necessary and a continuing effort to become proficient is expected. Spanish lessons are readily available in Madrid and are not expensive. However, some knowledge of Spanish on arrival will be of help.

Clothing—Military personnel of MAAG wear civilian clothing while on duty. However, uniforms are required for official calls and visits to Spanish installations, some official functions, and for trips to the U. S. military installations outside of Spain. Men’s clothing of a weight suited to Washington, D.C., will be needed in Madrid. Light-weight gabardines, tropicals, rayons, cotton, etc., for summer wear; woolens for winter. Conservative suits are worn in the evenings. Hats are seldom worn. Good shoes are scarce in Spain, but the Air Force Base Exchange usually stocks a good supply.

Women’s Clothing—There is more social life in Madrid than at many U. S. stations. Generally speaking, fairly dressy afternoon dresses are appropriate for most functions. A couple of dressy cocktail dresses and one or two evening dresses are needed. Cocktail suits and other jacket dresses are most useful and advisable because of the fluctuating temperatures and unstable heating conditions. Suits are most popular during the colder weather. Sweaters are necessary, and should be purchased in the U. S. Sweaters are necessary, and woolen and cotton ones may be purchased at prices comparable to those in the States. Snow suits are not generally available and should be purchased in the U. S. Nylon and orlon sweaters are useful. One-piece bathing suits are required at all public bathing beaches and pools, by law. Some private clubs also have this requirement, while at other clubs skirtless and/or two-piece suits are allowed.

Bring enough shoes to last for the tour of duty, as Spanish lasts generally do not fit American feet and many who have had shoes custom-made have found them hard to get used to. It is wise to include low-heeled shoes for sightseeing. It might be well to make arrangements with a store in the States to send shoes to Spain from time to time as the need arises.

Hats are not worn extensively. Attractive hats, both ready and custom made, may be purchased inexpensively. Gloves and pocketbooks are also good buys.

The BX carries stockings, American cosmetics, toiletries, slips, blouses, etc., similar to average BX and Navy Exchange stores at home.

When entering churches in Spain, not only for the purpose of attending a service but also for sightseeing, women must wear head covering and stockings, and not expose the arm above the elbow. Sleeveless or low-cut summer dresses are not acceptable unless worn with a jacket.

In general, Spanish ready-to-wear clothing is of poorer quality and more expensive than in the U. S. Nothing is pre-shrunk. Good nylon and the newest synthetic materials are not available.

Children’s Clothing—Spanish children are extremely well dressed. The styles are similar to those in the U. S., except that the boys wear short pants the year round until they are 12 years old. However, American children customarily wear blue jeans and corduroys during the colder months. Children’s clothes may be purchased in Spain and at prices comparable to the States. Snow suits are not generally available and should be purchased in the U. S. Nylon and orlon sweaters are not available. Arrangements should be made to order children’s shoes from the States. The BX has a small supply of some children’s clothing.

Housing—No U. S. Government quarters are available in Spain. Within the past year a scarcity of housing has been noted and rentals have greatly increased. Adequate single houses range in cost from $125 to $300 per month. Families with more than four members will have trouble finding housing in the lower-price ranges. As a general rule, housing will be considerably more spacious than in the U. S. and includes servants’ quarters and extra bathroom(s). Utilities and heating generally are not included in the rent and this may apply to apartments as well as to houses. All types of heating are expensive and cost $25 to $50 monthly during the winter. Apartments often do not in-
clude garages. In such cases, garage space may be rented for about $12 a month and is advisable. It is customary to deposit one month’s rent as security and in addition, most landlords require at least one month’s rent in advance.

Unfurnished housing is rather scarce, and most of that which is available is in city apartments with no play area for children.

It is estimated that the original cost of moving into an unfurnished house or apartment is between $300 and $500 to cover the initial cost of painting, cleaning, purchasing and installing light fixtures, installing gas if desired, telephone, installing closets, electric and water meters, etc. If interested in unfurnished housing it is suggested that all furniture normally used be brought, including all electrical equipment (except clocks) plus a kitchen cabinet. Kitchens usually do not have shelving or closets.

Furnished housing is more readily available. The rental contract for the house is distinct from the contract for the furniture, and it is rare that any reduction is given on the cost of furniture even if you use some of your own. The rental cost for the furniture is usually twice the cost of the house rent—a point to be remembered when house rent is discussed. It is advisable to bring lamps of all sorts, all electrical equipment (except clocks), linens, blankets, china and silver. Most furnished housing comes equipped with china, glass, silver and kitchen utensils; however, these are often in very poor condition.

Apartment houses may have central or individual heating systems. Heat is turned on only from 1 November to 31 March. Living room fireplaces are found in all housing but small electric or kerosene heaters are frequently useful and may be purchased at reasonable prices.

A portable U.S.-make electric oven is a must. Bring one along for sure.

Electric service is 127 volt, 50 cycle single phase alternating current which may vary plus or minus 10 per cent. Three-phase, 4-wire 220 volt, 50 cycle AC is available for appliances offering this requirement. Electric clocks designed for 60 cycle operation will be of no value. Small auto-transformers can be purchased locally for use in locations suffering extreme voltage variations. Record players, tape recorders, etc., should be geared for 50 cycle operations. Plugs and sockets are of the European tubular type but adapters to the American type are available locally.

Home telephone service is available but unless phones and wiring are already installed, a period of three to six months may elapse before any action is taken on an application for telephone service.

A housing office has been established by JUSMG for the purpose of aiding personnel in obtaining suitable housing at reasonable rates. This office also interviews and arranges for the hiring of domestic servants. All rental contracts for MAAG personnel are required to be cleared through this office.

Rent will constitute the largest item of your budget.

There are many excellent hotels in Madrid which are considerably less expensive than comparable American hotels. Either the European or American plan is offered at the time of occupancy. Spanish hotels provide towels, but not soap.

Besides transient hotels there are several apartment-type hotels, which have completely furnished apartments including linens, silver, china, etc., plus kitchenettes. These are most desirable for new arrivals, especially those with children, during the house-hunting period. They may be rented by the day or week.

A 15 per cent service charge is added to all hotel and restaurant bills. An additional luxury tax of 10 per cent is added if the hotel or restaurant is in the “Lujo” class.

Servants — Laundering facilities, heating methods and lack of commonly used equipment in the States make it advisable to have servants. Good cooks, nursemaids and household servants are obtainable though they are increasingly hard to find. Monthly wages for maids range from $8 to $12; cooks are paid slightly more, though rarely more than $12. Most servants speak only Spanish. They usually take excellent care of children.

All servants live in the home, and, in addition to their wages, must be provided with food, some clothing, shoes, quarters, bedding, medical and dental care. Medical care may be provided by means of insurance which costs about 95 cents per person per month. Servants are given two weeks’ annual vacation with pay and expect the usual gratuities in the way of bonuses at Christmas (one month’s wage). Although the wages sound very low to Americans, it must be borne in mind that the actual cost of a full time servant per month is at least $50.

Food — The Spanish markets provide good fresh fruits, vegetables, meat and fish. Food prices compare favorably with those at home. Meat and fish are priced very much lower. Chicken is expensive and suitable only for stewing. Vegetables and fruits are available only in season, but are excellent while they last.

NOW HERE’S THIS

The Sniffer

Electronic Countermeasures Squadron One, at NAS, Iwakuni, Japan, has added another item to the list of labor-saving gadgets devised by Navymen.

This time it’s “The Sniffer,” which is used on VQ-1’s P4M Mercator patrol bombers to spot electromagnetic radiations in the ignition systems which interfere with the electronic equipment carried aboard the planes.

The device, developed by ECM personnel of the squadron, consists of a pole for reaching up to the engine harnesses, a pickup loop on the end of the pole and a receiver which shows up tell-tale radiations as the loop is moved along the spark plug leads.

In the pre-Sniffer era each ignition harness had to be removed from the engine and tested individually. Now, thanks to The Sniffer, the harnesses can be left in place—and a job which once took hours or even days has been cut down to less than 45 minutes.

BEWARE OF THE SNIFER
A military commissary is established and, with the exception of fresh vegetables, it carries all American items usually found in commissaries or grocery stores at home. The BX (Base Exchange) has a “mechanical cow” which produces very good liquid milk from powdered milk.

Since there is a high incidence of TB, Americans are strongly advised by American military doctors in Spain not to eat any Spanish dairy products, including ice cream. The commissary carries all types of American powdered and canned milk, also butter. During the summer months all water is boiled for drinking and in some sections of the city, it is necessary to boil drinking water the year round. Sea food is not eaten by most Americans during the summer months, because of inadequate refrigeration. In the winter months the sea food is excellent.

Education—A military dependent’s school, under the U.S. Air Force, has been established and all grades of grammar school and high school are included. Pupils number about 800 and the teachers are qualified Americans. The school operates bus transportation.

There are many good private schools available in Madrid with relatively low tuition rates—$19 to $56 a quarter. Instruction in these schools, with one or two exceptions, is in Spanish. Most of these schools are run by religious orders and are not coeducational. Hours are much longer than in the U. S. schools, and school is in session six days a week in most cases. Proper evaluation of credits earned by children attending Spanish schools makes them acceptable in the school systems of the U.S.

There is no established reciprocity of credits, however, between American and Spanish universities. Such reciprocity is handled on a case-by-case basis.

Religion—Spain is officially a Roman Catholic country. Besides the very numerous Catholic churches in Madrid, there is also a military Catholic chaplain who holds services at the dependents’ school.

There is a Protestant military chaplain who also holds services at the dependents’ school. A Protestant

There are several competent dentists in Madrid who have trained in the States. However, some types of dental work are expensive and also, dentists take lengthy vacations, so that all work possible should be completed before leaving the States. Many Americans have had their children’s teeth straightened in Madrid and have found the work satisfactory and less expensive than in the U. S.

The BX carries some vitamins and baby requirements, but all special vitamins, etc., should be brought with you.

Shipment of Property—You are authorized to import one automobile in the first installment of your personal effects. The first installment of effects by Spanish law theoretically means the bringing of all effects in one shipment; however, in practice the first shipment can be broken up into three or four shipments, all of them arriving at the frontier of entrance within a few months after the initial shipment. The first installment is further limited in that there can be only one of each household appliance.

It is recommended that insurance be placed on shipment of household effects. Policies should be read carefully to be sure that they contain provision for marine insurance and possible delay in port of debarkation awaiting transportation.

Automobiles — A personal car is strongly recommended. Any popular American car is practical. Service and repair agencies are adequate. Motor oil can be purchased at the BX, as well as spark plugs, windshield wipers, brake fluid, fan belts, batteries and tires. Replacement parts and special kits can be purchased by mail order. Some standard parts are readily available. Gasoline coupon books are purchased through the Provost Marshal’s office, which makes the cost of gasoline amount to about 16 cents a gallon. Spanish gasoline costs about 45 cents a gallon. Two grades of gasoline are used in Spain, the best of which is inferior to U. S. “regular” gasoline. The “best” type is used by all armed forces personnel and although adequate, will cause all U. S. model cars to knock when under moderate strains—particularly those designed
for high-test gasoline.

In order to obtain the special military drivers’ license, it is necessary to have a valid permit from the United States.

Officer personnel of MAAG (LCDDR and above) are entitled to Spanish diplomatic license plates and matriculation. For enlisted personnel a “carnet” or “triptyque” can easily be arranged with the American Embassy in Madrid before bringing an automobile into Spain. You may wait one or two months before the car arrives in Spain. However, taxis are plentiful and inexpensive, and good bus and trolley service is available.

Mail—An APO is in operation in Madrid. Personnel eligible to use the APO should advise correspondents that import duty is charged on all APO packages sent to the local address rather than through the APO. APO mail is available for all first class mail and is usually rapid and reliable.

Spanish mail is reasonable and prompt, but except for local city mails, is seldom used.

Pets—There is no restriction on the entry of pets into Spain, providing the animal is in good health. There is no general quarantine on arrival unless the Spanish sanitary inspector has reason to believe the animal has a contagious disease. In such a case, the animal will be quarantined for 40 days, after which, if in good health, he will be returned to the owner. As a general rule, pets are permitted in rented quarters, but in city apartments pets are sometimes not convenient.

Miscellaneous—It is highly probable that you may have to wait one to three months for delivery of household effects; it is advisable that you include in your hold baggage bed linens, towels, blankets. Be sure to carry sweaters with you regardless of the month of arrival.

Spanish materials are not so reliable as U.S. goods, so bring your household tool kit along. Plumbing, electrical and other minor household repairs are numerous and Spanish repair is slow.

Shortwave radios permit you to get the ball games and news direct from New York. Electric roasting ovens are recommended as they are in constant use by American personnel in Spain. American non-electric alarm clocks are advised. Local radio stations operate on the same broadcast band as those in the U.S., so ordinary table radios should be of value.

New arrivals in Madrid are entitled to per diem up to 45 days while getting settled. When permanently settled they are entitled to the station allowance, which is at present $3.25 per day for those with dependents.

It takes everyone a while to become accustomed to Spanish hours. In general they are: Breakfast at 8:30 or 9:00; lunch at 2:00 to 4:30; and dinner at 9:30 or 10:00 or later.

Two New Courses for Officers Added to CCC Curriculum

Two new officer correspondence courses are now available at the Naval Correspondence Course Center.

Shipboard Electronic Equipments (NavPers 10762) is a 6-assignment course evaluated at 12 points credit for purposes of Naval Reserve promotion and retirement.

Petroleum Logistics (NavPers 10904) is a 9-assignment course evaluated at 18 points credit.

Application for enrollment should be made on form NavPers 992 (Rev 10/54 or later) forwarded via channels to Naval Correspondence Course Center’s new address, Naval Supply Depot, Scotia 2, N. Y.

You Too Can Have a Canopy Bungee Safety

Take a short piece of tubular steel, two bolts and a piece of chain and you’ll undoubtedly work up a headache trying to figure out what they’re good for.

Not so with the men of Attack Squadron 34 of NAS Cecil Field, Fla., who took the same ingredients, added a generous amount of ingenuity and farsightedness and call the finished product a “canopy bungee safety,” one of the several ease-of-handling devices developed by them for speedier and safer maintenance of the A4D-1 Skyhawk.

The men, who also devised a “lightweight tail stand,” made of several pieces of tubing welded to a base plate, were commended in a letter from the commanding officer of the squadron to Michael J. Tufarella, AMG, in whose Air Frames Department the items were constructed.

Another labor-saver developed by the squadron is a tail pipe stand on which the tail pipe extends from the plane to settle on the deck. The new safety stand, could cause the tail of the plane to settle on the deck.

Other new gadgets include a hand tow-bar which makes possible the movement of the planes by several men, a stand for the round-shaped electronics packet (with handles for ease of installation), and a wooden stand which holds the nose of the plane while men work in the electronics section.
Seasickness Is Not Possible in USS Kozubal

No crew member aboard USS Kozubal has ever suffered from seasickness. Kozubal is a shack surrounded by squadron ready rooms in the middle of a hangar at USNAAS, Saufley Field, in Pensacola, Fla.

Kozubal was so christened after several of the new men at Saufley Field complained that they had never been on a ship. So they got their heads together and came up with the solution to their problem; they would prepare themselves for any unforeseen circumstances which might necessitate their having to board a real live ship. They receive an indoctrination in shipboard procedures without leaving terra firma.

Every morning at 0600 the skipper (Frank Kozubal, ADC, for whom the ship was named) stands at the gangplank to receive his crew, each of whom must salute Kozubal and request permission to come aboard.

The ship’s crew claims that their vessel collects more flight time than any carrier afloat; Kozubal contains the flight log books of every cadet, student officer and instructor at Saufley Field.

Even though the crew doesn’t have to stand midwatches, chip paint, watch for buoy markings or take depth readings, Kozubal is shipshape. However, the crew is still searching for a ship’s bell.

—Jack J. Hoffman, JO2, USN

**Seasickness Is Not Possible in USS Kozubal**

No crew member aboard USS Kozubal has ever suffered from seasickness. Kozubal is a shack surrounded by squadron ready rooms in the middle of a hangar at USNAAS, Saufley Field, in Pensacola, Fla.

Kozubal was so christened after several of the new men at Saufley Field complained that they had never been on a ship. So they got their heads together and came up with the solution to their problem; they would prepare themselves for any unforeseen circumstances which might necessitate their having to board a real live ship. They receive an indoctrination in shipboard procedures without leaving terra firma.

Every morning at 0600 the skipper (Frank Kozubal, ADC, for whom the ship was named) stands at the gangplank to receive his crew, each of whom must salute Kozubal and request permission to come aboard.

The ship’s crew claims that their vessel collects more flight time than any carrier afloat; Kozubal contains the flight log books of every cadet, student officer and instructor at Saufley Field.

Even though the crew doesn’t have to stand midwatches, chip paint, watch for buoy markings or take depth readings, Kozubal is shipshape. However, the crew is still searching for a ship’s bell.

—Jack J. Hoffman, JO2, USN
1944. In this capacity, Rear Admiral (then Captain) Fahrney was primarily responsible for the development of a reliable, radio-controlled assault drone for combat use.

- Jones, Robert F., CAPT, USN (Ret.), as Operations Officer on the Staff of Commander Training Task Force from 3 Apr to 4 Mar 1944. Captain (then Commander) Jones played a leading role in the planning, development, and production of a reliable, radio-controlled assault drone for combat use. He prepared the courses of instruction, established the requirements for materials and equipment, pressed the purchase and construction of airfields, and improved the packing and storage of electronic materials sent overseas.

**Gold Star in lieu of third award:**

- Smith, Oscar, COMO, USN (Ret.), as Commander Training Task Force, from 3 Apr 1943 to 4 Mar 1944. Under Commodore Smith’s leadership, the Training Task Force succeeded in planning, developing, and readying a reliable, radio-controlled assault drone for combat use.

**Distinguished Flying Cross**

- Fischer, Richard H., LT, USN, for heroism and extraordinary achievement in aerial flight as pilot of a plane during the period 3 Apr 1943 to 4 Mar 1944. Lieutenaut Commander Fischer succeeded in eluding the attacks and, through a brilliant display of airmanship, skillfully effected a crash landing on St. Lawrence Island. Following the landing he administered first aid to the wounded and contacted rescue parties.

**Bronze Star Medal**

- Sullivan, Don M., LT, USN, for heroism and extraordinary achievement in aerial flight as pilot of a plane during the search for a downed United States naval aircraft east of Little America, Antarctica, from 6 to 9 Feb 1956. Despite hazardous terrain and adverse weather conditions, Lt. Sullivan pressed his search until he sighted and reported the location of the missing aircraft.

**Naval and Marine Corps Medal**

- Cowhey, William F., Jr., AT3, USN, for heroic conduct in rescuing two young girls from drowning at Pensacola Beach, Florida, 3 Apr 1956.

- Hurd, Donald W., AA, USN, for heroic conduct in rescuing two young girls from drowning at Pensacola Beach, Pensacola, Florida, 3 Apr 1956.

- Leoffler, William F., AD3, USN, for heroic conduct in rescuing two young girls from drowning at Pensacola Beach, Pensacola, Florida, 3 Apr 1956.

- Merrill, Leslie C., ENC, USNR, for heroic conduct while serving on board USS TTL 210 during the amphibious invasion of Southern France on 15 Aug 1944.

- Raine, Warren F., AD3, USN, for heroic conduct in rescuing two young girls from drowning at Pensacola Beach, Pensacola, Florida, 3 Apr 1956.

- Robertson, John A., LT, USN, for heroism in an effort to save life and property in the path of his crash-bound plane while serving on board the United States Naval Station, Birmingham, Alabama, on 14 Jun 1956.

**Legion of Merit**

- Colby, Robert A., CAPT, DC, USN, as a member of the staff of the United States Naval Dental School, National Naval Medical Center, Bethesda, Md., from 14 Nov 1949 to 14 Nov 1956. In addition to his primary duties, CAPT Colby succeeded in planning, writing, and editing a book entitled, 'Color Atlas of Oral Pathology,' considered by numerous reviewers as a work of great scientific and practical value and an invaluable contribution to the field of dentistry.

- Keith, Harry H., CAPT, USN (Ret.), as Commanding Officer of USS *Perry* in action against enemy Japanese forces in the Philippine Islands area on 10 Dec 1941. Although wounded when *Perry* sustained a direct bomb hit, Captain (then Lieutenant Commander) Keith retained active command of his ship and supervised the removal of the many other casualties. In addition, he organized bucket brigades and succeeded in bringing the fires under control. Later, when the wooden pier to which *Perry* was moored began to burn, and explosives from a nearby ship threatened his own ship, Captain Keith ordered the mooring lines cast off which allowed his craft to drift clear of the pier where it was towed out of danger by another ship.

**Gold Star in lieu of second award:**

- Fahrney, Delmer, S., RADM, USN (Ret.), as Commanding Officer Naval Aircraft Modification Unit, Naval Air Material Center, Philadelphia, Pa., during the period 3 Apr 1943 to 4 Mar 1944. While a member of the staff of the United States Naval Station, Birming-
TAFFRAIL TALK

ALL HANDS (or may not) recall, not too long ago we told of the Damage Control fellow who had worked on every ship in the Navy. Now, with equal justification, we mark for immortality the speed demon who shipped around the world seven times in three minutes. The way we hear it, CHSUPCLK William C. Blevins, a member of Task Force 43, racked up this "record" while on an observation flight at the South Pole. The plane made seven tight circles while at the mythical spot. Our informants didn’t tell us whether or not he made the trip alone or was accompanied by a number of anonymous crew members of the plane.

The Naval Training Center at Bainbridge, Md., has made sailors out of recruits who've held all kinds of off-beat jobs in civilian life. But, Martin J. Roess III, SA, usvn, showed up at Bainbridge with an occupational background that was really different.

When he headed for boot camp he might well have said, "See ya' later alligator," and if he did he meant it literally, for by trade, he’s a genuine "alligator baiter." Not only that, but he’s had considerable experience in the care, handling and canning of snakes.

Roess’ stepfather owns and operates a reptile farm in Florida. Before reporting for active duty he guided tourists around the place, helped take care of its crawling charges and even canned snake meat, which is considered quite a delicacy in some circles.

"So is alligator soup," says he.

Personally, we’ll take mock turtle—and the mocker, the better, by golly.

We must also report ye passing of another fine old custom. Remember the bit of doggerel: "Worm and parcel with the snake meat, which is considered quite a delicacy in some circles. "So is alligator soup," says he.

Personally, we’ll take mock turtle—and the mocker, the better, by golly.

We also report that a well-dressed deck hand turned out to be a new recruit.

We also report that a well-dressed deck hand turned out to be a new recruit.

The Bureau invites requests for additional copies as necessary to comply with the directive. This magazine shall be intended for all hands and commanding officers should take necessary steps to make it available accordingly.

DISTRIBUTION: By Section B-2303 of the Bureau of Naval Personnel Manual, the Bureau directs that appropriate steps be taken to ensure that all hands have quick and convenient access to this magazine, and indicates that distribution should be effected on the basis of one copy for each 10 officers and enlisted personnel to accomplish the purpose of the magazine.

The Bureau should be kept informed of changes in the number of copies required. The Bureau should also be advised if the full number of copies is not received regularly. Normally copies for Navy activities are distributed only to those on the Standard Navy Distribution List in the expectation that such activities will make further distribution as necessary, where special circumstances warrant sending direct to sub-activities the Bureau should be informed.

Distribution to Marine Corps Personnel is affected by the Commandant U. S. Marine Corps. Requests from Marine Activities should be addressed to the Commandant.

PERSONAL COPIES: This magazine is for sale by Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20 cents per copy; subscription price $2.25 a year, domestic (including FPO and APO addresses for overseas mail): $3.30, foreign. Remittances should be made direct to the Superintendent of Documents. Subscriptions are accepted for one year only.

- AT RIGHT: INSIDE JOB — Below decks of USS Albany (CO 123), now serving with the Sixth Fleet, machinist’s mate makes a maintenance check on part of the ship’s complicated propulsion system.

The United States Navy

Guardian of our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country’s glories depend. The United States Navy exists to make it so.

We Serve with Honor

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future. At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families. Our responsibilities sober us; our adversaries strengthen us. Service to God and Country is our special privilege. We serve with honor.

The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersion and offensive power are the keynotes of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

ALL HANDS is the Bureau of Naval Personnel Information Bulletin, with approval of the Bureau of the Budget on 22 June 1955, is published monthly by the Bureau of Naval Personnel for the information and interest of the naval service as a whole. Opinions expressed are not necessarily those of the Navy Department. Reference to legislation, orders and directives is for information only and does not by publication hereof constitute authority for action. All original material may be reprinted as desired if proper credit is given ALL HANDS. Original articles of general interest may be forwarded to the Editor.

Distribution: By Section B-2303 of the Bureau of Naval Personnel Manual, the Bureau directs that appropriate steps be taken to ensure that all hands have quick and convenient access to this magazine, and indicates that distribution should be effected on the basis of one copy for each 10 officers and enlisted personnel to accomplish the purpose of the magazine.
ALL EYES are on YOU!

wherever you are you represent U.S.