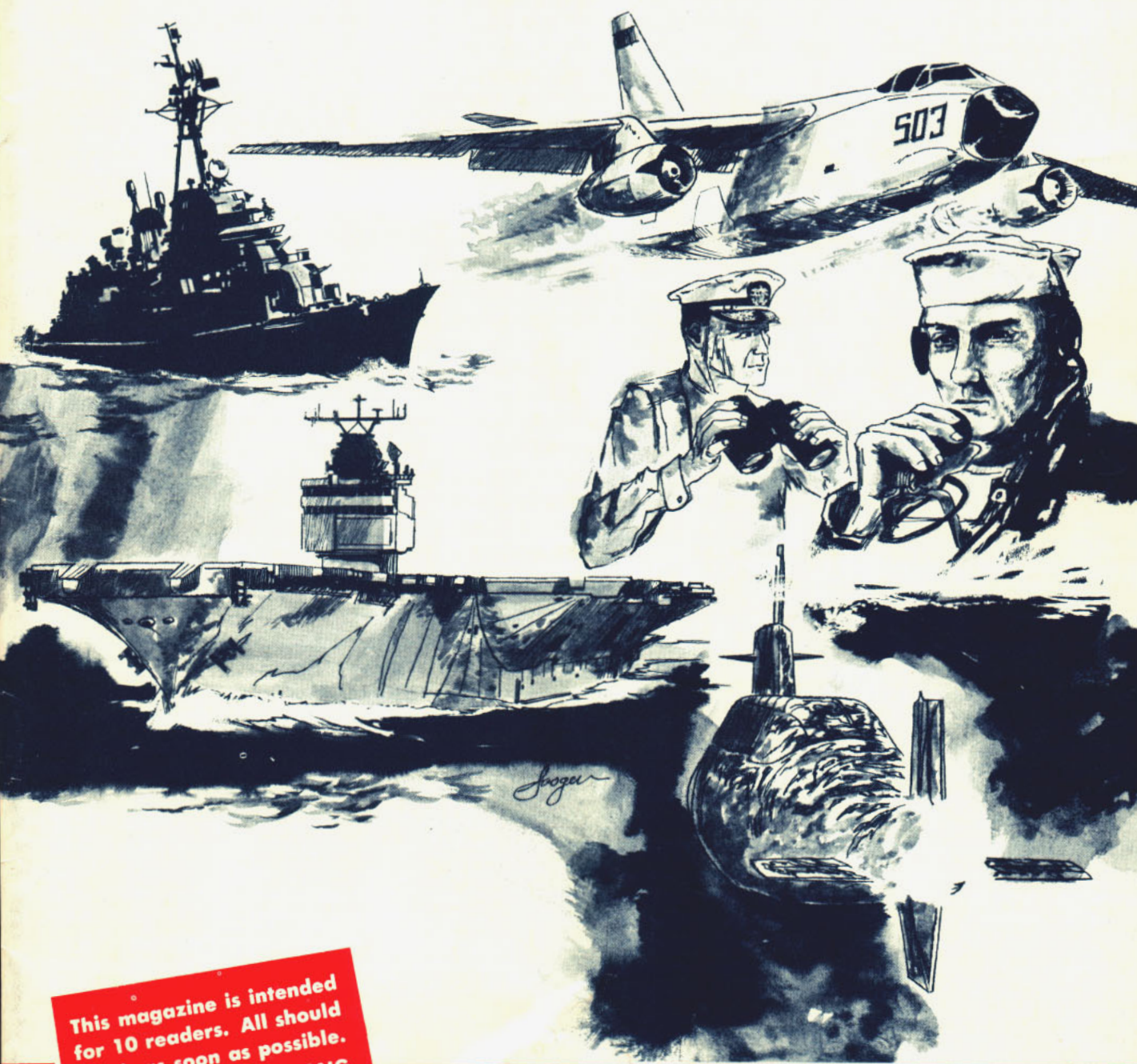


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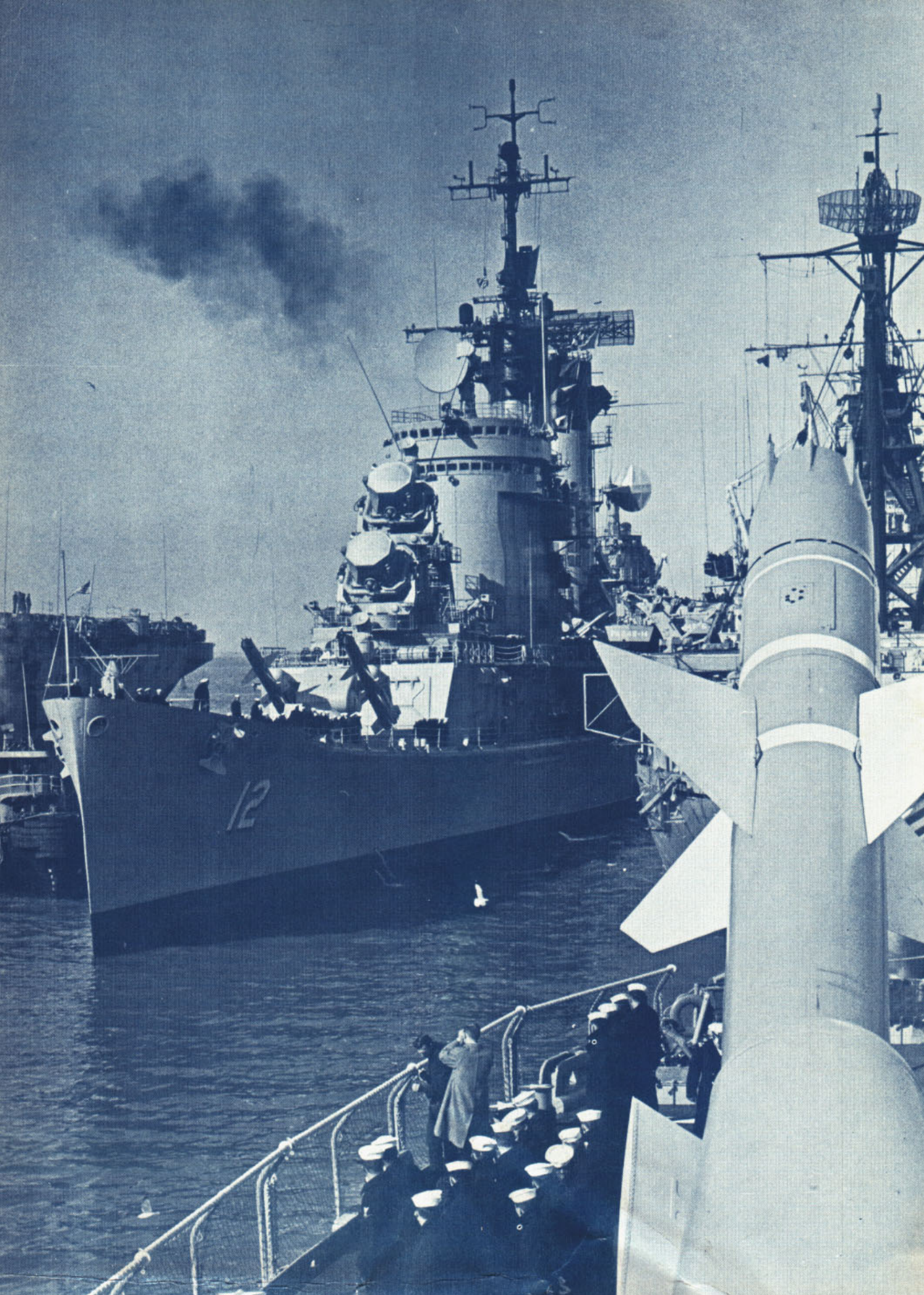
THE BUREAU OF NAVAL PERSONNEL CAREER PUBLICATION

in this issue: SECNAV TASK FORCE REPORT



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MAY 1966





ALL HANDS

THE BUREAU OF NAVAL PERSONNEL CAREER PUBLICATION

MAY 1966

Nav-Pers-O

NUMBER 592

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• **AT LEFT: MISSILE MISSES**—Guided missile cruiser *USS Columbus* (CG 12) pulls alongside her sister ship *USS Albany* (CG 10) upon entering her home port at Norfolk, Va.

• **CREDIT:** All photographs published in ALL HANDS Magazine are official Department of Defense photos unless otherwise designated.



ODD JOBS—Test Command's ability to analyze equipment has given it the task of evaluating ground effects systems.

CONSUMER TESTING, NAVY

MOST COMMANDS base both their reputations and their press releases on the often-praised power of positive thought. OpTevFor, on the other hand, is more inclined to think negative, to be skeptical and to look for the worst. At OpTevFor, in fact, pessimism—with a positive attitude—is considered a professional attribute. And, most certainly, it has positive results.

Such an unlikely approach is as valuable as it is unusual. Were it otherwise many of the Navy's missiles, aircraft and similar important weapons and equipment might be little more than photogenic gadgets. OpTevFor is short for the U.S. Navy Operational Test and Evaluation Force, the command which makes certain the Navy's equipment is seaworthy before it is seagoing.

The story begins back in the 1930s

and 1940s. Technology was becoming a major factor in sea power, and the first models of radar and sonar were being designed and manufactured. The Navy was just learning one of the basic truths concerning (for lack of a better phrase) system psychology. Other things being equal, the Navy found the dependability of any apparatus varied inversely with its number of component parts and the fragility of those parts. Technical sophistication led directly to technical troubles. The more complex the machine, the more intricate and obscure the maladies which plagued it.

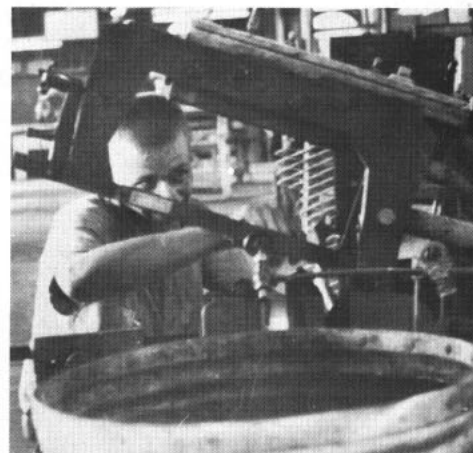
This would be precisely why, a few years later, the Navy would form OpTevFor. There is for example, a tale of technological woe concerning one of the first ships to be equipped with radar. It seems this ship was

caught in a dense fog while navigating inland waters. Relying on the newly acquired radar, the OOD fearlessly—and successfully—avoided the many navigational hazards and steamed out into open sea.

Later, the radar technicians discovered their equipment hadn't been working since the ship had first left port.

There were (no doubt) Old Navy veterans who would have preferred to chuck the new gadgetry over the side, but progress is irrevocable. Just as Henry Ford went ahead with plans for his model "T" instead of trading it in on a horse, the Navy went ahead with the technical improvements. Then, during World War II the "gadgets" proved invaluable. Despite problems, the devices were considerably better than anything possessed by the opposition.

TEST TUBING—Detachments of Operational Test and Development Force in Key West specialize in ASW, mine warfare.



WHEN THE WAR ENDED the Navy was free to consolidate and expand its technical gains. First on the agenda was the "sophistication vs reliability" problem. Its solution: *Tests.*

Not, however, just any kind of tests—newly designed equipment had always been tried out before acceptance. Henceforth, new equipment would only enter the Fleet after surviving what could accurately be called a trial by ordeal.

There would be a specialized command (OpTevFor, of course) specifically equipped to find fault with new gear. Production line models of proposed equipment would be given



NOW ON DUTY—One of the projects of OpTevFor was the *Dash* concept.

STYLE

to this command. This equipment would be taken to sea and operated, by Navymen, under the most demanding conditions which could be devised. It'd catch hell, in other words. And all the while the test command would watch closely for signs of trouble.

Later, the trials would be known as operational evaluations.

If the test command's negative argument was weak, the system tested could safely be manufactured and sent to sea with reasonable assurance it would perform as advertised. If, on the other hand, there were strong points against acceptance, the gear would be sent back to the manufacturer for improvement. Thus the Navy would avoid mass producing its technical problems.

Test duties were assigned to the U.S. Navy Operational Development

Force, a group which had been established during the latter part of World War II to devise a defense against kamikaze attacks. This command, which had not had time to make a name for itself in its first job, quickly met with success on the second. A few years later its name was changed to the Operational Test and Evaluation Force—OpTevFor.

TODAY OpTevFor headquarters are in Norfolk, Va. Here the two-star commander and his large staff keep track of an average 200 test projects and monitor the operation of subordinate test commands on both coasts.

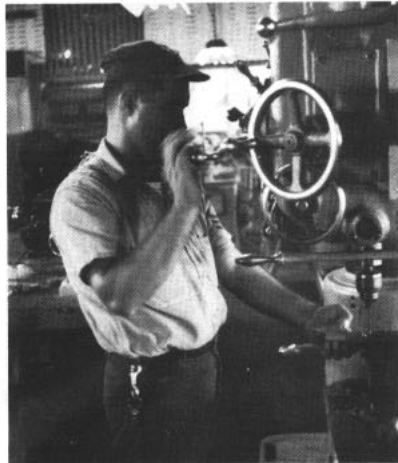
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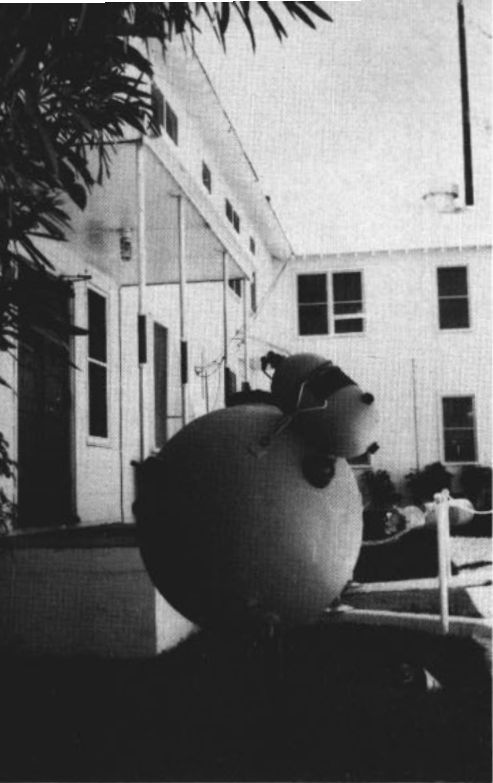
quarters building, that test and evaluation project details are worked up. The assignments come directly from the Chief of Naval Operations, who has the responsibility for accepting or rejecting equipment which has been proposed for Fleet use.

The command is organized into several divisions, sections and units, each of which has a specialty—such as command and control systems, air warfare, mine warfare and so on. OpTevFor tests just about anything that can be categorized as operational equipment.

Soon after the Force commander receives an assignment from CNO, he chooses one of his staff to act as

VARIED WORK—Copter pilot, machine shop specialist and sonar technician represent some of the skills at test centers.





SYMBOLIC—Mine and torpedo decorate the entrance to the OpTevFor Detachment HQ at Key West, Florida.

headquarters project officer, and another man in a subordinate unit to serve as on-the-scene project officer.

A good deal of care is exercised in the appointment of these key individuals, for success or failure of the assignment will depend upon their performance. Appointments relate to past experience and training—an OpTevFor officer who made a name for himself in the Pacific mine force, for instance, would almost certainly work with OpTevFor's mine warfare test and evaluation section.

IN THE TESTING profession, success often depends on the ability of the two project officers to understand—

EXPERIMENTAL destroyer *USS Sarsfield* (DD 837) is not so different from other greyhounds, but can be modified to facilitate her testing job with OpTevFor.



well enough to criticize—the operation of machines which other men have designed and manufactured. As a result, they devote the first few weeks after receiving an assignment to studying the technical manuals and generally becoming familiar with the new gear. Often, they attend schools and confer with the manufacturer's technical representatives and officers from OpNav.

This done, the two men write the test plan, a detailed description of the operations required to evaluate the equipment. This includes a list of factors to be observed and the conditions which should prevail for each of the tests.

In the meantime, Navymen in the testing unit which will handle the project are preparing for the forthcoming operations. OpTevFor has a number of subordinate units: three test and evaluation detachments, three air development squadrons and several assigned experimental ships. Each command has its specialty.

Representative of these are two commands on the Florida Keys: The Key West Test and Evaluation Detachment and, a few miles to the northeast, Air Development Squadron One at the Boca Chica Naval Air Station.

The Key West Test and Evaluation Detachment runs tests on surface-based antisubmarine warfare equipment, mines and mine countermeasures. In past years it has given CNO thumbs up on several very important weapons in these categories, including *Dash*, the SQS 23 and SQS 35 variable depth sonars, and several advanced torpedoes and mines now in Fleet use. At present, the unit is testing the SQS 26 sonar, helicopter-towed minesweeping gear and a modification of the Mark 46 torpedo.

THOUGH A TOUR with the detachment is considered shore duty for the enlisted men, they sometimes see very little of home and family. Before a project begins, the crew concerned may be sent to a school where they will learn to operate and maintain the new equipment. While testing is in progress, they are often on duty at sea or in other parts of the country. At times, in fact, the detachment's headquarters are all but deserted—the mine crew off to school preparing for tests of a new ASW mine, the sonar technicians putting a submarine detection and classification system through its paces off the coast of Labrador, and the torpedo shop trying out a new "fish" at an underwater test range.

Because of their extensive work with mines and torpedoes, the Key West Detachment has an underwater demolition team assigned. They monitor tests from under water and recover pieces of equipment when tests are complete. They also receive a good deal of extra duty—disposing of damaged munitions, recovering objects of all varieties, and disarming the occasional World War II mine dredged up from the bottom by the shrimp boats.

An indispensable qualification for duty with the Detachment is individual initiative. One mine crew officer recalls the time, in the not too distant past, when his shop was engaged in seven different projects in five different locations. The crew totals 14 minemen.

LIKE THE WORK of the other Key West Detachment shops, the mine crew's work is often technical—more so than that of minemen in the Fleet. Few mines are exploded during tests because of their high cost and the impossibility of examining the component parts after use. Consequently, electronic equipment is used to monitor the performance of submerged mines, and the explosion is simulated when the mine's trigger mechanism is activated. As a result, the minemen are responsible not only for the maintenance of their mines, but of the monitoring equipment as well.

The Detachment's support equipment is tailored to fit the specialized assignment. There is a well-equipped machine shop. The command shares a photo lab with another unit on the station, and often uses the facilities for technical work. There are service craft, specially modified, including a



CRAZY MAN—Wild looking craft are Ground Effects Machines shown speeding over water in tests at Norfolk.

OpTevFor Tests Everything from MAD Gear to GEMs

OpTevFor's experience in testing and evaluating equipment has led to a wide variety of assignments. In addition to conducting acceptance tests, it is called upon to dream up new tactics and to find the best means of using weapons and equipment.

Another common task is furnishing men, ships and aircraft for technical at sea tests.

Perhaps one of the most interesting assignments is the fleet operational investigation. This is essentially a test which looks for possible

naval applications in new inventions or which develop the best procedures and tactics for the use of existing systems. A recent example of fleet investigations was the tests of ground effects machines (GEMs). SKMR-1, was built in the United States while the other two were of British design and manufacture. The purpose was to determine if such vehicles would be of value in naval warfare.

During the months of tests, three GEMs were often seen skimming across the water in the vicinity of

Hampton Roads. After extensive operations, OpTevFor was willing to vouch for the practicality of military GEMs, with particular emphasis on speed and versatility. SKMR-1, for instance, could reach a speed of 80 mph on calm waters as well as operate ashore on fairly rough terrain. It also performed satisfactorily in 10 to 12 foot seas.

The reports, when published, praised the air cushion principle and the Navy purchased three of the machines. A military version may soon be developed.



HIGH AND DRY—Two of GEMs tested by OpTevFor rest ashore during the evaluation of the air cushion systems.



PLANE BUSINESS—Air Development Squadron, Boca Chica NAS, specializes in testing airborne antisubmarine equipment. The P-3 Orion helps do the job.

65-foot converted Army tug used to lay and recover mines; a 40-foot personnel rescue boat used to shuttle back and forth, carrying supplies and equipment for the mine crews and torpedo crews at work in nearby areas; a 63-foot torpedo retriever and several small craft. The torpedo retriever, incidentally, serves a double purpose. On weekends it is converted to a special services fishing boat and used by Detachment Navy men and their families to go out after grouper, snapper, barracuda and the occasional sailfish.

Another OpTevFor unit, the experimental destroyer *uss Sarsfield* (DD 837), commonly ties up at the dock near the Detachment's sonar and electronics shop. Though experimental, *Sarsfield* is not different from other destroyers built near the end of World War II. Her assignment to OpTevFor, however, allows OpTevFor to make modifications for operation evaluation without an undue amount of red tape. The ship has served with the test command since the force was in development work back in the mid-40's.

A FEW MILES north of Key West, on another Key, is the Boca Chica Naval Air Station, home of Air Development Squadron One. Like the Test and Evaluation Detachment, VX 1's specialty is ASW—but of the airborne variety. It is manned by 45 officers and 230 enlisted men. There are also four exchange officers, one each from the navies and air forces of Great Britain and Canada.

On the Squadron's flight line are aircraft representing the three types of ASW planes. There are fixed-wing S2s, experimental versions of the ones based on antisubmarine carriers. There are several helos. There are three P-3 *Orions* (long-range turboprop patrol planes) and a P-2. In addition there may be other aircraft of advanced design, assigned temporarily for operational evaluation.

Although the outfit tests just about any item which falls into the air ASW category, its major projects are usually related to magnetic anomaly detection (MAD) gear, helicopter sonar equipment and sonabuys.

At present, new and modified equipment for the P-3 *Orion* takes

up a good part of the squadron's time. The *Orion*, a turboprop land-based patrol plane is replacing the slower and smaller P-2 in the ASW field. Because the newer aircraft can carry more equipment and stay aloft for longer periods than the older model, much new equipment is being devised to take advantage of the situation.

Although a prime trait of the Operational Test and Evaluation Force is finding fault, operational evaluations usually yield positive results—aside from building Fleet confidence in Navy equipment. An operational evaluation is often the first time a new piece of equipment is used at sea while maintained by Navy men. OpTevFor men, representing those in the fleet, can often suggest changes which will benefit Navy men who will operate the equipment later. At this stage, before mass production has begun, such changes are relatively easy to make.

THERE ARE ALSO tactical advantages to the tests. Officers, for instance, who test new aircraft or airborne weapons usually write the tactical doctrine for the use of the equipment. Tactical doctrine is a compilation of facts on a given weapon or aircraft—valuable information for the squadron Navy men who will eventually receive the gear.

When the test phase of a study is complete, the results are evaluated by the project officers, with assistance from statisticians and other specialists. This evaluation is based on the meticulous records kept during the test phase. Record-keeping is a serious business at OpTevFor, since seemingly unrelated "quirks" in the operation of a device may, when analyzed, reveal important weaknesses in design or manufacture.

Once the evaluation is complete, the results are printed (an operational evaluation sometimes outweighs the *BuPers Manual*) and submitted to the Chief of Naval Operations, with copies to interested type commanders, bureaus and units.

The report will usually make one of three recommendations: That the equipment be accepted for Fleet use without conditions; that the equipment be rejected; or that it be accepted for Fleet use providing certain discrepancies are corrected.

The latter is quite common. OpTevFor Navy men, in the tradition of critics everywhere, do not miss much.

—Jon Franklin, JO1, USN.

NEW DUTY—Converted Army craft is now used by the minemen at Key West.





PILOT checks terrain maps of flight pattern. Rt: Plane's cameras are tested.



The Eyes Have It

IF A VOTE were taken to decide the most important element in planning an air strike, the eyes would have it. Camera eyes.

Photo reconnaissance is as vital to an air tactical commander as the press box scout is to a football coach on the sidelines. Nothing is easy in war, including the photo recon pilot's job. But he does make things a lot easier for strike pilots. His routine is similar to and as rigorous as a fighter pilot's. His trade is a highly technical and complex science, and an art.

A photo recon mission must be planned and executed with the same precision and attention to detail as any other combat mission. The pilot faces the enemy daily, with no weapons but his cameras. If attacked, his only defense is speed and maneuverability. He destroys the enemy—not with bombs or guns, but by prying into his secrets, disclosing his weaknesses and obtaining the intelligence so vital to modern warfare.

A mission begins the night before. The pilot studies maps, charts and any previous aerial photography of the target area to familiarize himself with features of geography and terrain. Next morning (circa 0400) he begins planning details of his mission; is briefed by the air intelligence officer; gets last minute instructions and information on weather over the target; and briefs his fighter escort pilot.

Within minutes of the plane's landing back on the carrier, the film is on its way to the lab for high speed processing. Meanwhile, the pilot is debriefed by the air intelligence officer. Twenty minutes after touchdown the processed film is delivered to intelligence. There it is marked with identifying codes and other pertinent information, and undergoes intensive study. A report is written by the intelligence officer.

The report will form the basis of future tactical missions.

CRUSADER rolls up to catapult for launching on photo reconnaissance mission.

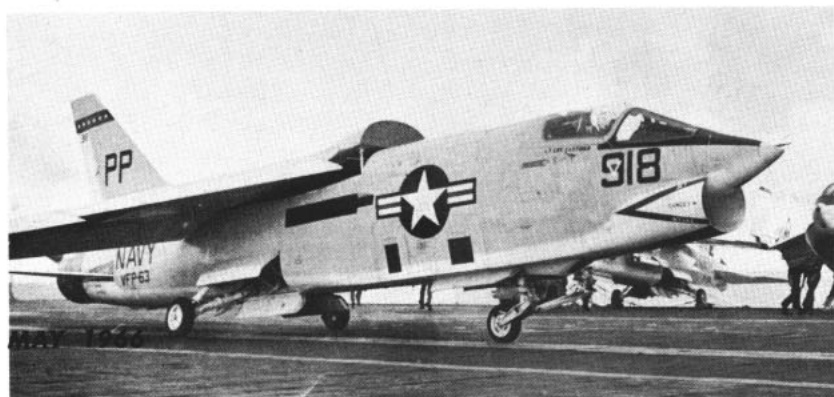
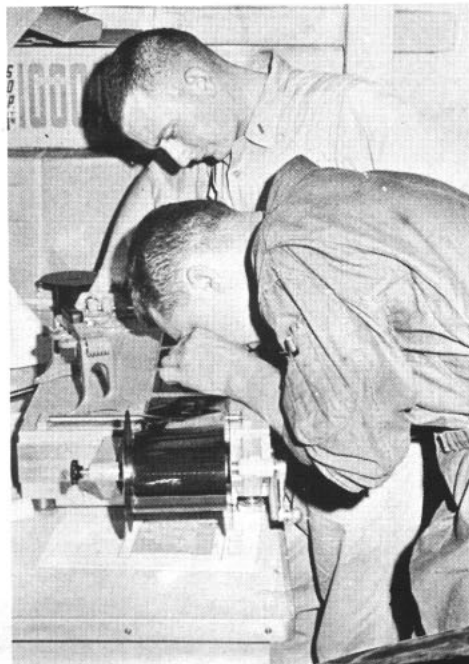


PHOTO GEAR is checked out for jet flight. Below: Film is analyzed.





LOTS OF PUSH—(YTB 775) backs out of berth. Rt: Skipper Marston, BMC, and J. E. Strachan, EN1, move to job.

Little Guys with Lots

THOSE TWO NAVY tugs pushing ships around Subic Bay aren't bullies—they're just doing their jobs.

Subic Bay Naval Station, in the Republic of the Philippines, along with adjoining Cubi Point Naval Air Station, supports and supplies the U. S. Seventh Fleet in Southeast Asia.

The two new tugs, named *Nashua* (YTB 774) and *Wauwatosia* (YTB 775) assist shipping traffic in Subic

Bay in docking and changing anchorages. They also tow cargo barges.

Attached to the Service Craft Division, the Navy tugs have the latest equipment to do their heavy moving job. The new YTBs along with 18 other yard craft have the responsibility of moving all ship traffic in Subic Bay. With the increase of Seventh Fleet commitments and activities in the South China Sea this has become an ever-increasing task.

Service Craft Division Officer Lieutenant G. W. Wood said, "We're glad to get these craft. They are the biggest and latest the Navy has and they'll help in moving ship traffic in any kind of weather since they have radar, which our older tugs do not have."

Both of the new tugs have about 2000-horsepower which provides about twice as much "push" as the older tugs of the same design have. In addition they are fully outfitted for firefighting. The tugs have internal fire smothering foam systems with a capacity of about 5000 gallons and they can handle and pump foam much better than any other service craft at Subic Bay.

The craftmaster of *Wauwatosia*, Chief Boatswains Mate Glen F. Marston, USN, has the same responsibilities as any ship's captain as he commands the harbor tug.

"This type of new tug makes the job of moving ships a lot easier on the crew," Marston said as he steered the tug toward a merchant ship getting ready to tie up at a dock.

"I can steer from either side of the wheel house. I've got dual controls and all I have to do is flip a switch to get control from either the starboard or port side," he said.

OFF TO WORK—*Nashua* (YTB 774) steams across to another job in Subic Bay.





WHEELHOUSE has the latest gear.

of Pull

BOTH THE YTBs are equipped with hydraulic steering systems, which cut reaction time of the craft to steering commands from the wheel in half. They also have gyro compasses aboard where the older boats only had magnetic compasses. With radar, an accurate compass and good radio equipment aboard *Wauwatosa* and *Nashua*, they can also do ocean towing if necessary.

As the tug approached the merchant ship, Chief Marston slowed and steered it with only two controls. One, the engine room "telegraph," relayed information to the engines to vary speed as required. The other control is the tug's four-foot high wheel which is used mostly for steering the craft from one job to another.

When actually moving a ship the craftmaster will many times switch to "local" control on one side of the wheel house or the other. These are small, unimpressive-looking handles which can control the tug's movements as delicately as the larger wheel.

As the enlisted skipper eased against the big ship, sailors on the deck of the tug began to pass wire ropes aboard the merchantman which



DECKHANDS prepare lines on fantail as another tug moves in to dock ship.

would be used to control the movements of the larger ship.

With orders from the harbor pilot aboard the docking ship, transmitted by walkie-talkie, the tug pushed and pulled, maneuvering the ship into its berth. When the large ship was safely tied up, Chief Marston backed *Wauwatosa* away and was off on the next job across the harbor.

The chief explained that this was a seven days a week job. The men live aboard and the tug has a galley and a full-time cook.

"We have it set up so we get one day off a week, but if one of the other tugs goes in for repairs we just go right on working. We didn't secure until almost one this morning," the chief explained.

In the engine spaces below, Engineman First Class John E. Strachan walked around the gleam-

ing machinery of the new tug.

"The way this tug is designed we can get to any machinery in need of repair a lot easier than we used to on the old boats. Before we'd do everything but stand on our heads to work our way into a corner to repair a pump or something," the engineman said.

The tug's trip to the Philippines is a story in itself. *Wauwatosa* and *Nashua* were built in Marinette, Wisconsin. *Nashua* towed her sister from Wisconsin to San Diego. In San Diego both tugs were sealed against the weather and towed by a larger fleet tug to the Philippines without any crews aboard. After a five-month tour without crews to maintain the tugs three weeks were required to get them shipshape again.

—Photos and story by William M. Powers, PH1, USN



TORPEDO RUN—Type of ordnance used is checked by the Tactical Coordinator. *Rt:* Tacco and crew at debriefing.

MEET TACCO: MAN IN A

PILOT and navigator act on information given them by Tactical Coordinator.



A LONE SP-5B *Marlin* seaplane scans the ocean on an antisubmarine surveillance patrol off the California coast.

Inside, a businesslike voice crackles over a scratchy intercom—barely audible over the drone of engines.

"Pilot, Tacco—we have a contact! Your new heading is 245. Contact intercept point eight miles. Suggested prosecution altitude 200 feet. Begin descent in 30 seconds."

This is the jargon of a relatively new breed of naval officer—the tactical coordinator. His title is usually shortened to Tacco, or simply TC. Both versions are used as synonyms for the man who quarterbacks the 11-man ASW team aboard a *Marlin*.

Specifically, a Tacco is a non-pilot aviation officer. His job is to collect, evaluate and correlate tactical intelligence information, and indicate tactical offensive or defensive measures to the pilot and crew.

For example, from the radarman the Tacco gets a bearing on a contact; from the navigator, a recommended course for contact intercept. Additional information is obtained from sonar and magnetic detection equipment operators.

THE TACTICAL COORDINATOR, seated at his bank of scopes, dials, and computers, assembles this informa-

ALL HANDS



TACCO and crew rehash the mission.



SCOPE OF IT—Tacco analyzes information and draws tactical picture.

MARLIN

tion in a composite picture and recommends action accordingly. He includes an estimated time of arrival in target area; report of weather conditions in the target area; best search pattern to use; most effective altitude for the attack; number of runs on contact possible with current fuel supply; and kind of ordnance to be used—bombs, depth charges, aerial torpedoes or rockets.

The Tacco must be familiar with every piece of electrical, electronic, and mechanical equipment used by the *Marlin* and other patrol aircraft in antisubmarine warfare.

In addition, he must have a working knowledge of each crewman's job. This requires him to be familiar with basic principles and procedures of navigation, aeronautical engineering, physics, aerodynamics, electronics, mechanical engineering, radio, ordnance, radar and sonar.

A tactical coordinator's knowledge and skill in these and associated areas can often mean the difference between the success or failure of a mission. Therefore, sound tactical judgment and rapid responsive action are a must for TC trainees.

The Tacco's job—until about five years ago—was performed for the most part by pilots and navigators.

However, technological advances have created a need for specially

trained non-pilot aviation officers to take some of the tactical load off pilots and navigators. The Navy calls them Naval Flight Officers (NFOs).

THE NFO grouping breaks down into five specialties: Aerial controller, navigator, bombardier, radar intercept and antisubmarine warfare. The Navy draws its tactical coordinators from the ASW group.

An NFO's training closely parallels that of a pilot. Both groups attend the three-month preflight course

at the Naval Air Station, Pensacola, Fla.

After preflight, controller and radar intercept candidates train at Glynco, Ga., for about three and a half months. There, controller trainees are teamed with future pilots who some day will fly such airborne early warning planes as the E2-A *Hawkeye*. Radar intercept candidates work with jet pilot trainees who later may fly supersonic *Phantom II* fighters.

NFO bombardier, navigator and

FINAL CHECK—TC (*far Rt.*) and crewmembers make final check of search area.





TACCO TEAM—Radarman reports contact to TC Rt: Crewmember readies sonobuoy for drop on orders from TC

ASW candidates attend a three and a half-month advanced school at the Naval Air Station, Corpus Christi, Texas. They too are paired off for most of their course with future pilots—and receive instruction in celestial navigation, advanced calculus, complex flight theory applications, weaponry and the like. They also fly together, each mastering the techniques he will some day use in such Fleet aircraft as the A-3 *Skywarrior* bomber or the *Marlin*.

When the fledgling Tacco completes this course, he is designated a

Naval Flight Officer. He may be sent directly to a sea duty billet, in which he will begin on-the-job training in antisubmarine warfare. But, normally, he is assigned to a replacement training squadron for 19 weeks of additional instruction.

This phase of his preparation is handled by Patrol Squadrons 30 on the East Coast and 31 on the West Coast. During this period, he receives instruction in subjects ranging from flight planning to ASW tactics.

About nine weeks of the 19-week training period are spent at a highly

specialized ASW Training Center at Jacksonville, Fla., or San Diego, Calif. The San Diego course is run by the Fleet Airborne Electronic Training Unit, Pacific (FAETUPAC), headquartered at the Naval Air Station, North Island.

ACADEMICALLY, the course is broken down into three parts. The first three weeks are devoted to basic ASW tactics, operations and theory. The next four cover ASW systems—the digital computer, sonar, radar and magnetic detection devices. During the final two weeks, students are taught to assimilate, interpret and project data on an integrated display.

This is a mock-up of the instruments, computers and plastic status boards Taccos can expect to find aboard the *Marlin*, SP2H *Neptune* or P-3A *Orion*.

Upon completion of FAETUPAC instruction, students return to their parent training squadrons and complete the operational phase of their training. From there they move to the Fleet.

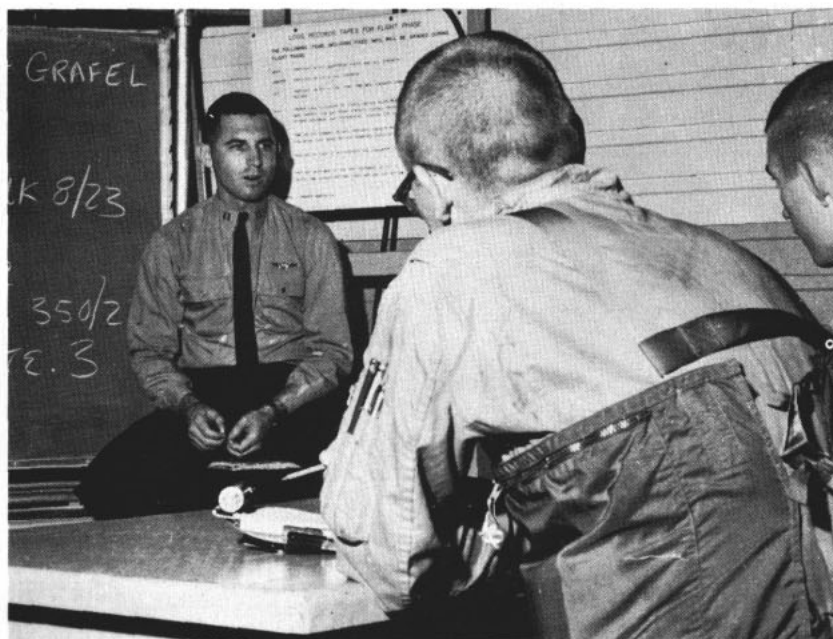
Patrol Squadron 31 officials say their instructors send about 120 tactical coordinators a year to the Fleet but, they add, "It is never enough."

The statement reflects the increased emphasis the Navy is placing on antisubmarine warfare and the tactical coordinator's importance in that program.

—William Polk, JOC, USN

Photos by
Andrew L. Rothman, PH3, USN

PRE-FLIGHT briefing is attended by Tactical Coordinator and other crewmen.





SURGEON LCDR Kelly checks patient's cast. Rt: Nurse Bonnie Green attends patient.—Photos by F. T. Peak, PH3.

Navy Hospital, Saigon

THE SUN BLAZED down from its near noonday height as the patrol from the 2nd Battalion, 173rd Airborne, moved cautiously into the village in the "Iron Triangle," just north of Saigon.

All was deathly quiet. Suddenly, the silence was broken by the cracking fire of a sniper's gun. Army Medic Philip Knowlton dropped to his knees, cried out and fell face down in the dusty path. Knowlton's comrades rushed to his aid. The radio blared out a call for help. Minutes later, an air- evac helo settled down in a clearing nearby. Philip Knowlton was a combat casualty.

At the 173rd Command Post, radio operators relayed the information to the Medical Regulating Office in Saigon. They immediately contacted the three medical units in Saigon on their "hot line." Acting on information relative to the patient's injury and condition, the assignment went to Saigon General, the Navy hospital in Saigon.

A controlled pandemonium, Operation Dust Off, swung into action. Within seconds a gray ambulance, with doctor and corpsman aboard, roared off to the "Hot Spot," the landing pad for air- evac helos, to pick up Knowlton and give immediate aid. In less than one hour after being wounded Philip Knowlton was in surgery being given the best surgical and medical care available.

For the Navy personnel of Navy Hospital Saigon, this was just another everyday occurrence. Another incident where they were called upon to give their best to care for a person in need.

During the last year alone, more than 2000 bed patients have been treated by the staff of this Navy hospital. An additional 73,000 outpatients have passed through the outpatient clinic. Also the doctors and corpsmen act as inspectors for messing facilities in the Saigon area.

The Navy general hospital is the most modern and well-equipped hospital in the Republic. Its facili-



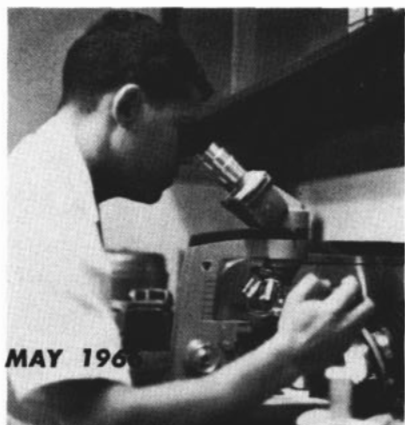
ON THE JOB—Jim Graves, HMT, receives emergency call at hospital.

ties include capabilities for major and minor surgery, radiological work and blood bank supply. It can accommodate 100 bed patients. Its staff has specialists in fields of thoracic surgery, psychiatry, and internal medicine.

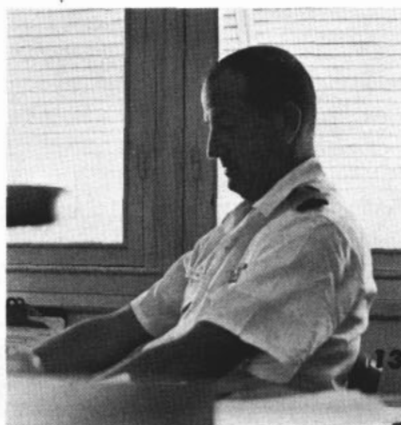
Staffed by nine doctors, seven nurses, two medical administrators, and 84 enlisted corpsmen, the hospital has met challenge after challenge since it opened for business in September 1963. Its staff is devoted, versatile, and well trained.—

—G. David Whittaker, JO3, USN
Photos by Frank T. Peak, PH3, USN

AT SAIGON—HM Eldon Hunt in clinic. Cecil Nolan, HM2, in pharmacy, and CAPT A. C. Hering, Senior Medical officer.

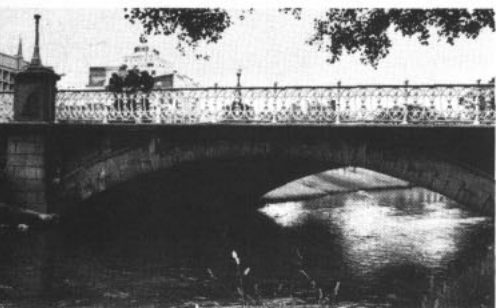


MAY 1964

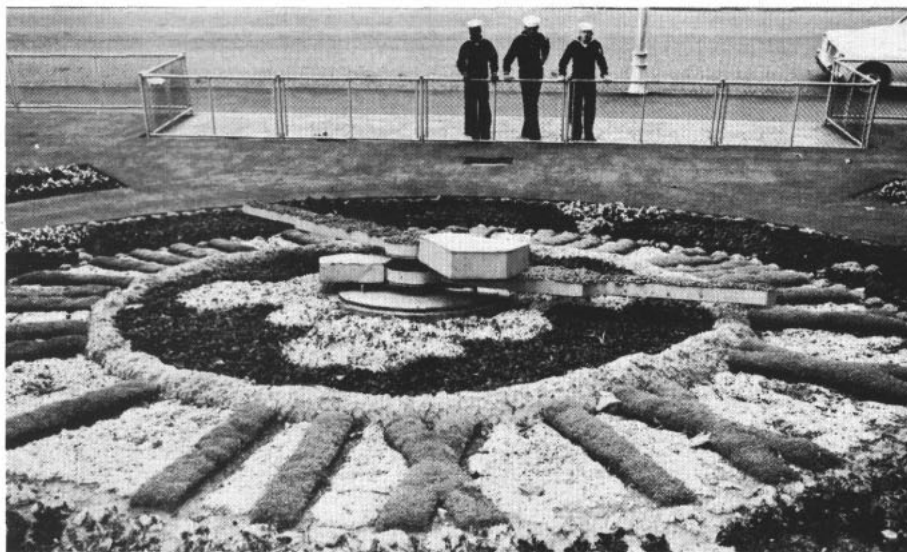




DEEPFREEZE-bound Navymen of VX-6 enjoy tour of Chee-Chee. Below: A view from a bridge over river Avon.



WHERE TO?—New Zealand tourists check mileage signs at the airport.



FLOWER TIME—Navymen touring Christchurch admire clock made of flowers.

Headed for Down Under?

WHAT'S the finest overseas duty station?

Pose this question to any group of Navymen—who consider themselves authorities on the subject—and you're sure to receive a variety of opinions.

But, ask the same question of Air Development Squadron Six and the answer, to a man, will invariably be the same—"Chee-Chee."

Chee-Chee is Christchurch, New Zealand, the splendor city of the South Pacific.

Christchurch has been a haven for Navymen since the first days of Operation Deep Freeze, 11 years ago. Antarctic-bound servicemen who stage from Christchurch have found the city to be one of the most picturesque and cordial places in the world. Christchurch's hospitality toward the men who are destined for duty at the bottom of the world dates back to the turn of the century, when the British explorer Robert Falcon Scott led his expedition to the white continent.

Thousands of Americans have spent many days in Christchurch. They enjoy, among other things, its similarity to stateside towns. The city is somewhat smaller than Providence, R.I., with a population of 150,000. Yet it abounds with many tourist attractions which have been fascinating sailors for over a decade.

Edward M. Joynes, a VX-6 second class commissaryman, recently teamed up with two of his shipmates, Clarence C. Christy, first class avia-

tion machinist's mate, and Henry Moorehead, second class aviation machinist's mate, to cram as much as possible of Christchurch's sights and scenery into a single day's outing.

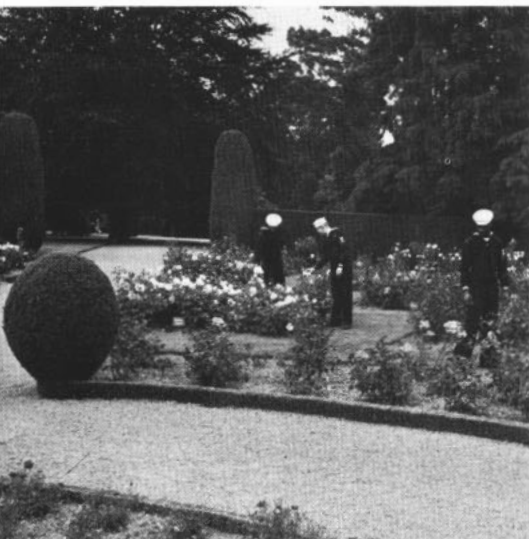
FIRST STOP on their tour was at a genuine American Indian totem pole. The pole is symbolic of the warm relations that exist between New Zealanders and Americans.

The inscription on the pole tells the story: "This friendship totem pole was presented to the people of Christchurch by the people of Oregon in appreciation of the warm hospitality extended to the officers and men of the U.S. Air Force and Navy during Operation Deep Freeze."

The 30-foot memorial, carved by a distinguished Indian artist during Oregon's international exposition in 1959, is an authentic work of primitive North American Indian art. A duplicate of the work stands in Portland.

Topping the pole, with 12-foot wings outstretched, is a thunderbird, traditional god of the storm. Further down is a killer whale, which honors Rear Admiral George J. Dufek, USN, a former Deep Freeze commander who helped to open the sea lanes to the Antarctic.

The eagle, king of the air, is the official symbol of the United States, and the grizzly bear, roughest and toughest of animals in Indian lore, honors Oregon's pioneers. The beaver, at the bottom of the pole,



SOME SCENERY—Highlights of Christchurch tour included botanical gardens and view from Summit Road.

Chee-Chee Is a Great Whistle Stop

whose fur lured explorers to Oregon, is the state's official animal.

From the totem pole the three sailors went on to view one of Christchurch's more notable monuments, a statue of Robert Falcon Scott. Scott and four companions reached the South Pole in 1911 in one of history's most significant explorations.

Scott and his party all perished on the return journey. The statue, depicting Scott in Antarctic clothing, is the work of his widow, Lady Scott.

NO VISIT to Christchurch would be complete without a trip to its famous cathedral, situated in Cathedral Square in the center of the city.

This fine example of early English ecclesiastical architecture helps give the city its strongly English flavor. For nearly a hundred years, the citizens of Christchurch have assembled in the cathedral on occasions of national mourning and national rejoicing.

Since the city was originally a Church of England settlement, Christchurch Cathedral is of that denomination. Its interior is rich in historic memorials. Nearly 60 years ago the top section of the spire collapsed during a sharp earthquake shock, and that portion, for safety reasons, was replaced in wood sheathed with copper.

Christchurch is a city abundant in floral beauty. The most beautiful spot of all is the Botanical Gardens where Joynes, Christy, and Moore-

head spent the better part of the afternoon.

Bordered by a great loop of the meandering Avon River, the gardens feature shady walks with richly colored flower beds on either side. There are wide expanses of lawn where people and children play. Brass bands perform here in the summer months.

The area is a splendid example of formal horticulture, greatly appreciated by a city where most residents are keen amateur gardeners.

Gardening is the common hobby of Christchurch folk. Not content with the beautification of their own

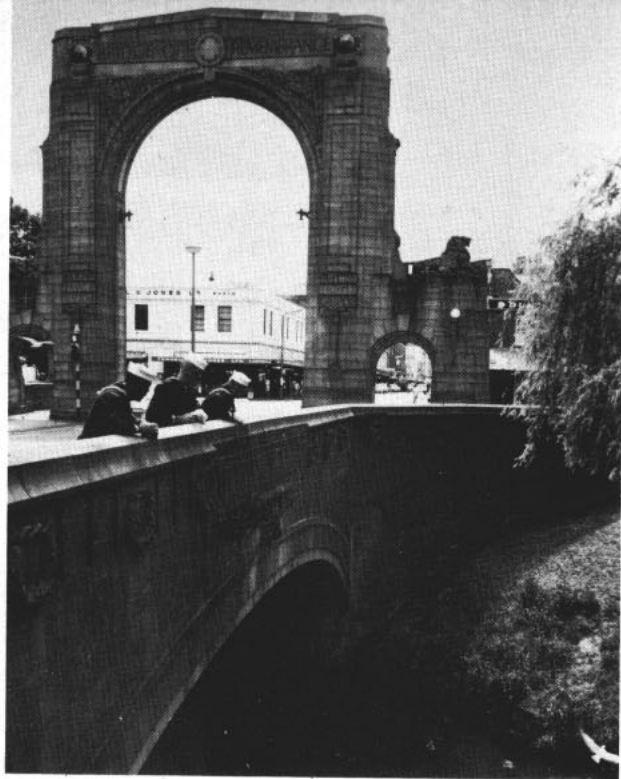
properties, they turn their attention to the streets, planting flowers outside their front fences, cutting trim edges, and mowing grass on the roadsides.

In the late summer, Christchurch people tour their city by car, by bicycle or on foot, to see the prize-winning gardens, streets, and factory grounds which have taken awards in competitions organized by beautifying societies, horticultural groups and garden clubs.

ANOTHER MONUMENT of historical significance which drew the close attention of the three VX-6 men

TEA TIME—Sailors take time out for tea at picturesque cafe in an old castle.





N. Z. MEMORIALS—Bridge of Remembrance is dedicated to dead of WWI. Rt: Statue honors Antarctic explorer Scott.

was the Bridge of Remembrance which crosses the Avon River in Christchurch.

The bridge is a memorial to the New Zealand men who fell during World War I. Men who walk beneath its arch raise their hats in memory of the dead. A military barracks is not far from this spot, where Christchurch men crossed the river as they marched off for embarkation.

The peaceful Avon River, which

FROM USA—Totem pole was presented New Zealand by state of Oregon.



flows under the Bridge of Remembrance and through the heart of the city, gives Christchurch much of its character. The river's banks are neatly mown. Graceful trees—towering poplars and spreading oaks—and richly flowered plots add to the serene beauty.

During the summer months, office workers and shop assistants flock to the riverside in the thousands to eat their lunches in the open air.

Though many people believe the Avon was named after the historic stream which Shakespeare knew so well, it was, in fact, named after another Avon in that part of Scotland which was the home of the first Europeans to settle in Christchurch.

Another highlight of the sightseeing trip for the three sailors was the Floral Clock.

Situated on a sloping bank overlooking the Avon, this favorite attraction of photographers is similar to the one in Edinburgh, Scotland. Carefully tended by city gardeners, the clock is planted in flowers of matching colors. Even the hands of the clock carry flowers. Actuated by a concealed mechanism, the clock keeps excellent time.

NEAR DAY'S END the wandering Antarctic Navymen decided to view the city from a range of hills to the south which act as a rampart between the city and Lyttelton, its port. These hills are kept in their natural

beauty as is most of the countryside.

To drive along the summit affords a panoramic view of ocean, city, patterned farmlands, and ice-tipped mountains in New Zealand.

Road and rail tunnels now give speedy transit between port and city, but when the first settlers arrived more than 100 years ago, they had to climb these hills for their first view of their new home.

The tour ended where every sailor's actual first view of Christchurch begins—at the international Airport.

Christchurch is proud of its tradition in aviation which dates back to 1890 when the first balloon ascent in New Zealand was made from one of the city's parks. (The balloonist drifted out to sea and was never seen again.)

The airport is the only one in the world to have an Antarctic Arrivals and Departures desk.

Not far from the airport are the transient barracks where American sailors and airmen are accommodated during each Deep Freeze season.

Also near the airport is a huge maintenance aircraft hangar which is used by VX-6 for the upkeep of its fleet of Antarctic planes, including C-121 *Super Constellations* and ski-equipped C-130 *Hercules*.

Christchurch, New Zealand, is a VX-6 man's "home away from home."

—Lee Quinn, JOC, USN
Photos by Bill Mason, PH1

East Coast Wins Boxing

THE EAST COAST entered some new talent in the All-Navy Boxing Tournament this year, and broke the NAAS Ream Field monopoly on titles by taking seven of the ten final bouts.

However, most of the matches were closer than the tally implies. There were six split decisions, three unanimous decisions and one technical knockout.

As always, the field was peppered with familiar names from past years, but not all of them fared well. Of the three incumbent West Coast champions, all from Ream Field, only Roy DeFillippis managed to retain his title.

Ream Field boxers comprised seven of the ten West Coast entries.

Among the East Coast ranks, Richard Pettigrew, the perennial heavy-weight favorite, won his seventh straight title with a TKO over Keith Willard of NTC San Diego. The two-round bout was the only non-decision fight of the meet.

Pettigrew was awarded the tournament's Outstanding Fighter award for the feat.

Roy DeFillippis of Ream Field battled Oliver Ewell to a split decision in their bantamweight bout. The win gave DeFillippis his third All-Navy crown.

Ironically, Ewell, who won the East Coast title in the featherweight class, had switched weight classes with teammate John Mayo, who won the bantamweight crown in the coastal competition.

For Mayo, however, the switch was a good one. He won the featherweight title by beating Al Robinson of Ream Field. Mayo was featherweight runner-up last year.

Morris Harris, who fought as a light-welterweight in 1965, entered the lightweight division this year, and decisioned defending champion Fernando Trujillo.

Another incumbent champion, Roger DeWees of Ream Field, lost a decision and his title to Talbert Anderson of *uss Lake Champlain* (CVS 39) in the light-welterweight division.

Adrian Johnson, last year's welterweight runner-up, stepped up a notch this year. He won the division title by a unanimous decision over Manuel Ramos of Ream Field.

Bill Elliott, one of the three non-Ream Field fighters on the West Coast roster, scored a unanimous de-

FROM THE SIDELINES

AT SAN DIEGO Naval Training Center, 11 Waves are Navy Rifle Experts. And two of them are Navy Pistol Experts. And one is a National Rifle Association Master.

The Waves hold the women's national record of 939-45V for National Match Course high power rifle shooting. And two national team titles. And the 11th Naval District Invitational team trophy.

And not many men's teams can top that record.

The 11 Waves comprise the NTC Wave Rifle Team, which came into existence late in 1964. The team was a project



of Daniel F. Morine, Jr., EOCS, who founded it just after he won the National Service Rifle championship.

Morine taught the girls the fundamentals of marksmanship in off-duty hours, and watched their progress.

In March 1965, the Waves entered their first match at Camp Elliott, home of the NTC Small Arms Training Unit. They won the Marksman Team Sharpshooting Trophy.

Two trophies later, the team won the 11th Naval District Invitational team championship.

Then, in December 1965, four of the Waves, firing M-1 rifles, established the new women's national high power rifle record. They topped the old record by 30 points and added more hardware to their growing collection in the form of the National Women's Open and National Service Team (Large Bore) trophies.

Since the Waves must practice and participate in matches in their spare time, the make-up of the team varies from

match to match. In addition, the Waves have modified the standard men's firing position to suit their small sizes.

But despite the drawbacks of size and duty, they have all become good shooters.

That's why they're winning trophies.

★ ★ ★

Throwing back 21,800 fish would be a heartbreaking task for most fishermen, but three at NAS Memphis, Tenn., did just that and didn't complain a bit. The fish were too small, anyway.

The bucket brigade consisted of the president, vice-president and officer advisor of the Navy Memphis Rod and Gun Club, who restocked the air station's 18-acre lake with bluegills and channel catfish, as part of a club conservation project.

The lake was recently dredged to a depth of 20 feet to accommodate the new inhabitants. It was drained for the dredging process, and is now filling from the winter



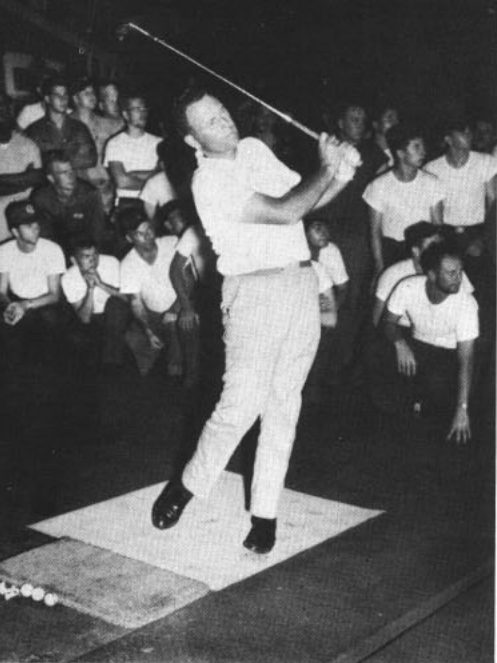
rains. It will be fertilized to stimulate the growth of plant life to feed the fish.

Another maintenance task will be control of the mud in the water. Cottonseed meal will be applied to the lake to keep the mud on the bottom.

The fish were supplied by the National Fish Hatchery at Corning, Ark. The lake's fish population will be limited to the three kinds listed above, for a proper balance.

Thanks to the Rod and Gun Club, the lake will be open by late spring. Then the Memphis fishermen won't have to throw back what they catch.

—Kelly Gilbert, JO2, USN



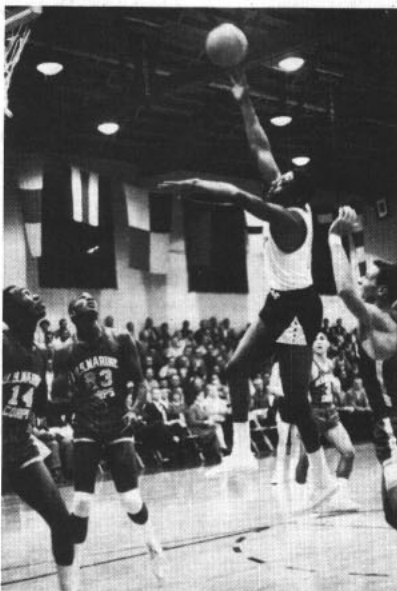
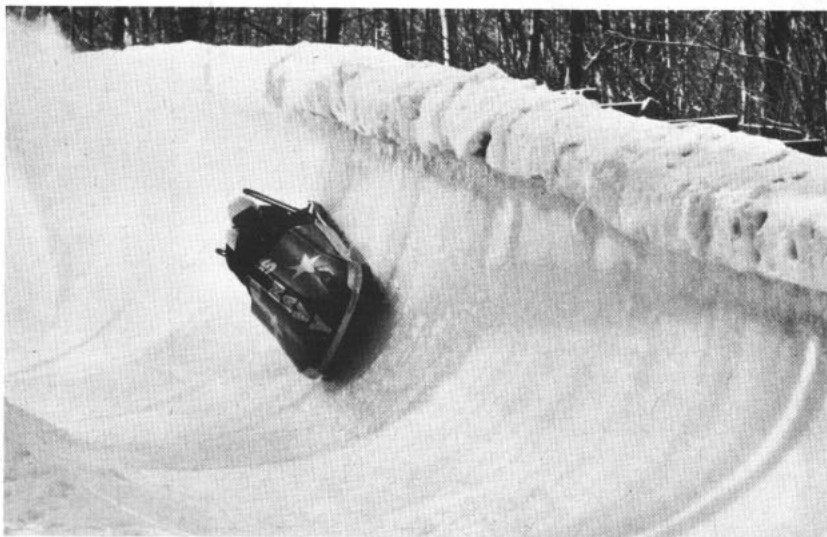
VACATION TOUR—Golf pro Billy Casper tees off from USS Yorktown elevator during tour of combat zone. Casper was formerly a Navy golfer.

cision over Vince Fagan to win the light-middleweight title. Elliott, of USS *Constellation* (CVA 64), is an 11-year boxing veteran. He was runner-up in the Far East Interservice competition in 1965.

A new name in All-Navy ranks, LaVaughn Waterford, East Coast, defeated 1965 runner-up Billy Brown of Ream Field in the middleweight final.

Light-heavyweight Alvis Gillespie, of USS *Sperry* (AS 12), won the third and last title of the night for the

FAST WORK—U. S. Navy bobsled team of LT Paul Lamey and Bob Huscher, AD2, take turn on mile-long track at Mt Van Hoevenburg, Lake Placid, N. Y., while practicing for 1966 National and North American championship races.



NAVY ALL-STAR Al Clark scores on a hook shot against Marines in Interservice tournament. Navy beat Air Force and Marines, lost to Army.

West Coast team by defeating Paul Cardoza in a decision match.

The tournament was held under new rules this year. Instead of the five regional tournaments usually held, the boxers were split into East and West Coast divisions after their respective district tournaments to vie for berths in the All-Navy finals.

As a result, the service-wide tournament was held to one night, although the participants fought about the same number of bouts as before en route to All-Navy competition.

Some of last year's All-Navy participants were knocked out of the running in the coastal meets. Among them were flyweight Jim Logan and light-heavyweight Jimmy Van Buren on the West Coast, and light-heavyweight Jim Finley and welterweight Jim Lujan on the East Coast. (Lujan, though he lost in the East Coast finals, was selected as outstanding fighter of that tournament.)

Most notable of the absentees in the finals was Jimmy Rosette, a six-time All-Navy champion in the middleweight and light-heavyweight divisions and a 1964 Olympic boxer for the U. S. Rosette became a professional fighter after the Interservice competition last year, and thus is ineligible for Navy competition.

—Kelly Gilbert, JO2, USN

Basketball Stars Join Army

Two Navymen, Al Clark of SubLant and John Snipes of SubPac, were augmented to the Armed Services basketball team for the National Amateur Athletic Union championships in Denver.

The team, comprised mainly of Army players, is the defending NAAU champion.

Clark and Snipes were picked as a result of their play in the Interservice tournament.

Navy's All-Star team, of which they were a part, took second place in the Interservice meet by losing its final game to Army, 76-61.

Army went undefeated in the tourney, winning its three round-robin games by 24, 31 and 15 points.

Whizzes on the Bobsled

A Navy two-man bobsled team has won third place in the National Amateur Athletic Union championships at Lake Placid, N. Y.

The sled, piloted by Lieutenant Paul Lamey, made four runs on the mile-long Mt Van Hoevenberg course in a total time of 4:52.53. Ken Morris, ABAN, was brakeman.

Mt Van Hoevenberg is the world's fastest bobsled run, and the only Olympic mile run in the Western Hemisphere.

As a result of the team's efforts this season, capped by the recent trophy showing, it is being considered for a berth on the U. S. team for the 1967 world championships to be held at Grenoble, France.

Other Navymen in the NAAU meet were Bob Huscher, AD2, and Harry Peterson, BU3.



**A NEST
of NAVY
WHIRLY BIRDS**



FLYING FROM ship or shore, helicopters in various shapes and sizes perform many important tasks in today's Navy.

From Ugly Duckling to

THE WHIRLYBIRDS have arrived. Destroyers have evolved new shapes to accommodate them. ASW experts have planned their strategies around them. The Marines go ashore in them. Often the mail depends on them. Many pilots owe their lives to them. The Navy could not easily do without them.

In the earlier days of aviation it took imagination just to believe in them.

The Secretary of War and the Secretary of the Navy pretty well sum-

med up the prevalent feeling during the winter of 1917, when they settled on a helo development policy. By mutual consent they decided to limit the military's part in helicopter schemes to moral support—at least until an ingenious someone could demonstrate a helicopter which would, among other things, fly.

Their decision was understandable. The helicopter by its very nature requires a great deal of power simply to get off the ground. In 1917 there was no lightweight engine

which could do the job. Had there been, the helo *still* might not have flown—the infant field of aeronautical engineering had yet to design a really efficient rotor.

As a result, few helos could lift their own weight. Those which did become airborne encountered immediate control problems and had to be flown on a short tether. Under the circumstances the military was being almost charitable to offer moral support. The future of the helicopter looked dim indeed.

EARLY BANANA shows it has developed muscles and is ready for the Fleet.



THE OUTLOOK improved—briefly—in the early 1930s, when the Navy purchased the XOP-1 autogyro. This craft, though not a true helo, had several features which were eventually incorporated into the successful, present day ship's angel.

Basically the XOP-1 was a conventional fixed wing aircraft, complete with the standard nose propeller and tail assembly. Its sole qualification as a weird bird was the free-spinning rotor mounted atop the fuselage.

When the aircraft was in motion



COPTER ASW squadron readies bird.



A START—First autogiro (XOP-1) bought by Navy lands at Anacostia in 1931.

Navy Angel

this rotor was set spinning by the force of the airstream. As a result the XOP could take off and land on a very short runway and, when airborne, could flap along safely at a pace considerably less than the stall speeds of other craft. It could not, of course, hover.

After tests (some aboard the carrier *Langley*) the fixed wings were removed and the XOP became the first naval aircraft to fly completely dependent upon a rotor for lift.

Despite this distinction, the craft was eventually rejected. The disadvantages, the Navy found, far outweighed the advantages. A small payload, a short flying range and a richly deserved reputation as a pilot's nightmare were responsible for the demise of the XOP. The XOP-1 aircraft, however, did see some limited service with the Marine Corps.

All this was a prelude: The big break came shortly before the war when Igor Sikorsky flew the VS-300, the first practical American helicopter. It was not long before the flying eggbeater had Navy friends.



TWO-TIMER—World's largest (back in 1946), also Navy's first twin engine job, was used as research vehicle. Below: Early demonstration in air-sea rescue.





A MINER—Helicopter takes off from an LST to spot mines during Korean conflict. Rt: Copter receives pre-flight check.



THROUGHOUT World War II the Navy cooperated with the Army Air Corps to develop helicopters for military use. On 24 Jul 1942 the Navy decided to purchase four helos similar to the VS-300 for guinea pig purposes. In 1943 the Navy established a separate training activity,

operated by the Coast Guard, to turn out helo pilots.

Even at this early date, the adaptability of the whirlybird was apparent, and there was some thought of flying them from merchant ships in antisubmarine operations. The Coast Guard saw the obvious pos-

sibilities for search and rescue. Some surface sailors probably noticed room for landing platforms on battlewagon fantails, though such use did not come until 1949.

The demand stirred production and production stirred interest. When the war ended there was time and money for concentrated development efforts. In 1946, on 25 March, the Navy flew its first dual rotor helicopter. By 1950 several types of whirlybirds were operating with the Fleet.

An example of these early seagoing copters was the HO3S-1, which first joined the Fleet in 1947. All told, the Navy purchased about 90 of these birds, the first four specifically for duty with the South Pole expedition of 1946-47. The HO3S-1 was later used for general purpose work ranging from mercy missions to mail delivery.

Of a helicopter's vital statistics, perhaps the most important is its payload: The HO3S-1 could lift off with a gross weight of 4900 pounds—3650 of which was, unfortunately, pure puddle-jumper. The 1250 pounds remaining would make for a fine mail call but (1947 was before the days of microminiaturization) allowed for precious little sonar gear.

THE DEVELOPMENT of the HUK antisubmarine forces, and of the ASW helicopter, is a story in itself. As early as 1943 a board was established to evaluate helicopters for ASW work, but the helo was still too limited. Because of the small

Copters Earned PUC

The value of the ship's angel, at no time a matter for debate among carrier pilots, was never more conspicuous than during the Korean conflict. The actions of HU-1 detachments in the combat area earned the Presidential Unit Citation:

"... for extraordinary heroism in action against enemy aggressor forces in Korea from 3 July 1950 to 27 July 1953. Pioneering in the employment of helicopters under combat conditions, Helicopter Squadron One achieved a brilliant record while participating in every battle against the enemy throughout this period. Obligated to develop its own tactics and operational procedures, this resourceful and intrepid squadron spotted and directed naval gunfire in actual combat; spotted and destroyed enemy mines; effected the rescue of 429 persons, many of which rescues were carried out over hostile territory in the face of enemy fire; transported personnel and prodigious amounts of mail and material at sea; relieved destroyers of daylight plane guard duties; and maintained ninety-five percent

availability for assigned missions. The courage, ingenuity and inspiring teamwork of the officers and men of Helicopter Squadron One were contributing factors in the success of friendly forces in Korea and were in keeping with the highest traditions of the United States Naval Service."



WHIRLYBIRD leaves USS Iowa to check results of the BB's afternoon bombardment of the Korean shore.



ICEMAN TOO—Choppers operating from icebreakers have been a big help in polar regions. Below: Vertical unrep.

lifting capacity and hovering limitations, the ASW helo was reluctantly set aside until a later date.

In 1949, ASW helo development began in earnest at Key West, home of Air Development Squadron One. VX-1 began the program with 10 HO4S-1s, a version of the S-55. (An earlier squadron, VX-3, had been commissioned in 1946 to study various naval applications of the helicopter.)

In the beginning, success was something less than overwhelming. High temperatures and humidity, coupled with lack of wind, taxed the HO4S-1 engine beyond its capacity, and the Navy was forced to try another bird.

For the second try VX-1 settled upon the HRP *Rescuer*, perhaps better known as the *Banana*. By stripping the fabric covering from the metal frame, the *Banana's* lifting capacity was brought up to a reasonable figure. The helo was flown, and the results were encouraging—meaning the idea worked fine until the electrical gear, designed to be protected by the fabric skin, began to fail.

VX-1 arranged for a swap with the Marines at Quantico—the useless (for ASW) HO4S-1s were traded for more *Bananas*. The fabric was stripped from the new birds and, by dint of effort and imagination, the electricians devised a way to protect the electrical devices.

THE WORK WITH THE *Banana* led directly to the HSL, the first helicopter designed especially for

ASW. The first HSL was delivered to the Navy in 1953, and by the end of 1956 a total of 51 had been accepted.

It was the single rotor HSS-1 and HSS-2, however, which were destined to become the backbone of the first helicopter ASW forces. The first HSS-1 was accepted by the Navy in 1954 and the first HSS-2 in 1959.

The HSS-1 was not equipped to fly ASW missions at night, and during the early 1950s the Navy devoted considerable time and effort to developing a night-flying whirlybird. The first of these was a converted HSS-1 which was flown on 26 May 1958. A few months later the HSS-2 *Amphibian*, designed for



LIFE SAVER—The whirlybird came into its own during Korean conflict, performing many combat missions. Here, helo lands at front to evacuate wounded.





CARRIER BASES—Copters play important role in amphib assaults, operating from LPHs and, in ASW, from CVSS.

night missions, made its first public flight.

While the Navy was working on an ASW helicopter, the Marine Corps was developing tactics and techniques for the use of helicopters in amphibious operations. An experimental squadron had been commissioned in 1947, and it soon added vertical envelopment to the list of helicopter missions.

The first Marine helos used in combat were HO3S models. On 3 Aug 1950, at Changwon, Korea, these whirlybirds went into action in support of the First Provisional Marine Brigade. During the first day in combat the helos delivered rations and water to troops on a mountain-side and evacuated heat casualties. During that and other actions the helo proved invaluable for evacuating the wounded to base hospitals and hospital ships.

Slightly more than a year later, Marine Helicopter Transport Squadron 161 arrived at Pusan, Korea, aboard *uss Sitkoh Bay*. Flying HRS-1s, which are capable of carrying considerably more than the HO3S,

the squadron began Operation Windmill I, lifting supplies for the First Marine Division. Then, on 21 Sep 1951, the squadron carried 224 troops in the first helicopter landing of a combat unit.

AFTER THE KOREAN CONFLICT CVE 90 was converted to handle helicopters and to accommodate 1000 Marine combat troops. Commissioned on 20 Jul 1956 as *uss Thetis Bay* (CVHA 1), the ship was the forerunner of the amphibious assault ship (LPH).

In the meantime, the Navy was developing remote-control helicopters. On 23-24 May 1957, a drone helo made about a dozen remotely controlled landings and takeoffs from the fantail of *uss Mitscher* (DL 2) off Narragansett Bay.

Although the drone was manned by a safety pilot, the flights demonstrated that the drone control system would work, and later flights led to the eventual Fleet use of the *Dash* drone helicopter.

The helicopter, for all practical

purposes little more than two decades old, offers many possibilities for the future.

During the Korean conflict helos were used by airborne spotters for the mine force, and experiments began with having them tow the gear. Since then the Navy has been improving on the concept and, who knows, an MSE (MineSweep: Eggbeater) may yet be forthcoming.

In 1960 at Panama City, Fla., the soundness of the new lightweight minesweeping gear was demonstrated. A twin-rotor helo lowered new lightweight minesweeping gear into the water, towed it, then retrieved it. Later that day, conventional minesweeping gear was towed by a surface minesweeper, transferred to a helo by means of a hook, transferred to a second helo and, finally, back to the minesweeper. At present the U. S. Test and Evaluation Detachment at Key West is evaluating a new type of sweep gear designed specifically for helo tow.

Other possibilities? No self-respecting swami would dare to list them. —Jon Franklin, JO1, USN

HOT SPOTS—Choppers rush Marines to front in Vietnam and (rt.) demonstration shows potential as fire fighter.





ANGEL'S VIEW—Helicopter pilot keeps watch during air recovery operations aboard *USS Bon Homme Richard*.

HOW TO FLY A COPTER

LEARNING TO FLY the helicopter can be an ego-shattering experience. Consider the Navy pilot who has been flying conventional aircraft for many years. He probably has been around a bit, flown lots of different types of aircraft, and feels that he can handle just about anything.

Then he begins training as a chopper pilot. After a week of ground training, he tries to fly the whirlybird for the first time, and discovers that he is the most uncoordinated person in the world. He wishes he had a few more hands when he tries the maneuver characteristic of the helicopter—hovering.

To control vertical movement, he uses the collective pitch stick, which protrudes through the cabin floor on his left side. This changes the angle of attack, or "pitch" of the rotor blades, and controls the amount of bite which they take of the air.

At the same time, he must arrest his lateral movement by using the cyclic stick to keep his rotor hori-

zontal. He also must adjust the throttle to keep the speed of his rotor constant.

Meanwhile, his feet are busy regulating the pitch of the small rotor in the tail, to keep the copter from responding to torque, and spinning in the opposite direction from that of the main rotor.

When he thinks he has settled his bucking eggbeater down and is actually hovering, he over-controls

GOOD SHOW—Copter pilot LCDR Allen L. Kruger, USN, removes helmet after returning from rescue mission.



just a bit and flies off in all directions.

Perhaps overstated a little, but that's just about what it's like learning to fly the helicopter. It can do extraordinary things, and likewise it takes some extraordinary skills to fly it.

HOVERING, while one of the more difficult tasks for the student, is by no means the only new technique he must learn before he becomes a chopper pilot.

He'll have to develop a smooth, steady hand on his controls. Because of the helicopter's innate ability to move through the air in any direction, and to change course instantly, the pilot must learn to compensate for every change of direction with just a little squeeze on his controls in the opposite direction. Until he learns this technique he will probably look more like he is piloting a rocking horse than a helicopter.

Now and then he will discover that he almost has to force his air-



FUTURE BIRDMEN first learn to fly the small H-13 Sioux, then move on to larger and more complicated helicopters.

craft to land, because of the ground cushion which is created by the downdraft of his whirling rotor. This ground effect is produced when the helicopter hovers at an altitude which is less than the diameter of his rotor sweep.

In addition to these general principles of rotary wing flight, the student is given certain exercises to

complete before he is considered qualified as a helicopter pilot. He must:

- Take off sideways and climb at a 45-degree angle.
- Starting at 200 feet altitude, make a 60-degree glide and land on a marked spot about 20 feet square.
- Take off backward. Continuing

in the same direction, swing the tail of the copter around and fly nose-first.

- Fly around the perimeter of a square and stop and hover at each corner, without deviating more than a foot laterally or vertically from the flight line.
- Make rough-terrain landings.
- Cut his engine and settle safely onto a predetermined spot.

ENOUGH SAID—Sign over the gate at Ellyson Field, Fla., speaks for itself.



THIS LAST MANEUVER requires a little more explanation. Contrary to what many people believe, if a helicopter's engine quits, it is not always fatal. The aircraft will land without power, if it is handled correctly.

A safe no-power landing is accomplished by employing "autorotation." This is the most difficult maneuver a helo pilot must learn, but in an emergency, it is the most vital.

When he loses power, the pilot must react instantly. He reduces his collective pitch, taking all the bite off the rotor blades. His timing is critical. If the angle of attack is not reduced quickly, allowing the blades to flatten out, they might spring up like rabbit ears, and break off.

If all goes right, and the pilot has reacted quickly, the spin of the blades allows the helo to settle gently to the ground. A pilot who knows what he is doing can set a chopper down in autorotation without so much as a jolt.

A Navy helicopter pilot learns to fly his unusual craft at Ellyson Field, nine miles north of Pensa-

cola. He reports to Helicopter Training Squadron Eight (HT 8) and joins students varying in rank and experience from aviation cadets to veteran fixed-wing pilots.

HELICOPTER training at HT 8 covers 12 weeks, 80 hours of which the student spends in the classroom, and about the same number in the air. He studies a totally different concept in aerodynamics from what he may have learned previously. His classroom training includes courses in antisubmarine warfare, survival, meteorology, and a course which is especially important to helicopter flying, weight and balance.

He first learns to fly the small, two bladed H-13 *Sioux*, then when he has mastered the basic techniques of flying the helicopter, he moves on to the larger, four bladed H-34 *Seabat*. After his training at Ellyson he will go on to fly many different operational helicopters, including the SH-3A *Sea King* and the UH-2A *Seasprite*.

He will learn the meaning of variety in his future as a chopper pilot. His assignments may include duty on a CVS, or a CVA, an LSD, a cruiser, an AFS, or an icebreaker in Operation Deep Freeze, to name a few.

His jobs will range from rescuing



IT'S YOUR BIRD—Instructor gives student pilot signal to go ahead and try solo.

pilots out of a choppy sea to transporting an admiral from his flagship to a carrier, or from transferring tons of cargo between ships to hunting for submarines, and maybe even plucking an astronaut and his capsule out of the water.

More than likely, our helo pilot will like his new job, and will like the whirlybird he thought so ungainly before he learned to fly it. The low altitude at which he constantly operates will give him the sensation of speed, which is all but

lost in a high-flying fixed wing. He'll like the positive control he has over the aircraft, the feeling of being complete master of where he is going.

He'll get used to walking out of the hangar, climbing into his chopper and vaulting right into the air, without taxiing around the runways for 20 minutes waiting for the traffic to clear.

In short, for the newly designated helicopter pilot, flying is fun again.

—Jim Teague, JO1, USN

EXPERT TOUCH—Flying the whirlybird requires a lot of skill and training. Here, choppers lead ASW group formation.





It's Vertical Envelopment

IN A RECENT AMPHIBIOUS training exercise, helicopters and landing craft from amphibious ships of the Seventh Fleet landed 1200 combat-ready Marines of the Second Battalion, Third Marines, on the Philippine island of Mindoro.

HMM 362 helicopters loaded with troops left the deck of the amphibious assault carrier *USS Valley Forge* (LPH 8) at H-hour for landing zones inland, while landing craft dropped their ramps and discharged combat troops on the beach.

After landing, the troops deployed and secured their first objectives, then continued the advance inland to link up with the helicopter landed force. Meanwhile, landing craft continued to bring in additional troops,

artillery, and supplies to support the troops ashore.

The two-day exercise was one of a continuing program of amphibious exercises designed to keep the Navy and Marine forces in readiness for the assault of hostile beaches using amphibious assault techniques developed through the years. These techniques have again proven successful in operations in Vietnam.

Top Left: Flight deck officer gives signal and a Navyman leads Marines down the deck of *USS Valley Forge* (LPH 8) to waiting copter. *Top right:* Helicopters from *Valley Forge* land Marines inshore. *Bottom Left:* Chopper departs for ship to pick up another load of troops. *Bottom Right:* Surfside, landing craft unload Marines during amphibious assault.





In & Out of the Hot Spots

NAVY CONSTRUCTION men working under fire in world War II built a reputation that earned them the title of "The Fighting Seabees." Once again, this time in Vietnam, they are in the hot spots, building installations under enemy fire.

Take Mobile Construction Battalion Nine for example. They are working at DaNang East, building galleys, roads, warehouses, fortifications and ship ramps to support the Third Marine Amphibious Force.

Attack from the Viet Cong on the ground or by shelling is nothing new to these Navymen. The evening pictured here was one of sweating out a surprise nighttime 81-millimeter mortar attack and keeping on the alert for any ground attack that might follow the shelling. The VC often attack after a barrage.

Also on this night the CB Command post had to send out a call for a helicopter to come in under the nose of the enemy to evacuate a seriously wounded Marine. When the copter was heard in the black sky over the CB equipment yard the Seabees switched on truck lights, the copter made a swift landing, the patient was loaded aboard, and the whirlybird took off as the lights snapped out.

Clockwise from Top: (1) Moving fast in the light supplied by truck headlights the Seabees load casualty aboard helicopter for airlift to DaNang Hospital. (2) Answering MCB-9's call for help a copter comes in for a quick landing in the equipment yard. (3) Seriously wounded Marine receives aid in battalion command post before evacuation by helicopter.





FAST SERVICE—*USS Sacramento* (AOE 1) refuels *USS Mars* (AFS 1) and *USS Walke* (DD 723) during Western Pacific deployment. *Sacramento* and *Mars* use UH-46C helicopters for vertical replenishment, accompany fast task forces.

VERTREP

TO KEEP UP WITH the increasing improvements and needs of today's fast naval task forces, the Navy has expanded the capabilities of its movable logistic support forces to include the use of helicopters in vertical replenishment (VERTREP) as a normal resupply method.

This concept of resupply of ships at sea, although not entirely new, has in the past been limited to the use of helicopters normally carried by aircraft carriers and other large ships. Now it has been incorporated with the conventional methods of alongside cargo transfer from supply ships to speed up the underway operation.

Playing an important role in the story of vertical replenishment is the UH-46A.

One of the first tests of the UH-46A's capabilities in ship-to-ship transfer was made when surface-to-air missiles were transferred during exercises at sea off Norfolk, Va., in November 1964.

With a cruising speed of 150 mph and a range of 300 miles, the UH-

46A helicopter can carry out the major resupply of all types of ships by VERTREP. The ships are required to come alongside only if the transfer of fuel oil is necessary.

A month after the Norfolk exercise, in December 1964, two UH-46A *Sea Knight* helicopters were placed aboard the new combat stores ship *USS Mars* (AFS 1). This can be marked as the date when helicopters designed for full-scale vertical replenishment operations were activated in the U. S. Seventh Fleet.

Ten months later two UH-46A helicopters of Helicopter Combat Support Squadron One, Detachment 49, began operating aboard the Navy's first fast combat support ship *USS Sacramento* (AOE 1).

Both ships, units of the Pacific Service Force, are deployed in the western Pacific, operating in support of the Seventh Fleet.

The medium utility, twin-turbine helicopters are identical to the CH-46A medium assault helicopters used by the Marine Corps for vertical

envelopment assault operations.

The primary aim of the Navy's new vertical replenishment program is to reduce alongside underway replenishment time, thus allowing combatant ships to remain for longer periods of time in their regular position in the task force formation, ready for action. This has been substantially demonstrated through the multi-product delivery capability of *Sacramento*, a combination Fleet oiler, ammunition and provisions ship, while serving as flagship of the Mobile Logistic Support Group Commander (CTG 73.5) during recent operations in the South China Sea.

While ships are alongside, *Sacramento's* two helicopters can continue to relay provisions and ammunition to them. The VERTREP complements the transfer of ammunition by highline and reduces the over-all time alongside, allowing the ship more time for tactical maneuvers.

In most instances a VERTREP trip to a carrier alongside *Sacramento* can be completed in one to two

minutes from the time the helicopter leaves the ship's flight deck until it returns for another load. The operation takes an additional two or three minutes for a destroyer alongside. The lift has to be positioned cautiously in the small destroyer landing area without interfering with the refueling operation or personnel on deck. If the destroyer is not alongside, but in the vicinity of the supply ship, the VERTREP can be accomplished more rapidly since the decks are clear.

The *Sea Knight* can transfer single loads of cargo up to 6000 pounds, depending on the climate. Hot climates create high humidity which reduces the weight capacity to 3000 or 4000 pounds.

TO USE the maximum capacity of the helicopter's lift, the loads are doubled, tripled or quadrupled depending on the weight of each load. Light loads require the helicopter to cruise at slower speed to compensate for oscillation of the load at the aircraft's vertical center of gravity, while heavier loads allow the helicopter to move at faster speeds.

The UH-46A has demonstrated its value on board the Navy's new supply ships in both the Atlantic and the Pacific Fleets. It can be used for a variety of purposes. Its 45-foot-long body can seat 25 passengers, or 15 stretchers and two passengers.

Its watertight body enables it to make emergency landings on the water or perform dangerous rescue missions. Although designed primarily for external cargo lifts, its rear loading door and ramp are provided with a hydraulic winch and rollers built into the floor.

During a normal VERTREP the helicopter is manned by a crew of four. One man in the rear of the helicopter operates the cargo hook installed in a hatch in the floor, while a man with radio headphones acts as the cargo hookup position director for the pilot and co-pilot. The transfer is carried out simply and safely from the time the load is lifted from the flight deck until it is placed on the receiving ship. Ships without flight decks or landing platforms must have an area clear of obstructions to allow the helicopter to get close enough to the deck to land the load.

The helicopter detachment embarked in *Sacramento* is composed of four officers and 18 enlisted men in the aviation ratings of machinist's



HELICOPTER lifts supplies from USS *Altair* (AKS 32) for transfer to carrier.

mate, electrician's mate, electronics technician and structural mechanic.

Sacramento's accomplishments in vertical replenishment extend not only to the transfer of provisions and general ammunition items, but also to transfer of surface-to-air missiles (*Talos*, *Terrier* and *Tartar*) and the antisubmarine warfare weapon, *Asroc*. Vertical replenishment of these missiles has been completed while the ship continued transferring all of her varied cargo to ships alongside at high speeds.

Modern equipment for ammuni-

tion and provisions handling, such as elevators, conveyors, mechanical pallet transporters and fork lift trucks, have enhanced *Sacramento's* capability to fulfill the requirements of a combat task force.

Throughout the Navy the helicopter is being used more and more for underway logistic support of the Fleet. The conversion of ships' fantails into landing platforms and the addition of flight decks on the Navy's newer ships are signs of the growing importance of vertical replenishment.

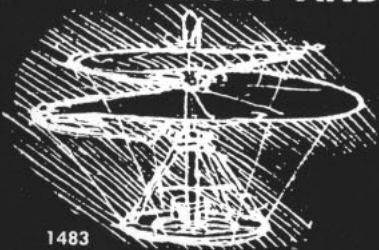
—Milt Shaw, JO3, USNR

FLIGHT CREW of USS *Mars* readies helicopter for vertical replenishment job.



A NEST

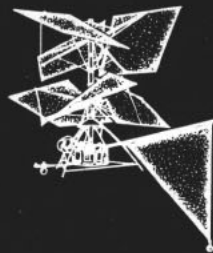
HISTORY AND DEVELOPMENT OF THE HELICOPTER



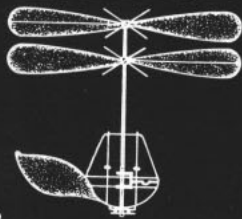
1483
Leonardo da Vinci made a drawing of a rotating corkscrew fan designed to produce direct lift. It was da Vinci who made some of the first known drawings of a flying machine, and he drew and built a number of models.



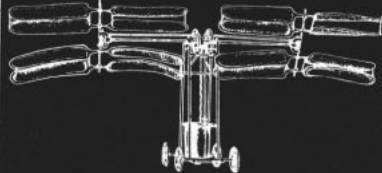
1784
Launoy and Bienvenu of France designed a machine with propellers at both ends of a shaft. Modern helicopter development derives from this twin-rotor model and a variation of it by Sir George Cayley of England.



1828
Vittorio Sarti of Italy designed a craft which had two contra-rotating co-axial rotors made up of sails moved by jets of steam. The steam came from nozzles cut in the mast.



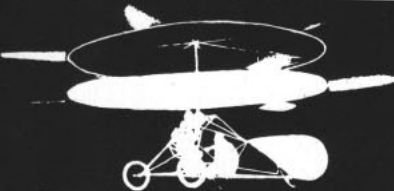
1859
Henry Bright developed a model with two contra-rotating two-bladed rotors mounted on a vertical shaft. He was granted the British Patent Office's first helicopter patent.



1877
Castel used a compressed air engine to drive two pairs of rotors. His 50-pound model made a successful takeoff, but crashed.



1907
Louis Breguet, of France, designed and flew this machine which rose three feet off the ground on 24 Aug 1907 while tethered. It thus became the first helicopter to lift a person. Paul Cornu, also of France, made the first free vertical flight on 13 Nov 1907, remaining a foot off the ground for about 20 seconds.



1912
Ellehammer, a Danish inventor who developed the first air-cooled radial engine, designed his machine with two rotors that could be tilted for control. He demonstrated it before the Crown Prince of Denmark on 12 Sep 1912.



1922
George de Bothezat, a Russian who emigrated to the United States, developed for the Air Service of the U. S. Army a machine that rose 12 feet on 19 Dec 1922. The following April it lifted four men.



1923
Juan de la Cierva of Spain designed a series of autogiros beginning in 1920. This model, the C-5, first flew in July 1923. He also made the first practical application of the hinged rotor blade, which was fundamental to the controllability of the helicopter.



1933
The TSAGI 3-EA helicopter, built in Russia, made a number of short flights. It had a pair of fore and aft contra-rotating rotors.



1934
W. W. Kellett of the United States began manufacturing autogiros in 1929. In 1934 one of them accompanied the Byrd Antarctic expedition. Shown is a 1934 KD-1, which had a maximum speed of 125 mph and a range of 361 miles.



1936
Professor Heinrich Focke of Germany is credited with the first practical helicopter—the double-rotored Focke 61 which made its first free flight in June 1936. A year later it beat most of the existing world records for 'copters.



1940
Igor Sikorsky, who came to the United States after the Russian revolution, is credited with the first practical single-rotor helicopter. His VS-300, shown here, made its first free flight in 1940 and was later mass-produced for the Navy.



1945
The SNCASE E7-700 was an autogiro, but it could lift from where it stood by varying the pitch of its overhead rotor and airscrew. Built in France, it had a top speed of 165 mph and a range of 410 miles.



1955
The Kellett KH-17A, built on behalf of the Navy, had a 275-horsepower engine at its nose and twin 140-horsepower engines on its wings. Basically an autogiro built in 1939, it was redesigned as a flying test bed for convertiplane studies.

SEAKNIGHT
This is a tank ordered by the Navy for the Marine Corps and up to 25 tons. The Navy uses it from large carriers.



SEAHORSE H-34
The Seahorse is operational in the Navy for transport and amphibious operations for operations in the Pacific.

NAVY WHIRLY BIRDS

HELICOPTERS OF TODAY'S NAVY

The idea for the helicopter could have evolved from the Chinese top, a year old toy which may have inspired Leonardo da Vinci's drawings of models of a spiral-winged "aerial screw."

About the turn of this century, as the helicopter advanced beyond the engineering and model stage, a whole flock of fledgling flying machines took to the air—or at least tried to. In this period trailblazers like Breguet, Morane, de Bothezat, Cierva and Sikorsky made their marks.

The Navy was aware of the helicopter's potential as early as World War I until better propellers and powerplants were developed, it was not clear that a practical helicopter could not be built. So, on 5 Dec 1917, the War and Navy Departments agreed that support of the Navy's development efforts would have to be limited to moral encouragement unless someone demonstrated a helicopter of military value.

During the 1920s and '30s the autogiro (or gyroplane) probably attracted more attention than the helicopter. Its rotor is not powered. In the forward motion of the aircraft causes the rotor to turn like a windmill to lift the craft. It cannot hover or land vertically as the helicopter does. Nevertheless, much of the technical knowledge that made the helicopter possible came from the autogiro.

The Navy's first rotary-winged aircraft was an XOP-1 autogiro which was used for takeoffs and landings aboard USS Langley in 1931.

The first practical helicopter developed in the United States was Igor Sikorsky's single-rotored VS-300. It could do everything a helicopter should, but for one "minor engineering problem"—it wouldn't go forward. For a time it seemed the only cure would be to turn the pilot's seat

around and have him back up to wherever he was going. But this balkiness was finally conquered and, in 1941, Sikorsky set two endurance records in a machine that could hover and move up, down, sideways, backwards, and even forward.

The following year the Navy entered the helicopter field when it directed the procurement of four helicopters from Sikorsky for study and development by the Navy and Coast Guard. Mass production for the Navy began in 1943, and the age of helicopters had arrived.

Various developments followed:

In 1946 a Navy experimental helicopter squadron was commissioned, and the first twin-engine helicopter made a hovering flight. In 1947 a Marine helicopter experimental squadron was commissioned at Quantico, Va., to develop techniques for the use of helicopters in amphibious operations. The Navy's first helo utility squadron was commissioned in 1948.

In August 1950 Marines equipped with HO35 helicopters began operations in Korea. In 1951 the K-225, equipped with a turbine engine, made its first flight and, the same year, the Navy's first helicopter anti-submarine squadron was commissioned. In 1959 HU-2 pilots of the ice-breaker USS Edisto carried 277 flood victims to safety during 10 days of rescue operations in Uruguay. The following year an HRS made the first helicopter recovery of an object after it had been orbited.

Today, from South Vietnam to the South Pole, the helicopter goes almost everywhere the Navy goes and helps do almost everything the Navy does. Thus, in a little over 20 years, it has advanced from a mere experiment to a modern marvel of vertical versatility.



SEA KING H-3

The Sea King is a twin-engine antisubmarine craft designed for all-weather operation. With extra fuel tanks it can be used for long-range air-sea rescue. Some are being converted for mine countermeasures. This was the first 'copter to set a world speed mark over 200 mph. It has been used for astronaut recovery operations.



The H-46 is a 46-foot rotor, turbine-powered craft first used by the Navy in an assault transport version for the Marine Corps. It can carry a crew of three and 24 fully-equipped troops or 4000 pounds of cargo. The H-46 is used in vertical replenishment operations from supply ships (AFS and AOE).



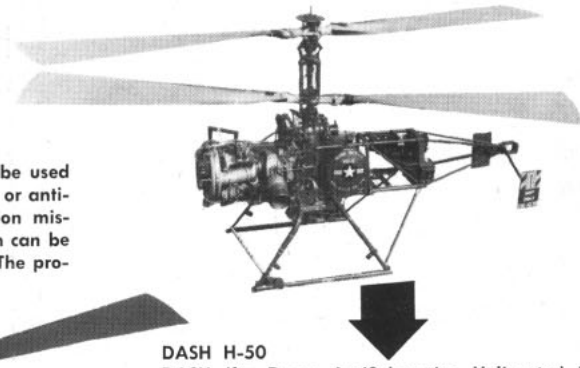
MOJAVE H-37

The Mojave is a twin-engine assault craft comparable in size to a DC-3 commercial airliner. It can carry 20 passengers, 24 litter patients or 1900 cubic feet of cargo. Clamshell nose doors, a loading ramp and power winch can be used for loading vehicles and cargo.



H-19

The H-19 is a utility helicopter which can be used for passenger or cargo transport, air rescue or anti-submarine warfare. For casualty evacuation missions it can carry up to six stretchers, which can be loaded by a power hoist while hovering. The prototype first flew in November 1949.



The H-19 is a single-rotor helicopter which is used for transport, utility, casualty evacuation, and search and rescue versions. One model has been used to hoist men from the water. As a transport it can carry up to 12 passengers.



DASH H-50

DASH (for Drone AntiSubmarine Helicopter) is a remotely controlled ASW weapon capable of carrying two homing torpedoes and especially designed for use by destroyers. Tracking by radar, a controller in CIC guides drone to target, actuates arming and weapon release systems, then returns DASH to ship.

→ A NEST of NAVY

HELICOPTERS OF TODAY'S NAVY

SIoux H-13

The Sioux is a light training helicopter used for general utility duties and icebreaker patrols. It can carry three people in its cabin in side-by-side bucket seats or, with seats removed, can haul cargo inside. Cargo can also be carried externally on the landing gear or an under-fuselage hook.



IROQUOIS H-1

This Marine Corps utility craft has a shaft-turbine engine designed for at least 1000 hours of service between overhauls. It can carry a crew of two, plus eight passengers, and will operate efficiently on a variety of fuels. It has a personnel hoist, rotor brake and special electronic gear.



SEASPRITE H-2

This is an all-weather general utility craft which can be used for search and rescue, casualty evacuation, vertical replenishment, gunfire spotting, courier service, wire laying and a variety of other tasks. It has a crew of two and can be fitted out to carry eight passengers or four stretcher patients.

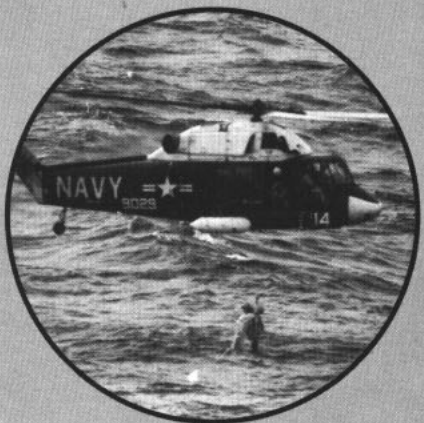


H-53

The H-53 is a heavy all-weather assault transport powered by two shaft turbine engines. It can carry 38 combat-equipped Marines or 24 stretchers and four attendants, or two jeeps. A large opening at the rear with a built-in ramp, and a hydraulic internal loading system facilitate cargo handling.



UDT PICKUP—Hovering close to the water, a Navy helicopter from an LPH lowers a rope ladder to retrieve UDT men.



TO THE RESCUE—Only minutes after their helicopter was forced to ditch, these crewmen were being hoisted to safety by a UH-2A Seasprite.



STRENGTHENING THE LINES—Helicopters rush in ammunition and supplies to strengthen Marine positions during amphibious force maneuvers.

WHIRLY BIRDS

HELICOPTERS... JACKS OF ALL TRADES



DRONE FREIGHT—An HUS Seahorse heads back to its base after recovering drone used in 1961 exercise.



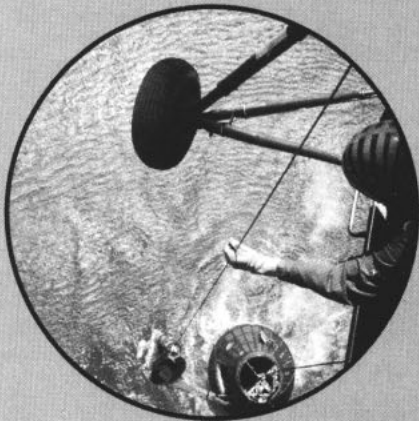
HARD-TO-GET-TO—Helicopter lands in small clearing atop rocky point in Galapagos Islands where cliffs make boat approach impossible.



ARCTIC PATROL—An HTL-5 helicopter returns to USS Edisto (AGB 2) after scouting path for ships in 1957 Arctic resupply mission.



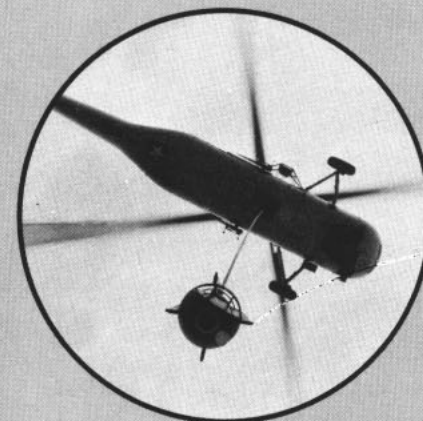
MERCY MISSION—Helicopters on flight deck of USS Princeton (LPH 5) are loaded with sacks of flour for South Vietnam flood victims.



HOME AGAIN—Astronaut Alan B. Shepard, Jr., is reeled in by 'copter after successful sub-orbital flight in 1961.



NO KITCHEN SINK?—Wide assortment of cargo demonstrates carrying capacity of H-46 Sea Knight, which can haul up to 8000 pounds.



SUBMARINE PROTECTION—Antisubmarine helicopter, viewed from below in 1963 shot, lowers sonar ball to sound depths for "enemy" submarines.



VERTICAL ENVELOPMENT—A Marine helicopter on flight deck of USS Valley Forge (LPH 8) loads troops during amphibious training exercise.



TOUCH-AND-GO—Marine helicopter under enemy fire uses touch-and-go tactics to deliver supplies to South Vietnamese troops.

Brief news items about other branches of the armed services.



ROTORCRAFT, called a compound airplane, has helicopter rotor blades, jet engine, conventional plane wings.

A DETACHMENT of Army helicopters has completed another season in the Antarctic. Three *Iroquois* UH-1B helos and their crews spend several months each year down on the ice. This year they were based at Camp Neptune in the Pensacola Mountain Range.

Camp Neptune consisted of 13 Army men who flew and maintained the helos, a cook, an aerographer and 26 U.S. Antarctic Research Program (USARP) personnel. The helo detachment also supported scientists in the McMurdo area.

During their stay in the Pensacola area (November through mid-January), the three helos logged 441 flight hours helping USARP scientists in the largest research effort yet attempted in the Pensacola mountains.

A principal project was a 580-mile aerial traverse of the Dufek Massif and the Forrestal Mountain Range. Carrying seismologists and their equipment, the helos

TOUCH-DOWN—Air Force helicopter lands aboard command ship *USS Northampton* in one of 250 day and night qualification landings at sea by Army and Air Force.



made the trip in a series of 25-mile hops.

At each stop scientists drilled a hole in the ice and planted an explosive charge. By analyzing the vibrations they could determine the ice thickness and the topography of the land beneath.

★ ★ ★

A NEW ANTITANK assault weapon system, for use by infantrymen, will soon fill the Army's need for a man-carried system big enough to kill most armor and other hard targets encountered on the battlefield.

The medium antitank assault weapon system is being developed as a defensive weapon against tanks and armored vehicles and as an assault weapon against infantry combat targets. It will be superior in range and accuracy to existing weapons used for similar purposes.

Successful firings of the MAW have been made at Redstone Arsenal, Ala., headquarters for the U.S. Army Missile Command, which directs the program.

In operation, the gunner sights a target through a telescopic sight, then launches the missile which follows his line of sight. The gunner has only to keep the crosshairs of the sight on the target to automatically guide the missile throughout its flight.

The system can be set up and fired easily, by one man, on any terrain.

★ ★ ★

THOUGH THE CIRCUMSTANCES are somewhat different, man, at long last, is able to fly like the birds without the aid of a flying machine. He cheats a little, of course, by flying in space where there is no requirement to counteract the force of gravity. It is effortless. But he flies—as demonstrated so far by Astronaut Edward H. White, who took a 20-minute walk in space while flying 135 miles above North America.

Soon man's efforts in this direction will be much refined. Instead of an oxygen-jet propulsion "gun" as used by White for maneuvering, future spacemen will have a complete propulsion and control system strapped to their backs for space travel and maneuvers. Instead of being restricted to a 25-foot radius traveling distance from their spacecraft—the length of White's lifeline—future spacemen will flit about freely, able to visit other spacecraft orbiting nearby, assist in assembling space stations and docking and servicing space vehicles, perform rescue or emergency repairs and accomplish numerous other tasks in free space.

Such a device is called the Astronaut Maneuvering Unit (AMU)—a product of Air Force research—and has already been checked out under simulated conditions. It is designed to permit a space-suited astronaut to travel, maneuver and stabilize himself in space while also performing numerous tasks. It is scheduled to make its first space flight this year aboard a *Gemini* space craft.

While small enough to fit on an astronaut's back, the AMU contains the elements of a full-size spacecraft—a complete propulsion and control system, an automatic stabilization system to hold the astronaut in the position he desires, oxygen and environmental control equipment, electrical power system, two-way communications, telemetry and malfunction warning system.

In the *Gemini* mission, because of limited space inside the crew compartment, the AMU will be carried into

space in the adapter section at the rear of the spacecraft. A smaller chest pack, carried inside the capsule and connected by an umbilical, will be used by the astronaut for life support and communications while he makes his way to the AMU and checks out its various systems.

When the AMU is tried out during the *Gemini* space flight it will have its first realistic evaluation. The astronaut will use a long tether secured to the spacecraft during the trials.

★ ★ ★

SHADES OF WORLD WAR II. The Red Ball Express is back again. This time, however, it is carrying highest priority parts and equipment by air to the front lines in Vietnam at 500 miles per hour, rather than delivering by truck across Normandy.

To soldiers slogging through France in 1944, the huge fleet of Army trucks, each with a red ball on the bumper barreling along bomb-pocked roads, became a familiar sight. Today's version of the famous express is a joint Army-Air force project and, although jets have been substituted for trucks, the red ball is still there boldly stenciled on the containers and pallets of each piece of priority material.

Cargo is loaded at Travis AFB on the first available Saigon-bound aircraft for immediate shipment. In many cases, this means a commercial jetliner, since commercial planes are being used to augment Travis' facilities.

Between Travis and Saigon, the Red Ball Express has top priority for refueling and maintenance. When it arrives at its destination, special handlers are available to unload its badly needed cargo and transship it to field units.

The system has worked so well that some items have been received in the field in Vietnam within 72 hours after they were requested. The size of the items in the cargo ranges from complete jet engines to tiny electronic transistors.

The Red Ball Express was resurrected by the Secretary of Defense last December and within 11 days after the order was signed, the first Red Ball shipment

THREE-SERVICE effort brought 'copter to Camp Neptune, Antarctica. Three Army Iroquois helos are flying support for Navy's Operation Deep Freeze. Right: Choppers were brought to Antarctica via Air Force Globemaster.



was airborne. Current shipments average nearly 20 tons of highest priority cargo a day.

In 1966, the Red Ball is as effective as it was in the France of 1944. This time, however, the roadway is 7500 miles long.

★ ★ ★

IN THE FUTURE, a pilot may be able to air-drop cargo to an impact zone he can't even see. He need only be close to the area when the cargo is dropped, and it will find its mark automatically.

This is the result of a new device the Air Force has been testing in the U. S. and overseas. In West Germany, successful drops were made from C-123 aircraft to impact zones located in a narrow valley and surrounded by 2000-foot mountain ridges of the Bavarian Alps.

On the ground, a 30-pound transmitter directed the chutes to the impact point both automatically and manually.

The parachutes were, of course, specially equipped for these tests. Each had a 115-pound control unit attached which, by radio signal, pulled the guide lines and thus directed the parachute to the desired impact point. In addition, each chute was equipped with red, green and white lights which made it easier to see at night during manual control drops.

A total of more than 60 Stateside tests were made. In each case, the aircraft flew at 130 knots at 5000-foot altitude when the cargo was released. One landing was only 69 feet from the ground transmitter.



SECNAV TASK

On 14 Feb 1966 SecNav Notice 5420 announced completion of the proceedings of the Secretary of the Navy's Policy Board and Task Force on Personnel Retention. Here is a brief report on the SecNav Task Force and how it conducted its study. It is followed by a summary of the findings and recommendations approved by the Secretary of the Navy Policy Board. SecNav Notice 5420 provides for implementation of the approved recommendations.

THE SECRETARY OF THE NAVY has received the first dividend on his all-out efforts to improve career opportunities for Navymen. This dividend is in the form of numerous recommendations approved by the SecNav Policy Board on Military Personnel Retention.

The Policy Board was established by Secretary Nitze in December 1964 for the specific purpose of examining the retention problem. In its year of operation the Board has been supported by a Task Force of Navy officers, headed by Rear Admiral John M. Alford, USN, which has actively researched, deliberated and analyzed the various factors affecting retention.

Also linked with the Secretary's effort has been a marathon Navy-wide campaign to draw, from seaman and admiral alike, personal views relating to career retention. The Policy Board has ultimately passed judgment on virtually all recommendations and suggestions received, after they were synthesized by the Alford Task Force.

Like every other large organization that is readjusting its operations to meet the demands of the technological era, the Navy has found itself faced with certain "human" problems. Foremost is the competition with civilian industry for the services of high caliber technicians.

Certain career advantages the Navy once held exclusively over competing industries have diminished, as industry closed the gap. Secretary Nitze recognized the need to take a new look at many existing policies in the Navy and decide which needed to be revised.

HIS FIRST STEP was to assemble a formal group of top-level Navy officers and civilian officials to undertake the comprehensive review necessary. Besides himself, the Secretary named as board members the Under Secretary of the Navy; Chief of Naval Operations; Vice Chief of Naval Operations; Commandant and Assistant Commandant of the Marine Corps; Chief of Naval Material; Chief of Naval Personnel; the Deputy Chiefs of Naval Operations for Air, Logistics and Fleet Readiness; the Chief of the Bureau of Medicine and Surgery; and the Chief of Information.

Additionally, the following non-Navy members served with the Board: Assistant Secretary of Defense for Manpower; Deputy Assistant Secretary of Defense for Special Studies and Requirements; Assistant Secretary of Defense for Installations and Logistics; the Deputy Assistant Secretary of Defense for Budget; and the Assistant Secretary of Defense for Systems Analysis.

From the date that SecNav established the Policy Board, every effort connected with the retention study has been conducted on a priority basis. This includes the organization of the Task Force, which was directed to:

- Identify and examine the major factors bearing on retention of high quality officer and enlisted personnel; and
- Develop a plan for attacking these retention problems, and include specific recommendations and a program to implement the recommendations.

THE TASK FORCE ON PERSONNEL RETENTION, headed by Rear Admiral Alford, was organized under the general supervision of the Chief of Naval Personnel, and reported directly to the Secretary of the Navy as Chairman of the Policy Board.

The scope of the Task Force's study was extensive, encompassing primarily the following subject areas:

- Education and training opportunities for officer and enlisted personnel.
- Personnel distribution policies; the relationship between Fleet manning and retention.
- Sea/shore rotation policies, including overseas duty and the frequency and duration of family separations.
- Fringe benefits for active and retired personnel.
- Living conditions, both ashore and afloat.
- Pay, including hazardous duty and other incentive pay.
- Work hours, ashore and afloat.
- Officer promotion and enlisted advancement opportunities.
- Medical care.
- Fleet operations.
- The Navy public image.

Other matters were considered as they cropped up, leaving no stone intentionally unturned.



FORCE REPORT

MANY OF THE APPROVED RECOMMENDATIONS can be put into effect almost immediately (some already have been), since they require only a change of policy within the Navy. Other of the recommendations which the Policy Board has endorsed will require further approval from the Department of Defense before they can be enacted, and some will require new legislation or approval from other executive agencies if they are to be implemented.

During its initial year of operation in support of the Policy Board, the Task Force pursued every feasible means to approach the matter at hand. Many recommendations worthy of consideration had already been submitted from the Fleet, by request of the Chief of Naval Personnel, before the Task Force was established. Expanding on this approach, the Secretary of the Navy urged everyone who had something to contribute to write directly to the Task Force Director, disregarding, in this case, the chain of command. The response to this invitation was overwhelming and produced many germane suggestions.

ANOTHER CHANNEL FOR IDEAS and recommendations instituted during this period was the ALL HANDS feature, "Four-Star Forum," which provides naval personnel an opportunity to publicize their pet problem and propose a solution to it. Many hundreds of such

letters have been processed and reviewed, and the feature met with popularity, eliciting many good ideas.

Additionally, Secretary Nitze requested the Commandants of the Fifth and 11th Naval Districts to organize a five-day retention symposium on each coast. The Commanders in Chief of both the Atlantic and Pacific Fleets were asked to name representatives to the symposia. Sizable groups of officers and enlisted men attended each, as did a group of Navy wives. The Marines were represented in a symposium at Quantico.

Members of the Task Force attended the symposia first in San Diego and later at Norfolk and Quantico. In turn, they briefed attending enlisted men and officers on the problems they were trying to solve. Open question periods were held. Then representatives split into groups corresponding to divisions within the Task Force. Each panel was able also to comment on the entire picture, as was each individual. One afternoon was devoted to obtaining the wives' views.

ADMIRAL ALFORD later announced that, with the assistance received from the symposia representatives, his final report would reflect the views of a cross-section of at least 100,000 Navy people.

Also working closely with Admiral Alford's group throughout the extended session were the Navy bureaus, including the Bureau of Naval Personnel, and other of-

Task Force Tools

THE RETENTION TASK FORCE operated on the general theory that improvements to the basic conditions of Navy life would almost automatically improve retention. Specifically, the Task Force intended to find or fabricate ideas which would remove or reduce unnecessary frustrations.

That's a large order. Fortunately, however, the basic problem—a case of galloping technology—offered some of its own tools, in the form of modern management techniques and data-collecting methods, to help display the issues in proper perspective.

For example, among these tools used by the Task Force is the *mathematical model*. Using mathematical models, a good man with a slipstick can determine numerically a good many specific effects of any proposed solution, or come to the root of many a problem. A number of the recommendations, such as those concerning the Navy's rating "pyramids" (see page 49), are based on mathematical analysis of the problem and the long-range effects of the proposed solution.

Mathematical models, like most tools, do have certain limitations. The information gained is only as accurate as the information used in the calculations. Some manpower questions involved psychological behavior, which is noted neither for its predictability nor its accuracy, at least in individual cases.

For problems of this sort the Task Force used other tools specifically designed to *collect opinion*. One of these was the collection of letters from the Fleet which the Task Force received—in quantity. Even opinions, though unpredictable, can be catalogued and assessed scientifically when modern methods are used. Such procedures may result in such far out-at first glance—recommendations as the Navy LCPO billet (see page 43).

The *cost data bank* is another tool not to be overlooked. It is a computerized collection of facts relating to people and money. Using the bank, it was then a matter for the expert in this field (he's called a cyberneticist) to determine such items as training costs for specific rates and ratings.

There were also *statistical studies*, used to gain specific information concerning such subjects as reenlistments (by marital status, for instance), or how strength authorizations compared to personnel requirements of the Navy and how that compared to on-board strength.

Using the information gained by these tools, the Task Force added intuition, experience, judgment and a touch of salt to produce sound decisions. Through this process almost half of the original recommendations were eliminated, while those printed in the following pages were strengthened.

fices of the Navy Department. When the Task Force arrived at its findings, the report was first submitted to the Chief of Naval Operations. Further refinements were made after this initial review before the report was finally submitted to the Policy Board.

Every recommendation passed on to the SecNav Policy Board is based on considerable documented research and deliberation on the issues involved.

Professional Dignity & Enhancement of Navy's Image

THIS SECTION OUTLINES the recommendations of the SecNav Task Force on various subjects related to and affecting the image of the Navy, internally and externally. Specifically, it covers those aspects intended to enhance professional dignity which are not referred to elsewhere. Four general areas were considered:

- *Improvement in the information flow*—within the Navy and between the Navy and the public; the importance of a general understanding of the value of a naval career; and the Navy's active role in defense—Does the public have an appreciation of the over-all accomplishments and mission of the modern Navy?

- *Factors affecting prestige and prerogatives*—the importance of recognition of superior or outstanding performance; the significance of a correct public image of the Navy; the degree of public respect for the naval service and naval personnel.

- *Job satisfaction*—ways of improving practices and policies which may have become unnecessarily complicated, or which absorb time and energy that could be better applied.

- *Enhancement of the dignity of the individual.*

Information

AN IMPROVEMENT in the Navy's efforts in the field of public relations, both internal and external, will enable it more completely to accomplish its objectives.

The Task Force, therefore, considered it desirable to conduct an analysis of the total resources that may be available, and are now applied, in order to develop improvements. A review of ways to conduct this analysis led to the decision to recommend calling on an "eminently qualified" civilian concern to make the study. In connection with this effort, it was further considered desirable to establish an Advisory Board of outstanding civilians to assist efforts in implementing plans for improvement.

One area in the over-all field of information which merits immediate attention, it stated, relates to the Navy family.

The Task Force felt that there should be in CHINFO an office augmenting the flow of information to naval dependents and thus contributing to making dependents and families feel they are really members of the Navy team. Establishment of such a section could provide support and guidance for Navy wives who desire to or now are actively promoting, on a voluntary basis, ways and means of developing strong communications channels with all members of the Navyman's family.

On the following pages are presented, in condensed form, the recommendations approved by the Secretary of the Navy's Policy Board on Military Personnel Retention, which are aimed at improving career opportunities for Navymen.

NOTE: The recommendations are arranged according to subject matter in groupings, rather than in a numerical sequence, for easier reading.

Recommendations

- *Contract with a qualified public relations advertising firm for assistance in conducting a review of the Navy's information program (both internal and external) and develop a plan for remedial action. (Recommendation No. 48.)*
- *That CHINFO initiate action to establish a CHINFO Advisory board (similar to the Navy Ships' Store Office Advisory Board.) (Recommendation No. 49.)*
- *Reestablish a Dependents' Section in CHINFO with responsibility for emphasizing information flow to Navy wives and families. Utilize volunteer services of Navy wives, including the recently formed "Wifeline" organization. (Recommendation No. 50.)*

Awards and Decorations

AWARDS AND DECORATIONS are a valuable means of providing tangible recognition of superior performance or personal participation in military efforts of national importance and, as such, make a distinct contribution to professional dignity for the Navyman.

However, a long interval between the act for which an award is recommended and presentation of that award can have an unfortunate effect, and results only in depreciating the value of the award. Processing time for awards should, of course be kept to a minimum.

Recommendations have been made for delegation of authority for determination of eligibility and issue of certain awards to the commanding officers of participating ships and units. The premise is made that the commanding officers can handle this delegation once geographic boundaries and time limits for eligibility are established. This procedure is in effect in South East Asia area and permits early issue of awards.

The new Beneficial Suggestion program for military personnel is now in effect. It is intended to stimulate an improvement in suggestions, for which monetary awards may be authorized. The program promises to benefit both individual initiative and the naval service. However, it is not intended that there should be any reduction of emphasis on other appropriate meritorious awards and decorations.

The prestige value of the tangible evidence of recognition of meritorious performance afforded by medals should not be ignored with the advent of cash awards.

Recommendation

- *Establish a procedure for monitoring the processing time for award recommendations;*
- *Delegate to commanding officers of ships and units the authority to certify eligibility for the Armed Forces Expeditionary Medal and Vietnam Medal;*
- *Reemphasize the value of continual employment of meri-*

torious awards and decorations (medals) as well as the enactment of the Military Beneficial Suggestion Program. (Recommendation No. 51.)

Military Standards

THE OUTWARD MANIFESTATIONS of a military life set the military man apart. Properly established, these outward manifestations have the effect of increasing the military man's prestige, the prestige of his family and the esteem in which he is held by society in general. What is encompassed in these "outward manifestations" and standards of military life?

Many of the standards referred to are written in a multitude of manuals, regulations, directives and books. *Navy Regulations, Navy Uniform Regulations, The Watch Officer's Guide* and *Customs and Traditions of the Navy* are illustrations of source material. Other standards have been passed down from generation to generation. The multiplicity of sources and a lack of "assembled" standards may sometimes lead, and in fact have led, to inconsistency in interpretation, implementation and enforcement.

Since the aim is not only to maintain, but also to increase pride in the military man, the objects of pride (which in general terms are a fine, well operated and well maintained ship or station; well turned out, informed and disciplined personnel) need to be firmly established and maintained.

Recommendation

• **Revitalize standards of military smartness and cleanliness by formulating, disseminating and insuring uniform enforcement of a codified set of standards. (Recommendation No. 52.)**

Family Service Centers

THE WELFARE OF NAVY PERSONNEL and their dependents is an important consideration since it is a factor directly concerned with morale. The state of family morale in turn influences reenlistment decisions. It follows that every effort to insure that benefits and services are made readily available to the Navy family is a boost to the retention program.

Particularly to be commended in this regard are the Navy Relief offices which perform an outstanding service in assisting families in time of trouble, and the Red Cross which, in many instances, provides similar assistance along with its other numerous responsibilities.

Practices and procedures for caring for personnel vary from command to command, and most larger commands provide many services through regularly established offices. However, in many cases these facilities are not centrally located and procedures are not established for adequate coordination of effort.

Recommendation

• **The Task Force recommends the establishment of family service centers at Navy shore stations with major emphasis on areas of Fleet concentration, to assist new arrivals or persons with special problems in obtaining the personnel services that they require. (Recommendation No. 53.)**

Competitive Exercises

CHANGES IN THE COMPETITIVE exercise scoring system have been suggested, and tried out, with the aim

of reducing the workload in ships the task force said.

Further, the development of specific readiness criteria gives promise of new procedures for measuring readiness of Fleet units.

Recommendation

• **The Task Force recommends that LANTFLT monitor and evaluate PACFLT test of Fleet Competitive Scoring procedures with a view to early adoption of improvements revealed, including those features which reduce shipboard workload. (Recommendation No. 54.)**

Uniform Study

ENLISTED MEN ARE furnished a complete clothing bag before reporting to their first assignment. They are also furnished a monthly cash clothing maintenance allowance. Some confusion usually exists in the minds of enlisted personnel who erroneously interpret this allowance as intended to defray the costs of laundry and dry cleaning. By definition, the monthly cash clothing maintenance allowance is for replacement and repair.

The Policy Board reached the following conclusions concerning the Navy uniform:

• That reduction of the financial expenses incurred by the individual in regard to uniforms would improve morale and retention.

• That providing more acceptable and attractive uniforms would improve prestige and the Navyman's professional dignity, both inside and outside the Navy.

• That shipboard space constraints and inventory investment problems are a major consideration in contemplating improvements in uniforms.

• That any changes must not create undue financial burdens for Navy personnel.

Recommendations

• **That a comprehensive study of the uniform requirements be made to include, but not be limited to the following:**

1. **Reducing the numbers of officer and enlisted uniforms and accessories required and that less expensive insignia and devices be developed.**

2. **Developing a new, more attractive and utilitarian working uniform as a replacement for dungarees.**

3. **Developing additional organizational clothing items and means for more effectively utilizing existing items as substitutes for personal uniform clothing wear under conditions which accelerate deterioration.**

4. **That an implementation plan for the approved study results be formulated. (Recommendation No. 55.)**

Law Centers

NAVAL OFFICER-LAWYERS and personnel formally trained in the technical requirements of legal administration are important to the performance of legal administrative functions. The number of lawyers on active duty, however, represents the minimum necessary to do the job effectively under present conditions when used in the most efficient manner possible.

Additional requirements for legal service may be anticipated in the near future as a result of pending legislation which will enlarge the right to counsel in military proceedings. These requirements will demand the most efficient use of available legal talent just to

hold the line pending integration of additional legal personnel.

It is believed that, if the lawyers now serving in areas where there are high concentrations of ships, personnel and shore activities were consolidated at a given point, they could not only perform expanded consultant services for an increased number of activities, but they could also perform as trial counsels and defense counsels, and hence provide more and better service with essentially the same number of personnel at no appreciably greater expense. It is anticipated that the law centers thus formed would ultimately provide professional and technical services for up to 90 per cent of the special courts-martial convened throughout the Navy.

Recommendation

• *Establish law centers in areas where there are large concentrations of Navy personnel to provide professional assistance in trying, recording and preparing records of courts-martial, and assistance and advice on all legal matters. (Recommendation No. 56.)*

Administrative Workload

MANY ASPECTS of administrative procedure have a natural tendency, over a period of years, to become weighted with additional measures which could be streamlined, and with paperwork which could be condensed or perhaps eliminated entirely.

Much already has been done to improve administrative procedures and workloads—the highly successful SCRAP program is one recent example. It eliminated a mountain of paperwork.

Any relief from administrative workloads would benefit the Navy's operational capabilities ashore and afloat.

Recommendation

• *Conduct a study of administrative procedures in an effort to reduce administrative workload. (Recommendation No. 57.)*

Indebtedness

THERE ARE MORE than 165,000 Navymen under the age of 21. The inexperience in financial matters of individuals in this age category, both in civilian life and the military service, and the desire to protect their best interests, as well as the interests of legitimate business organizations, are matters of concern in this country. Pointing up this problem is the number of indebtedness letters received by commanding officers.

Many of these young Navymen are encouraged to use credit (often a new experience to them) even though they have enough money in their pockets to pay for their purchases in cash at the time. They later may find themselves burdened with accumulated demands for payment beyond their resources. At the same time, this problem is the cause of increased paperwork afloat, by letters of indebtedness claims to the individual's command.

Reports on the subject of credit have appeared in recent issues of ALL HANDS and may be of interest. They are: "Pointers to Help Keep You Out of the Red" (April 1965, page 51); "A Navy Primer: How to Stay Fiscally Fit" (November 1965, page 26); and "Report on Navy Credit Unions" (February 1966, page 44).

Recommendation

• *Evaluate recently established procedures for handling personnel indebtedness in commercial affairs (after an appropriate period of time) and if the workload afloat in handling indebtedness has not been reduced, consideration should be given to establishing regional offices through which all indebtedness correspondence should be screened before being forwarded to the debtor's command. (Recommendation No. 58.)*

Dignity, Prestige and Prerogatives

THE TASK FORCE considered various matters which, generally speaking, developed into recommendations aimed to enhance morale, personal dignity, prestige and prerogatives of naval personnel.

Recommendations

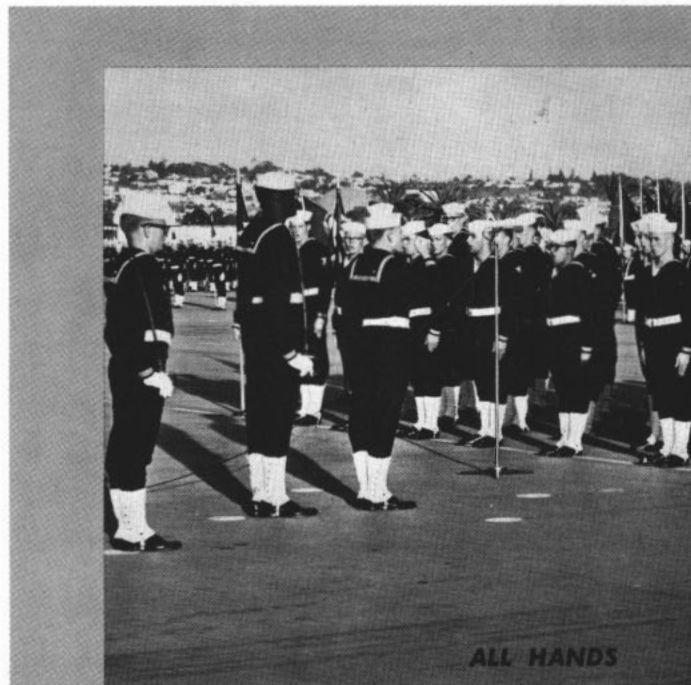
• *Assign to the Naval Inspector General the responsibility for conducting a continual review of all Navy policies, directives and procedures, and the implementing thereof, with a view to identifying and eliminating those which unnecessarily demean the dignity and status of Navy personnel. Areas for initial consideration are:*

(a) *Impediments to access by Navy personnel to rights to correspondence through channels and rights to take advantage of Request Mast; (b) the conduct of administrative searches afloat and ashore; (c) practices which challenge the word of an officer; (d) charity drive practices which deviate from the Navy policy that response to such drives be voluntary. (Recommendation No. 59.)*

• *Increase prestige associated with petty officer and career status, as follows:*

(a) *Establish a standard and meaningful character to the ceremony of advancement to (and within) the petty officer grades, providing for the oath-administering officer to read aloud the sections relating to increased responsibilities and the Navy's reliance upon the man's service as a petty officer, and calling for the enlisted man advancing to repeat his acceptance aloud before signing the Petty Officer Appointment Form (NavPers 2914 or 2915);*

(b) *Revise uniform regulations to make provisions for*



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bag inspections for enlisted personnel applicable only to pay grades E-1 through E-4;

(c) Establish a billet for the "Leading Chief Petty Officer of the Navy" (LCPO) and establish additional billets for "senior chiefs" in Fleet and type commands and between district staffs. Provide for a "direct dialogue channel" between enlisted personnel and the LCPO.

(d) Revise the customs for formal oral address, including the introduction of enlisted men, and for written address, to provide for addressing petty officers (except E-7, E-8 and E-9) as "Petty Officer . . ." and non-petty officer grades as "Seaman . . .", "Fireman . . .", etc., instead of addressing these groups by their last names only. (Recommendation No. 60.)

Pay and Fringe Benefits

THE SUBJECT OF PAY is a vital matter to everyone and, on behalf of the Navyman and his family, the Task Force made a number of recommendations concerning pay, allowances and fringe benefits which received SecNav approval.

One of the recommendations called for study of a new military pay concept, while others related to specific areas in the pay program. Before implementation many of these recommendations, while approved by the Policy Board, will require DOD approval or legislative action.

Salary Structure Study

IN APPROACHING the study of appropriate compensation for members of the Navy, the SecNav Task Force searched down many avenues for suggestions. After lengthy investigation, it concluded that a fundamental change in philosophy might provide a desired solution. In essence, the following recommendation is for a study centering about an evolutionary transition from the present basic pay and allowance system to a "salary structure." If found to be applicable to the military service, a salary structure would provide for establishment of a linkage in pay matters with civilian enterprise and the federal service.

Recommendation

• That a major DOD study effort be conducted in 1966 to investigate whether a salary system would be applicable

in the military service and determine an appropriate schedule for making changes in support of such proposal if found acceptable. (Recommendation No. 61.)

Sea Duty and Certain Places Pay

THE TASK FORCE noted that separation from home, family and friends and long periods of sea duty were factors affecting retention of Navyman, married and single alike. Also noted was the fact that certain family living expenses increased when the Navyman was away at sea. It recommended that continuous or frequent sea duty be compensated for in a tangible manner.

Recommendation

• Provide "sea duty pay" to both officers and enlisted men in an amount adequate to recognize the unique personal living conditions (and family living conditions) that characterize sea duty.

Compensate the individual who spends more time at sea by increasing sea pay based on cumulative years at sea. (Recommendation No. 62.)

Responsibility (Command at Sea) Pay

AN EARLIER PROPOSAL by the Chief of Naval Personnel that the Secretary of the Navy obtain necessary approval for "Command at Sea" pay also received Task Force backing.

The Career Compensation Act of 1949, as amended by the Military Pay Act of 1958, includes a provision for special pay for officers holding positions of unusual responsibility and of a critical nature.

This authority was provided by Congress in 1958 to give the services a management tool in recognizing officers placed in positions of unusual responsibility.

Recommendation

• Gain authorization for Command at Sea Pay from the Secretary of Defense, in accordance with the proposal previously submitted. (Recommendation No. 63.)

Basic Allowance for Quarters

THE FOLLOWING recommendation is intended to alleviate in part the following conditions:

Bachelor Navyman are often required to contribute their entire BAQ for quarters since fair rental value is not generally established;

Members without dependents are not now entitled to a dislocation allowance, even though they are not occupying government quarters at their permanent stations; and

Members without dependents are not now permitted BAQ while in travel or leave status between permanent duty stations, even though quarters are not provided.



Recommendation

● *Enable a member without dependents to occupy inadequate public quarters subject to a fair rental charge, without losing his full basic allowance for quarters.*

Permit payment of a dislocation allowance to a member without dependents when he is transferred to a permanent station where he is not assigned to, or does not occupy, government quarters.

Restore authority to pay basic allowance for quarters to a member without dependents for the period he is in a travel or leave status between permanent duty stations. (Recommendation No. 64.)

Pay Grade E-4s and Dependent Travel

PAYMENT OF dependents' travel and for shipment of household effects for all the members of the armed forces is economically undesirable, the Task Force agreed. Legislation provides that pay grade E-4 (with four years' minimum service) is the cut-off point. The Task Force found that this excludes a small but important group of young men the Navy is attempting to retain in the service—those E-4s who have decided to remain in service but do not yet have four years to their credit.

If a man obligates himself for a service career, the Task Force recommendation is that he be granted, as an E-4, full membership relative to benefits. The knowledge that his family can be moved at government expense could make the difference in a decision to obligate, thus providing a positive retention factor at a relatively minor cost.

Recommendation

● *Provide entitlement to all career designated (six years' obligated service) personnel in pay grade E-4 or higher to dependent travel, household effects shipment and dislocation allowance. (Recommendation No. 65.)*

Education for Dependent Children

THE STEADY UPWARD TREND in college costs has resulted in development of a wide range of programs to assist qualified students financially. Scholarships, grants and low interest loans are some of the more common programs.

The military services have recognized this need, and the inherent retention value of educational aid for dependent children. Many avenues to broader educational opportunities for dependent children have been explored.

When service personnel consider sending their children to state colleges or universities, they have found they are often unable to take advantage of resident tuition rates, since it is unlikely they will remain in their state of residence during the entire time their children are in college. Further, transportation costs generally prohibit sending the student to distant locations, sometimes across country, to take advantage of state residency. Changing state residence on each move is not always feasible.

The following recommendation is intended to take the serviceman's mobile status into consideration, with regard to resident tuition rates.

The Task Force also recommended that consideration be given to an amendment to the "Cold War G.I. Bill"

which would permit passing of the veteran's entitlement to one of his children for a college education.

Recommendation

● *Continue to sponsor efforts to DOD that it seek state legislative action to permit military dependents to attend school at resident tuition rates.*

Support Amendment to the "Cold War G. I. Bill" to pass entitlement to a dependent after 12 years of active duty by the member. (Recommendation No. 66.)

Cost of Living Allowance, Temporary Housing Allowance

NAVY FAMILIES are often required to seek temporary housing when they arrive at their new duty station while looking for permanent quarters. The Navy does not normally provide any sort of guest or temporary housing except in isolated instances.

While in temporary housing, the cost of meals is generally much higher, due to the need to eat in restaurants (or to prepare meals in temporary facilities.)

BAQ is a fixed rate and does not vary with the costs of living surrounding the different duty stations. Many miscellaneous expenses cannot be reimbursed under present regulations.

Some sort of temporary lodging allowance, the Task Force felt, similar to that provided for overseas travel, represents an obvious solution unless temporary facilities can be provided to permit home-type living while looking for permanent housing.

Recommendation

● *That Joint Travel Regulations be expanded by DOD to include locations inside the continental United States for Cost of Living Allowances and Temporary Lodging Allowances.*

Investigate means of reimbursing members for miscellaneous expenses and propose legislation similar to that being proposed for the Civil Service. (Recommendation No. 67.)

Family Separation Allowance, Dislocation Allowance

FAMILY SEPARATION ALLOWANCE is not authorized for personnel who are assigned to public quarters (present law specifically prohibits such entitlement). The Task Force supports action to seek modification of the legislation, and also seeks an increase in the amount of dislocation allowance.

Recommendations

● *The Task Force recommends passage of legislation granting the entitlement of Family Separation Allowance for personnel assigned to public quarters. (Recommendation No. 68.)*

● *Support legislation which increases the amount of the dislocation allowance. (Recommendation No. 69.)*

Fringe Benefits

THE VALUE OF fringe benefits is indicated by the fact that, while they have been long associated with the military as an extra "compensation for service," they are now also popularly accepted and utilized in private industry, as a selling feature to invite and retain the high

quality personnel desired. The Navy knows this well.

In the military service many fringe benefits are based on legislative action; others have been part of the service tradition. Fringe benefits, both legal and traditional, are viewed by the individual as part of his implied contract with the Navy. The Task Force found them an important retention factor.

Recommendation

• *That all elements which make up the "fringe benefit package" be officially defined at the DOD level.*

That a program to publicize and promulgate the total fringe benefit program to all service personnel be instituted. (Recommendation No. 70.)

Weight Allowance, Trailer Allowance

CURRENT WEIGHT ALLOWANCES for household effects are, at times, inadequate to cover shipping costs when service families are reassigned, the Task Force stated. It also felt that increases in personal belongings, as well as in average family sizes, have rendered allowances inadequate to compensate for the resulting increase in expenses. Among other considerations was the fact that transfer of household effects could present a financial loss because families are required to dispose of some of their non-critical belongings to meet the weight allowances.

The Task Force recommendations also supported con-

sideration of the trailer owner, on the basis that shipping costs for transporting trailers generally exceed trailer allowances. Moreover, additional losses are incurred as those living in trailers do not receive dislocation allowance under current regulations.

Recommendation

• *Increase household effects weight allowance by 250 pounds for E-4 through O-2 for each dependent over two in number.*

That the Joint Travel Regulations Committee in DOD propose legislation to permit movement of trailers which would parallel the present administration of household effects shipments where all contact with the carrier is performed by the government, including payment. The entire cost of moving the trailer should be paid, provided that the cost does not exceed that which would be incurred if the member elected to move the maximum amount of household effects permitted for his grade or rank.

Pay dislocation allowances to those individuals owning and living in trailers when they are transferred. (Recommendation No. 71.)

It should be noted that many of the foregoing recommendations, all of which have been approved by the SecNav Policy Board, may still require DOD approval or legislative action, before being put into effect.

Reports of implementing action will be published in future issues of ALL HANDS.

Enlisted Distribution and Assignment

CHANGE OF STATION orders—when, where, how and why—have always been an important factor of Navy life, and one which has a definite influence on morale. Listed below are recommendations approved by the SecNav Policy Board which concern assignment of enlisted personnel, along with brief explanations, where necessary, to show their relationship to the distribution program.

Recommendations

• *Expand rating control to include all rates and ratings. Increase the officer and enlisted personnel necessary to carry out this program in the Bureau of Naval Personnel. (Recommendation No. 15.)*

Presently, rating control has been set up by the Bureau of Naval Personnel for 14 critical and semi-critical ratings and has been highly praised. (See "This is How Rating Control Hand-Picks Critical Ratings," ALL HANDS, July 1965, page 46.) As an example, one of these is the sonar technician rating. Since the establishment of rating control, 16 additional NECs have been added to the ST rating, making it possible for BuPers to identify more readily the special skills required for this rating. The effect of rating control and the six-year obligor program on the ST rating is indicated by a marked rise in the ST manning level during a single year under rating control. In Fiscal Year 1965, the on-board manning of STs increased from 70 per cent of those required to 83.8 per cent.

• *Verify and update systematically all enlisted billets which require equipment maintenance NECs. Provide Navy capability or negotiate for contractual assistance to carry*

this out and to "verify" the equipment installed for this purpose. (Recommendation No. 25.)

• *Provide in the BuPers master tape (file) the capability to list and control at least five NECs for each enlisted man. (Recommendation No. 24.)*

These three recommendations are based on the continuing goal of considering all factors before making assignments, so each Navyman may be sent to the billet for which he is best suited.

The first recommendation, that rating control include all ratings, is closely associated with the accomplishment of the following two. Rating control demands that detailed information on both the billet and the eligible Navyman is available to the assignment officer. Obviously, if the system is to perform with the greatest efficiency, billets as well as men must be identified accurately, both as to the skill(s) required for the billet and the qualifications of each man.

• *Establish assignment to sea duty as a goal for all non-school designated recruits immediately after recruit training, and assignment to sea of "A" school graduates (SAs and FAs) on completion of school training. Where this is not feasible, insure that these men serve an appropriate period of time at sea later in their first enlistment. (Recommendation No. 22.)*

• *Expand the "contract messman" program (that is, civilian mess cooks) to include all shore activities. (Recommendation No. 23.)*

These two recommendations have common purposes: Enhancing morale and promoting career motivation. Several reasons are given for assigning first-term Navy-men to tours at sea, aboard ships—among them, oppor-

SECNAV TASK FORCE REPORT (cont.)

tunity for the man to become familiar with the "sea-going" Navy and for him to become proficient in his rating and, as a result, to advance more quickly.

- **Order personnel to all duty classified as preferred sea duty in a manner similar to that in which men are ordered for specific tour lengths to overseas and CONUS shore duty billets. When feasible, expand this program to include all types of sea duty.** (Recommendation No. 18.)

- **Eliminate the Active Duty Base Date as a requirement for determining Seavey eligibility, and base requirement solely on time served on arduous sea duty.** (Recommendation No. 16.)

- **Subject to approval of Fleet commanders, change the distribution control of Fleet shore duty from the Fleet commanders in chief to the Chief of Naval Personnel.** (Recommendation No. 20.)

- **Vest in the Chief of Naval Personnel the sole responsibility for determining and designating the various types of duty for rotation purposes; under his direction develop criteria for, and establish, a list of all ships, units and activities that are either sea duty or shore duty for rotational purposes.** (Recommendation No. 19.)

- **Redesignate selected enlisted TAR billets as USN billets to be filled to allowance by men of appropriate deprived**

ratings to improve sea/shore rotation for these ratings. (Recommendation No. 21.)

- **Modify the eligibility requirements for overseas duty to permit assignment to duty regardless of dependency status.** (Recommendation No. 17.)

These recommendations are calculated to make rotation as equitable as possible, and to improve the opportunity for each man to receive his choice of duty.

The point is to assure that, to as great a degree as possible, Navymen of all ratings receive proportionate tours of duty in the various categories of arduous and preferred sea duty and overseas and CONUS shore duty.

(For more information on the changing Seavey/Shorvey picture, see ALL HANDS, January 1966, page 48, "Major Revision of Seavey/Shorvey Will Interest You.")

- **Develop an updated, fully integrated, computer-assisted personnel distribution and management system.** (Recommendation No. 26.)

Computers are used to furnish the assignment officer with most of the necessary information about both men and billets. Consequently, the more information which can be handled by the computers, the more information available to the assignment officer.

Living Conditions Afloat

THE FOLLOWING is a summary, with explanatory comments, of the SecNav Task Force recommendations on living conditions afloat:

Although the Navy knows that shipboard habitability is a factor in personnel retention, its extent is difficult to measure.

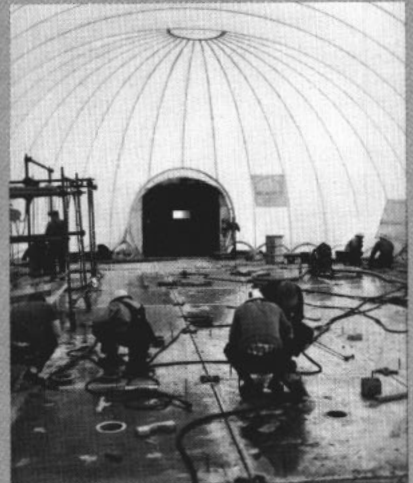
Much individual and group effort has been devoted to improving shipboard habitability. Recently there has been set up within the Navy organization an office charged with the administration of an integrated program which would include design and conversion of ships to satisfy both their functions as naval vessels and

as places where men must work and live.

Projections have been made which reveal the importance of an integrated habitability program. By fiscal year 1973, according to these projections, slightly less than one-third of the Navy's ships will be over 20 years old. It can be seen, therefore, that habitability, as a factor will remain with the Navy for some time to come.

Recommendations

With these facts in mind, the Task Force has made the following recommendations:



● **Develop adequate "growth factors" for ship design, construction and manning.** (Recommendation No. 38.)

● **Resume funding of the Habitability Improvement Plan (HIP).** (Recommendation No. 39.)

● **Provide funds for habitability improvements to Fleet and Type commanders.** (Recommendation No. 40.)

● **Direct an annual review of Environmental Control Standards (Habitability Standards).** (Recommendation No. 41.)

Converting the foregoing recommendations into Navy

practice, the Ship Characteristics Board would develop and improve growth factors for both personnel and material after reviewing ship design histories and manning experiences.

The Task Force recommended distinct funds be provided by CNO to type commanders for minor habitability improvements of such nature that can be accomplished as repairs, upkeep or alterations equivalent to repairs by the ship's force, or by tenders during technical or restricted availabilities.

Living Conditions Ashore

THE DISCUSSION of living conditions ashore divides logically into two major parts: Family housing and bachelor housing. The discussion of family housing covers the following points: Variation in housing costs in different geographical areas; quality in new construction; minimum level of furniture in public quarters; expense of temporary lodging upon change of duty station; and the widespread desire for home ownership. Present bachelor housing and management was also studied.

Recommendations

● **Raise cost limitations applicable to family housing.** (Recommendation No. 42.)

● **Establish differential cost-of-living allowances based on geographic variations.** (Recommendation No. 43.)

● **Provide 25 per cent of furniture for government quarters housing.** (Recommendation No. 44.)

● **Determine the feasibility of a Navy-sponsored home ownership plan.** (Recommendation No. 45.)

● **Adopt the Tri-Service Criteria for bachelor personnel housing.** (Recommendation No. 46.)

● **Provide a "hotel keepers guide" containing professional suggestions concerning the operation of bachelor housing.** (Recommendation No. 47.)

WITH SOME EXCEPTIONS, the cost and space criteria for new military family public quarters were established approximately seven years ago, and construction

costs have risen substantially since that time—more than 15 per cent according to cost indexes.

The Navy has recommended that interservice uniformity be achieved by furnishing basic essentials of household goods to supplement the member's own household goods. The Task Force suggested that 25 per cent of room requirements would be sufficient. Initial outfitting of new housing would also be at 25 per cent. Maintenance, repair and replacement costs of these basic items would be supported at a reasonable level to assure preservation of the inventory.

The bachelor housing criteria were developed jointly by the Army, Navy and Air Force and are known as the Tri-Service Criteria for Bachelor Personnel Housing. Briefly, they call for:

Increasing the average gross building floor area for officers from 500 square feet to 880 square feet;

Increasing the monetary limitations from \$8500 to \$10,500 per officer (based on the current numbers of bachelor officers);

Increasing the average gross building floor area for enlisted men from 125 square feet to 185 square feet;

Increasing the monetary limitations from \$1850 to \$3450 per enlisted man (based on current numbers of bachelor enlisted men).

Even with the construction of all the public quarters presently called for in the family housing program, two



thirds of the Navy's family housing requirements will have to be met by community housing. When this fact is coupled with the overwhelming desire for home ownership among Navy personnel, it is clear that home ownership is an area that holds great possibilities, hence the Task Force's recommendation that the feasibility of a Navy-sponsored home ownership plan be determined.

A NAVY HOME OWNERSHIP PLAN, calling for a joint investment in a home by both the career-designated man and the government, would enhance the sea service as a career.

Such a plan might call for payment of a portion of the down payment and closing costs by the government, monthly payment by the man of roughly an amount equivalent to his BAQ, and vesting of title in the man upon completion of a considerable period of active duty (say 15 years).

Day-to-day management and operation plays a most important role in making a BOQ or BEQ either a pleasant or an unpleasant place in which to live. Enlightened

management and attention to detail can go far toward creating as pleasant an atmosphere as possible. Practical advice on such aspects as decorating, arrangement of rooms, promptness of service, reduction of noise, courtesy and prompt repair of recreational equipment would be of great benefit to those charged with the day-to-day operation of BOQs and BEQs.

A management guide utilizing the expertise of professionals in the field of hotel management would provide those charged with management of bachelor housing with advice and ideas. Such a manual—easy to read, well illustrated and widely distributed—would make available to all areas those measures or techniques that have met with success in other areas.

Establishment of the variable cost-of-living allowance takes into consideration the variations from one geographical location to another.

Such an allowance, which would reflect housing costs among other things, is welcomed by the Navyman and his family. Payment of the cost-of-living allowances within CONUS would be along lines similar to existing policy for overseas locations.

Enlisted Personnel Management

IN RECENT YEARS, advancing technology has increased the capability for gathering and processing information upon which sound decisions can be based. Today, centralized management of a large force of men can be accomplished more effectively than was ever before possible. Theoretically, the manpower force may now be administered in a manner which permits maximum readiness at minimum cost.

The recommendations which follow are divided into two general groups. The first group comprises current measures; the second group of recommendations is concerned with a research project titled the "Optimized Force Structure." This project calls for extensive study, requiring coordination with other services and OSD, and the approval of Congress, all of which could take several years. Full implementation could take considerably longer.

Reenlistment Quality Control

IN 1963, A SMALL BUT SYSTEMATIC program to evaluate reenlistments was established in BuPers. Because of its significance, the evaluation program is continuing, and the recommendations call for its expansion.

Recommendations

• **Expand significantly the "reenlistment quality control" effort currently conducted by the Bureau of Naval Personnel, as follows:**

Increase case coverage, broadening the follow-up procedure on substandard reenlistments, and initiating corrective actions to reduce such incidence;

Develop procedures required to effect a "selective reenlistment quality control" program, which could be utilized when strength levels in a rating are sufficient to permit selectivity in reenlistment;

Determine the feasibility of requiring Navy men who desire to reenlist or extend to declare their intentions at

some time before the time of expiration of their obligated service;

Evaluate reenlistment criteria, considering changes required during various phases of the introduction of a selective reenlistment system, and publish these criteria in a collective grouping. (Recommendation No. 12.)

Advancement Study

• **Conduct a study of the factors governing the enlisted advancement system with emphasis as follows:**

Study the eligibility criteria on which commanding officer's recommendations for advancement are made;

Analyze the enlisted performance evaluation sheet to determine if it can be made a more effective measure of capability and of qualification for advancement;

Devise a means for evaluating enlisted performance marks to insure they adequately relate the differences between individuals who perform at different levels of effectiveness.

Evaluate the factors that make up the advancement multiple with particular regard to their adequacy, relevance and weighting. (Recommendation No. 13.)

Research in Manpower Management

THE MODERN ERA of automation and electronics has come up with a new and complicated language; so have the manpower experts.

The foregoing heading boils down to the following thought: That the assignment of personnel to billets which require their best skills is basic to sound manpower management. The first steps to obtain the best possible manpower use are accomplished when billets are properly described.

This is a continuing problem, particularly in view of the continual change in equipment and duties. Hence the following recommendation:

• **Conduct the following personnel research:**

Undertake, on an immediate basis, the following five-

point manpower management project: Billet analysis, billet evaluation, occupational re-engineering, physical demands analysis, and skill deterioration analysis. (Recommendation No. 14a.)

The foregoing terms are defined and discussed briefly below:

Billet analysis may be described as the identification of the skills required in a given billet.

In connection with the subject of billet analysis, the Naval Personnel Research Activity in San Diego has provided a brief study of the Commissaryman and the Fire Control Technician rating pyramidal structures to illustrate the gains which might be derived from such efforts.

Billet evaluation is defined as the process of establishing billet values in terms of existing rate structures, in accordance with a standard evaluating technique.

Concerning billet evaluation, an exploratory effort in this field has been underway in BuPers.

Occupational reengineering means the process of critically evaluating naval occupations for the purpose of identifying as new jobs those which may be performed by lesser trained personnel.

Work patterns may be evaluated with a view toward rearranging the duties of billets in some technical ratings so those men with limited skills, or short duration personnel, may be used in situations commensurate with their background and training, and more skilled personnel may concentrate on functions requiring more extensive experience and training.

The establishment of the communications yeoman (CYN) service rating demonstrates the effectiveness of occupational reengineering. This action by BuPers permitted a savings of about 18 weeks' training per man for approximately 4300 CYN billets. The savings resulted from the fact that the CYN duties were formerly performed by trained radiomen and radioman strikers (24 weeks of basic radio school). By rearrangement and clear delineation of the purely clerical duties involved, it was possible to establish the CYN service rating with a school training requirement of six weeks.

Physical demands analysis means the determination

of minimum physical qualifications in different jobs necessary to provide job effectiveness.

Such a program is related to the billet analysis program, mentioned above. Fleet and shore commands have pointed out that certain physical requirements, particularly normal color perception and audio limitations, restrict recommendation and selection of otherwise well qualified candidates. In light of changing requirements, some of these standards may no longer be necessary, or may be modified under certain conditions.

Skill deterioration analysis is defined as the determination of the skill loss resulting from jobs which do not fully employ an individual's rating skills.

For example, such a study might analyze the effect of rotation on technical ratings to determine the amount of skill loss (or gain) during shore duty.

"Optimized Force Structure" Study

THIS PROJECT, approved by the SecNav Policy Board, is a study of a long-range manpower concept which, as stated before, may require many years to implement fully. It is based on new concepts and—in the words of the recommendation—factors still to be clearly defined. They pertain to allowable time-in-grade, retirement and incentives.

• **Conduct a concerted study to define an "optimized force structure," which can be adopted as a goal, with a set of personnel incentives that are compatible to the program, all of which could be used as a basis for policy decisions and legislative proposals.**

Initial objects should be to define measures of cost and effectiveness, and criteria for the following partial list of factors (not now clearly defined) which will be determining elements in implementing such a program:

(1) Rating pyramids, both for individual ratings and on a Navy-wide basis; (2) selectivity of personnel, based on such individual attributes as education, training, mental level and performance; (3) manpower productivity; (4) effective utilization of personnel; (5) continuance of personnel on active duty; (6) severance policies and procedures; (7) compensation for service; (8) service contracts; (9) training under an optimized force structure. (Recommendation No. 14b.)

Education and Training (general)

FOLLOWING ITS EXTENSIVE STUDY of the significance of education and training opportunities as factors in retention, the SecNav Task Force came up with a number of recommendations which were approved by the Policy Board. Many of these recommendations are specifically pointed toward enlisted personnel, aimed to enhance and broaden his career status, while others are intended to strengthen the officer corps. Each of these groups of recommendations is treated in sections on the following pages.

Below is a broad recommendation reaching into several areas of interest, both to the enlisted man and the officer, concerning increased emphasis on the important subject of education and training:

Recommendation

• **Provide increased opportunity for officer and enlisted in-service education by these steps:**

Continue to assign the maximum number of qualified officer applicants to the Undergraduate Education Program, using civilian colleges or universities to meet billet requirements in excess of those available at Monterey.

Establish a degree-completion plan to enable officers to complete their baccalaureate degree requirements, of one year or less, at a civilian college or university.

Increase emphasis on the Tuition Aid Program by the following:

The Tuition Aid Program to support off-duty education and training should be publicized widely throughout the Navy. Commands should be directed to insure that the opportunity is available to all who may wish to participate in off-duty education;

The constraints placed by Congress, DOD and the Navy on the use of tuition aid funds should be reexamined and, where possible, it is proposed that they be removed;

In support of all off-duty education programs, the Navy in each ship and at each station should expand its educational counseling services;

Funds adequate to support the liberalized educational assistance programs should be provided;

Extend the Polaris University Program to surface ships

and at major naval shore installations where resident instruction is not feasible. Initiate a pilot program aboard an aircraft carrier, similar to that being conducted aboard the USS Boston (CAG 1). If pilot programs are successful, establish additional units at major Fleet bases. (Recommendation No. 6.)

Enlisted Education and Training

A RECENT SURVEY of Armed Forces recruiting organizations indicated that of approximately 1000 applicants, about 43 per cent enlisted to obtain additional education or training. Another recent Navy study—of 10,000 first-term enlisted men questioned—established that about three quarters had been influenced “very much” or “quite a lot” in their original enlistment by a desire to attain Navy training, and that men in this group are more likely to reenlist than the remaining quarter.

To encourage motivated Navymen to improve their educational stature, a number of off-duty education programs have been established. These programs (including USAFI, tuition aid and the Polaris University) raise the educational level of participating enlisted men and supplement other current and proposed Navy educational programs.

The training offered by the Navy is recognized as an inducement to recruiting and retention, and a program which provides recognition of completed service training, on a level commensurate with that of civilian academic achievement, is considered a significant retention factor.

Certain ratings have shortages of men who possess the required combination of technical education and on-the-job experience to meet the Navy's needs. Improvement in the first-term reenlistment of qualified personnel in these ratings will serve to rectify the situation. This is one of the aims of the recommendation.

Recommendations

● *That the Navy accept the over-all concept of an Enlisted Career Education Plan. (Details below.) (Recommendation No. 27.)*

● *Establish the goal of an Associate Degree as a desired level of educational attainment for Navy career enlisted personnel and promulgate as official Navy policy (see below). (Recommendation No. 28.)*

● *Take action to provide an effective combination of enlisted training (off-duty, service schools, etc.) which will facilitate the achievement of academic goals recognized by the civilian community. (Recommendation No. 29.)*

● *Issue an educational manual depicting (by rating) paths available to an Associate Degree. (Recommendation No. 30.)*

● *Expand off-duty educational programs to the maximum, thereby ensuring full availability of such programs and their use as part of the Enlisted Career Educational Plan. (Recommendation No. 31.)*

● *Coordinate the Navy's Educational and Training program to coincide with opportunities for formal education at career decision points. (Recommendation No. 32.)*

A coordinated Enlisted Career Education Plan is intended to compare with civilian programs and to compete with opportunities in civilian life in influencing the individual's selection of the Navy as a career. It would integrate current Navy educational and training programs, self-study and participation in civilian educational programs of one or two years' duration.

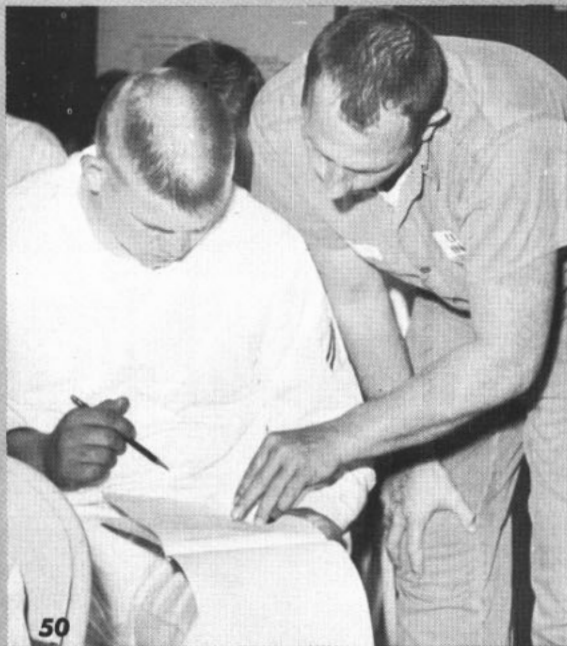
A coordinated Career Education Program could be developed to help qualified men attain an Associate Degree by the time they retire. The formal education stages of such a plan, coinciding with career decision points, would be contingent on further obligated service.

● *Initiate discussion with junior college officials to determine specific programs which can be implemented on a pilot basis in cooperation with Navy "B" schools, and study the feasibility of establishing an Associate Degree Completion Program. (Recommendation No. 33.)*

Junior college programs were considered as a method of achieving the goals of the Enlisted Career Education Plan, providing the necessary formal education in conjunction with accredited training gained by other means to achieve an associate degree.

● *Integrate the SCORE (Selected Conversion and Retention) program into a comprehensive Career Education Plan. Emphasize SCORE as a means of attracting quality career men into critical ratings (with deemphasis in input under this program in those skills where other rating input programs meet requirements). (Recommendation No. 34.)*

SCORE is used to increase the critically undermanned ratings by combining certain features of the STAR program and the Rating Adjustment Program into a single rating conversion program. Those men in certain fully manned ratings who are found to be outstanding can-



didates for SCORE are invited to participate in the program by the Chief of Naval Personnel through their commanding officers.

• **Expand the six-year obligor program to encompass all ratings which require extensive training during a first enlistment. (Recommendation No. 35.)**

The program is at present open to 12 ratings and ensures that the Navy receives an equitable return for the training which was provided to individuals during first enlistments. Currently, Navymen in the included ratings must obligate for six years in order to attend schools beyond the "A" school level.

• **Reinforce and amplify the STAR (Selective Training and Retention Program). (Recommendation No. 36.)**

The STAR program has had a definite success, receiving high praise as a retention program. The Navy's STAR goal from 1960 through June 1965 was 15,000

STAR reenlistees. This figure was exceeded by more than 6000.

Suggested measures reinforcing the STAR program may include provisions for specific reliefs for STAR losses to an activity; and provisions for formal recognition of those commands which demonstrate outstanding effort relative to STAR reenlistments. Continuing efforts to publicize the program have been encouraged.

• **Restore recruit training to 11 weeks. (Recommendation No. 37.)**

The main purpose of recruit training is to effect an orderly transition of the recruit from civilian to military life. This requires time to orient and prepare young men for Navy life. The additional time afforded by return to the 11-week curriculum (recruit training has been nine weeks since 1954) is intended to provide a better qualified and oriented recruit graduate.

Officer Education and Training

IT IS NAVY POLICY to attract and retain college graduates in the officer corps, to encourage non-college graduate officers to receive a baccalaureate degree, and to provide a graduate education to qualified Naval officers.

The objectives of this policy generally are being attained, the Task Force reported. The Navy has an educational program that has played a prominent part in both improving the capability of the officer corps and in attracting and retaining quality officers. Navy education programs compare quite favorably with those of the other services, and the Navy enjoys a relatively strong position as regards the percentage of officers with baccalaureate degrees.

In crediting the over-all success of the Navy officer education program, the Task Force made several recommendations to strengthen it in certain areas. They are listed below.

One of these areas was that of providing an opportunity for non-college graduates to receive a baccalaureate degree. The number of officers in this category who are in the field of naval aviation was noted, with measures recommended to improve this situation. Also noted was the fact that, despite the increased emphasis that has been placed on graduate work, even more officers should receive a graduate education to meet increasing technical and managerial requirements of the Navy.

In respect to officer training, it was recommended that newly commissioned officers reporting aboard ships receive practical training in a surface combatant school specializing in the duties of junior division and watch officers.

This would provide specific training in leadership and shipboard duties, including personnel management duties, which cannot be fitted into already crowded undergraduate curricula.

Recommendations

• **Increase the number of graduate education training billets in the amount recommended in the Combs Board report of 17 Dec 1964 (Study of Billet Requirement and Grade**

Distribution in the Subspecialty and Specialty Areas in the Navy). (Recommendation No. 7.)

• **Accelerate the recruitment of college graduates for the Naval Aviation Officer programs with the eventual goal of eliminating candidates with less than a college degree. (Recommendation No. 8.)**

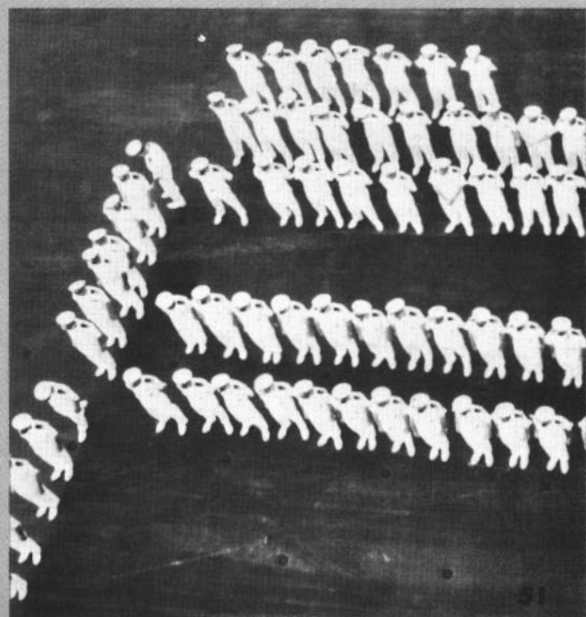
• **Establish simultaneous on-campus procurement for all Navy officer programs, through the use of coordinated and integrated teams. In addition:**

Order officers directly to Navy aviation officer procurement billets;

Junior officers recently completing operational flight assignments with the Fleet should be used in these billets to the greatest degree possible. Use additional key officers on a temporary basis;

Employ professional advertising firms to assist the Navy in its procurement program. (Recommendation No. 9.)

• **Increase retention of college graduates in the naval officer corps by these steps:**



Increase research into methods of identifying latent military aptitude or career motivation in potential candidates for officer procurement programs;

Stress stimulation of career motivation in the midshipman cruise program;

Extend the loan cancellation feature of the National Defense Education Act to include military service. Loan can-

cellations would not exceed 50 per cent. (Recommendation No. 10.)

• *Establish a surface combatant school to provide concentrated practical training in shipboard division management and deck engineering watchstanding for all newly commissioned line officers before they report aboard ship for duty. (Recommendation No. 11.)*

Officer Distribution and Management

THERE IS AN INCREASING NEED in the Navy for technically oriented and trained unrestricted line officers. The need has been generated by increasingly advanced technology and the consequent requirement for technically qualified officers to manage the advances and to introduce them into the Fleet.

Other requirements for specially trained officers have been generated by the sophisticated management techniques which have evolved to cope with the increased complexity and diversity of requirements in the Navy.

These requirements for specialization sometimes appear to conflict with traditional requirements for broad-gauged professional generalists equipped to fill positions of great national and international importance in the field of military command, as well as in areas requiring broad management ability and experience.

These two legitimate requirements must be constantly considered so that the Navy can continue to make the most effective use of its officers.

The system of designating each Navy billet as one to be filled by an officer of a particular designation may lead to the necessity of "mismatching" *officer designators* and *billet designators* by cross-detailing, that is, billet requirements and people to fill these requirements in such cases will not be in step. This places largely unavoidable stresses on the officer distribution system.

IT IS IMPORTANT TO NOTE, however, that the officers who have been cross-detailed usually are performing in a highly satisfactory manner. This tends to bear out the contention (a factor in the following recommendations) that it is not always necessary to assign an officer of a particular designation in every billet.

The Personnel Research Activity, Washington, determined that 41 per cent of the unrestricted line billets could be "generalized." It was felt that a large number of unrestricted line billets ashore and a sizable number at sea could be adequately filled by unrestricted line officers of any designation.

The recommended solution was a modification of the billet designator system to permit the general assignment of officers, regardless of designation, to any billet except those which clearly require an identified specific skill or specialization.

Recommendations

• *Modify the billet designation system by establishing a generalized billet designation which will permit assignment of any unrestricted line officer regardless of a warfare specialty qualification, and conduct a study in depth of unrestricted line billets to identify those billets which may be generalized. (Recommendation No. 1.)*

• *Reorganize the unrestricted line officer designation system by grouping all unrestricted line officers under one gen-*

eral designation and by assigning sub-designations to officers qualified in surface, aviation and submarine specialties, as well as to officers who have no warfare qualification, and by removing the Wave officer designation from this grouping. (Recommendation No. 2.)

• *Enhance the capability of the Bureau of Naval Personnel to establish viable career patterns based upon identified long-range requirements, to exercise more positive influence over the career management of the officer corps, and to insure that the individual's career follows well delineated and accepted career patterns by establishing a permanently constituted Career Planning Board in the Bureau of Naval Personnel. (Recommendation No. 3.)*

In broad outline, here are some of the factors that concern the BuPers Career Planning Board:

1. Examining on a continuing basis the immediate and future needs of the service for officers possessing various backgrounds and abilities of a technical, intellectual and professional nature.

2. Developing career paths for officers which are designed to groom officers for identified requirements, including requirements for officers in high command and broad management positions of responsibility.

3. Monitoring the officers' careers and supplying coordination between the assignment desks to ensure continuity of individual careers along required paths.

4. Providing for the early identification of those outstanding officers having exceptional potential, and detailing them in an accelerated manner through selected assignments designed to enhance their qualifications for early selection to flag rank. Statutory selection boards can be employed for this purpose.

As a final recommendation regarding the subject of officer billets and distribution, the SecNav Task Force proposed a study, which was approved, pertaining to the unrestricted line officer category and generalist-versus-specialist requirements.

• *Conduct a study in depth of the problems in the unrestricted line which are associated with the conflicting requirements of the generalist versus the specialist. (Recommendation No. 4.)*

Officer Promotion

THE SECNAV TASK FORCE made a number of recommendations on the subject of officer promotion opportunity which were deferred for further study.

The following recommendation, relating to length of service-in-grade, of officers in the rank of rear admiral, was approved.

Recommendation

• *For more effective management pending enactment of the proposed Bolte legislation, utilize the non-continuation provisions of Title 10, U. S. Code 5734 with continuation*

boards convened for rear admirals at the five- and 10-year service points, and non-continue approximately 50 per cent and 100 per cent of rear admirals at these points respectively. (Recommendation No. 5.)

Fleet Operations

BECAUSE OF THE NAVY'S worldwide commitments, the U. S. Fleet operates on—or close to—a wartime basis. Since World War II, the Navy has maintained an accelerated pace of operations, performing a leading role in times of emergency.

Despite a continuing manpower shortage, the Navy makes every effort to maintain sustained operations and the degree of readiness essential to performance of assigned missions.

The SecNav Task Force recommendations, recognizing the foregoing situation, are intended to give the Fleet the level of manpower it needs to maintain required degrees of readiness essential to performance of assigned missions, while achieving greater stabilization of Fleet personnel.

The major goal is an increase in operational and administrative efficiency, and increased readiness in the operating fleets for sustained operations at sea.

At the same time, the recommendations are intended to provide an increase in opportunity for more home life and advanced education ashore, thereby increasing the attractiveness of service life and improving the Navy's capability.

Recommendations

Because of their technical nature, the recommendations are given in brief, general terms, as follows:

- Do away with the term "allowance" as the basis of manning the Fleet and shore activities and establish "complement" as the basis for manpower needs of the Navy. (Recommendation No. 78.)

(Currently, the term "allowance" refers to a ship's personnel in its *peacetime status*, and "complement" relates to its personnel needs in carrying out its mission in *combatant wartime status*.)

- Establish a long-range program designed to: (1) Identify "functional capabilities" and "readiness levels" for all ships and units. (2) Then determine manning requirements for each readiness level. (3) Then develop time-and-source mobilization plans based on the foregoing. (4) Develop methods of evaluating cost effectiveness of the various manning level changes in relation to the current threat possibilities. (5) Provide increased emphasis on making the best use of manpower and equipment in relation to each other (in current jargon, "optimize the total man-machine mix").

Submit a proposal to raise permanent petty officer ceilings, from approximately 324,000 to stated requirements based on present allowance, approximately 368,000.

Request modification of Joint Chiefs of Staff criteria for expressing personnel combat readiness, on short-range and long-range bases. (Recommendation No. 79.)

Provide additional time for leave, liberty and schools during overhaul periods, through transfer of certain ship's force work to yard personnel. (Recommendation No. 80.)

- Authorize the ship's company of vessels being overhauled in areas away from their home port to visit (in-

dividually) their home port or family residence or domicile, at government expense, at least once during the overhaul period. (The number of visits would be determined by the length of the overhaul.) (Recommendation No. 81.)

- Allow maximum in-port time during periods in home waters, and reduce in-port watch and duty requirements.

- Make maximum use of computers to plan Fleet operating schedules as rapidly and practically as possible. (Recommendation No. 82.)

Medical Care

THE NAVY HAS a legal obligation to provide medical care to Navymen on active duty. There is also enabling legislation which provides, on a permissive basis, for continuing this care for those in retirement as well as dependents. This medical care is recognized as a major consideration for many in choosing a Navy career.

In areas with large Navy populations, this care cannot always be provided for dependents and retirees to the degree expected and desired, because of shortages in personnel and facilities. When efforts are made to meet these demands, in such cases where facilities are not adequate to demands, it is obvious that frustration would occur.

The following recommendations are intended to enhance medical care not only from the standpoint of medical facilities and personnel, but also by increasing the types of care authorized.

Recommendations

- Seek modification of the Dependents' Medical Care Act to provide comprehensive inpatient and outpatient care, including care for nervous and mental disorders of dependents and retired Navymen. (Recommendation No. 72.)

- Seek enactment of a Dental Care Act, with dental care as an additional fringe benefit. (Recommendation No. 73.)

- Seek relief from restrictive criteria currently imposed upon development and planning of hospitals and outpatient facilities. (Recommendation No. 74.)

- Provide additional medical billets in numbers consistent with predicted requirements. (Recommendation No. 75.)

- Increase opportunities for training and postgraduate training of Medical Department personnel. (Recommendation No. 76.)

- Modify eligibility for physicians' incentive pay to eliminate inequities and provide for incremental increases at points of career decision. (Recommendation No. 77.)

It should be noted that before the foregoing recommendations can become reality, action will be required to modify and/or expand Medicare and to authorize dental care for dependents.

The roundup on this and the preceding pages contains all 82 recommendations approved by the Secretary of the Navy and his SecNav Policy Board. For implementing action see SecNav Notice 5420 of 14 Feb 1966. SecNav Instruction 5420.160 of 9 Mar 1966 set up an Implementation Group under the Chief of Naval Personnel. BuPers Notice 5420 of 31 Mar 1966 provides a program management plan system for implementing the Task Force recommendations.

THE WORD

Frank, Authentic Career Information Of Special Interest—Straight from Headquarters

● **TAD AND NON-TEMPORARY STORAGE**—Navymen on temporary additional duty for more than six months now have until 31 Jul 1966 to remove their household goods from government storage. Storage, removal, drayage and unpacking costs incurred after 31 July must be paid by the Navyman.

The deadline was originally 16 February, as stated in AlNav Five. This message was sent after the Comptroller General (decision B-157681) ruled that the *Joint Travel Regulations* erroneously provided nontemporary storage of household goods for men on TAD for more than six months.

The Comptroller's decision applies only to men on temporary additional duty. *Joint Travel Regulations* provisions still apply to other types of temporary duty.

AlNav Six is the applicable authority.

● **EXTENSIONS**—If you agreed to extend your enlistment for four months or more since AlNav 45 was published last August, but before your normal EAOS, you need serve only your voluntary extension. If you agreed to extend before AlNav 45, you must serve both extensions, unless your voluntary extension was in response to NavAct 1-65 or for the purpose of completing a cruise or deployment.

The word published in NavOp 1-66 was for the purpose of having

consistent action throughout the Navy with regard to operative dates for voluntary extensions.

Several other points were also clarified:

● Time served in an involuntary extension is not included in the four-year aggregate of extensions permitted in any single enlistment.

● Navymen who reenlist or voluntarily extend at any time during an involuntary extension are entitled to lump sum leave payments, mileage and reenlistment bonus, provided they are otherwise eligible.

● Men who have received authorization for transfer to the Fleet Reserve may not reenlist or execute voluntary extensions of enlistment without BuPers authority as provided in Article C 1403 and C-1407 of the *BuPers Manual*.

● **NEW NAVAL RATING**—Aviation Support Equipment Technician is the newest rating in the Navy and the first new rating to be established since Aviation Maintenance Administrationman was added on 16 Mar 1963. It will extend from pay grade E-4 through E-9, and be abbreviated AS.

The scope of the rating will include servicing, testing, maintaining and repairing the various types of ground support equipment used by the air navy. This includes gasoline and diesel engines, hydraulic and pneumatic systems, automotive electrical systems, gas turbine compressor

units, power generating equipment, liquid and gaseous oxygen and nitrogen servicing equipment and air-conditioning systems—but excluding avionics support equipment.

Three service ratings will be established in pay grades E-4 and E-5. They are: Aviation Support Equipment Technician E (Electrical), H (Hydraulics) and M (Mechanical). The top four pay grades will be general.

Qualified petty officers who are interested in changing to the new rating may apply to the Chief of Naval Personnel via their commanding officer. A selection board will convene in July to select sufficient numbers of active and inactive duty personnel to build the AS rating to level. Petty officers selected will be authorized to change in the same pay grade without taking an examination.

To qualify, applicants must have had previous experience in the maintenance of aviation support equipment, and be in pay grade E-4 or above. Applications are desired primarily from the AD, AE and AM ratings; however, consideration will be given to anyone who has had previous experience in the field.

As is usual, the commanding officer's recommendation is also required. Applications should be submitted before 1 Jun 1966 on NavPers form 1339 (Enlisted Evaluation Report) to BuPers (Pers-B223). On the reverse side of the form should be listed all periods of service during which work in this field was performed.

It is anticipated that a change of rating for selected applicants will be effective on 1 Sep 1966. This will follow the establishment of class A training for Aviation Support Equipment Technicians, which will com-



HAVE ALL HANDS . . . WILL TRAVEL—Remember your nine shipmates and leave ALL HANDS magazine for them!

mence at the Naval Air Technical Training Command, Memphis, Tenn., in July 1966.

The first Navy-wide examinations for advancement within the AS rating are tentatively scheduled for May 1967 for pay grades E-8 and E-9, and for the August 1967 exam cycle for pay grades E-4 through E-7. These dates apply to active duty personnel. Before these dates, however, those serving in the AS rating will be authorized to participate for advancement in their previously held rating. Advancement will be authorized in the AS rating at the appropriate pay grade for those who are successful.

Qualifications for advancement in rating will be published at a later date.

The Bureau has been soliciting ideas and sketches or drawings which might help in devising a specialty mark for the AS rating badge. Interested personnel are encouraged to submit such material, including a brief statement explaining the concept of any drawing, to BuPers (Pers-Be) by 30 Apr 1966.

BuPers Notice 1440 of 25 Feb 1966 has further details concerning the establishment of the new rating.

• **NAVAL ACADEMY DUTY** — A considerable number of officers look forward to shore rotation with something less than unbridled anticipation for, despite obvious advantages, there are those who feel the average tour ashore is a drag to their careers.

An officer's shore duty often isn't as stimulating as he remembers his last sea duty but it needn't be all that bad. There are many jobs ashore that are both stimulating intellectually and go far toward furthering a career.

One of the most satisfying, according to those who have tried it, is a billet as an instructor at the U. S. Naval Academy.

The Naval Science Department is a case in point. Like other departments at the Academy, Naval Science is now in the final phases of its curriculum reorganization. While it is still the center of learning in the naval professional area, it has acquired an academic sophistication in areas of current scientific and behavioral disciplines.

Nowadays, the courses in the Naval Science Department are aimed at giving midshipmen an understanding of fundamental principles

involved rather than a detailed knowledge of hardware used in the Fleet.

This alteration was brought about by the rapid technological progress being made in the Navy—progress so rapid, in fact, that the hardware studied by midshipmen at the Academy was often obsolete by the time the students took their places as officers in the Fleet.

As the result of this change, the old *Seamo and Nav* Department now has the following required core courses: Air-Ocean Environment, Introduction to Psychology and Management, Navigation, Naval Operations Analysis I and Naval Operations Analysis II. All these are supported by courses at the U. S. Naval Postgraduate School and other institutions.

In addition, the Naval Science Department offers required training courses from the beginning of the plebe year through first class year in the art of being a seagoing officer.

Other billets for officer instructors are, of course, also available in the Science, Engineering, Mathematics, Weapons, Foreign Language, Physical Education and English, History and Government.

Company officer and operations/administrative billets are available in the Executive Department and there are a small number of administrative billets on the Superintendent's staff.

Officers who are interested in duty at the U. S. Naval Academy should so indicate on their next duty preference card. For those who would like more information on the subject, it can be obtained by writing to Superintendent, U. S. Naval Academy, Annapolis, Md.

• **GAGSTERS, WITS & MASTERS OF IRRELEVANCE**—Your chance at Navy-wide notoriety is fading fast. Entries in the All-Navy Cartoon Contest must be in the hands of the judges no later than 1 Jul 1966.

Entries should be sent to the Chief of Naval Personnel (Attn: Pers G-11). Navymen and their dependents are eligible to enter; cartoons must be original and contain a Navy theme or background, and must be suitable for general use. The five top choices will receive trophies from BuPers, and all winning entries will be published in ALL HANDS.

For complete details, see the March 1966 issue of ALL HANDS and BuPers Notice 1700 of 27 Jan 1966. The deadline is near.

QUIZ AWEIGH

Like any other big, fast-moving organization, the Navy has a constant requirement for skilled, dependable men to fill positions of authority. Several programs offer enlisted men an opportunity to advance to the officer ranks. Test your knowledge of officer programs on the following quiz and decide if you have overlooked a chance to take a big step forward.

1. The Integration Program offers to outstanding junior enlisted men and women a commission in the:

- (a) Unrestricted line
- (b) Staff Corps
- (c) Medical Service Corps
- (d) Both (a) and (b)



2. The primary enlisted-to-officer program at present is the newly reinstated:

- (a) Limited duty officer program
- (b) NROTC
- (c) Warrant officer program
- (d) Direct appointment program

3. When applying for the Warrant Officer Program, a candidate may request a category which is not in his normal path of advancement True or False?

4. When the Limited Duty Officer program is reactivated in fiscal year 1969, all selections will be made from applicants who are serving as:

- (a) E-6 thru E-9
- (b) Commissioned warrant officers (W-2 and W-3)
- (c) Officer candidates
- (d) Both (a) and (b)



5. An enlisted man who is accepted as a regular student at the Naval Preparatory School, Bainbridge, Md., will compete for:

- (a) Direct appointment to a line commission
- (b) NROTC
- (c) OCS
- (d) A Naval Academy appointment

Answers to Quiz Aweigh may be found on page 64.

THE BULLETIN BOARD

Here's a Roundup on the Naval Academy and How to Qualify

FATHERS. Your regular Navy career is a valuable asset to your college-age son. It may be his ticket to the Naval Academy.

The Secretary of the Navy, acting for the President, is authorized each year to appoint 75 sons of regular members of the armed services to the U. S. Naval Academy.

This is only one of many ways to obtain an appointment, but it might be an extra opportunity for many Navy dependents who do not receive an appointment from another source.

Dependents of Regular Navy officers and enlisted men are eligible. This is not restricted to officers' dependents, and the Navy urges interested sons of enlisted men to take advantage of the program.

It's never too early to start considering your son's prospects for the Naval Academy. In the first place, competition for the limited number of admissions each year is extremely keen. Only highly qualified individuals will be able to stand up to the competition.

If you haven't done so already, tell your son about the Naval Academy. In the end, it will be his own decision whether to apply.

The basic purpose of the Academy is, of course to educate and train selected young men for careers of leadership in the naval service. Graduates of the four-year course are awarded the Bachelor of Science degree and are commissioned in the U. S. Navy or Marine Corps. The Academy has earned a high reputation for its new curriculum.

Responsibility for direction of the Naval Academy is vested in the Superintendent. Currently in this job is Rear Admiral Draper L. Kauffman, USN.

A civilian academic dean heads the academic program. Officers and civilians in about equal numbers make up the faculty.

The basic curriculum approximates 140 semester hours. It consists of a *core curriculum* (about 85 per cent) devoted to basic courses in science, naval science, engineering, social sciences and the humanities, plus electives (about 15 per cent) in

the area of the midshipman's selected minor.

By validating previous college-level work and carrying extra electives, many midshipmen achieve a major. There are 23 minors and 21 majors offered, including: applied science, aerospace, mechanical engineering, applied and theoretical mathematics, management, oceanography, operations analysis, chemistry, physics, electrical science, systems engineering, history, literature, foreign affairs, politics, economics and six foreign languages.

Military Program. The Commandant of Midshipmen, a Navy captain, commands the 4000-man brigade of midshipmen. He and his staff develop its character; instill high ideals of duty, honor and loyalty; provide military indoctrination and physical development; and inculcate midshipmen with the high standards of leadership and performance required of an officer in the naval service.

Summer Cruises. Cruises in recent years have included visits to Northern Europe, the Mediterranean, South America and the Far East.

Athletic Program. Midshipmen compete against top-flight teams in 21 varsity sports. In addition, organized competition is provided in 24 intramural sports. Athletic facilities are extensive and modern.

Leave and Privileges. The three upper classes receive 30-day sum-

mer leaves. All midshipmen are granted two weeks of leave at Christmas, plus shorter leaves during the academic year. The number and extent of weekends, liberty and other privileges granted varies directly with a midshipman's seniority, responsibility and performance.

Tuition. Tuition, lodging, and a daily allowance for board are provided by the government. In addition, midshipmen receive \$147.30 per month for uniforms and personal needs.

Qualifying Academically. All candidates must have an acceptable scholastic record. There are two basic methods of qualifying academically. The majority of candidates qualify by presenting an acceptable secondary school certificate with at least 15 units of college preparatory subjects and with grades indicating college capability. Normally, standing in the top 40 per cent of one's class is necessary. In addition, recommendations of school officials must be acceptable.

Besides a good high school record, these candidates must score acceptably on College Board Tests—verbal and math aptitude tests, English composition and math achievement tests.

Non-competitive nominees of the Vice President, Congressmen, District Commissioners, the Governors of Puerto Rico and the Canal Zone, and sons of Medal of Honor winners may fulfill scholastic requirements for admission by submitting an acceptable secondary school certificate and an acceptable certificate for one year's attendance (not less than 24 semester hours) at an accredited college or junior college. Courses must include six hours of pure math and six hours of English or history. College Board Tests are required from these nominees for information purposes.

Academic Preparation. Statistically, about 80 per cent of all midshipmen come directly from high school. Sound academic preparation is essential. It is strongly recommended that secondary work include: at least three and preferably four years of

Charley Wise, HMCS, USN



"Schoonover just submitted a beneficial suggestion for a portable tool kit."

math; four years of English; two years of foreign language, preferably modern; and one year each of physics and chemistry.

Physical Preparation. Candidates accustomed to regular physical activity enhance their prospects in both the medical and physical aptitude examinations. Participation in organized athletics is recommended.

Qualifying Medically and Physically. Nominees must pass both a medical examination and a physical aptitude examination. For those in good health with good eyesight the examinations do not prove overly difficult. The visual standard is 20/20 uncorrected. Waiver may be granted to exceptional candidates with vision between 20/20 and 20/40 if correctable to 20/20. Preliminary examination by private physician is recommended to spot obviously disqualifying defects and to give applicants who have remediable defects time to correct these defects before reporting for qualifying examinations.

Height must be between 64 and 78 inches. Waiver up to 80 inches may be granted to exceptional candidates.

Preparatory Scholarships. A limited number of post-high school preparatory scholarships are available to highly motivated and qualified young men through the U. S. Naval Academy Foundation, Inc., 48 Maryland Ave., Annapolis, Md. The Foundation is a tax-exempt organization chartered under the laws of Maryland. It has no official connection with the U. S. Navy.

Obtaining a Nomination. It is necessary for a young man to obtain a nomination in order to be considered for appointment to the Naval Academy. The sources of nominations are described below. The applicant should study carefully the various sources to determine those through which he is eligible to apply. College Board test results taken for purposes of qualifying for the Naval Academy apply to all nominations a candidate may hold.

The types and sources of nominations are as follows:

• **Congressional:** Each Senator, each Representative, and the Resident Commissioner of Puerto Rico individually may have a maximum of five midshipmen attending the Naval Academy at any one time. The applicant should address his request directly to the official concerned. Eligibility for congressional nominations

is restricted by law to the two senators from an individual's home state and to the representative of the congressional district in which he lives.

• **Vice Presidential:** The Vice President may have a maximum of five midshipmen attending the Naval Academy at any one time. He may nominate candidates from the United States at large. A letter requesting nomination should be addressed directly to the Vice President.

• **District of Columbia:** The Commissioners of the District of Columbia may have a maximum of five

midshipmen attending the Naval Academy at any one time. Applications should be made directly to the Commissioners of the District.

• **The Governors of Puerto Rico and the Canal Zone:** Each of these officials may have one midshipman attending the Naval Academy at any one time.

• **The Governors of the Virgin Islands, Guam and American Samoa** may collectively have one midshipman attending the Naval Academy at any one time.

• **Presidential:** The President may

WHAT'S IN A NAME

NAMRUs—Naval Medical Research Units

NAMRUs (Naval Medical Research Units) are on the job in four locations in the world helping to fight disease. These are medical research units, which provide extensive assistance to medical authorities throughout the world.

Two overseas units—in Cairo, Egypt (United Arab Republic) and Taipei, Formosa—are an outgrowth of World War II research, since casualty records at that time from malaria and other tropical and subtropical diseases were almost as damaging to the Allies as was the enemy in China, Burma, India and the southwest Pacific theater.

NAMRU Two in Taipei primarily gathers information concerning various tropical and subtropical diseases. Many of these diseases are not even adequately described in western medical literature. Their "research search" has already made extensive contributions to Asian health.

New diagnostic techniques, promising vaccines and new methods for treating parasitic infections, eye infections and intestinal diseases have been developed.

Great strides have also been taken to control Japanese encephalitis (a form of sleeping sickness that causes damage to the brain).

To the millions of Asian people suffering from these lethal and weakening diseases, as well as many Americans abroad, NAMRU Two has become a symbol of progress.

The Navy's second overseas unit, NAMRU Three, is located adjacent to the 1500-bed Abbassia Fever Hospital in Cairo. Here, major research has been on the infections and parasitic diseases of the Middle East and North Africa. In this area, typhus, typhoid and parasitic infections are present.

In addition to studies conducted in and around Cairo, NAMRU Three field teams have researched throughout the Near East, northern Africa and southern Europe.

Both of these overseas units are staffed by Navy Medical and Medical Service Corps officers, enlisted hospital corpsmen, U. S. civil servants and local nationals, including many local physicians.

Stateside, the Navy operates medical research units in Berkeley, Calif., and Great Lakes, Ill.

NAMRU Four at Great Lakes is affiliated with the World Health Organization, the National Institute of Health, and the Universities of Chicago, Northwestern, Illinois, Michigan, and Wisconsin. It also works in cooperation with the Armed Forces Epidemiology Board, including the commissions on influenza, spinal meningitis and rheumatic fever.

The primary mission of NAMRU Four is to study the cause and develop treatment procedures for various respiratory diseases. Recruits and veteran naval personnel are tested to determine how a disease is passed from one individual to another. New ways are sought to control and prevent these diseases.

NAMRU One at Berkeley conducts research in the detection and identification of airborne diseases, and also works on cold weather stress on micro-organisms.

Contributions by the men of these four units have been significant in improving the health and welfare of peoples of many countries.



appoint 75 midshipmen each year. These appointments are limited by law to the sons and adopted sons of officers and enlisted personnel of the Regular Army, Navy, Air Force, Marine Corps and Coast Guard on active duty, retired, or deceased, but not discharged before retirement or death. Adopted sons to be eligible must have been adopted before their 15th birthday. The Secretary of the Navy is authorized to approve waivers of this policy where adoption proceedings had been initiated but the adoption had not occurred prior to the 15th birthday through circumstances beyond the control of the foster parents. Stepsons are not eligible. Applications should be addressed to the Chief of Naval Personnel, Pers-B66, Navy Department, Washington, D. C. 20370. (See box for sample letter of application.)

• *Regular Navy and Marine*

William R. Maul, CTCA, USN



"But, then again . . . looking at it from this angle . . ."

Corps: The Secretary of the Navy may appoint 85 enlisted men of the Regular Navy and Marine Corps to the Naval Academy each year. These men must meet all of the entrance requirements and may not have passed their 21st birthday as of 1 July of

the year of entrance to the Academy.

Applicants must have enlisted in the Navy or Marine Corps on or before 1 July of the year preceding the desired date of entrance to the Academy. All applicants must attend the U. S. Naval Preparatory School in order to compete for these appointments. Since the selection of candidates for school begins in the spring, enlisted men who fulfill the age and service requirements should apply to their commanding officers as early in the year as possible. Recruits enlisted before 1 July are eligible and encouraged to apply for consideration for this program.

• *Naval Reserve and Marine Corps Reserve:* The Secretary of the Navy may appoint 85 enlisted men of the Naval Reserve and Marine Corp Reserve each year. These men must be qualified as to age and must have served in the Reserve for at least one year by 1 July of the year of entrance to the Naval Academy. In addition to all other normal requirements for appointment, these men must be on active duty, or must be members of a drilling unit of the Reserve by 1 July of the year prior to entering the Naval Academy. In addition they must be recommended by their commanding officers and have maintained efficiency in drill attendance with their reserve units.

Midshipmen USNR of the Regular NROTC Program and members of the Aviation Cadet Program are not eligible for appointment under this quota.

For further information about enrollment in the Naval Reserve or Marine Corps Reserve, applicants should apply to their commanding officers or to the nearest Navy or Marine Corps Recruiting Station.

• *Sons of Deceased Veterans:* The President may have a maximum of 40 midshipmen who are sons of deceased veterans attending the Naval Academy at any one time.

Eligibility for nomination under this quota is confined to sons of members of the Armed Forces of the United States who were killed in action or died of wounds or injuries received, or disease contracted, or pre-existing injury or disease aggravated in active service during (1) World War I, World War II, or (2) the Korean conflict.

• *Honor Naval and Military Schools:* The Secretary of the Navy

Check-Off List for Letter of Application to USNA

Your son's letter of request for a nomination to the Naval Academy should be addressed to the appropriate source, as outlined in the accompanying article.

Following is a sample of the type of information which should be included in the letter.

If addressed to a member of Congress, the first paragraph should state:

"It is my desire to attend the United States Naval Academy and to make the United States Navy my career. I respectfully request that I be considered as one of your nominees for the class that enters the Academy in (June 1967)."

Include the following personal data for information:

Name (as recorded on birth certificate); Address (city, county, state); name of parents; date of birth; high school attended; date of high school graduation; and approximate grade average.

In addition, enclose a transcript of high school work completed, and a list of extracurricular activities pursued during high school.

In requesting a Presidential nomination from the Secretary of the Navy, the letter of application should be addressed to the Chief of Naval Personnel, Pers-B66,

Navy Department, Washington, D. C. 20370. The following information should be included:

Name as shown on birth certificate (if different from name used, attach a copy of court order, if applicable); address (permanent and temporary); date of birth (spell out month); date of high school graduation; if a previous candidate, list year; if a member of the military, list rank, serial number, component, branch of service and organizational address.

Provide the following information on parent: Name, rank, serial number, component and branch of service; organizational address; retired or deceased (give date and attach copy of retirement orders or casualty report). If parent is officer, attach statement of service prepared by personnel officer specifying Regular or Reserve status for all periods of service. If parent is enlisted, attach statement prepared by personnel officer listing date of enlistment, date of expiration of enlistment, component and branch of service.

Further information on letters of application is contained in the current United States Naval Academy Catalogue, available at all naval establishments.

may appoint annually 10 honor graduates of educational institutions designated as honor schools by the Department of the Army, Navy and Air Force. Each such school may nominate three honor graduates to compete for the 10 appointments. Included in the three may be students who are expected to be honor graduates in June of year in which the examinations will be held. However, these nominees will not be considered for appointment unless they subsequently fulfill the requirements enabling them to be honor graduates.

• *Naval Reserve Officers Training Corps* (contract students only): The Secretary of the Navy may appoint 10 midshipmen annually from among members of the Naval Reserve Officers Training Corps. Three candidates may be nominated each year by the president of each educational institution in which an NROTC unit is established. Each candidate must be a regularly enrolled contract student in the NROTC and must have completed one year of scholastic work in the Corps at the time of entrance to the Naval Academy. Students should request a nomination from their Professor of Naval Science.

• *Sons of Medal of Honor Winners*: The sons of persons awarded the Medal of Honor may be appointed, provided they are in all other respects qualified. No recommendation or endorsement from any other source is required. Applications for these appointments should be addressed to the Chief of Naval Personnel, Pers-B66, Navy Department, Washington, D. C. 20370.

• *Qualified Alternates and Competitors*. The Secretary of the Navy is authorized to appoint 150 qualified congressional alternates. These appointments are awarded to the best qualified alternate nominees as recommended by the Academic Board of the Naval Academy.

Additional appointments from qualified alternates and competitors may be made by the Secretary to bring the Brigade of Midshipmen to its authorized strength. If these additional appointments are necessary, at least 75 per cent must be selected from congressional nominees. The qualifications of all qualified alternate and competitive candidates will be carefully evaluated.

A candidate is advised to apply

Charley Wise, HMCS, USN



"This back to the drawing board business is getting on my nerves."

early for nomination. If seeking a congressional nomination, it is most important to apply early, preferably during the spring of the junior year in high school. Senators and Representatives may be expected to submit the names of their nominees between 1 Jul 1966 and 31 Jan 1967 for the class entering in June 1967. A ma-

majority will make their selections for nomination early in this period. It is, of course, too late to apply after the Congressman has selected his quota of nominees. In any case, all nominations from all sources must be received by 31 Jan 1967 for the class entering in June 1967.

Further general and specific information about the Naval Academy is available at every naval command.

Now, On to the Next 1000

When a whirlbird from Helicopter Squadron Four touched down on the flight deck of the command ship *USS Wright (CC 2)*, it marked the 1000th landing since the ship was commissioned back in May 1963.

It was quite an event for *Wright*. The ship's saluting battery test-fired two salvos as the UH2 helo touched down. And as the pilot and copilot stepped out of the cockpit, congratulations became the order of the day.

In further recognition for everyone concerned with the landing, traditional cake-cutting ceremonies were held in the wardroom and in the crew's mess.

NOW HERE'S THIS

Air is Rare at Pax

Conscientious aviators have certain chores they must perform periodically if they are to remain qualified. At least once every two years, for instance, most pilots and crewmen take a simulated soar in one of the Navy's many high altitude pressure test chambers.

Aviation being a popular and important field, most pressure chambers and their adjacent classrooms manage to keep busy. The facility at

Patuxent River, Md., for instance, serves about 1000 men each year.

A trip through the chamber has two purposes. The aviators refresh their memories during class periods and later, in the chamber itself, re-experience the telltale symptoms of hypoxia, hyperventilation and decompression illness.

Before the aviators enter the Pax River pressure chamber they attend a morning of formal classwork. One lecture elaborates on the procedure a pilot should follow if he has a loss of cabin pressure at high altitude. Another class, taught by a chief hospitalman, explains how the chamber works, with special emphasis on the safety precautions.

Men who have head colds or sinus trouble are warned to renege while the renegeing is good. Extremely low pressures experienced in the chamber can rupture sinuses or eardrums in such cases.

By afternoon the students are ready for the chamber. Oxygen masks are checked for fit, and the air is pumped from the room to simulate high altitudes. When it's all over the aviators leave the facility considerably more aware of the problems, dangers and necessary precautions of high altitude flight.



LETTERS TO THE EDITOR

Involuntary Extension

SIR: My unit has been authorized to advance a number of men who do not have sufficient obligated service—unless the involuntary extension may be counted.

As a case in point, there is an EM3 who is authorized for advancement to EM2 effective 16 Dec 1965. His present expiration of active obligated service is 28 Oct 1966—unless he may count the involuntary four-month extension. In the latter case he would be obligated for more than one year after making second class, so he would not have to extend.

What's the word?—A. R. K., YN1, USN.

• As history indicates, involuntary extensions are extremely "iffy." There's no assurance that the extension will not be cancelled.

Since the entire point of requiring obligated service for advancement is to guarantee (within reason) that the man being advanced will remain in the service for the required time, involuntary extensions may not be counted.

Your EM3 in question must agree to extend for two months if he is to be promoted. This, of course, raises the question of what will happen if he is

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address: letter to Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington, D.C. 20370.

then involuntarily extended. In this case, according to the pertinent directives, he would be allowed to serve the voluntary and two months of the involuntary extension concurrently.

He then would be involuntarily extended for an additional two months in order that he serves a total of four months beyond normal EAOS.—Ed.

Eligibility Requirements

SIR: There is confusion in my squadron concerning eligibility requirements for advancement in the ADJ, ADR, AME, AMH and AMS ratings. Some of us have completed the old AD or AM courses and we are wondering if this is enough or is it necessary for a man to complete (as applicable) the new ADJ, ADR, AME, AMH or AMS courses be-

fore he can be advanced?

I maintain the old AD and AM courses don't fulfill the requirements and that it is necessary to do the courses listed as mandatory for the ADJ, ADR, AME, AMH and AMS ratings. Am I right?—V. R. M., PN1, USN.

• Whether or not a man must complete the latest published course in addition to any he may have finished earlier is left to the discretion of local commands. The Navy feels they can best decide if it is feasible for a man to complete the new course and whether or not he is adequately prepared for the examination without the new course.

BuPers directive requires that a man take only the mandatory courses which are current at the time. This technically releases him from any obligation to take courses which subsequently become mandatory.

Most well-informed sailors, however, know that examinations are based upon information from books listed in the current "Training Publications for Advancement in Rating." (NavPers 10052 series). For this reason, the Chief of Naval Personnel recommends the latest editions of prescribed study materials be used in preparing for advancement exams and naval commands are urged in every directive relating to advancement to see that their men are as well prepared for the advancement exams as is possible.

Therefore, although the rules make you responsible for the courses which are mandatory when you take them, you would be smart to keep up with the latest word.—Ed.

Medal of Honor

SIR: A hotly debated, financially-backed difference of opinion has erupted here with reference to our nation's highest military decoration.

The key issue is the correct and official title of this medal: is it the Medal of Honor or the Congressional Medal of Honor?

After researching SecNav 1650, U. S. Naval Uniform Regulations, The Bluejacket's Manual and a host of non-service publications the difference of opinion is still unresolved.

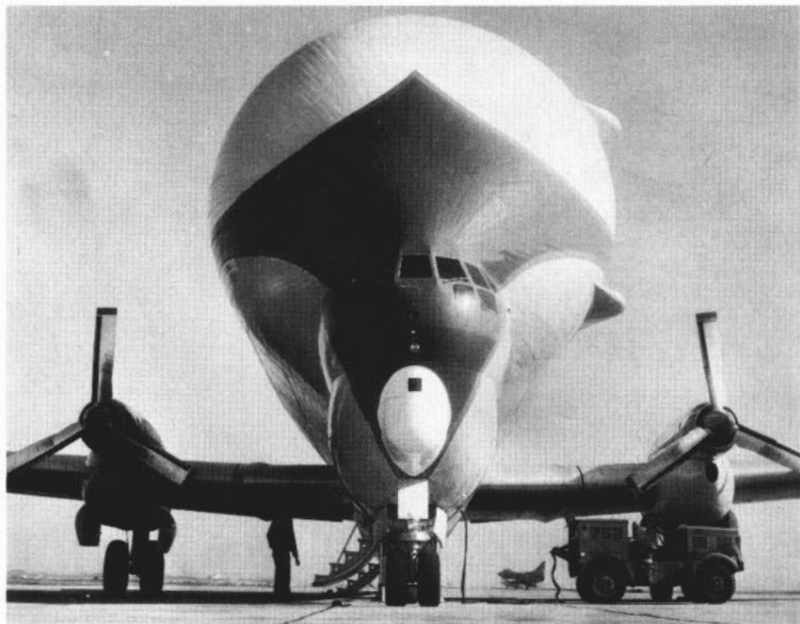
We need the word of an absolute authority.—L. E. C., PH3, USN.

• We know this'll break someone's heart, but the correct and official title is "Medal of Honor."

Not that ALL HANDS is setting itself up as the authority on such matters. Our information came from the Medals and Awards Branch of BuPers.

The decoration was once called the

SUPER GUPPY, claiming title of "World's Largest Aircraft," underwent loading exercises at NAS Los Alamitos, Calif. Modified Stratocruiser's fuselage has cubic displacement of 49,790 feet, or five times that of today's jet transports. Exercises trained crews in loading Saturn S-IVB rocket for transport under NASA contract.



Congressional Medal of Honor, since it is awarded by the President in the name of Congress. In 1944, however, the Secretaries of the Army and Navy and officials of the White House agreed to use the shorter title.—ED.

Inactive Seavey No Such Thing

SIR: Here's my question: A Navyman receives a set of Seavey orders which he does not desire and therefore does not extend his enlistment. He is put on inactive Seavey; may he later extend for orders more to his liking?—L. E., YNC, USN.

• It looks as if you are a little confused. Perhaps we'd best begin at the beginning.

There is no such animal as inactive Seavey, and hasn't been since A-65. If a Navyman has enough active duty to be included in Seavey, he can be transferred—must be transferred—regardless of how much time remains when he actually receives his orders.

The only exception is when obligated service requirements are written on the orders (such as for instructor duty, recruiting duty, or overseas duty).

If this is the case, and the man refuses to extend, he will not be removed from Seavey. Instead, he will be considered for orders which do not have an obligated service stipulation.—ED.

Our Friend Will Know the Answer

SIR: In reference to a letter in the December 1965 issue regarding the origin of "Golden Shellbacks," there is probably only one person in the world who could give us the straight scoop—our old friend Captain Mossbottom.

In 1929, while serving aboard the submarine USS S-36 on the Asiatic Station, we put into the Cavite Navy Yard for overhaul. The then Lieutenant Mossbottom was on the staff of the commandant of the 16th Naval District. This LT Mossbottom (whom we called Barnaclebottom at the time) would come around the submarine at night to get a cup of coffee.

We never did determine exactly what his job was on the staff, but one of his duties was to see that no coconuts fell near the admiral's house during the night. Neither could we pin him down as to just when he came into the Navy, but he sure knew a lot about naval history. He would recite every detail of every naval battle in which a U. S. ship had been engaged. He also told us about taking pictures of the tunnel between Gibraltar and Morocco, using a camera mounted in the head of a walking cane.

Sometimes—when we really got into the spirit of things—he would get started telling us about the old Navy and keep going until there were no more refreshments. It seemed there was nothing he didn't know about the Navy, so why not consult the ultimate source to solve this puzzle about Golden



SURROUNDED CRUISER—USS Newport News (CA 148) is framed by the walls of Morro Castle at San Juan, Puerto Rico, during recent Caribbean Sea cruise.

Shellbacks?—W. J. Swaney, MMCL, USN (Retired)

• Thanks for your advice, with which we concur. Unfortunately, there is no direct line of communication open to Captain Mossbottom in his retirement, so we have done the next best thing. We scribbled our message on a dittybag, tied this to a bell buoy with clothes stops, and set the clanging appeal loose in the Gulf Stream. Now we must wait and see what happens.—ED.

Brown Shoe Question

SIR: Being recently commissioned, I am uncertain as to the status of black shoes as a uniform item. Since the summer of 1963 all officer candidates and midshipmen at OCS, ROTC campuses and the Naval Academy have worn black shoes with khakis. Brown shoes are no longer a part of their initial clothing issue.

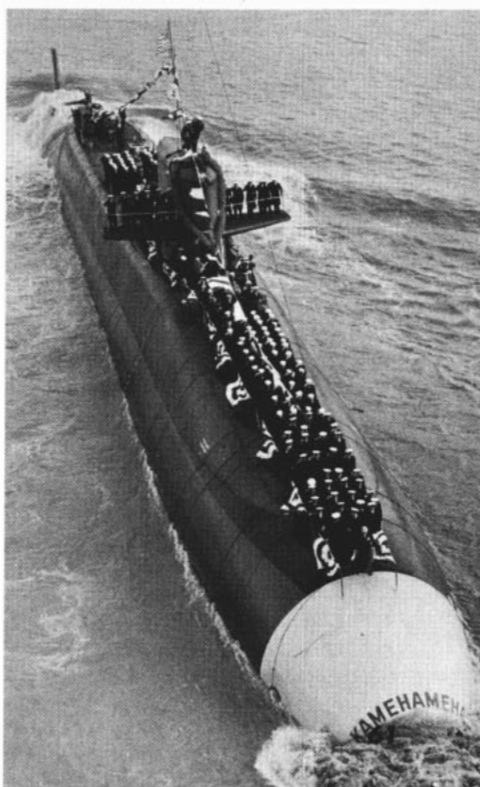
Yet, in all other instances in the Navy, black shoes are worn with khakis only when in a transient or TAD status. Uniform Regs bears this out. Why the inconsistency?—W. B. K., ENS, USN.

• Brown shoes and khaki socks were eliminated from clothing issue of midshipmen, naval cadets and officer candidates when they were stricken from the federal supply system inventory. This was an economy measure. As a result, these prospective officers wear black shoes and black socks with khakis.

However, there has been no change to uniform regulations on this point. All officers and chief petty officers are required to wear brown shoes, which they purchase themselves, with khakis. Apparently this is where the confusion lies.

As you state, article 0126.12 of "Uniform Regulations" gives officers and CPOs the option of wearing black shoes and black socks with the khaki uniform while traveling on TAD only. This is strictly a convenience measure which saves carrying both black and brown shoes in certain instances.—ED.

LONG VIEW shows USS Kamehameha at launching ceremony. Submarine is now training Blue and Gold crews.





HONORMAN—Walter R. Lowry, FA, is presented plaque as honorman of new 8-week damage control course.

Ships' Age and Obsolescence

SIR: I have been reading about the U. S. Navy in a recent edition of a commercially published book on warships. It stated that although the United States has the largest fleet in history, it is largely composed of "war-built tonnage" and "looking a few years hence, the time will soon come when dozens of aircraft carriers and cruisers and literally hundreds of destroyers, destroyer escorts, submarines and fleet minesweepers will have reached the end of their useful lives."

Does this imply that the greater part of the U. S. Navy is rapidly becoming obsolete?—H. H.

• *Not necessarily. Other factors enter into the picture.*

Granted, the Fleet is aging. On 31

December of last year 27 per cent of the Navy's active warships and 61.3 per cent of the active Fleet were over 20 years old. It is a common assumption that most ocean-going ships have a useful life of approximately 20 years—after that, wear, corrosion and fatigue might be expected to result in loss of satisfactory reliability and safety.

This assumption, however, fails to take into account the extension of useful life through modernization, on one hand, and conversion on the other.

The problem of aging in a ship, for instance, may be solved by modernization, such as the destroyer FRAM program. Many destroyers which would otherwise be nearing obsolescence have been given new superstructures and equipped with Dash and Asroc, making them among the world's most modern ASW vessels. USS Lexington (CVS 16) was built during World War II, but can hardly be considered outdated, since she has since been equipped with a canted deck, steam catapults, a modern landing system and other improvements. USS Proteus (AS 19), now 24 years of age, has received an extra midsection and is now a Polaris submarine tender . . . hardly obsolete.

Eventually, of course and despite modernization, technological advances may cause a ship to become unfit for her original mission. In that case conversion and/or reassignment may be in order. USS Lexington, for instance, though modern, is a little on the small side for the faster, higher performance aircraft in the Fleet today. She was redesignated a support carrier and is quite adequate as a training ship for the Naval Air Training Command. USS Wright (CC2) is another example. Originally a CVL, she has been converted to an ultramodern communications



HERO'S SMILE—CDR Warren W. Erikson, USS Zellars CO, won Bronze Star Medal as advisor in Vietnam.

command ship (see "Command ship—A New Concept," ALL HANDS, February 1964).—ED.

Is Blue Bullnose Red?

SIR: Read with interest the item in your February issue concerning a blue bullnose (Letters to the Editor, page 56), for we, too, are now seeking the authority to paint the bullnose upon crossing the Antarctic Circle. One slight difference however. Ours is now red.

Since that memorable occasion when we had a painting party, there has been a great deal of conjecture on board. Many old salts uphold that the bullnose should be painted blue. Others maintain that the bullnose is painted blue upon crossing the Arctic Circle and red when crossing the Antarctic Circle.

All of a sudden I find that there is nothing in print to back up either contention. What next, coach?—R. C. S., LCDR, USN.

• *Hang on to our shirt thru the middle on three. We're going back to the Fleet with this one.—ED.*

Boat Captain NEC

SIR: In the January edition, ALL HANDS listed a number of new NECs. I am interested in NEC BM-0166, high speed boat craft captain. According to your article, the NEC may be held by BMs, QMs and SMs.

My unit has not yet received any information on the new job codes. Could you give me information on the boat captain code, including availability of and qualifications for schooling? J. R. C., QM2, USN.

• *The NEC, as we said, applies to BMs, QMs and SMs. At present, there is no formal school and the NEC is assigned only to men designated by boat division commanders or by con-*

ELEVEN MILLION gallons of gasoline have been pumped by USS Elkhorn (AOG 7) to airfields ashore in Vietnam. Tanker is one of three of class in Pacific.



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 1809, Bureau of Naval Personnel, Navy Department, Washington, D. C. 20370, four months in advance.

● *American Battleship Association*—The third annual reunion will be held at the U. S. Grant Hotel, San Diego, Calif., on 28-31 July. For more details, write to David C. Graham, P. O. Box 11199, San Diego, Calif. 92111.

● *uss Herndon (DD 638)*—A reunion is now being planned. For information, write to Angus Schmelz, 35 Henry St., Succasunna, N. J. 07876.

● *uss Hornet (CV 12 and CV 8)*—The 18th annual reunion is scheduled

for 25 June in Annapolis, Md. Write to Curtis A. Myers, P. O. Box 628, Annapolis, Md. 21401.

● *uss Philadelphia (CL 41)*—The third annual reunion will be held 11-13 August at the Midtown Holiday Inn, Philadelphia, Pa. For further information, write to Frank J. Amaroson, 93 Dunbar St., Somerset, N. J. 08873.

● *uss Picking (DD 865)*—A reunion of World War II shipmates is scheduled for 8-10 July at the Pick Roosevelt Hotel, Pittsburgh, Pa. For details, write to Ralph Reitmeyer, 537 East Garden Rd., Pittsburgh, Pa. 15227.

● *uss Toledo (CA 133)*—A reunion is planned for 27 October. Write to E. F. Beafmear, 4855 Harlem Rd., New Albany, Ohio 43054.

● *Seabee Veterans of America*—A reunion is scheduled for 18-21 August at the Ilikai Hotel, Honolulu, Hawaii.

For details, write to Earle E. Daniels, P. O. Box 1026, Kaneohe, Hawaii 96744.

● *82nd Seabees, 519 CBMU*—The 20th annual reunion is scheduled for 23-24 September at the Hotel Deauville, Atlantic City, N. J. For more information, write to James Greenwood, RR 1, Box 226, Forked River, N. J. 08731.

● *302nd Seabees*—The 19th reunion is slated for 16-17 July at the Hotel Penn Stroud, Stroudsburg, Pa. For details, write to Martin A. Lowe, 8441 Bayard St., Philadelphia, Pa. 19150.

● *VF 86 and VBF 86*—A reunion for members who served in *uss Antietam (CV 36)* during World War II is being planned for this summer. Write to LCDR Charles M. Walters, P. O. Box 1486, Newport Beach, Calif.

trolling unit commanders.

To qualify, you must learn to operate at high speed craft of the LCR type, at speeds in excess of 30 knots, in the performance of clandestine type operations. This includes restricted and river warfare tactics, torpedo evolutions and swimmer support.

By this time your command probably has received the new "Manual of Navy Enlisted Classifications" (NavPers 15105J, February 1966) which contains further information on this NEC.—ED.

Name Tags and Uniform Regs

SIR: I have a question or two concerning name tags. Despite Article 1158 of Uniform Regulations and an article

in ALL HANDS magazine several years ago which outlined the use of name tags, as well as a recent cartoon in ALL HANDS satirizing their use, I continue to see commands which require the regular, daily wearing of name tags by everyone.

These tags appear in different color combinations and are decorated with insignia or wording other than the wearer's name. All this makes me wonder if there has been some recent change in the Navy's policy concerning the design and wearing of these items. What do the uniform experts have to say?—I. W. B., CDR, USN.

● *There has been no change. Article 1158 of "U. S. Navy Uniform Regulations" (1959) still outlines the Navy's*

policy with regard to wearing name tags.

According to "Uniform Regs," the tags may be worn at the discretion of commanding officers by participants in conferences, seminars and other such gatherings where some method of easy identification is desirable.

The regulations specifically state that the tags shall be worn only while in actual attendance at such a meeting or while performing such duty. In such cases they are very helpful.

The regulation is also very specific concerning the color (non-lustrous jet black) and the wording (last name only).

It would appear from your comments that some Navymen are out of uniform according to the uniform experts.—ED

WHEREVER YOU ARE SEND ALL HANDS TO THE FOLKS AT HOME

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TAFFRAIL TALK

TRAVEL AGENTS have a language all their own, so seductive that, in trade parlance, even your own back yard becomes "an enchanting, luxurious setting, where you feel the cool caress of balmy trade winds whispering through sheltering palms."

Funny part about this sort of lingo, is that it accomplishes its aim. Such wording of advertisements so entices holiday-bound Americans that recently a group of 50 tourists were tempted to vacation at, of all the improbable places you can imagine, Antarctica. And, in spite of the many difficulties their passage presented, in spite of the inhospitable nature of this region on the globe, in spite of the drastic storms, sunless skies, ferocious killer whales, vicious sea leopards and other types of creatures, they actually enjoyed themselves.

The non-Navy participants, as reported in the *New York Times* by Mary P. Goodwin, ranged in age from 23 to 86.

The one-month cruise aboard an Argentine liner, which was escorted by an Argentine navy tug, rounded Cape Horn, crossed Drake Passage which is, by reputation, the roughest water in the world, and continued through Bransfield Strait to the top of the Antarctic Peninsula, with stopovers at Smith, King George, Livingston and Deception Islands.

Enroute, the adventurous travelers encountered icebergs to port and starboard, observed chinstrap penguins, a crabbeater seal dozing on a floe, and sighted three killer whales. At one point, pack ice halted their southward progress causing the cruise ship's skipper to reverse course discreetly. Any one of the party who might previously have held some skepticism regarding the travel agent's *précis* of the wonders to behold at bottom-of-the-world latitudes was, by this time, a believer.

Other novel experiences included watching distant pack ice move with the wind while icebergs moved on an opposite current; spoiling the morning nap of a bull sea elephant and watching, fascinated, as he defended his family; and learning to recognize a penguin rookery from far off by "an odor akin to that of a vast barnyard of chickens feeding on fish." The vacationers visited scientific stations ashore and observed some of the work in progress.

The trip provided constant stimulation and a feast of new information for most on board, and credit, in great part, no doubt goes to the travel agent who so successfully conditioned these tourists' minds.

★ ★ ★

A recent item in the *MCB Six Log* caught our eye and brought to mind the Antarctic tourists, who do not maintain a routine view of the world in which they live and cater to their sensitivities. We quote a portion of the piece herewith, leaving you to fill in the blanks:

"If you are bound for - - - -, it is for the deeply serious business of helping a brave nation repel communist invasion. This is your official job and it is a vital one.

"The dangers of ambush and raid will make sightseeing impossible in some places, but when security permits, be sure to see something of the lovely country you are visiting and get acquainted with the charming and courageous people who call - - - - home."

The country referred to is, of course, South Vietnam, and for our money that's a pretty fair pitch.

The All Hands Staff

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 glorious future depends. 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 adversities 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, dispersal and offensive power are the keystones 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 The Bureau of Naval Personnel Career Publication, solicits interesting story material and photographs from individuals, ships, stations, squadrons and other sources. All material received is carefully considered for publication.

Here are a few suggestions for preparing and submitting material:

There's a good story in every job that's being performed, whether it's on a nuclear carrier, a tugboat, in the submarine service or in the Seabees. The man on the scene is best qualified to tell what's going on in his outfit. Stories about routine day-to-day jobs are probably most interesting to the rest of the Fleet. This is the only way everyone can get a look at all the different parts of the Navy.

Articles about new types of unclassified equipment, research projects, all types of Navy assignments and duties, academic and historical subjects, personnel on liberty or during leisure hours, and humorous and interesting feature subjects are all of interest.

Photographs are very important, and should accompany the articles if possible. However, a good story should never be held back for lack of photographs. ALL HANDS prefers clear, well-identified, 8-by-10 glossy prints, but is not restricted to use of this type. All persons in the photographs should be dressed smartly and correctly when in uniform, and be identified by full name and rate or rank when possible.

● **AT RIGHT: FIRE WORKS**—Colorful explosion results as a magnesium bomb is dropped into a magnesium fire by instructors at the Fleet Training Center Fire Fighting School, U. S. Naval Station, San Diego, Calif.—Photo by Jeffrey L. Black, PH3, USN

Answers to Quiz Aweigh

Quiz Aweigh may be found on page 55.

1. (d) Both (a) and (b).
2. (c) Warrant officer program.
3. True; however, competition is unusually keen when applying out of the normal path of advancement.
4. (b) Commissioned warrant officers (W-2 and W-3).
5. (d) A Naval Academy appointment.



THE SERVICE FORCE...



**...A VITAL LINK IN THE
SEAPOWERS CHAIN**