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AT LEFT: AS THE FISH SEE IT — PHAN Anthony M. Page used a fisheye lens to shoot this photo of the USS Hermitage (LSD 34) refueling the Netherland's Navy Antisubmarine escort Dremele (D-816). Both ships were involved with NATO Operation Doria Salute IV off Vieques Island, P.R. Front cover art by Michael Tuffli.
THE PRINCIPLE OF AEROSTATICS:

RIDING ON A CUSHION
The July issue of All Hands carried an article entitled “Wings Upon the Water,” about hydrofoils, the PHM craft whose hull literally rises out of the water as it travels at high speed. The hydrofoil is so named because, although it resembles a conventional patrol craft, it has legs (or foils) that are built along the same principle as an airplane’s wings. Their purpose is to lift the craft’s hull as it gathers speed, thus eliminating the drag of the hull and giving the craft a capability of tremendous speed.

Now All Hands is reporting on another and entirely different type of craft which also rises out of the water as it travels “on a cushion of air.” Here it is, the SES or Surface Effect Ship.

The Navy’s famed high speed hydrofoil craft is based on the phenomenon known as “hydrodynamic lift.” But the application of hydrodynamics, which is a branch of science that deals with the motion of fluids and the forces acting on solid objects in water, is only one part of the Navy’s plans for new high performance ships. The other, and equally dramatic, part of the plans is based on the principle of “aerostatic lift.”

Aerostatics deals with gases (in this case, air) and the action of solid bodies immersed in the air. The application of aerostatic lift results in the creation of an “air-lubricated” device, or one in which the drag is...
greatly lessened, thus speed could be greatly increased.

Previously ALL HANDS has referred to this latter type of ship or craft as a hydroskimmer, but the terms Surface Effect Ship (SES) or air-cushion vehicle have now been adopted as more accurate designations. SES refers to an air-lubricated vehicle with solid sidewalls attached to its hull. Air-cushion vehicle means one with flexible “skirts” attached.

Surface effect ships thus are supported on cushions of air, internally generated. This cushion is captured by fixed sidewalls plus flexible seals fore and aft. The result is much less drag than experienced by conventional hulls propelling at high speeds through the water. While the SES does, of course, experience displacement and wave drag at low speeds, as the speed increases it diminishes displacement and associated drag. The drag that remains is primarily aerodynamic and “wetted surface” drag. Speeds in the 80- to 100-knot region are anticipated for the SES.

Potential missions include ASW, AAW, surface warfare, tactical air support, and amphibious assault. As with all transportation vehicles which have emerged through history, the most promising applications of SES remain to be established.

With such goals in the offing, the Navy has been evaluating designs, models and test craft for some years. Under the direction of the Chief of Naval Material, the Surface Effect Ships Project Office (PM17) manages an extensive development and evaluation program.

Currently under test are two 100-ton craft, each built by a different contractor. The SES 100A has exceeded 75 knots; the SES 100B has reached 72. Both are about 80 feet long, with a beam of about 40 feet. The two test craft have given increased assurance of success and have permitted data to be obtained very effectively. At the same time, alternative design features are being evaluated, particularly propulsion systems and seal designs.

Even more so than the hydrofoil, the SES offers speed as her primary asset—and this is considered a blessing by those who must worry about antisubmarine warfare. A 2000-ton destroyer type SES could cover three times the area of the present-day destroyers, and deliver an antisubmarine helicopter to a specific spot in minutes. With such speed, this type of SES could outrun any torpedo launched against it.

The program’s objective is to extend this existing state of the art to ships of oceangoing size with military capability—ships with adequate range, speed and seakeeping characteristics. The Navy plans to acquire and operate prototype ships to evaluate concepts for future ship construction and to develop mission applications and logistics concepts. As a result, the prototypes will be fitted with weapons and sensors to complement their high speed capabilities. Such development also will establish an industrial base for future shipbuilding.

Preliminary design contracts on a 2000-ton SES have been let by the U. S. Navy to four industrial concerns. Preliminary work on the designs began in Nov 1972 and was scheduled to be completed in Aug 73.
The air-lubricated vehicle is not unique to the U. S. Navy. The British were the first to participate in this field and it is from them that the term hovercraft evolved. Since 1968, England has maintained and developed hovercraft up to 175 tons which operate across the English Channel carrying up to 250 passengers. The United States Commerce Department has kept a close watch on the development of air-lubricated vehicles with hopes that future large-scale transportation problems can be solved.

The last quarter of a century has been one of progress in this area. With the advances that have been made in metallurgy and marine propulsion, the theories of hydrodynamics are finally being brought out of the realm of science fiction and into the field of practical, high-performance ships.
Puget Sound has again become the focal point of the most important advances in Navy shipbuilding and design. In July on the Sound, the Navy’s experimental surface effect ship—SES-100A—set a new speed record of 88 miles per hour.

During a scheduled test run, the waterjet-propelled SES surpassed its previous top speed of 75 mph and put Navy officials a step closer to a 100-knot Navy. It is their goal to apply results from this relatively small test craft to the design of larger ships—possibly in the 2000-ton class.

Admiral Isaac C. Kidd, Jr., Chief of Naval Material, was at the controls during an earlier test run of the SES-100A. His remarks have an eagerness about them that is typical among the people who are putting their time into developing a new breed of ships: “This is an opportunity that I have been looking forward to for a long time; to come here and ride in this remarkable, innovative and pioneering form of propulsion that promises to revolutionize the ways in which men can go to sea.”

The SES-100A was designed and built by the Aerojet Surface Effect Ships Division working under the direction of the Chief of Naval Material’s Surface Effect Ships Project Office. The craft is powered by four AVCO TF-35 gas turbine engines, and is propelled through the water by waterjet pumps.

Supported by an internally generated cushion of air which is captured under the craft by sidewalls and flexible forward and aft seals, the SES is capable of riding over the water—provided its speed is high enough. As the speed increases, the SES reaches and exceeds “hump” which means that the displacement bubble is, in effect, left behind while the forward speed does the supporting.

The advantage offered by the surface effect ship is this ability to reduce total drag in the water and thereby greatly increase its speed. With the total drag reduced, the SES-100A can achieve much higher speeds than conventional hull ships, without increasing total power requirements.

Now that the 76-knot range has been mastered, the proponents are working to put this air bubble principle under a large ship. It is the oceangoing SES that they want, and it is the SES-100 that will provide them with the necessary fundamentals for the design of a larger ship.

—JO3 Alan Shethar
Introducing

CASDAC

Laying the keel of a ship is a milestone for the hundreds of designers and draftsmen who labored over their drawing boards to make the blueprints from which the ship will be built. The hull, superstructure, and all that is inside have been drawn in detail, to scale, and clearly enough for the builder to be able to read — this takes hours of painstaking drafting.

Much of the efficiency of this meticulous work might be eliminated by any alteration which has to be inserted. With electricians, pipelayers, ordnance specialists and communications people all vying for more space aboard a vessel that has little extra space, rarely could everyone coordinate their systems without a lot of refiguring, redesigning and redrafting, by a lot of people.

Consequently, as the design grows into an actual ship, alterations become more costly because they always create other problems — like moving a switchbox over six inches puts it on top of a steam pipe which, if moved, would interfere with the ventilation system. As the ship moves deeper into its construction, any change sets off other changes.

Ideally, the solution would be to prevent chaotic effects of "slight" alterations by foreseeing the problems in the design stage, and then working them out before they work themselves into the blueprints. This would mean that every system would have to be designed in coordination with all the other systems. From the radar network to the heads, the interrelation would have to be known and remembered.

Who has a memory that large? And if someone has that kind of memory, how long would it take before his mind is burnt out from solving the thousands of small, but essential, problems that continually arise? Most of the problems involve fairly simple mathematical interpolation, but when you are running a cable
through a compartment, how can you know what is on that particular bulkhead without consulting 10 other blueprints.

No person has such capabilities, and a group of people doing this would move at a snail’s pace. But, if a good memory and the ability to add or subtract are all that’s needed, a computer will work just fine. With its ever-increasing storage capacity, why not program a computer to store the necessities of each ship system and at least notify someone of possible conflicts before construction gets caught in itself?

At the Naval Ship Engineering Center (NAVSEC) in Hyattsville, Md., just outside Washington, D.C., these questions are not part of theoretical discussions about a possible pilot program. They are an everyday preoccupation for NAVSEC personnel in the Computer Aided Ship Design and Construction (CASDAC) section. Activity there takes place in a relatively small area of a building, and centers around the data transmitters which feed into a huge computer at the Naval Ship Research and Development Center in Carderock, Md., about 14 miles away. CASDAC naval architects and computer technicians attempt to program the computer to hold, review and use formulas

**COMPUTER-AIDED SHIP DESIGN AND CONSTRUCTION**
for every conceivable engineering problem. This is a far cry from being able to capitalize fully on the computer's potential — but programmers have succeeded in breaking the ice.

The engineers at CASDAC have done some clever problem-solving in applying computers to ship design, and in the process have eliminated a lot of drudgery. The computers are amazing not so much for the work they themselves do — in the world of computers, their job is a fairly simple one. Rather, their real value lies in the work they eliminate for ship designers.

Take, for instance, the first step in the construction of a ship — the design of the hull. From echelons near the Chief of Naval Operations, an order will come down requesting a ship of a certain length which has so much displacement and can carry a certain type of weapon system. Ordinarily, a naval architect would take the dimensions and sketch the possible type of hull that might fit this specification. The task of drawing the proper scale might take him a couple of hours — and even then he would have only one possible construction idea out of many.

Much of the time taken to work up this design is spent consulting tables which have been derived from a few equations. The computer, given those formulas, can arrive at individual values in a fraction of a second. And that's not all. These values that are so meticulously plotted by the architect can also be jotted down by the computer.

A lot of activity in CASDAC's busy computer room centers on an oversized oscilloscope. On this odd-looking television screen come the graphic illustrations of the desired hull. No pens, pencils, rulers or calculating tables required. The designer sits down in front of the screen, types in variables such as draft,
beam, length and prismatic coefficient — which determine the shape of the hull — and waits about a minute for the computer’s graphic interpretation of those values to appear on the screen.

Once the image appears, the architect then starts a “trade-off” process. He must match the design with the function that the ship is going to have. A box-like hull, which might house more propulsion units, is also not conducive to high speeds. Principles like this the architect knows, and he has only to type in different variables to see a design that could be more effective.

Then he may start putting the designated weapons system into the design — always keeping in mind the primary function of the ship. A light-sensitive “pencil” becomes his only drafting tool. This pencil is sensitive to the lines appearing on the screen, and when touched upon one completes a circuit which in turn activates the computer. A list of options will appear on the screen from which selection can be made as to what is wanted next from the computer. Touch the “side-view” and in a couple seconds a sideview of the ship will appear — drawn to perfect scale. With this image will come other possible instructions that the computer is programmed to handle. Touch the “add” command and a list of possible additions to the superstructure will appear. Touch the MK40 (missile launcher) code and the computer will ask you to point to the section of the ship in which you want it placed. Touch the spot on the diagram and in seconds it will be incorporated into the diagram — once again drawn to perfect scale.

All the possible options can be brought into sight instantly, and hundreds of variations can be seen in a fraction of the time it would take to do it manually. This rapid response means that a high quality of design will inevitably result, and 50 per cent of the design cost will be avoided.

There also comes a time in the ship construction business when the designer must draw the ship in terms that can be understood and read by the builder. It is at the blueprint that the engineer and builder must meet, and there the specifics of welding and cutting are worked out.

CASDAC has put its own tools to work in this area too. Specifically concentrating on the structure of a landing craft being built by the Army, CASDAC technicians put their heads to shortening routine, but essential, calculations that go into making a blueprint.

In drawing the welding plans for the Army’s landing craft, hundreds of cutting and welding situations arise. In engineer’s lingo, these situations are called “events.” Where a beam crosses another beam, where a beam hits a bulkhead, where a beam hits a pole — all are events. For each event there is a standard procedure of welding and cutting which must only, be adapted to the situation at hand. Drawing each of these into the blueprint is a repetitious job which can be avoided.

The computer can store and recall the necessary directions at superspeeds. Its read-out is not a table of data, but an actual blueprint. Programmed to work with the same rules used by the draftsman, the computer tabulates and responds through a plotter that transcribes electronic impulses into linear designs — the result being a blueprint as clear and accurate as one done by hand.

The shipyard has something to gain too. In the yard, a piece of steel is cut by a torch that is mechanically controlled. A sheet of steel is placed on a press-like carrier and rolled under a torch that moves over it in much the same way a plotter moves over a graph. The movement of the flame is controlled by a sequence of codes, each formed by holes punched in paper tape. Ordinarily, the cutting specifications from the blueprints have to be translated onto the punch by a special typewriter.

The computer can also be programmed to deliver a similar tape which is simply tacked onto the blueprints, sent to the shipyard and fed back into the cutting machine. As in most of the other calculations, the chances of a mistake become much smaller when the computer is allowed to handle the tedious chores.

Besides the drawing of structural plans for certain ships, the CASDAC people have begun using computers to facilitate the installation of a ship’s wiring.

Facing page: An actual computer readout of an arrangement of objects on an office floor (in this case the computers themselves) showing two different views. Left: Of course it is people and not machines that actually initiate ship design and construction. Skilled technicians use the computer essentially as an invaluable tool.
system. Take, for example, the installation of wiring for a missile launcher. The circuit that must be designed includes a radar screen which tracks the target, a computer that interprets the speed and direction of the target, and a launcher that receives the computer's directions as to when and where to fire. Between the computer and the radar, there is a lot of cross-referencing going on as the computer attempts to line up the movement of the target. As each change of calculation takes place, the same barrage of electrical impulses must be sent to the launcher.

By the time everything is put in order, you have a design involving hundreds of wires — this is an isolated example of only a small part of the ship's system. The engineer traces out the circuits on a huge and complicated design. But the electrician who must install this system is not going to carry this mural around with him. Even if he could, he would spend more time finding the wire in the design, than connecting it to the proper terminal. Before the use of computers, someone in the shipyard shop would receive the main circuit drawing and break it down to work assignments. Hours would be taken transposing the overall visual presentation of circuits into work assignments. A comparative situation would be that of a telephone company giving one of its supervisors a telephone book and asking that he begin installing phones of people listed in the book. The supervisor does not want to install phones alphabetically; he probably wants to give his men a certain number of blocks to cover and therefore needs a breakdown of the phone book by address and not name.

The electrician has the same concern. He too, wants to know what wires go at one particular point in the circuit. What CASDAC has done to aid him is have the designer number each terminal and wire, match the two, and then program the computer to remember this. Everything goes into the computer's memory — and can be called out in any number of ways.

If you were at the terminal box of the radar screen and wanted to know what wires go to what terminals, the proper computer could locate this specific information in its library and read it out to you in a workable form. It would be like asking the computer to give you all the listed addresses in the 1200 block of 26th street in northwest Washington, D.C. Once you had the table, you could go door to door and simply make the connections.

Once again, the ability of the computer to cross-reference and rearrange information is being exploited. Through CASDAC's efforts, installation of a wiring system can be taken from worksheets which come directly from the computer. The shop supervisor need only tell the computer where he would like to start, and it will give him the proper connections which must be made at that point.

But not too many people in the CASDAC offices get excited over readouts of numerical tables. Most eyes are on that oscilloscope where numerical values are computed graphically. Nothing irks an engineer more than a slow draftsman, and nothing delights him more than having a design appear as fast as he can calculate. The drama of the CASDAC computers lies in their graphic abilities. On certain projects, even the camera is given a run for its money.

One such project is the arrangement of instruments and furniture in the compartments of a ship. After all the essentials of ordnance, navigation, fire control and electricity have been listed, someone must sit down and figure out where all the equipment is supposed to be put. In spaces such as the pilothouse and the combat information center, arrangements are critical. Everything must be accessible, fields of vision must be optimized, and interferences eliminated — all before any facilities are built.

Until now, mock-up compartments of actual size were constructed. Full-scale wooden and cardboard furniture was shifted and observed and criticized and shifted again until all concerned parties were satisfied. Trying every possible arrangement was a time-consuming process. People either had to be brought to the mock-up site or sent photographs covering the major angles of the room — both impractical methods of trying to find the best setup.

With their ability to sketch out three-dimensional forms, the CASDAC computers may eliminate the scale model maker. When all of the volumes of the furniture or equipment to be placed in the room are fed into the computer, it can draw a picture of this room from any designated viewpoint. Give it the coordinates of your stance, your line of vision, and it will plot an actual picture that doesn't have the detail of a photograph, but retains the proper perspective.

Considering the stage of construction at which this is done, the advantages are phenomenal. Without even building a single appliance, the compartment's arrangement can be thoroughly evaluated by letting itself do the moving around. A designer could, of course, draw every desirable perspective, but the time saved by the computer makes it a far better alternative.

People in the field and fleet activities can be sent the concept of an office complex. Questions could be resolved by calling out other views, inserting different objects, extending doors or drawers, or rearranging completely — all done by the computer in minutes.

But the use of the computer to aid ship design and construction is still spotty, as any CASDAC official will admit. With money becoming more scarce and the demand for more complex and better ships increasing, however, shortcuts must be found.

And that is where the architects and engineers at CASDAC are right now — trying to figure out the correct programs for their expert mathematician, librarian and researcher. As computer memories go from mini to micro, the potential for storing and interpolating all the intricacies of a ship design is better than ever. On that CASDAC television, there are still more channels to be discovered.
Shown at left and below are recent innovations in habitability aboard modern Navy warships. From a practical standpoint, CASDAC can transform cramped and inefficiently utilized ship's compartments to modern and well-planned spaces similar to the one below. On a more complex level, CASDAC can aid in the arranging of whole offices with furniture (bottom) taking into consideration bulkheads, power lines, ducts and pipes for maximum use of space.
Navymen care about their environment. That became even more obvious than it had been when the Secretary of the Navy recently handed out awards to USS Dixon (AS 37), NAS Cecil Field, Fla., and the Naval Civil Engineering Laboratory at Port Hueneme, Calif. These commands were selected as tops in environmental protection by a panel of experts made up of naval officers and representatives of the Department of Interior and the Environmental Protection Agency.

For the judges, the task of determining which shore installations and which ship would receive an award was difficult. Each of the entrants had much to recommend it and even those who were left out of the winners' circle deserve considerable credit for helping keep our planet livable.
As mentioned, USS Dixon was one of the winners and one reason for her success is readily apparent. The enlisted men and the officers on board were determined to preserve and protect the ecology of San Diego Bay where they were homeported. They did such a good job that they earned widespread praise both from community leaders and the press.

Preserving the environment requires a close watch on the disposal of the ship's chemical wastes. It means taking measures to provide for the separation of oil from water entering the bay and the minimizing of air pollution through blowing tubes. It also calls for care in the disposal of waste incident to everyday living.

The area of San Diego Bay has, since the beginning of ecology awareness, been a target project for improvement both by the San Diego community and the Navy. Dixon, recognizing that her own contribution would appreciably improve the bay's quality, took considerable precautions to prevent environmental pollution and specified that everyone on board maintain surveillance over the sources of pollution and waste. The standards used were those set by local, state, regional and/or federal environmental authorities. Dixon, in complying with these regulations, determined also to provide leadership in the environmental field.

Air pollution problems were held to a minimum because Dixon's boilers were recently equipped to use Navy distillate fuel. The conversion to a cleaner burning material occurred a few months earlier than planned when the ship's commanding officer learned the necessary pumps were available.

After the conversion, the need to blow soot off the ship's boiler tubes was reduced from twice a day to once a week except under certain conditions. To compound the benefits derived from this reduced schedule, tube blowing now usually takes place at times and at locations where air over land would be least affected. To further minimize air pollution, Dixon uses her incinerator only in an emergency. Her classified material is destroyed in a shoreside station mulcher.

Dixon men have been particularly vigilant to minimize the introduction of oil from their ship into the waters of San Diego Bay. They are helped by dual drainage systems in the ship's engine and fire rooms. One collects water leakage and drainage from areas in contact with or serving oil systems. The other carries fresh water to the waste water bilge pump for discharge overboard.

Vigilance is also the watchword when pumping bilges. This evolution requires permission from the engineering duty officer and the officer of the deck, with the duty BT/MM in charge of the pumping evolution. Pumping is done slowly and a watch at the discharge point can stop the flow if oily waste appears. If oil leakage is minimal, procedures call for separation of the oil from the water by using "sorbent" materials — that is soaking up the oil. The water that remains after the sorbing process is then sent over the side. If the oily contamination cannot be removed by using sorbents, it is pumped directly to an oil ring (popularly known as a donut) or to the contaminated oil stowage tank. When oil is pumped into the donut, periodic soundings and close observation minimize leakage.

All ships in the Navy are bound by rules which regulate the disposal of trash. Dixon goes a step further, however, by prohibiting anything from being thrown overboard while in port — even cigarette butts. She also dispatches boats to pick up any floating trash in her vicinity.

Like many commands, Dixon has an aluminum can recycling program in which such containers are collected, compacted and sent for recycling. Newspapers and cardboard are also collected in the recycling effort.
Dixon disposes of her sewage through a shoreside disposal system which went into operation six months ahead of schedule.

Dixon wasn't the only recipient of SecNav kudos. Farther up the California coast at Port Hueneme, the Naval Civil Engineering Laboratory (NCEL) was given the Environmental Protection Award for the Navy research and development laboratories.

The Naval Civil Engineering Laboratory, of course, worked on projects during the year other than those which could be classified as being environmentally beneficial. Nevertheless, the number of projects which do fall into that category is certainly impressive:

- Each year, an estimated 400 million gallons of oil are spilled in oceans, lakes and rivers. Although the Navy is responsible for only a small percentage of the total, NCEL, like the rest of the service, was preoccupied with preventing and remediating oil spills and finding the techniques, equipment and manpower to combat them. Such items were the subject of a laboratory survey and the information is being incorporated into a beach cleanup manual to serve as an authoritative guide for such projects in the future. This work is in its final stages.

- The lab worked on the standardization of oil boom hardware design which would increase efficiency and reduce costs.

- Advanced development was proposed for a comprehensive three-stage oil waste treatment system for the shore establishment. The system consists of a prescrubber for removing solids, large particles and floatable oils; a coalescing filter for removing suspended particulates and oil; and a carbon filter for removing emulsions and dissolving oils and toxic materials.

- NCEL made an operational evaluation of oil spill containment and removal equipment conducting operational tests on removal equipment. Two types of oil containment booms were tested, revealing the inadequacy of some commercial equipment now available. Sea tests on two oil removal devices were proposed.

- Harbor oil spill removal systems also came in for NCEL attention. A program was formulated to develop a complete oil spill cleanup system comprised of four subsystems: containment, removal, storage and transfer, and oil/water separation.

During the judging year, the research and development phase of a solid waste system was completed. This problem was subdivided into components, each of which had planned procedures and hardware. A prototype of this system is expected soon to be in operation.

Considerable attention was given by the laboratory to the problem of ship-to-shore sewage transfer and three alternatives systems have been selected: floating pipelines, underwater pipelines and a combination of both. Steps have been taken to hurry this project along.

Commercially produced field kits for measuring the oil content of separatory effluent were evaluated. NCEL is working on its own ideas. Also planned is an economical noise monitoring device for long-term trends without regard to sources of such noise.

Environmental initiatives were taken by NCEL through workshops, seminars, symposiums and tours. The lab hosted individuals and groups interested in ecology.

In addition to the projects mentioned above, NCEL's laboratory efforts translated several acceptable low-cost projects into hardware. For example: a low-cost device for measuring water discharge was designed and installed. The device was an improvement from the standpoints of portability, longevity and cost.
An NCEL oil suction head which can be built for less than $450 has been performing satisfactorily at 40 or so naval installations. This skimmer features an all-plastic suction head for simple, more reliable operation and low-cost maintenance. Lightweight construction makes the skimmer effective in both waves and on choppy surfaces. A portable hand-held and operated oil skimmer was also developed and patented by an NCEL engineer.

NAS Cecil Field, Fla., third winner of SecNav's Environmental Protection Award, was helped along by a survey conducted by the Environmental Protection Data Base Group from the award-winning Port Hueneme Naval Civil Engineering Laboratory. This group gathered information which led to the identification of pollution sources engendered by Cecil Field's existence as an air station. As a result of the study, the local public works organization took the information and used it to update its procedures for environmental protection.

For example, noise, air and oil pollution ranked high on Cecil Field's roster of problems. For openers, in abating noise pollution, composite noise rating areas were determined to help identify the impact which the field's aircraft has on the local civilian community. The study resulted in still better co-ordination between the station and the area planning and zoning boards as well as stepped-up acquisition of buffer lands between station boundaries and the civilian community.

Pollution of the air by jet aircraft was fortunately held to a minimum by nature herself. Temperature inversions over the area are rare and usually is sufficient wind to disperse jet emissions. Some contamination from jets is unavoidable at the present time but something could be done about smoke pollution. Cecil Field converted all its power and heat generators to burn natural gas. Emission standards were then easily met as specified in regulations.

The forestry program at Cecil Field was initially guided by a 10-year plan which was established in 1962, a new 10-year plan has been developed and went into effect last July. During the first decade, overall appearance and environment have improved considerably at Cecil, thanks to expenditures of up to $96,000 for each year. The next 10-year period can be expected to produce results just as satisfactory.

Resource conservation at Cecil Field includes a wealth of streams, lakes, marshes and game refuges which are currently being managed under a separate five-year plan which was begun in August 1970. During this period, man-made lakes have been improved by Navymen stationed at Cecil; scouting camps, too, have been developed. Regulated hunting and fishing are permitted but fish and wildlife resources are monitored to prevent the population of any species departing desirable levels.

All these accomplishments have been brought about by formal regulation which reflects favorably on administration and concern of those in charge at Cecil Field, the Naval Civil Engineering Laboratory and USS Dixon. But success is not achieved exclusively through administrative efforts. The SecNav kudos are shared by every man and woman who participated in the programs aboard Dixon, NAS Cecil Field and the Naval Civil Engineering Laboratory at Port Hueneme. Credit must also go to the many other men and women in the Navy whose commands, although not in the winners' circle, care about their environment and work to improve it.

— Bob Neil
MEDAL OF HONOR
The Medal of Honor is the highest award for bravery given to an individual in the United States. It is awarded in the name of the Congress and for this reason sometimes it’s referred to as the Congressional Medal of Honor. Presentation is made by the President or an official appointed by him.

Each of the military services has its distinct Medal of Honor, and each establishes its own regulations — all along very similar lines — in judging those who shall receive it. The Naval Medal of Honor is currently awarded to a member of the naval service who “…distinguishes himself conspicuously by gallantry and intrepidity at the risk of his life above and beyond the call of duty while engaged in an action against an enemy of the United States; engaged in military operations involving conflict with an opposing foreign force; or while serving with friendly foreign forces engaged in an armed conflict against an opposing armed force in which the United States is not a belligerent party.”

A deed must be proved by incontestable evidence of at least two eyewitnesses; it must be so outstanding that it clearly distinguishes the recipient’s gallantry beyond the call of duty from lesser forms of bravery; it must involve the risk of his life; and it must be the type of deed which, if he had not accomplished it, would not subject him to any justified criticism (therefore the phrase, “beyond the call of duty”).

The Navy Medal of Honor was born during the Civil War as the first military decoration formally authorized by the American Government (the “purple heart” badge was established in the Revolutionary War by George Washington, not the government) as a badge of valor for enlisted men of the Navy and Marine Corps. It was authorized by Congress and approved by President Abraham Lincoln on 21 Dec 1861; the act was amended on 3 Mar 1915 to include officers. The Army Medal of Honor for enlisted men was authorized on 12 Jul 1862 and amended on 3 Mar 1863 to include officers.

Before World War I the Navy Medal of Honor could be, and has been, awarded to noncombatants. On rare occasions Congress has awarded a Medal of Honor for special exploits in peacetime — Captain Charles A. Lindbergh, for example, was awarded one for his nonstop flight from New York to Paris in 1927. On several occasions double awards of the medal have been made and in five cases there were awards of the Navy and Army Medal of Honor for the same action. General Douglas MacArthur and his father, General Arthur MacArthur, are the only father-son combination to win the medal; the father won his in the Civil War, the son during World War I.

The Navy Medal of Honor is made of bronze, suspended by an anchor from a bright blue ribbon and is worn about the neck. The ribbon is spangled with a cluster of 13 white stars representing the original States; on the small ribbon, usually worn on the breast with other award ribbons, the stars form the letter “M”. Each ray of the five-pointed star of the medal itself contains sprays of laurel and oak, tipped with a trefoil. Standing in bas-relief, circled by 34 stars representing the 34 States in 1861, is Minerva, who personifies the Union. She holds in her left hand the fasces, an ax bound in staves of wood, which is the ancient Roman symbol of authority. With the shield in her right hand, she repulses serpents held by a crouching figure of Discord. Reverse of the medal is blank, allowing for engraving of the recipient’s name and the date and place of his deed.

— J01 Tom Jansing

Beyond the Call of Duty

In a desperate struggle to save his critically wounded officer in charge and his patrol — without regard to his own safety — Engineman 1st Class Michael E. Thornton, USN, displayed conspicuous gallantry above and beyond the call of duty. For his heroic deeds he became the 11th Navyman whose action in Vietnam won him the Medal of Honor.

Here’s an account of his valor:

On 31 Oct 1972 (then) EN2 Thornton and Lieutenant Thomas R. Norris, USNR, while assigned to the Naval Advisory Unit, Cat Lai, were assisting a three-man Vietnamese SEAL Team. In the predawn darkness, the five men set out in a rubber boat from a Vietnamese Navy junk. Their mission: gather intelligence and capture prisoners in the vicinity of the NVA-occupied Cua Viet Naval River Base, Quang Tri Province.

At about 0400 they landed on a sandy, dune-surrounded beach and began moving inland. For two hours they silently patrolled towards their objective. Things were going well so far — they had landed easily, were making good progress and were still undetected. Shortly after dawn the first hitch came — the team was notified by radio that they had been put ashore too far north of the intended landing spot. No one knew exactly where they were, and without an accurate position fix, it would be impossible to get gunfire support from the junk if they ran into trouble. They immediately headed back towards the beach to establish contact with the junk.

As they reached the sand dunes two enemy soldiers spotted them. A skirmish broke out and 10 more NVAs with automatic weapons immediately joined the fight. Remaining calm under the increasing fire, Thornton assisted in setting up a defense perimeter while LT Norris attempted to pinpoint their location and call for naval gunfire support. Within minutes most of the 10 attackers were killed or wounded; however, 40
to 60 more enemy soldiers were seen beyond the dunes beginning to encircle them.

During the fierce 45-minute automatic-weapon and hand grenade fight, LT Norris directed naval gunfire while Thornton continued to bolster the patrol with words of assurance, all the while delivering accurate fire at the enemy. In spite of the outnumbered patrol’s valiant efforts and the pounding naval gunfire, the enemy managed to move within 25 yards of their position. The patrol was beginning to take on casualties—a grenade wounded Thornton in the legs; one Vietnamese SEAL was hit in the hip—it was time to get out. LT Norris recommended a leapfrog withdrawal to the sea where they could swim to safety.

Thornton and two of the patrol retreated 125 yards to the last dune before the open beach while LT Norris and the remaining member of the team covered their withdrawal. Minutes later LT Norris’s partner reached Thornton and reported that the lieutenant had been killed while trying to fire his last M-72 rocket. In spite of his wounds, the closeness of the enemy and the belief that the lieutenant was dead, Thornton refused to leave his officer in charge behind. Sprinting back through the enemy fire he found him still alive, though unconscious, with a serious head wound. Quickly killing two NVAs who were about to overrun the position Thornton slung LT Norris over his shoulder and once more dashed through the hail of enemy fire to the last dune.

The NVAs, believing they now had the small force cornered on the beach, stormed the position. Returning fire, the exhausted SEAL retreated across the 250 yards of open beach to the sea, Thornton running and crawling with LT Norris on his back. With almost superhuman strength, Thornton, fully clothed and with field gear on, towed LT Norris, also fully clothed, through the pounding four-foot surf, to sea and safety.

Once out of enemy range, Thornton put a UDT life jacket on LT Norris, administered first aid and towed him farther to sea. Two hours later, at 1130, the support junk picked up the five men and transported them to USS Newport News for medical treatment and MEDEVAC.

Petty Officer Thornton’s heroism, exceptional endurance, and devotion to duty, while outnumbered, encircled by the enemy and separated from friendly support or relief were directly responsible for the saving of LT Norris’s life and the safe extraction of the remaining members of the patrol. He also assisted in killing and wounding a large number of aggressive and well armed enemy in an area the enemy thought was completely under its control.

Engineman 1st Class Michael E. Thornton, USN—one of 11 extraordinary men to win the Navy Medal of Honor for action in Vietnam. The stories of the other 10 are told in the following pages.

Lieutenant (jg) Joseph R. Kerrey, USNR (Ret)

On 14 Mar 1969, Lieutenant (jg) Kerrey led a SEAL team on a mission to capture important enemy political leaders on an island in the bay of Nha Trang.

In order to surprise the enemy, he and his team scaled a 350-foot cliff to get above the ledge where they were camped. LTJG Kerrey then split his men into two elements and led one in the treacherous descent to the enemy’s camp. As they neared bottom
they were spotted and came under intense fire. A grenade exploded near LTJG Kerrey’s feet, threw him backward onto the rocks and seriously injured him.

Although bleeding profusely and suffering great pain, he immediately directed fire into the heart of the enemy camp, called in the second element’s support which caught the confused Viet Cong in a devastating crossfire and suppressed their fire.

Although immobilized by his multiple wounds, LTJG Kerrey continued to maintain calm, superlative control as he ordered his team to secure and defend an extraction site. He resolutely directed his men, despite his near-unconscious state, until he was eventually evacuated by helicopter.

The havoc brought to the enemy by this very successful mission and the critical information obtained from the captured enemy were extremely helpful to the allied effort.

Lieutenant Commander Thomas G. Kelley, USN

On the afternoon of 15 Jun 1969, while serving as Commander River Assault Division 152, (then) Lieutenant Kelley was in charge of eight river assault craft which were taking a company of U.S. Army infantry from the east bank of the Ong Muong Canal in Kien Hoa Province. Suddenly, Viet Cong forces opened fire from the opposite bank of the canal and, at the same time, a loading ramp on an armored troop carrier failed. LT Kelley immediately ordered his boats to form a protective cordon around the disabled vehicle while the ramp was being raised manually.

Realizing the danger to his column and its inability to clear the ambush site until the vehicle was repaired, he boldly moved his own boat to the exposed side of the protective cordon, in direct line of the enemy’s fire, and started shooting. Minutes later, an enemy rocket hit his boat, penetrated the thick armor plate and exploded, spraying shrapnel in all directions. LT Kelley was hurled to the deck with head wounds.

Although unable to move from the deck or to speak clearly into the radio, he continued to direct the other boats by relaying commands through one of his men until the enemy attack was silenced and the boats were able to move to safety.

LT Kelley’s brilliant leadership, bold initiative and resolute determination served to inspire his men and provide the impetus needed to carry out the mission after he was medically evacuated by helicopter.

Hospital Corpsman 2nd Class David R. Ray, USN

Petty Officer Ray was serving with a Marine battery near An Hoa, Quang Nam Province, when, early on the morning of 19 Mar 1969, an enemy battalion attacked their position with rockets and mortars, broke through the battery’s perimeter and caused numerous casualties.

Undaunted by the intense hostile fire, Ray moved from parapet to parapet treating the wounded. When he was hit and seriously wounded, he refused medical aid and continued his lifesaving efforts. As he treated a wounded Marine he was attacked by two enemy soldiers and, in spite of his own wounds, killed one and wounded the other in hand-to-hand combat.

Rapidly losing his strength, Ray managed to move through the hail of enemy fire to other casualties, but was once again threatened by enemy troops. Despite the grave personal danger and insurmountable odds, he succeeded in treating the wounded and holding off the enemy until he ran out of ammunition.

Ray’s final act of heroism was to throw himself upon the Marine he was treating when a grenade exploded. He saved the man’s life at the cost of his own.
Hospital Corpsman 3rd Class Wayne M. Caron, USN

Petty Officer Caron was serving with a Marine company on 28 Jul 1968 during a sweep through an open rice field in Quang Nam Province. The unit started receiving enemy small-arms fire and, seeing two Marines fall, Caron ran forward to give first aid but found that they were dead.

As enemy fire intensified, casualties began to mount. Moving to aid his wounded comrades, Caron was hit in the arm and knocked to the ground, but he regained his feet and continued to render medical assistance. As he ran toward another wounded Marine he was again hit, this time in the leg; nonetheless, he crawled the remaining distance and gave the man treatment. As he started to make his way to yet another injured man he was once more struck by enemy fire. Courageously, with unbelievable determination, Caron continued his attempt to reach the Marine until he was killed by an enemy rocket.

Hospital Corpsman 2nd Class Donald E. Ballard, USN

Petty Officer (then HM3) Ballard was serving with a Marine company which was moving to join the rest of the battalion in Quang Tri Province on the afternoon of 16 May 1968 when it was ambushed by a North Vietnamese Army unit and sustained numerous casualties.

Seeing a wounded Marine, Ballard unhesitatingly moved across the fire-swept field to the injured man and rendered medical assistance. He then directed four Marines to carry the man to a safe position but, as they prepared to move him, an enemy soldier suddenly appeared, hurled a hand grenade which landed near the small group, and started firing at them. Instantly shouting a warning to the Marines, Ballard fearlessly threw himself upon the grenade to protect his comrades from the deadly blast. When it failed to detonate, he calmly arose and resolutely continued treating casualties.

Ballard's heroic actions and selfless concern for the welfare of his companions served to inspire all who saw him and helped prevent possible injury or death to many of them.

Lieutenant Vincent R. Capodanno, ChC, USNR

Lieutenant Capodanno was serving as chaplain of a Marine Battalion in Quang Tin Province on 4 Sep 1967 when he learned that one of his companies was in danger of being overrun by a massed enemy assault.

Leaving the relative safety of the command post, LT Capadanno ran through an open area, naked, with fire, directly to the beleaguered platoon. Disregarding the intense enemy small-arms, automatic-weapons and mortar fire, he moved about the battlefield administering the last rites and giving medical aid. When a mortar round inflicted painful wounds to his own arms and legs and severed a portion of his right hand, he refused all medical aid. Instead LT Capodanno directed the corpsmen to help their wounded comrades and, with calm vigor, moved about the field giving encouragement to his men.

Seeing a wounded corpsman in the direct line of fire of an enemy machine gunner, he rushed forward in a daring attempt to assist the mortally wounded corpsman, but, only inches from his goal, was himself struck down.

A detailed account of his heroic action was reported in the May 1969 issue of ALL HANDS.

Seaman David G. Ouellet, USN

Seaman Ouellet was serving with River Section 532 on the Mekong River as forward machine gunner on
River Patrol Boat (PBR) 124.

While on patrol in the early evening of 6 Mar 1967, Ouellet saw suspicious activity near the river bank. He alerted his boat captain and recommended he move the boat closer to investigate. While the PBR was making a high-speed run along the river bank, Ouellet spotted an enemy grenade falling toward the boat. He immediately left the protection of his gun mount and ran aft shouting to his mates to take cover. Seeing the boat captain standing unprotected, Ouellet bounded across the boat, pushing him to safety.

In the face of certain death, Ouellet fearlessly placed himself between the deadly grenade explosion and his shipmates, courageously absorbing most of the blast fragments with his own body in order to protect his shipmates from injury and death.

For a full account on Seaman Ouellet, see the April 1968 issue of ALL HANDS.

Boatswain's Mate 1st Class James E. Williams, USNFR

Petty Officer Williams was serving with River Section 531 on the Mekong River as boat captain aboard River Patrol Boat (PBR) 105. On 31 Oct 1966 he and one other boat were taken under fire by two enemy sampans. As patrol officer, Williams immediately ordered the fire returned, killing the crew of one enemy boat and causing the other to take refuge in a nearby river inlet. Pursuing the fleeing sampan, the U.S. patrol was taken under heavy fire from enemy forces in well-concealed positions along the river bank. Maneuvering through this fire, the patrol suddenly confronted two enemy junks and eight sampans.

In the savage battle that followed, Williams, with utter disregard for his own safety, exposed himself to the hail of enemy fire to direct counterfire and inspired his patrol. Recognizing the overwhelming strength of the enemy, Williams pulled back his boats to await the arrival of armed helicopters. While retreating he discovered an even larger concentration of enemy boats. Not waiting for the arrival of the helos, Williams boldly led the patrol through the intense enemy fire and damaged or destroyed 50 enemy sampans and seven junks.

He then directed the arriving helos' attack on the remaining enemy force.

With darkness now upon them, Williams ordered the patrol boats' searchlights turned on, knowing that his boats would become even better targets, and
moved the patrol perilously close to shore to press the attack. Despite a waning supply of ammunition, the patrol engaged the enemy ashore and completed the rout.

Petty Officer Williams’ story was featured in the June 1968 issue of ALL HANDS.

Under Williams’ leadership, unusual professional skill and indomitable courage throughout the three hours of battle, the patrol accounted for the destruction or loss of 65 enemy boats and inflicted numerous casualties on the enemy.

While serving as pilot and aircraft commander of a search and rescue helicopter embarked in USS Preble (DLG 15), (then) Lieutenant (jg) Lassen took off shortly after midnight on 19 Jun 1968 to attempt the rescue of his aviators.

LTJG Lassen skillfully piloted his aircraft over unknown and hostile terrain to a steep, tree-covered hill on which the survivors had been located. Although enemy fire was being directed at the helo, he landed in a clear area near the base of the hill but, due to dense undergrowth, the survivors could not reach the helo.

With the aid of flare illumination LTJG Lassen then hovered between two trees at the survivors’ position. Illumination was abruptly lost as the last of the flares went out; the helo collided with a tree and started to go down. Expertly piloting the craft, and maneuvering clear, LTJG Lassen remained in the area and encouraged the downed aviators while awaiting resumption of flare illumination.

With his fuel dangerously low, enemy fire all around and his aircraft badly damaged, he tried another illuminated rescue attempt. Once more the flares went out and he had to pull up. Finally, fully aware of the dangers, LTJG Lassen turned on his landing lights, and landed to pick up the survivors.

En route to the coast, LTJG Lassen successfully evaded hostile antiaircraft fire and, with fuel for only five minutes, landed safely aboard USS Jouett (DLG-29). (A detailed account of LT Lassen’s exploit is contained in the April 1969 issue of ALL HANDS.)

Construction Mechanic 3rd Class Marvin G. Shields, USN

Petty Officer Shields was serving with Seabee Team 1104 at Dong Xoai on 10 Jun 1965 when his detachment was attacked by a Viet Cong regiment. Although wounded in the fighting, Shields continued to resupply his comrades with ammunition and return fire. After three hours of skirmishing, the Viet Cong launched a massive attack with flame throwers, grenades and small arms. Wounded a second time, Shields continued to assist in carrying a more critically wounded man to safety, and then resumed firing at the enemy for four more hours.

When his commander asked for a volunteer to accompany him in an attempt to knock out an enemy machine-gun emplacement, Shields unhesitatingly volunteered for the extremely hazardous mission. Using a 3.5-inch rocket launcher, they succeeded in destroying the emplacement, thus undoubtedly saving the lives of many of their fellow servicemen in the compound.

Shields was mortally wounded while returning to his defensive position.

A detailed report of the extraordinary heroism of Shields is contained in the February 1967 issue of ALL HANDS.

—T.J.
The Navy Cross, second only to the Medal of Honor, is awarded for extraordinary heroism in military operations against an armed enemy. Its origin itself is rooted in the Medal of Honor, and to trace the history of the Navy Cross and other awards, it is natural to begin there.

The original Navy Medal of Honor was authorized early in the Civil War on 21 Dec 1862. From the Civil War through World War I, it was the only military decoration given for heroism and, as such, it was awarded for all acts of extraordinary heroism or service. Not all of the examples of courage or service for which it was given were of the same extraordinary caliber to merit what we recognize as the Medal of Honor today. At the same time, these heroic acts certainly deserved appropriate recognition.

To give this recognition, and to protect the meaning and value of the Medal of Honor and other high awards, a "Pyramid of Honor" was conceived. The idea is that decorations are arranged in descending order; the Medal of Honor is at the top followed by the Navy Cross, the highest, supreme awards — with distribution limited to the few who meet the most severe tests. Between the base and the apex of this pyramid are all other awards, distributed according to their quality of heroism of their relative importance and difficulty of achievement.

The Navy's pyramid got started on 4 Feb 1919, when Congress approved a new Navy Medal of Honor. It was awarded for distinguished gallantry and intrepidity at the risk of life above and beyond the call of duty in action involving actual conflict. The old Medal of Honor was retained for noncombat service. Initially the act established the Navy Distinguished Service Medal and the Navy Cross, the latter being awarded for combat heroism and other distinguished service. A number of Navy Crosses were awarded in World War I for heroism in noncombat rescue and salvage operations in submarine disasters. Note that, at this time, the Navy Cross was third in precedence on the merit list.

On 7 Jul 1942, Congress amended the 1919 act and restored the dual status of the old Medal of Honor, thereby authorizing its award for both combat and noncombat service (On 25 Jul 1963 it was restored to a combat-only award). This same act reversed the relative positions of the Distinguished Service Medal and the Navy Cross, thus making the Navy Cross second in the "Pyramid of Honor." The act also removed the "other distinguished service" clause and stipulated that the Navy Cross is to be awarded for extraordinary heroism in military operations against an armed enemy only. The 1942 amendment remains the basis for awarding the Navy Cross today.

How extraordinary must this act of heroism be to win the Navy Cross? The following story, concerning just one of the 115 Navy Crosses awarded for action in Vietnam is an illustration.
"An extraordinary act of heroism," for which AMH2 Norman B. Stayton, a native of Redland, Calif., was awarded the country's second highest award, the Navy Cross, is a simple but meaningful description.

Petty Officer (then Airman) Stayton was in Vietnam flying as second gunner with Helicopter and Attack (Light) Squadron Three. On 26 Mar 1971, his helo was escorting five U.S. Army boats loaded with jet fuel and ammunition through the Can Gao Canal in Kien Gian Province.

It was a routine job, and quiet that day. As the helo made its oval pattern around the LCMs a little past noon, it was suddenly jolted by a shattering explosion. One of the boats had struck a mine and, almost simultaneously, was hit by two enemy rockets. Flaming jet fuel immediately spread over the canal's surface as the boat's 9000-gallon cargo violently erupted. Heavy machine gun and small arms fire poured into the boats from both sides of the canal. The quiet, routine convoy had sailed into a bloody ambush.

Stayton's helo counterattacked with rockets and machine gunfire, then made a low pass up the canal searching for survivors. A wounded U.S. soldier was spotted crawling ashore 75 feet upwind of the burning boat. With confusion on the ground and poor radio communications, none of the other boats could be directed in to pick him up. The helo crew had to go in to save him.

The pilot brought the ship down, but dense foliage and steep banks along the canal prevented a landing and he was forced to hover over the middle of the canal exposed to enemy fire. Without hesitation, Stayton jumped unarmed into the water and began swimming the 30 feet to shore with a life preserver for the soldier. Almost immediately Stayton himself took a hit in the leg.

Disregarding his own pain, he reached the soldier, who was burned over a large portion of his body and suffering from severe shock. Stayton got the life preserver on him and began carrying him to the shoreline. While he struggled, his valiant effort was almost cut short—an enemy soldier was lining him up in his sights; but, before he got the shot off, he was killed by a shot from friendly forces across the canal. Oblivious to this, Stayton carried on and finally got his man to the water and into a sampan.

His ordeal was far from ended. Shielding the victim with his own body while getting himself and the soldier into a small sampan, Stayton began paddling furiously for the helo. As he came near, the rotor backwash and current pushed the little craft
back toward shore. Five times his desperate attempts to reach the helo were thwarted. On the sixth try he finally managed to grab the helo's skid. Hanging on with one arm and holding the sampan steady with his legs, he braced up the semiconscious man. Another helo crewman climbed out on the skid and tried to reach the man, but couldn't. He hooked a gunner's belt over the nose of the skid and Stayton tried to fasten it around the soldier, but it came loose and fell into the water. The pilot worked the helo lower and the crewman managed to grab the soldier's arm. He almost had him into the helo when the man's burned skin pulled off and he fell back into the sampan, capsizing it. The Mae West kept him afloat face up as he was carried away, while Stayton, hanging onto the boat, drifted ashore near a motorized sampan.

Some 30 minutes had passed since Stayton jumped from the helo. All this time he was subject to hostile fire. He was near exhaustion, in pain and losing blood—but he refused to give up.

Seeing that the helo's backwash had slowed the man's drift, Stayton set out after him once more. He got the sampan's motor started. Half a minute later it sputtered to a stop—no gas—so he started paddling, but catching the man looked impossible now. As he bent to his work, he saw an LCM coming up the canal taking fire from all sides and returning it on everything in sight with a .50-caliber machine gun. Stayton stood up in the sampan in the middle of a steady crossfire and waving and shouting he pointed to direct the boat's attention to the survivor. The friendly boat spotted Stayton and was about to take him under fire, when the crew realized he was an ally. He swam to the boat, directed the rescuers to the drifting soldier and helped pull him aboard. A casualty himself, Stayton refused treatment, but continued to give encouragement and moral support to the rescued soldier.

The two men were taken from the hot area to another helo which was able to land along the canal bank. Stayton helped carry the soldier through a waist-deep swamp and together they were flown to Kien An for medical aid.

"By his valiant and persevering efforts in the face of intense enemy fire," reads his award citation, "Petty Officer Stayton was directly instrumental in the rescue of a seriously wounded fellow serviceman. His heroic actions were in keeping with the highest traditions of the United States Naval Service."

AMH2 Norman Stayton—a hero; an extraordinary man.

—JO1 Tom Jansing
Ship-to-Shore for "Deprived" Ratings:

FLEET MAINTENANCE ASSISTANCE GROUP
No listing of naval terminology will tell you the meaning of "deprived rating," but it's synonymous with ships and people. A "deprived rating" is one which spends a lot of time at sea as against a little time on shore duty.

Nor does in-port time bring relief to these people. Charged with the material readiness of a ship, these are the ones who must keep the steam up and the generators going while others get as much time at home or away from ship as possible. For these ratings, three- and four-section duty is the norm.

Then, there's the problem of what to do with "deprived ratings" once they do get off a ship and onto shore duty. Though their cycle can run as high as six years at sea to one ashore, their rates can be the reason, too, why they end up in special services or on a station's master-at-arms force, marking time, instead of being in shops where they can continue working in their field, usually boiler work or hull and machinery upkeep and repair.

With this as a living pattern, it's not surprising that retention has been a problem. Even the most conscientious and hard-working sailors are heard to say, "Why me? Even when I do get ashore, I end up in a job where I lose two years of experience and OJT."

The creation, in the Atlantic and Pacific, of the Navy's new Fleet Maintenance Assistance Group (FMAG) program is an effort to eliminate those questions of "why me."

The FMAG program is three-pronged:

- Get the deprived ratings ashore, on time, for a stabilized tour;
- Put them in an eight-hour-a-day environment designed to beef up the skills they already have and add new ones to their inventory; and
- Provide direct intermediate maintenance support to fleet units with teams of shore-based technicians, many of whom may go on board those same ships for duty after their FMAG tour.

The goal of FMAG is to improve retention of skilled and experienced petty officers throughout deprived ratings and to promote increased fleet material readiness, in that order. This is being accomplished by shortening sea tours and, at the same time, providing professional assistance to those still at sea. Additionally, FMAG provides a shore duty billet in which a sailor can work within his own rating, rather than sacrifice two years of experience and training which can be invaluable at advancement time.

The existence of a pool of specific ratings within a shore-based organization provides a multifaceted feedback of benefits to the individuals and to the Navy. These groups now exist in several ports on both coasts. They justify their own existence by easing the workloads of their own ratings aboard ships throughout the Atlantic and Pacific fleets. They work within their own shops, or go to the ship if the job calls for it. Their efforts free ship's force manpower to devote their time to essential preventative maintenance and correction of extensive common deficiencies.

The creation of FMAGs has met with a number of problems. "In any new program, all concerned are going to experience some growing pains," says Rear Admiral W. C. Barnes, Atlantic Fleet Maintenance Officer.

Ideas that looked good on paper didn't always work out in practice. "We've made some mistakes in the past year," said Admiral Barnes, "but I think we have had pretty good rapport between the people in the program and management. We're identifying the mistakes and taking corrective action."

"We want to break down the communication gap which always exists in a structure as complicated as the Navy, but particularly when you have a new and different program involved. The message needs to get out to the people as to what the program is all about, what the people are supposed to do, and, the benefits derived both for themselves and for the fleet."

Fleet Maintenance Assistance Group Pacific concept closely parallels the San Diego-based Development and Training Center (DATC), which began at the naval station in 1967. According to LCDR Bruce Gordon, Pacific Fleet FMAG project manager, this
organization is being set up in Pearl Harbor and Alameda, as well as in San Diego.

"We have a June 1974 deadline for being in full operation with both men and equipment at all three sites," he says.

Traditionally, it is the men in the deprived ratings who have the least free time in port. A post-deployment standdown usually means increased liberty for the crew. For the deprived ratings, however, leave and liberty are, and must be, dependent upon the material readiness of the ship.

Even here FMAG can assist; they respond to calls for help. Whether the job is small or large, easy or tough, FMAG has the people and knowledge to handle it. However, FMAGs are not merely a pool of available manpower, but rather a source of professionals, ready to offer their expertise when requested.

Management of DATC/FMAG has come up with a profile of the average sailor coming to them from the fleet. He is an E-6 with just a little more than 10 years of service. He has had 5.3 years of consecutive sea duty, is 30 years old, with 10 years of formal education, along with 28 weeks of naval schooling.

When a man arrives for duty with a FMAG, his first step is an interview with his rate training
evaluator, a chief petty officer in the same or a closely related field. The evaluator’s function is similar to a civilian school counselor, except that he is serving his tour ashore just like the sailors he interviews. This first interview is generally short, a description of the program and a chance for the man to ask questions or air any problems he might need to clear up before getting on with his shore duty.

After the initial interview, it generally takes a little more than a month to complete the mandatory Navy-wide general military training courses and seminars. With the indoctrination out of the way, including his first stint at FMAG watchstanding, the man again meets with his evaluator and the two map out a program of schools and on-the-job training which should carry him through the remainder of his time.

When it’s all over and the sailor is ready to return to sea, he will have had whatever formal training he needed and enough on-the-job training in major repair work to boost his confidence. Reaction from sailors assigned to the DATC/FMAG programs is positive:

HT1 Frank Smith has six months to go on his tour, where he’s sharpened his skills as a high-pressure welder. “It’s a man’s own fault if he can’t get something out of this place,” he said.

A second tour man, GMG1 Dale Irwin, maintains the San Diego DATC/FMAG program “... is the best rate training you can find anywhere.” Irwin reported for his second tour about a month ago.

Building the FMAG manning level is seen by Captain John La Cava, commanding officer of both Fleet Maintenance Assistance Group Pacific and the Development and Training Center in San Diego, as a step toward solving what he calls a “moral and ethical matter.”

As the captain sees it, “Aside from the practical matters of seriously low retention rates, we have the moral and ethical matter of having asked too much, for too long, from our Navymen and their families without giving them enough in return. The Navy is coming closer to solving this now. Admiral Zumwalt is aiming at instituting a firm three-year sea-tour rotation. For our part, success of this plan depends on the success of FMAG.”

—Story by JOC Warren Grass and JOC Tom Streeter
—Photos by PHC Bill Hamilton and JOC Warren Grass
FLEET WEAPONS
ENGINEERING DEPARTMENT (FWED):

WEAPONS
TROUBLESHOOTERS
If you are on an aircraft carrier somewhere in the middle of the Pacific and something major goes wrong with one of the weapon systems, expert assistance is usually too far away. Most ships do not have a weapons specialist who can accurately troubleshoot for a defect in a target or missile system. Instead, help must be sent from the Fleet Weapons Engineering Department.

Headquartered in Point Mugu, Calif., FWED has as the core of its organization some 70 Navy Civilian Technical Specialists (NCTS) who are stationed at major aviation commands throughout the United States and overseas. These highly skilled consultants are always on call to go anywhere and give advice, instruction, or training in either the operation, installation, or maintenance of weapons used by the U.S. naval forces.

Most of the specialists from the FWED are former Navy or Marine Corps veterans, each having an average of 15 years’ experience with various weapon systems. Their knowledge covers four main areas: air-to-air missiles, air-to-surface missiles, conventional ordnance, and target systems. Each man specializes in one of these fields. Those in the missile field, for instance, must learn two or three systems inside and out.

The Navy Civilian Technical Specialists are the field service division of FWED. Their complement is the engineering department which has most of its people at Point Mugu. The engineers for FWED act as overseers of the weapons and targets that are used by the Fleet. The weapons systems’ safety, effectiveness and maintenance requirements are thoroughly reviewed for suitability by these engineers.

After a technical specialist locates and corrects a problem at a particular command, his work is not complete. All his findings and solutions are reported back to the engineering department at Point Mugu where they are compiled with other reports and then analyzed for possible trends in breakdowns. If updated training is necessary, the specialists return to Point Mugu for instruction from the engineering people.

The men in the field division have made some rough “house calls.” For example, when a Marine unit in Southeast Asia was experiencing a high failure rate of flares, NCTS Vern Herren was assigned to see what could be done. To find out what was going wrong, the used flares had to be retrieved. This meant several trips into hostile jungle in search of the faulty type — but it paid off. A close inspection of one of these flares showed that moisture had caused the misfire. The cause of this moisture was later traced back to the packing containers that had been eaten away by termites during storage.

The success of the Fleet Weapons Department lies in its network of specialists who have traveled over a half a million miles to bring “Service to the Fleet.” For those who must worry about weapon systems, FWED is probably one of the most extensive service stations around.
NEW UNIFORM CHANGES ANNOUNCED

As a move to make the peacoat more compatible with the new service dress blue uniform, the Navy is now requiring men to change the black plastic buttons to silver oxidized buttons. This change refers to men E-6 and below only. Other uniform changes recently announced authorize enlisted women to wear the man's denim dungaree-chambray shirt uniform or the new enlisted working blues. Women's fore and aft hats, command baseball caps or men's working caps are prescribed with the uniforms at command discretion.

The uniform changes, described in BuPersNote 1020 of 20 Nov 1973, give command authority to prescribe the combination cap with white cover after 1 Apr 1974 for all uniforms (E-6 and below) and the brushed silver belt buckle for all uniforms (E-6 and below). These items are optional until supplies are depleted or until 1 Jul 1975, whichever comes first. The changeover to the silver buttons for the peacoat will be required by 1 Jul 1975.

ALIENS: YOU MUST REPORT YOUR ADDRESS IN JANUARY

Aliens who have been issued an alien registration card and are in the United States or one of its possessions on 1 January must report their addresses during the month of January -- even though that address may be the same as reported last year. Procedure for doing this is simple: go to the nearest post office and ask the clerk for an Address Report Card; fill it out and hand it back to the clerk. If an alien is outside the U. S. or its possessions, he or she should report his address within 10 days after returning. There are severe penalties, including deportation, for not complying.

LATEST DIRECTORY LISTS CREDIT UNIONS FOR NAVY PERSONNEL

A new directory listing the credit unions which active duty Navy personnel, civilian employees of the Department of the Navy, and inactive Reserve officer and enlisted personnel may be eligible to join, has been published by the Secretary of the Navy. The directory, SecNavInst 5381.4 of 16 Nov 1973, breaks down the listing by state for both active duty and civilian personnel and for inactive duty personnel. Anyone wishing to join a credit union should refer to this list to determine his eligibility.

FY 74 FLEET CUT TO AFFECT 80 ACTIVE, 26 RESERVE SHIPS

Reductions in the active and reserve fleets during FY 74 will total 106 ships, according to Navy officials. The ships to be eliminated will be either transferred to the Naval Reserve force, the Military Sealift Command, or considered for lease, loan, sale, strike or conversion. In the final increment of this cut, some 38 active and 15 reserve ships will be cut.

The ships involved in this are: (from California home ports) -- destroyers T. E. Chandler, John R. Craig, Henderson, Higbee, Orleck, Rogers and Henry W. Tucker and the oiler Caliente; (from Connecticut) -- the submarines Cobbler, Corporal, Greenfish and Jallao; (from Florida) -- the destroyers William C. Lawe, McCaffery, Meredith, Nai, and Power; the DERs T. J. Gary and Kretchmer; and submarines Amberjack and Tirante; (from Hawaii) -- destroyer Epperson; ocean escort Charles Berry (from Rhode Island) --
destroyers Fiske and Charles H. Roan; (from South Carolina) -- destroyer Cone; submarines Barracuda, Remora and Trumpetfish; (from Virginia) -- destroyers Corry, Leary, O'Hare, Rich, Vogelgesang and Robert L. Wilson; ocean escorts Courtney, Lester and Hammerberg.


- **DEADLINE FOR SURVIVOR BENEFIT PLAN EXTENDED**
  An amendment to the 1974 DOD Authorization Act, Public Law 93-155, has extended the deadline date by which military members who retired prior to 21 Sep 1972 may elect coverage under the Survivor Benefit Plan. The new deadline date is now midnight, 20 Mar 1974. Pass this news on to your shipmates who have retired.

- **NEW OPEN/CLOSED RATES LIST PUT OUT BY BUPERS**
  A new listing of the Navy's current open and closed rates has been promulgated by the Bureau of Naval Personnel in BUPERS Inst 1133.25A CH-1. The lists are based on current career manning levels and reflect from which rates conversions will be authorized and to which rates conversion requests will be approved. Personnel wishing to convert from one rate to another should check this list and then talk with their division officer or career counselor for further information.

- **OVERPAYMENT WAIVER ELIGIBILITY EXPANDED BY NEW LAW**
  Because of a new law expanding the eligibility requirements of a waiver of indebtedness, any member or former member of the armed services -- including officers -- may apply for waivers of a claim of the government deriving from an erroneous payment of pay or allowances, other than travel or transportation allowances. Active duty enlisted members still can apply for any waiver of an indebtedness over which SecNav has jurisdiction.

  Waivers of indebtedness to the government can be granted under some circumstances if the overpayment occurred through government error and there is no indication of fraud or lack of good faith on the part of the individual.

- **SOME E-4 STEWARDS NOW ELIGIBLE FOR RATING CHANGE**
  A limited number of conversion requests from Stewards 3rd Class (SD3) are now being considered for approval, and change of rating requests from SD2's and SD1's are being encouraged. The Steward rating has been undermanned in the lower paygrades and overmanned in the higher paygrades for some time, thus limiting the conversion possibilities for those in the lower paygrades.

  Now, however, due to improved manning those limitations are being eased and SD3's eligible for "A" school may request a change in rating. Those not eligible for school may request to participate in a Navywide examination for a lateral change in rate. Personnel authorized to participate in an examination for lateral change of rating will also be authorized to participate for advance-
ment in the Steward rating. For more details contact your division officer or career counselor.

- **NEW CAP INSIGNIA AVAILABLE AT NAVY EXCHANGES**
  The new metal work cap insignia with gold chevrons, authorized for wear by those people eligible to wear gold service stripes, is expected to be available for sale in Navy exchanges this month. The devices are also expected to sell for less than a dollar.

- **GUAM VIETNAM VETS ELIGIBLE FOR BONUS**
  Residents of Guam who served in the armed forces during the Vietnam era may be eligible for a tax-free bonus from that territory. Those individuals must have served more than 90 days' active duty between 5 Aug 1964 and a date determined to be the end of the Vietnam conflict. They must also have been residents of Guam immediately before entering the service. A maximum pay of $720 is authorized, and the bonus may be paid to the next of kin. More information on this can be obtained by writing the Veterans Affairs Officer, Office of Veterans Affairs, Veterans Bonus Division, P. O. Box 3279, Agana, Guam 96910.

- **NEW LODGE DIRECTORY NOW AVAILABLE FROM NRSO**
  A new directory containing information on Navy Lodges has been published by the Navy Resale System Office. The directory lists all lodges operated as a part of the Navy exchange program, their rates and a brief description of each. The booklet will be provided all Navy Lodge guests as part of the information packet. Navy personnel can obtain a free copy of the directory at their nearest Navy Lodge or by writing the Navy Resale System Office (Code SM6), Third Avenue and 29th St., Brooklyn, N.Y. 11232.

- **SEABEE CENTER AT DAVISVILLE, R.I. TO CLOSE**
  The Secretary of the Navy has announced that the Naval Construction Battalion Center at Davisville, R.I. will be closed by 30 Jun 1975, and all the Seabees and support units will be transferred to the Seabee Centers at Gulfport, Miss., or Port Hueneme, Calif., the Norfolk Naval Station or the Newport Naval Base. The reduction, which is in addition to the general Navy-wide shore establishment realignment program announced last spring, will affect some 2000 military and 650 Navy civilian personnel.
  Since its establishment in 1941, NCBC Davisville has been associated with training and assembling of personnel and material for construction of Navy and Marine Corps bases throughout the Atlantic, Mediterranean and Caribbean areas. At the peak of the Southeast Asia conflict, the center supported seven overstrength mobile construction battalions. At present, only three battalions (NMCB 1, 40 and 71) remain.

- **FIRST OF NEW COMMERCIAL CHARTER TANKERS FOR NAVY LAUNCHED**
  The first of nine new tankers being built by private investors for longterm charter by the Navy's Military Sealift Command has been launched in San Pedro, Calif. Sealift Pacific and her eight sisters -- each to be named
for a sea or ocean -- will be chartered for up to 20 years with MSC paying an annual fee for their use. Two more are scheduled for launching this month, one at San Pedro, the other at Bath, Maine.

Sealift Pacific is 587 feet long, displaces 25,000 deadweight tons and has a design draft of 32 1/2 feet, enabling her to enter shallow water ports. The construction cost of the nine tankers will be $160 million, and all are scheduled for delivery by the end of December 1974.

- OPEN MEETING OF NAVY RELIEF SOCIETY SET FOR MARCH

The annual meeting of the Navy Relief Society, a meeting open to all those interested, will be held 14 Mar 1974 in Arlington, Va. Those who do wish to attend should give prior notice to: Secretary, Navy Relief Society, 801 N. Randolph St., Suite 1228, Arlington, Va., 22203. The society is interested in hearing comments and suggestions on its procedures and policies at this meeting. Those who cannot attend are being asked to submit any such comments in writing before the meeting.

- NAVY RECRUITERS TOP GOALS IN OCTOBER, NOVEMBER

For the second straight month Navy recruiters have topped their monthly recruiting goals. A total of 4559 male enlistees were signed up in November, 59 more than the month's recruiting quota. Nearly 86 percent of these were "school eligible" and almost 65 percent were high school graduates. Some 2.3 percent were in Mental Group IV category.

The total number of enlistees for October was 5500, some 400 more than the recruiting goal. 84 percent of these were "A" school eligible, and 72 percent were high school graduates. Only three percent were in the Mental Group IV category.

- SELLERS GIVEN ANTISUBMARINE WARFARE TROPHY

USS Sellers (DDG 11), a Charleston-based guided missile destroyer, has been awarded the Antisubmarine Warfare Trophy for fiscal year 1973. Sellers received the honor for being the most proficient ship in antishubmarine warfare in the Cruiser-Destroyer Force, U. S. Atlantic Fleet.

- NEW COMPUTER GUNFIRE CONTROL SYSTEMS RECEIVED ON SCHEDULE

The Naval Ordnance Systems Command reports the Navy has taken delivery on the first 16 new Mark 86 gunfire control systems. The systems were delivered on schedule and within contracted costs. The Mark 86, the first major U. S. gunfire control system to use a digital computer, can track more than one target at a time and control gunfire against surface, air and shore targets.

The system is designed primarily for use with the Navy's new 5-inch, .54-caliber lightweight gun and will be installed on the Spruance class destroyers, the Tarawa class helicopter landing assault ships and the DLGN 36 and 38 class frigates. The Mark 86 system requires no personnel in the director, using instead, a closed-circuit television system for visual tracking of targets. It will be installed in USS California early this year.
From the desk of the
Master Chief Petty Officer
of the Navy

Your Duty Preference

It has been just a little over a year now since the new enlisted duty preference form (NavPers 1306/63) hit the street.

Curiously, only about half of the solicitations so far have been responded to. As of this writing, 41,000 forms have been returned, although 107,000 Navymen and Navywomen have been solicited by BuPers and 600,000 forms have been distributed to commands throughout the Navy. Not a very good average when you consider how important an up-to-date duty preference form is to the individual.

The submission of individual duty preferences is a vital step in getting the right person, in the right job, at the right place. Without a duty preference form, your detailer must assume that your duty preference is “anywhere world.” Even though your detailer is not always able to assign you according to your likes and dislikes, it is still important to have an up-to-date duty preference form on file. There is always the possibility of being screened for new projects and assignments based, at least in part, on your duty preferences.

The fact that you might not always get the assignment you want should not deter you from submitting a duty preference form. While there are many other considerations that every detailer must carefully weigh, individual likes and dislikes, when known, are given every possible consideration.

Such factors as previous and potential performance, rate, rating and NEC, service history, obligated service, active duty base date, security clearances, special qualifications, guarantees and incentives, medical problems, number of dependents, rotation status and training requirements must also be considered. In addition, there must be a billet vacancy that corresponds with your desires. Your assignment must contribute to fleet stability and it must be in accordance with the priorities that have been established by fleet commanders. Moreover, the cost of the move that you desire is now a very critical factor. Even when you request a “no cost” transfer, your detailer must be concerned with the cost of relieving you. For every billet vacated by a “no cost” transfer, there is usually the cost of PCS for the individual who must be ordered in to fill the vacancy.

Obviously, your detailer does have a lot to consider! But in order for your duty preferences to be considered, you have the responsibility to communicate with your detailer. And that is where the duty preference form comes in.

Ten months before your projected rotation date or your expiration of obligated service date, the personnel office at your command will receive a solicitation listing, included with the 1080/14, containing your most recent duty preferences as they are recorded in BuPers. If what you see on the listing is an outdated duty preference, carefully complete and submit a new duty preference form (NavPers 1306/63). Codes and submission procedures are contained in Chapters 2 and 25 of the Enlisted Transfer Manual.

When filling out the new form, take the time to fill it out properly! Doublecheck your work. Be sure to use the proper codes and check to see if you are eligible for the duty that you’re requesting. If you need help or have any questions, your Personnelman or career counselor will be able to assist you. Remember not to be too specific with all of your choices. Make your first choice of duty as specific as you want, but you’re more apt to get one of the areas of your choice if you broaden your second and third choices to a larger geographical area such as a state and naval district.

If after having submitted a completed duty preference form, you change your mind, you may submit another form the following month. But if you can’t wait the full month, go ahead and submit another form. Just be certain to print “CORRECTED COPY” on the top margin. Otherwise, BuPers cannot determine which is your most recent duty preference form.

A few months after you submit your duty preference form, your command will receive a verification computer listing, which also comes with the 1080/14, of your preferences as they are recorded in BuPers. Go over this listing carefully and verify your preferences. If the listing is inaccurate, submit another form with the correct information.

I can assure you that your duty preferences are considered. Tell your detailer what you want and where you want to go and every effort will be made to satisfy your desires. It’s just good personnel management to match the right person, in the right job, at the right place. And that’s what the new duty preference form is all about.
Navy's Tactical Data Systems — Over a Decade of Service

Since the Navy's Tactical Data System has been installed in a number of ships, in a little more than a decade it has become one of the Fleet's most vital pieces of equipment. The complexity of the system requires very sophisticated hardware and software. The fact that a particular recent replacement involved the French Navy was particularly noteworthy.

It's a complicated story, but it all began with a large fire on USS Forrestal (CVA 59) in 1972. The fire wiped out the NTDS there, and when the ship put in for repairs, replacement equipment had to be found before it could be fully operational again.

A decision was made to take the system installed at Naval Air Technical Training Center, Glyno, Ga. — which was being used for training purposes — and reinstall it in the carrier immediately. That was simple enough, but then a replacement for the system at Glyno had to be found, and that wasn't quite as simple.

The display damaged in the fire, which was also the type at Glyno, could no longer be fabricated economically. Therefore, replacement for NATTC Glyno would be a difficult problem.

A display system of a new NTDS type was becoming available from the decommissioning of Wasp (CVA 18). A system of a previous type had been sold to the French Navy about 10 years ago. These two otherwise unrelated facts were put together in the minds of Navy officials. Owing to French Navy-U. S. Navy cooperation, an exchange was worked out. The French would take the new displays for their prior model displays and the U. S. Navy would take the CVA 59 type of displays and reinstall at Glyno to restore the NATTC capability. The French were happy and so were we.

NTDS is a million-dollar computer system which has been put into about 50 Navy ships during the last 10 years. It centers around a computer-fed series of consoles that display a schematic picture showing enemy targets, their types and movements, and the defensive and offensive posture of friendly ships and aircraft.

By going to its computer memory cells which have previously stored information on the capabilities of enemy and friendly ships, aircraft and missiles, the system gives the commanding officer a series of alternate recommendations on weapons to be used, and information on other decisions which must be made. When the CO makes his choice, the system transmits the necessary orders to the ship's fire control equipment, or to other ships and aircraft which will then make the attack.

A computer-to-computer link between ships means that an entire task force is coordinated so as to operate almost as one ship.

Assigning a Sponsor Becomes Mandatory; New Form Makes Job Easier for Commands

The Navy Sponsor Program, which helps smooth the problems of PCS transfer, has been improved. Assignment of a sponsor is now mandatory for all personnel on their initial PCS transfer (including personnel completing recruit training, OCS, direct appointees, etc.) and for all those on PCS transfers overseas. Others may still decline sponsor assistance if they wish. In addition, afloat commands now provide unclassified ship's schedule information to prospective crewmembers.

To further improve the program, a Navy Sponsor Notification form (NavPers 1330/2) is now available to standardize all sponsor requests. If there is not enough time to mail a Sponsor Notification form before a member is to be transferred, the information may be sent by speedletter, message or telephone.

High Atop Mt. Mauna Loa, Vacationers Find Kilauea Military Camp Ideal

A leave spent as a vacation in a resort area can be surprisingly inexpensive for those Navy men and women who take advantage of their military benefits. Most are aware that while on active duty or after retirement from the Navy they are eligible to vacation with their families at various military recreation and rest areas operated around the world. That one of the finest is located in Hawaii is a bonus.

Called the Kilauea (pronounced Kil-ah-way-ee) Military Camp, the site is located in the highlands of the big island of Hawaii, some 4000 feet up the slopes of snow-capped Mount Mauna Loa.

The surroundings are quiet, serene, far from any crowded beaches. But the major attraction is the camp's namesake—Kilauea—the world's most continuously active volcano which has been a popular subject for photographers since it began erupting in 1967.

Besides featuring the volcano, the island of Hawaii is renowned for its Kona Coast, just a two-hour drive from camp where sports fishermen may seek trophies among marlin, tuna and other big game fish. The camp does not operate boats from the coast, but ample commercial charters are available.

Elsewhere on the island, small game birds abound
in season for the sport hunter of pheasant, quail, partridge and turkey. Sheep may be hunted at certain seasons and wild goats and wild pigs may be hunted year-round. Hunters must provide their own weapons. Furthermore, it is advisable that more information on hunting in Hawaii be obtained from the camp reservations office before setting out on safari.

Outside of hunting, guided tours of other parts of the Big Island are a popular attraction to visitors as is the opportunity to sample unusual cuisines at various restaurants along the way. For those who prefer independence of travel, rental vehicles are available at the recreation site.

The camp offers a wide variety of services and facilities—bowling, table tennis, movies, a barbershop and even a beauty parlor for women guests. Also operated for the convenience of visitors are an exchange, package goods store and a short-stop store offering snack items.

Nearby is a civilian-operated 18-hole championship golf course. There is also a chapel on the grounds, a library and a dispensary. For evening entertainment guests are welcomed to the Koa Lounge which features dancing nightly. And to the pleasure of many parents, the camp operates a nursery both day and night.

Truly the beauty of a vacation spent at the Kilauea Military Camp is reflected not only in the serenity of its surroundings, but also in the savings that may be realized by the Navyman and his family. For instance, a chief petty officer and his wife may be accommodated complete with meals, tours and maid service for $9.50 a day. Little more can be said.

For complete information on guest arrangements, write to: Central Reservations Office, Kilauea Military Camp, Hawaii National Park 96718.

—SKC Troy A. Brown.

**Faster Return Expected by New Policy For Handling Antarctic Philatelic Mail**

For those stamp collectors who are thinking about adding an Antarctic item to their collections, there have been a few changes in the philatelic procedures for this year's Operation Deep Freeze. Philatelic mail received at Antarctic bases will now be cacheted and canceled on a daily basis, and immediately placed back in the U.S. mail system. This should allow for a much faster return than in the previous years.

Only two U.S. stations in Antarctica will handle philatelic mail. Collectors should address their covers to either the Philatelic Mail Clerk, McMurdo Station, or to the Philatelic Mail Orderly, Amundsen-Scott South Pole Station—the address for both is U.S. Naval
Support Force, Antarctica, FPO San Francisco, Calif. 96692.

Philatelists are limited to two covers per person. Of course, those covers to be canceled in Antarctica must have either United States postage or an International Reply Coupon enclosed to defray postage back to the desired location. International Reply Coupons cannot be used on mail addressed for delivery in the United States.

The U. S. Navy will close its summer support operations in Antarctica by the end of February 1974. Covers mailed to either address after that date will be held until the reopening of the Antarctic continent for next year’s Operation Deep Freeze in the first week of October.

Bureau of Personnel Changes Policy on Reenlistments, Unconditional Extensions

BuPers has changed its policy concerning reenlistments and unconditional extensions. Policy concerning conditional extensions, active duty continuation and professional growth criteria, however, remains unchanged.

Henceforth, Navymen on active duty reenlisting in the Regular Navy or the Naval Reserve may do so under the terms set forth in the following table:

<table>
<thead>
<tr>
<th>Reenlistment Term Available (years)</th>
<th>First</th>
<th>Second and subsequent (up to and including 10 years’ active duty at time of reenlistment)</th>
<th>Second and subsequent (over 10 years’ active duty at time of reenlistment)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2, 3, 4, 5 or 6</td>
<td>3, 4, 5 or 6</td>
<td>4, 5 or 6</td>
</tr>
</tbody>
</table>

Navymen who reenlist after having extended their first enlistment for from 24 to 48 months are considered to be reenlisting for a second time when determining the minimum reenlistment term available.

Unconditional extensions may be made any time during an enlistment. The maximum length of the extension authorized will be determined from the following table:

<table>
<thead>
<tr>
<th>Unconditional Extension Available (months)</th>
<th>First</th>
<th>Second and subsequent (up to and including 10 years’ active duty at time of extension)</th>
<th>Second and subsequent (over 10 years’ active duty at time of extension)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24 through 48</td>
<td>36 through 48</td>
<td>48</td>
</tr>
</tbody>
</table>

Unconditional extensions of enlistment and reenlistments which are executed before 1 Oct 1973 are not affected by this change in policy.
Aboard USS Forrestal (CVA 59), crewmembers can take advantage of four television and three radio channels; one radio channel of which is on the air 24 hours a day with music, news and sports. The man responsible for keeping these sources of information and entertainment available is a 1st class petty officer named William R. Hamilton, better known as Bill. He is both newscaster and station manager of Station WFOR-TV.

Bill Hamilton has been a Navyman since June 1959. He is rated as an aerographer’s mate and, in addition to his radio and TV duties, is the leading petty officer in the ship’s weather office. In fact, you might say that one job led to another.

William R. Hamilton got his start in television when he began appearing as a weather forecaster during shipboard newscasts back in 1971. Since that time, he has established himself as an authoritative newsmen and news interpreter. As station manager, Bill Hamilton reviews the broadcast schedule with the duty director for the day and, before he hits the sack at night, he goes over the next day’s schedule with the ship’s television officer.

All the radio station’s disc jockeys volunteer for the job and Bill Hamilton breaks them in, briefing them on where and how to find the platters they want to
spin. Finding your way around the ship's sizable record library is easy, he maintains. He keeps a file card index which lists each disc by title and artist.

Much of the station's television entertainment comes from the American forces Radio and Television Service - Los Angeles. The entertainment arrives aboard Forrestal in the form of boxes of 16mm films or "kinescopes" of stateside programming which was aired by U.S. networks a few weeks earlier. After they are presented on WFOR-TV, they are forwarded under a strict accounting procedure to other ships in that particular AFRTS-TV circuit.

Bill Hamilton also airs programs of particular interest to the crew because of their ship's deployment. For example, a program which offered conversational Greek through the medium of videotaped lessons was presented after having been produced in the station's own studio. Forrestal's skipper regularly briefs the crew via "Captain's Call" which is designed to keep the crew abreast of ship and Navy policies. The captain also answers questions put to him by crewmembers via the telephone.

The news Bill Hamilton presents to his listeners aboard Forrestal comes hot off the teletype and is as current as the evening news broadcasts in the States.

If variety is the spice of life, Bill Hamilton has had a pretty spicy life in the Navy. Since he first enlisted in June 1959, he has cruised around the world in USS Long Beach (CGN 9), the Navy's first nuclear powered cruiser. He has also seen duty at both the bottom and top of the world with the U.S. Navy Ice Reconnaissance Unit. He was with Oceanographic Air Development Squadron Eight in Vietnam.

At age 33, with nearly 15 years of Navy service under his belt, Bill Hamilton is thinking of what he will do after he is piped over the side. Although his rating fits him for a career in meteorology, he prefers broadcast journalism and hopes to make a second career of it when he retires.

In the meantime, he has volunteered for service aboard a nuclear ship and his projected rotation date is July 1974. Until then, he plans to keep Station WFOR-TV going and to keep Forrestal crewmembers informed and entertained with music, news, weather and sports.

—Story and Photos by Journalist 1st Class D.G. Van Way, USN.
Navy Wife
Sue Midland
Dental Hygienist

When Ensign Phil Midland reported for duty aboard USN La Salle (AFG 3) as weapons officer, his wife Sue found herself with time on her hands. And she decided to do something about it.

Sue Midland offered her services to the ship's dental department — and was soon serving on a volunteer basis as a dental hygienist in the ship.

Because of the scarcity of civilian dental facilities at Bahrain on the Persian Gulf, which is La Salle's home port, this is one of the few Navy ships authorized to provide dental care for dependents. As the ship's dental hygienist, Sue Midland was kept busy, but late last summer she added to her responsibilities by joining the ship's first preventive dentistry program for school-age dependents.

Before deployment to the Middle East, the ship was fully equipped with a new two-chair operatory and a separate x-ray room. The dental staff consists of a dental officer, Lieutenant Ted Schneider, Dental Technician 1st Class Paul Gearhart — plus Sue as the hygienist. She holds a degree in dental hygiene from the University of Wisconsin.

With her help, La Salle's dental department sponsored the comprehensive preventive dentistry program for dependent children during August. The dental team was able to handle 97 children, more than 90 per cent of the eligible dependent children living on the island of Bahrain. The two-day dentistry program consisted of three parts — cleaning, fluoride treatment and screening by the dental officer for abnormalities. For many of the children this was their first visit to the dentist and an opportunity to be introduced to the world of reclining chairs, sterilizers, surgical lights and chrome fittings that make up a dental office.

Treatment days were set up on weekends so they wouldn't interfere with the ship's routine and a waiting room was provided in the mess deck and crew's lounge where mothers and children could enjoy refreshments and watch a special children's program broadcast by the ship's AFRTS station. For all concerned it was a great success. Most of the young patients were eagerly looking forward to their next trip to the dentist when the ship returned from her cruise.

—Story by ENS H. C. Zeigler, USN
—Photos by SM2 W. L. Clark, USN
Busy Navy men and women around the world often find time to help out in their communities. A case in point is Chief Personnelman Ilustre A. Aguilar of the Naval Postgraduate School in Monterey, Calif.

Chief Aguilar is the Assistant Military Personnel Officer at NPS. With over 200 military personnel assigned, and nearly 2000 officers enrolled at the school, this job keeps him busy. His own three children, ages 10, 13 and 15, add to his already busy schedule. But, in spite of this workload, the chief still finds time for civic activities in the NPS community.

Among these projects, Chief Aguilar is manager of the “Orioles,” the Little League team in La Mesa Village, the housing area for NPS military families; a member of the credit committee of the Monterey Peninsula Navy Federal Credit Union; a council member of the NPS Saint Thomas Aquinas Catholic Chapel; and an advisor to the “Kabayan Club,” a Filipino organization at NPS.

The chief plans to retire in a year or two. He hopes some day to own a coffee and tobacco farm in his native country — Republic of the Philippines. The chances are, even then with his many business interests, he will be just as active in community affairs as he is now.
EMC W.B. Carter

Movie Watcher

He claims he's not a movie watcher. Yet, when we first met the chief he was putting in a routine day surrounded by John Wayne, Sophia Loren, Paul Newman, Robert Redford and a host of other Hollywood stars.

He's Chief Electrician's Mate W. B. Carter, head of the Navy Motion Picture Exchange (NMPX) in Subic Bay, Republic of the Philippines, and says he loves the job — although he really doesn't watch many movies.

Chief Carter and his men at the NMPX handle one of the largest volume of movies of any Navy Motion Picture Exchange in the world.

In talking to him we learned that in the Western Pacific, there are movie exchanges also located at Guam, Yokosuka and Sasebo, but the chief takes pride in knowing his exchange handles more film than any of the other western Pacific exchanges. Presently, NMPX Subic has more than 1300 prints in stock. Until the end of the Vietnam conflict, they were issuing more than 3200 prints per month to ships and other Navy activities. Since then, the numbers have dropped off somewhat; still, the demand is high.

For example, during the period from July 1972 to June 1973, the chief said, some 32,400 prints were circulated out of NMPX Subic, and this figure does not include TV shows and sports clips also distributed. The exchange is averaging about 30 copies of TV shows and about 250 to 300 sports specials distributed each month in addition to the regular movies.

In his rather austere spaces, Chief Carter supervises 14 civilian employees, some of whom devote all day to inspecting, splicing and repairing films returned by customer ships and shore-based theaters. Each and every film returned is threaded through an automatic machine that scans the footage for damage — such as broken sprocket frames, bad sound track sections, torn film, and so on. Where problems exist, the machine automatically stops to allow for necessary repairs.

In addition to serving the many ships that visit the port, the Subic picture exchange provides movies for six theaters in the Subic Bay/Cubi Point complex and services theaters at the Mount Santa Rita and Sain Miguel communications facilities. Movies are also shipped to a Navy facility at Diego Garcia Island in the Indian Ocean.

"We try to make up a weekly theater schedule to please everyone," said Chief Carter. "Every week the Navy Motion Picture Service in Brooklyn puts about four new pictures into the system, and as soon as we get them, they're circulated. These are movies that the Navy is receiving just as soon as they are released to the general public in the States," he added.

The Navy leases its films from companies which produce them, normally for about four years for each film copy. When the lease expires, the films are returned to the central NMPS in Brooklyn.

Ships operating out of Subic Bay draw films directly from NMPX. How many depends on the number of men on board. Once at sea, one ship's movies may be traded with another's but when a ship puts in to a port having a motion picture exchange, all the movie films on board must be turned in, with the condition that a new batch may be drawn from the exchange.

Circulation such as this is one way to please almost everyone.
Being a plane captain in a naval training command squadron is not an easy job. This fact is well demonstrated by Airman W. E. Bell, a plane captain at Training Squadron 22, NAS Kingsville, Tex. Watch him sending out TA-4J Skyhawks and you'll get a chance to see just how much hard work it takes to keep the “birds” flying.

First there's the training. In order to be qualified in this job, a new plane captain must meet all the requirements of a four-day P/C school. There the trainees learn the fundamentals of the electrical and hydraulic systems, ejection seats, and the aircraft’s life support systems. Then the P/C learns the hand signals needed to taxi and send out the Skyhawk. Watching Airman Bell as he signals the pilot to lower flaps, spoilers, deploy the speed brakes and drop the hook, reminds one of a very busy, handicapped paperhanger.

For VT-22’s day crew the work day begins at 0700 when they report for muster. The first jet doesn’t take off until 0830, but before the sending out of each plane, it has to be fueled, oiled, and inspected. This includes checking for leaks, disconnected wires or lines, engine turbine blades, hydraulic and brake reservoirs, flight control power packages, tires, and brake pucks, shock struts for servicing, and security of ejection seat lanyards, shackles and parachute. All of this is done before every flight or “hop,” and each of VT-22’s 50 or so aircraft may fly as many as two or three hops a day. This makes for a lot of work and a long, long day for the busy crew of VT-22’s line.

At the end of the day, after sending out and bringing in approximately 15 jets, a young plane captain begins to look a little dirtier, a little older, and a lot more tired. It’s a hard way to make a living, yet a very rewarding and satisfying one.

The safety of each pilot who flies in a Navy jet depends on the job the plane captain did before the plane took off. He is the backbone of the squadron. Without him the squadron would literally never get off the ground.

This is what it looks like when Airman W. E. Bell, one of VT-22’s finest plane captains, does his thing.
While the destroyer USS Gurke (DD 783) plunged through the Pacific swells off Japan one day last fall, two of her crew were west of Tokyo aboard rolling, twisting backs of bucking horses.

The unusual swapping of deck plates for horse-flesh was made by Ron Ford and Gary Jenkins. For about three weeks while their ship was operating with the Seventh Fleet, they were rodeoing with
the Casey Tibbs Wild Western Show 20 miles from Tokyo. The Tibbs show was making its second appearance in Japan on a tour that would eventually take it to Taiwan, Hong Kong and Thailand.

Tibbs is a six-time winner of the world title for bronco riding and has twice captured the all-around cowboy crown. His show is made up of more than 100 American "cowboys," "cowgirls" and Indians, as well as livestock, and a reproduction of a frontier town and Indian village. It was a life every sailor-turned-cowboy could enjoy—plenty of bucking horses, pretty girls and all the sukiyaki a strapping six-footer in cowboy boots could eat.

Ford and Jenkins managed to sign on with Tibbs' outfit with the permission of their commanding officer and through the cooperation of the U. S. Embassy in Tokyo. They were allowed to participate in the show on "no cost" temporary additional duty orders, appearing before tens of thousands of Japanese of all ages.

Both Navymen were born and raised in Texas and so were no strangers to the show's menagerie of 120 horses and ponies, 12 cows and calves and three buffalo. Ford is from Springtown, near Fort Worth, and Jenkins comes from Pampa, near Amarillo. Each claims to have been astride a horse "before I could walk." They carry boots, hats and spurs aboard Gurke, where Ford is a machinery repairman and Jenkins is a hull technician 3rd class.

Along with riding horses, steers and buffalo twice a day, seven days a week, Ford and Jenkins filled in as the "bad guys" in simulated old-time western street brawls, handed out pamphlets to visitors and gave pony rides to wide-eyed Japanese children.

The Wild Western Show wasn't exactly like being back home in Texas. But for a while, anyway, the two Gurke sailors felt they had found the best of the West in the Far East.

—Story and photos by JOC Tom Thompson

Left, above: MRFN Ron Ford makes a successful 10-second ride. Left: HT3 Gary Jenkins learns that a steer in Japan can jump as hard as in Texas. Below: MRFN Ron Ford and HT3 Gary Jenkins. Right: Gary Jenkins at work with the Wild Western Show. Right, below: Jenkins reacts to the judge's announcement of his score in the bucking horse competition.
It could be Cheyenne; look at all those spurs, chaps and 10-gallon hats, pretty girls too. Must be a rodeo.

Indeed it was, right smack in the middle of the Newport, R.I., Naval Base. They claim it was the first ever to stampede the citizens on Aquidneck Island around an arena where local cowboys and cowgirls (with a couple of sailors and a marine literally thrown in) had themselves a bronc-bustin’, bull-ridin’, heck of a good time.

It was called the Triple A Bar Rodeo with $2500 in prize money offered to those hardy souls talented or lucky enough to beat the clock in a barrel race or survive the jolting rock of bucking horses, bulls and steers. There was also calf roping. And, what rodeo would be complete without a clown?

None of the military entrants placed in any of the Newport events. But, then, there’s always Cheyenne.

—Text by PO3 Doug Millikin
—Photos by Millikin and PO2 Karl Simmon
Assignment/Rotation

Q. I recently completed nuclear power training and reported aboard a nuclear powered ship for duty. I now have a strong desire to serve as an instructor at one of the nuclear power training activities. How long must I serve aboard my present ship before I will be eligible to request assignment to nuclear instructor duty?

A. TransMan Article 5.8 requires that an individual must have two years' experience in a nuclear billet in a nuclear powered ship in order to be considered eligible for assignment to nuclear instructor duty. You should submit your request approximately six months prior to completing this two-year period. At that time, providing you meet the other eligibility requirements outlined in the article, and providing your transfer will not disrupt the crew stability of your present command, orders may be issued directing your transfer upon completion of two years on board your present ship.

Q. When is the proper time to submit my Enlisted Duty Preference form (NavPers 1306/63)?

A. Four to six months after reporting to a new duty station as a result of a PCS transfer, approximately six to seven months prior to PRD and whenever a change in personal data or duty preferences occurs.

Q. I was injured in an automobile accident while in an authorized leave status. Due to the severity of the injury at the time, and the failure of it to heal properly, I was put on the Temporary Disability Retired List. After three years I was found to be fit for full duty. Am I eligible for reenlistment in the Navy?

A. Yes. Title 10, U.S. Code 1211 provides that:

With his consent, any member of the naval service or of the Coast Guard whose name is on the temporary disability retired list, and who is found to be physically fit to perform the duties of his office, grade, rank or rating shall (if he held a permanent enlisted grade in a regular component when his name was placed on the temporary disability retired list) be reenlisted in his regular component in the grade permanently held by him when his name was placed on the temporary disability retired list, or in the next higher enlisted grade. Personnel who apply for reenlistment must be able to meet standard criteria.

Q. Where can I obtain information about my new duty station?

A. The Navy has established personal services centers at many shore activities. Each personal services center maintains a reference library of activity information brochures on Navy, Army and Air Force activities. OpNavInst 1740.1A of 7 Feb 1972 contains a list of personal services centers and describes their functions. The Navy Sponsor Program also provides for receipt of advance activity information by personnel on PCS orders. BuPersMan 1810580 and BuPersNote 1330 of 12 Sep 1973 describe the procedures to be followed to ensure receipt of this information and/or assignment of a sponsor.

Q. I am an SK2 stationed in Norfolk and have just received orders to Naval Station, Keflavik, Iceland. My wife is a YN2 also stationed in Norfolk. How can I get my orders modified to a ship homeported in Norfolk, or get an Iceland assignment for her?

A. You may address a request for modification of your orders to your detailer, or your wife may request a “duty with husband” assignment. In the latter case, because your wife is coming up for reassignment also, she should communicate with the YN detailer. There are already a few husband/wife teams serving together at overseas bases.

Q. I am an enlisted female on active duty and wish to be stationed near my fiance. We plan to be married in four months and I would like to be near him so we can make the wedding arrangements together. Can I qualify for “husband duty” even though we are not yet married?

A. There are no provisions for assigning females to duty with their fiances. However, as with all enlisted personnel, you may submit a request for a no-cost transfer in accordance with TransMan.
Pay/Allowances

Q. Can I be authorized commrats for past periods of time?
A. No. A decision of the Comptroller General and DOD pay regulations prohibit retroactive authorizations of commrats. The Navy has a continuing responsibility to provide either rations in kind or the appropriate rate of the Basic Allowance for Subsistence. A member must request commuted rations and if there is any doubt that you are receiving commuted rations, you should check with your disbursing officer.

Q. How long do I have to pay off an advance of pay on PCS orders?
A. Up to six months, normally. In certain exceptional cases which involve unusually large expenditures of funds, such as an overseas assignment to a MAAG or military mission, the Chief of Naval Personnel may authorize an extension of the repayment period of up to 12 months. BuPersMan, Article 2650100, provides more specific information.

Q. What constitutes competent orders to perform hazardous duties with corresponding entitlement to incentive pay?
A. They are written orders issued by an authorized
order-writing authority which are required to carry out the mission of the command. Verbal orders are competent if they are confirmed in writing within a reasonable time.

Q. What are the chances of BTs ever getting hazardous duty pay for duty in firerooms?
A. Very slim. Recent information compiled from injury reports indicates that duty in firerooms is no more hazardous than in several other shipboard areas.

Q. How can I get paid during a leave period?
A. The law does not provide advance pay for the purpose of taking leave. Your disbursing officer will, however, mail your pay check to a leave address or to your bank for deposit to your account. Enlisted members scheduled for 10 days or more of leave are entitled to draw an advance ration allowance for the period of the leave.

Q. Incident to my prior permanent change of station from NTC Great Lakes to the Far East I did not move my dependents—they remained in Glenview, Ill. I now have PCS orders from the Far East to Naval District, Washington, D.C. Will the Navy pay for my dependents’ travel from Glenview to Washington?
A. Yes. When dependents did not travel to a designated place but continued to reside at the point to which they had traveled under previous orders, that place is considered the “Designated Place” for travel of dependents upon subsequent transfer to a nonrestricted station.

Q. I have PCS orders from Washington D.C., to Naples, Italy. I plan to buy a car in London and drive from London (car ferry to France) to Naples. Will I be reimbursed for mileage between London and Naples, and will I be authorized excess travel time for this travel via circuitous route?
A. No. Your entitlement under Public Law cannot exceed the cost which would have been incurred had the Navy furnished the transportation over the direct route from your old duty station to Naples. However, since the cost of commercial air to London is less than the cost to Naples, you could be furnished commercial air to London and submit a claim for reimbursement for the difference between the cost of the transportation furnished and the cost of the commercial air transportation otherwise authorized to Naples, Italy, over the direct route. Excess travel time would be charged to leave and the travel time authorized would be based on the constructive travel time via the direct route.

Q. My mother-in-law resides with me as a permanent member of my household and is totally dependent upon me for support. Will the Navy pay for her transportation incident to my upcoming permanent change of station?
A. No. Regardless of the degree of actual dependency, Joint Travel Regulations state that relatives such as brothers and sisters (unless qualified by adoption) nephews, nieces, mothers-in-law and fathers-in-law cannot qualify as eligible dependents.

Q. Is retired pay taxable?
A. All of the retired pay received from retirement on account of age or years of service (that is, for other than disability) is taxable. Also, there is no federal law or statute which exempts retired pay from state or local taxation; therefore, it may be subject to such taxes in some states. The Navy is not required to, and does not, withhold any state or local taxes from retired pay, but is required to furnish copies of federal wage and tax statements (Form W-2) to the state and local governments that have income taxes. Under the current provisions of the Internal Revenue Code, the Navy Finance Center must withhold federal income tax from payments of retired pay, except from that portion which is excluded on percentage of disability, reduced under the Survivor Benefits Plan (or RSFPP), forfeited under the Dual Compensation Act, or waived in favor of VA compensation or pension.

Q. When is a member entitled to a lump-sum payment for accrued leave?
A. The law prohibits lump-sum payment for accrued leave if the discharge is given for the purpose of immediate reenlistment. The Comptroller
General has defined this to mean that an individual discharged within three months of completion of the enlistment is considered to have fulfilled the enlistment. Thus, when discharged within three months of the completion of the enlistment the member may still immediately reenlist.

Also, a member who is within three months of completion of the enlistment and executes an agreement to extend the enlistment is entitled to a lump-sum payment. There is no restriction on the length of the extension, but it is only on the first extension that a member is entitled to lump-sum payment. At the time of a second extension on the same enlistment, the member may only carry forward the accrued leave. There is no provision for lump-sum payment on the second extension because it is not considered to constitute a new enlistment.

An officer is entitled to lump-sum payment of accrued leave only on separation or discharge. It is possible that a Reserve Officer might be entitled to lump-sum payment for accrued leave when being discharged pursuant to augmentation to the Regular component of the Navy, if that discharge is within three months of the contracted discharge date from the Reserve component.

Medical Benefits

Q. My wife and I are planning to adopt a child. Prior to the adoption becoming final, can we get med-
ical care for the child?
A. Generally speaking, the child would not qualify as a dependent and thus would not be entitled to all dependent benefits until the adoption is final; however, medical care in naval facilities may be authorized by SecNav. Consult your Health Benefits Counselor or send all particulars to the Chief, Bureau of Medicine and Surgery (Code 39).

Q. What portion of the medical bills will the government pay for my wife's maternity care after my discharge?
A. None. The law governing medical care stipulates that entitlement to medical care terminates at midnight on the date of your discharge. Therefore, you would have to pay the entire bill. You might check into the feasibility of extending your active duty for one year in order for your wife to receive maternity benefits, BuPersMan Article 1050150 provides guidance.

Q. Where can I obtain information on educational services for handicapped children?
A. In addition to your Health Benefits Counselor, Personal Services Center and local state and civilian agencies, the National Special Education Information Center will supply lists, by state, of the names and locations of private and public schools, institutions and clinics with special facilities for handicapped children or youths. This service is free of charge. Requests may be sent to "Closer Look," Box 1492, Washington, D. C. 20013.

Q. I know I must obtain a new CHAMPUS outpatient deductible certificate each fiscal year for outpatient medical care. If my initial outpatient bill after the beginning of the new fiscal year (1 July) is more than $50, can I apply the amount over $50 to my deductible certificate for the following year?
A. No. The fiscal agent will reimburse you the amount of allowable charges in excess of $50. This amount may not be carried over to be applied to your deductible certificate for the next fiscal year.

Q. My wife is planning to go to the new acupuncture clinic in Washington, D. C. Will the CHAMPUS program cover such treatment?
A. No. OASD (H&E) has stated: "Acupuncture should not be approved as a benefit under CHAMPUS pending its scientific evaluation and acceptance by the medical community." This statement applies primarily to the U. S. and is not intended to restrict the use of the procedure in countries in which it is generally accepted as part of good medical practice.

Q. What is the difference between CHAMPUS and USHP?
A. USHP (The Uniformed Services Health Benefits Program) is the comprehensive program which provides medical care anywhere in the world to those who are eligible in a uniformed services medical facility (i.e., Army, Navy, Air Force and certain Public Health facilities).

CHAMPUS (The Civilian Health and Medical Program of the Uniformed Services) is that part of the overall USHP program which provides for medical care to those who are eligible in civilian facilities (i.e., hospitals, doctors' offices, doctors' visits, etc.).

USHP (and CHAMPUS) covers dependents, retired members, dependents of retired members and survivors of deceased active duty or retired members. Active duty members are, of course, not covered because the Navy provides whatever medical care they need under separate authority.

Q. Do all civilian doctors accept patients under the CHAMPUS program?
A. No. A doctor's participation in CHAMPUS is entirely voluntary. For this reason, except in emergency cases, you should always confirm in advance of receiving any care that the doctor you wish to visit will participate in CHAMPUS.

Q. In an emergency, who pays the bill if one of my dependents goes to a doctor who does not participate in CHAMPUS?
A. CHAMPUS will pay the applicable percentage of the reasonable charges that would have been paid to the doctor just as if he participated in the program. "Reasonable charges" means the charges for the
services, provided they do not exceed those normally made for such care in the area where he practices. You must pay the doctor and then submit a claim for reimbursement.

Veterans' Benefits

**Q. Who approves schools or institutions for training under the GI Bill?**

**A.** That responsibility falls to the states, each of which has an approving agency.

**Q. I need funds to finance my son's college education. May I borrow on my GI insurance for that purpose?**

**A.** Yes, provided you have a permanent plan GI insurance policy over one year old. If you do, you can borrow up to 94 per cent of its cash value. The loan will bear interest at the rate of five per cent per annum.

**Q. I understand anyone may buy a VA-repossessed home. Where can I get a list of real estate brokers who handle such properties?**

**A.** The loan guaranty officer in the VA regional office in the area where you want to buy will provide a list of available properties if you write or phone your request. You may also contact any real estate broker about a specific property.

**Q. I am going to college under the GI Bill and having trouble with one of my courses. Is it true that VA provides tutorial assistance in such cases?**

**A.** Yes. VA will pay up to $50 monthly in tutorial fees for a maximum amount of $450 to prevent a veteran studying above high school level from failing in a subject essential to his educational objectives. If you need this assistance, get an application from your school or nearest VA office, complete it and mail it to the VA office which has your educational records.

**Q. How many individuals were trained under VA education programs during fiscal year 1973?**

**A.** Enrollments in the agency's three programs reached 2.2 million, the highest level since World War II. Included were 2.1 million veterans and servicemen under the GI Bill, 29,600 under the vocational rehabilitation program and 68,200 under the dependents' educational assistance program.

**Q. My husband was killed during military service in Vietnam. Will the VA pay me education assistance to attend a university in Paris?**

**A.** Yes. Wives, widows and children of veterans whose death or permanent total disability was service-connected are allowed to study at approved foreign institutions of higher learning.

**Q. I'd like to apply for a certificate of eligibility for a GI loan, but I lost my DD-214 Armed Forces Report of Transfer or Discharge. What should I do?**

**A.** VA will accept a legible copy of an original discharge or release from active duty. If a copy is not available, any VA office will supply an application form for requesting a replacement from your military department.

**Q. Under what circumstances does a veteran qualify for an additional $150 in burial allowances?**

**A.** Under a law signed 18 Jun 1973, the VA on 1 August began paying a plot or interment allowance of $150 (in addition to established maximum $250 allowance) for eligible veterans not buried in national cemeteries under jurisdiction of the United States. If the veteran's death is service-connected, a payment not exceeding $800 is payable in lieu of the $250 burial and $150 plot or interment allowance.

To qualify for the $150 plot or interment allowance, death must have occurred on or after 1 Aug 1973. The $800 service-connected burial allowance is payable.
Q. As an eligible veteran, I'd like to get a GI home loan, but my salary is not large enough for the house we need. Will the VA include my wife's earnings in addition to mine in considering our eligibility for a loan?
A. Yes. Since 18 Jul 1973, VA has been giving full consideration to income of the veteran's spouse in processing GI home loans.

Q. I received an honorable discharge recently after serving three years in the military service. Am I eligible for a VA business loan?
A. No. Eligibility for this type of loan must be based upon WW II or Korean conflict periods of service. Post-Korea veterans are not eligible. The Small Business Administration may be able to help you.

Q. As a veteran, is it possible for me to get a physical examination at a VA hospital?
A. Under regulations, VA hospitals are not permitted to conduct such examinations for solely personal purposes. If you can meet eligibility requirements, you could receive a physical to determine the need for hospitalization or treatment.

Miscellaneous

Q. Can leave in excess of 60 days be carried over on an enlistment extension?
A. Yes and no. It can be on the second or subsequent extension but not on the first. This is because the first extension is considered a reenlistment and second or subsequent extensions are considered continuations of the first extension. Leave in excess of 60 days carried over must be taken before 30 June or it is lost in the normal manner.

Q. What is the Navy Wifeline Association and how can I contact them?
A. It is an information and educational organization established by and for Navy wives about 1965. Its purpose is to provide to the Navy wife a spectrum of information, solicit their views and share solutions to inherent problems of Navy life. It is staffed by volunteers in space provided by the Navy at the Washington Navy Yard, Bldg. 210, Washington, D.C., 20390, telephone (202) 433-2333.

Q. What is the Selected Reserve?
A. This is a special group of Navy men and women within the Ready Reserve who have been carefully screened and selected to fill specific mobilization assignments, either as members of a complete Reserve unit or as individuals. They are prepared to join the fleet immediately with little or no further training. Only Selected Reservists receive pay for attending weekly drills.

Q. What effect will there be on a widow's entitlement to benefits if it is discovered after the member's death that there had been an impediment to her marriage to the service member?
A. Where an attempted marriage of a claimant to the veteran was invalid by reason of a legal impediment, the marriage will nevertheless be deemed valid if:
- The marriage occurred one year or more before the veteran died or existed for any period of time if a child was born of the purported marriage or was born to them before such marriage, and
- The widow entered into the marriage without knowledge of the impediment, and
- The widow cohabited with the veteran continuously from the date of marriage to the date of his death, and
- No claim has been filed by a legal widow who has been found entitled to gratuitous death benefits other than accrued monthly benefits covering a period prior to the veteran's death.
Q. If I join a Naval Reserve activity upon my release from active duty, what do I gain?

A. Pay. A monthly paycheck that will help pay the mortgage, buy groceries or provide extra pocket money. Retirement. If you meet requirements every year, you’ll receive a monthly retirement check beginning on your 60th birthday. Education and training. You can maintain proficiency and broaden skills in leadership and naval fields which may prove valuable in civilian life as well. Promotion. There is plenty of opportunity to advance in the Reserve, and each promotion increases the size of that monthly drill and retirement paycheck. Medical care. You are given a free annual physical examination and specific medical care is provided during drills or annual training cruises. Privileges. You are entitled to certain recreational and Navy Exchange privileges during drill periods and when on active duty. During your two-week annual cruise, full Navy Exchange, Commissary and Clothing and Small Stores privileges are available. Association. You have the opportunity for many advantageous business and social contacts with other people dedicated to serving our country. Service. You will play a vital part in maintaining a strong Navy.

Q. I am thinking about residing overseas after retirement. I am aware of the restrictions placed upon

Q. I am assigned to a ship which is on an extended deployment. The mail service is sometimes sporadic and on several occasions our mail has been delayed. How can I get information about our mail service while I am at sea?

A. Information about past or anticipated mail service can be obtained from either your command’s postal clerk or postal officer. In most situations the command has been advised of any problems that may be anticipated during your deployment. If your problem or inquiry requires additional information the postal officer can initiate an immediate inquiry to the serving Navy post office or cognizant area mail routing authority. Once an inquiry is made it is investigated at all levels or referred to higher authority until the situation is resolved.

Q. How often does the Naval Destroyer School Selection Board meet and, if selected, when will I go to the school?

A. The selection board meets monthly, and selectees are placed in an ongoing bank. Orders for instruction at Naval Destroyer School will be issued only when an officer is available for reassignment and the orders are based on individual preferences and the needs of the service. Since attendance at the school incurs obligated service, orders will not be issued without the officer’s consent.
the use of commissaries, exchanges, and other base facilities by retired personnel as a result of the different Status-of-Forces agreements with countries concerned. Are there other important considerations I should be aware of before I choose a retirement residence overseas?

A. An important consideration that is frequently overlooked is the taxes charged by many countries on the importation of the retiree's household effects. The U. S. Government will move your household effects to any retirement residence you choose; however, the government will not pay any duty or import taxes levied on them. In many countries this tax is very high. It is strongly recommended that you check with the embassy of each country under consideration as a retirement home and request information concerning their import taxes on household effects and any other duties or taxes you should be aware of before deciding on your final move.

Q. I am interested in going to college and have learned that most colleges and universities require the College Board Examination for admission. How can I take the necessary exams if I'm serving on board ship and my ship is scheduled for an overseas deployment?

A. The College Boards or the Scholastic Aptitude Test (SAT) is administered periodically and this academic year it will be offered as follows: Jan 74, Feb 74, Apr 74, May 74 and Jun 74. You may write to request a special shipboard administration if you will be serving on board during a regular administration. Ensure that you give the details which prevent you from taking the SAT at a regular administration center and special arrangements will be made so you can take the exam.

If you are serving on the West Coast, write to: College Board ATP, Box 1025, Berkeley, Calif. 94701

If you are serving on the East Coast, write to: College Board ATP, Box 592, Princeton, N. J. 08540

Q. Where can I find information regarding in-service FHA-insured loans to assist in buying a home?

A. See SecNavInst 1741.4D of 11 Jan 1972, "Mortgage Insurance for Servicemen to Aid in the Construction or Purchase of Homes."

Q. How long will I be covered by my Servicemen's Group Life Insurance if I am separated from service for total disability?

A. If you are totally disabled for insurance purposes at the time you are separated from service, your coverage under SGLI will continue either for one year or to the end of your total disability, whichever is earlier, but never less than 120 days following separation from service. Within this period you may convert your SGLI (maximum $15,000) to an individual policy with any of the participating companies in the program. These companies are listed in VA Pamphlet SGLI-133. Also, within one year of the date the Veterans Administration notifies that your disability is service-connected, you can apply for a $10,000 RH low-cost policy from that agency.
Constructive Time

Sir: If a person enlisted for a minority term one day before his 18th birthday and reenlisted three months before his 21st birthday he would receive credit for a completed four-year enlistment. He would NOT receive credit for four years and three months of active federal service, or 15 months' constructive time on a single enlistment. Am I correct?—PNC P. J. B.

- A person who enlisted at the age of 17 for a minority enlistment and subsequently reenlisted three months before his 21st birthday would receive credit for a four-year enlistment; therefore, the member's constructive service could total up to 15 months. He would receive credit for four years of active federal service.

On 12 Mar 69, minority enlistments were discontinued, and all personnel after that date volunteer to enlist for terms of two, three, four, five, or six years. There is no longer an enlistment which automatically expires the day before a member's 21st birthday, and in order to receive constructive time, a member must serve an enlistment up to within three months of the expiration date.—Ed.

Job Training Benefits

Sir: Upon discharge from the Navy in 1971, I was informed by the Veterans Administration of my eligibility to apply for on-the-job training benefits at any time during my first two years of employment with an "acceptable" company. However, when I applied recently, after having been employed by a major company for the past year and a half, I was told full benefits of the program were not available to me. VA says I can receive credit for only the past six months. Why?—G.S.S.

- The VA presupposes that an applicant for OJT benefits has no training, background or expertise in the type of employment for which he has applied and, therefore, may not qualify for the job.

Under this program the employer normally will pay the veteran less than what would normally be paid to a fully trained employee in a similar job with the VA supplementing the veteran's income during this training period. Here's how it works:

Veteran benefits payable under this program are based on a sliding scale at six-month intervals for a period of two years. After the veteran has been on the job for six months, it is assumed that he has received enough training to be of some value to his employer. Consequently, his benefits are reduced during the second six months' training period, say from $160 per month to $120. At the end of two years, it is further assumed that the veteran is fully trained and his benefits are terminated.

In your particular case, since you had been working with the company for a year and a half, the VA assumed that you had already received 18 months of training on your own, that you are not a totally untrained employee and, therefore, eligible only for benefits for just the last six months of the program.—Ed.

Re-up Advice

Sir: I'm an inactive Reservist, ex-seaman apprentice, seeking advice on how to reenlist in the Navy. My difficulty appears to stem from my reenlistment code (RE-4).—T.L.

- In no way does an RE-4 reenlistment code have an adverse reflection on you as an individual. Rather, it signifies certain provisions of the Navy's Reenlistment Quality Control Program were not met at the time of your release from active duty. Specifically, a prospective reenlistee must attain petty officer status—pay grade E-4 or above—to be recommended.

We suggest you make an appointment with the commanding officer of your local Reserve center and discuss the matter with him.—Ed.
"Sam, here is a member of the 'NEW Navy,' so make sure he gets a NEW swab and a NEW bucket."

"Are you sure the bos'n said to chip all the rust off?"

"Unfortunately, that’s not what I meant when I told you to burn a copy!"

"Relax, Wally. It’s nothing serious . . . only Madge’s first cup of Navy coffee."
Taffrail Talk

It's not that All Hands doesn't want to acknowledge "firsts." Nor do we doubt the numerous claims received almost daily. It's simply a matter of maintaining accuracy within our pages. Too often too many claims too much.

Occasionally, however, there emerges a subject leaving little doubt that it qualifies for the claim-to-fame category. It's a chance we hesitate to take, but in the case of USN Grayback (LPSS 574), we are relatively assured (by JO1 John Todd) that this submarine is unique in more ways than being the only boat of her type in the Navy. She claims to be the largest conventional-powered submarine in the world (334 feet long, displacing 3650 tons submerged), capable of operating as an attack sub with torpedoes, although her uniqueness lies in an ability to launch large numbers of swimmers with equipment from large bow hangars.

Those hangars were born in another era when Grayback was initially built to carry Regulus surface-to-surface missiles (she made the first Regulus II missile launch off California in September 1958). But, when the Regulus program ended, she was eventually reclassified as an amphibious warfare ship, in August 1968, and now her spacious hangars are used by UDT and SEAL teams, by Marine Recon and Army Special Forces.

Grayback can launch swimmers while submerged or with a "wet deck"—partially submerged. In her special hangars she carries four swimmer delivery vehicles (SDV's) or two SDV's and one high-speed surface craft. No other submarine, she claims, has this capability.

Life support systems for divers on LPSS 574 are among the finest. She carries the largest recompression chamber in the Navy along with oxygen and mixed gases for diving operations, and she's the only U.S. sub that carries her own medical doctor.

She claims also to be the only U.S. submarine that can rest on the ocean floor and still run all interior machinery.

If all this weren't enough, Grayback sports one of the freshest paint jobs in the Far East, for certain the first submarine overhaul "makeup" to come out of the U.S. Naval Ship Repair Facility at Yokosuka. During her recent 4.7-million-dollar modernization, Grayback received a new 504-cell battery system and modern, radar package. One main engine, the generators, hydraulic system, trim and drain system, evaporators, and air-conditioning units were also overhauled.

We noted some additional facts about the ship's crew that bear mentioning. As of last October, every line officer onboard was wearing silver or gold dolphins which means they are submarine qualified. This apparently is not always the case on other submarines. There also were five NESEP officers among the ranks and the entire wardroom had some enlisted time in service.

And note this: Out of the last 25 men eligible (as of October) for reenlistment, 23 took the oath, many requesting to stay on with Grayback and her crew. That's a 92 per cent reenlistment figure which may not rate first in the Navy, but certainly speaks well of what life must be like on board Grayback—one of a kind.

The All Hands Staff

ALL HANDS The Bureau of Naval Personnel Career
Publication, is published monthly by the
Bureau of Naval Personnel for the in-
formation and interest of the naval serv-
vice as a whole. Issuance of this publica-
tion approved in accordance with Depart-
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Navy Department, Washington, D.C. 20370
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AT RIGHT: LOOK OUT BELOW!—USS
Spartansburg County (LST 1192),
mouth wide open, lowers her ramp
onto a causeway to Blue Beach, Vieques Is-
land, P.R., during the NATO Operation Doria
Salute IV.

BACK COVER: Views of today's modern women in today's modern Navy as reflected in the photo-
graphs of JOC Bill Wedertz.
WOMEN IN THE NAVY

career opportunity
and job satisfaction