

# ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN



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SEPTEMBER 1954



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Navpers-O

NUMBER 451

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● **FRONT COVER: UNDERWATER SALVAGE**—Navy diver uses special underwater cutting torch in salvage operation.

● **AT LEFT: SUMMER COOLER**—Swimming is sport as well as an essential skill for Navymen. Here, sailors from USS *Randolph* (CVA 15) enjoy Sunday dip off island of Sicily in Mediterranean.

● **CREDITS:** All photographs published in **ALL HANDS** are official Department of Defense photos unless otherwise designated.





## Ships Take a

**E**XTERNAL SPRINKLING SYSTEMS installed on several Navy vessels turned a radioactive "fallout" into a "washout" during recent hydrogen bomb tests.

Devised as one of a variety of protection and decontamination procedures to be used in the event of an atomic war, the system works somewhat like an ordinary fire protection sprinkler system, flooding the decks and all exterior surfaces of a ship with clean sea water.

Completely "buttoned up"—with all hatches, watertight doors and ventilation openings sealed—the vessels throw up protective water spray shields until they have passed through the "fallout" rain. Fed by the ships' regular pumps, special nozzles fixed to the weather decks and superstructure pour thousands of gallons of salt spray per minute over the exposed surfaces. In this manner, the radioactive particles are carried away before they can contaminate the painted steel.

The result of collaborative experimental work by the Bureau of Ships and the U. S. Naval Radiological Defense Laboratory at Hunter's Point, San Francisco, Calif., the washdown system—when used along with approved decontamination control procedures — can effectively check the radiation build-up on exposed ships' surfaces and permit vessels to get into action within a





## Shower-And Atomic Fallout Is a Washout

short time after being caught in a "fallout."

With certain modifications, the "washdown" may be used by planes, air and naval bases and civilian-type installations as well as by ships.

Just what is this "fallout"? What makes it dangerous? When an A-bomb or H-bomb explodes, a nuclear cloud zooms skyward, containing millions of radioactive particles. Not all of the components of this nuclear cloud have been identified as yet.

The radioactive mixture, carried aloft in the so-called "atomic mushroom," is gradually dispersed by upper-air currents. It may descend in a "dry fallout" or, especially after underwater bursts, in a "rainout." The "fallout," whether dry or wet, is composed of unfissioned material from the bomb itself, plus radioactive fission by-products created during the explosion and radioactive isotopes created through the interaction of the bomb's radiation and elements in the air, land and water. How much and what kind of radioactive mixture will result from an atomic explosion is determined chiefly by the type of burst.

Most of the radioactive earth or water sent skyward by the explosion falls back pretty close to the detonation site while some smaller radioactive particles remain aloft and are "fanned out" by winds.

Although these tiny radioactive particles may remain aloft a long time—and may be carried great distances—the fallout hazard diminishes rather rapidly. There are two reasons for this: first, the particles quickly disperse—either in the water or atmosphere—and, second, they "decay." Rate of decay varies greatly—some isotopes lose perhaps half of their radioactivity in a matter of seconds; others may be potent for centuries.

The Navy's salt spray system was given an actual, practical test during the hydrogen bomb tests in the Eniwetok-Bikini area. After the bomb was exploded, veering winds pushed the radioactive cloud directly across the bows of several ships.

Radiological Safety Officers kept close watch over their radiacs—the radioactivity detection, identification and computation instruments. Before long, on the bridge of a destroyer in the group, the audible counter of the radiac started ticking, signifying the vessel was caught in the "fallout."

All ventilation was secured. Doors and hatches were secured. The sprinkling system was turned on. Decks were cleared as all hands topside were ordered to lay below.

Thus began the "fight" against an enemy which cannot be seen, smelled, felt nor heard.

For 12 to 14 hours the ships remained buttoned up. Men sweltered below decks as teams of monitors, clad in "Man from Mars" garb, prowled the vessels, checking the sprinkling system, determining the amount of radiation that had penetrated the interiors.

Decontamination units emerged to scrub down the "hot spots" (areas showing high radiation count) as the danger from "fallout" diminished.

Sailors applied soap, detergents—using brooms and brushes and plenty of elbow grease.

Monitor and repair teams were rotated to minimize the amount of radiation dosage.

All who went topside had to pass through decontamination change stations when they returned below.

The operation—under the conditions of this situation—was a success. None of the forward units suffered any serious ill effects as a result of being caught in the "fallout." None of the Navymen had been subjected to excessive radiation.

The "major crisis" was passed—just as if it had been one of the many mock explosions preceding the actual test. The "fallout" was counteracted just as effectively as if it had been the colored steam used to simulate the fallout in earlier drills.



SLENDER BARREL of 20mm anti-aircraft gun points skyward. Below: Gun crew blasts away with 40mm weapons.



GUNNERS aboard USS Taylor (DDE 468) ready three-inch, 50-caliber guns for action during Korean conflict.



# Here's the Punch in

*This is a general roundup on naval ordnance, designed to provide all Navymen not in the field of ordnance with a basic foundation on which to add to their knowledge of the subject. The information has been gathered from many volumes and numerous experts in the field. Navymen in the lower pay grades going up for advancement in rate must, under military requirements, be able to answer general questions on naval ordnance. They will find this material helpful in preparing to meet the ordnance section of their military requirements. This account also serves to point up to officers and enlisted men alike the size, variety, development and significance of naval ordnance.*

**O**RDNANCE—in quantity, quality and type—has changed so much during and following World War II that to cover the whole subject would fill books and by the time they were written they would be outdated.

But explained in simple terms, the science of using ordnance is basically a matter of directing and propelling a projectile to a place where it will do your enemy the most harm and you the most good and in that respect it hasn't changed much from the days of the caveman.

What has changed is in the means employed to get the projectile where you want it to go, the distance of its travel and the accuracy of the aim.

Today the principal types of ordnance used by the Navy are *guns, torpedoes, mines, depth charges, bombs, guided missiles* and *pyrotechnics*. Of these the gun is perhaps the most abundant and most frequently used aboard your ship.

**GUNS**—The gun has moved a long way from the kind carried by Revolutionary War vessels, guns which were made of cast iron without sights and which threw solid shot with questionable accuracy at a maximum range of a few hundred yards. Modern guns hurl explosive shells weighing more than a ton; the range of these guns is as great as 20 miles.

The size of a naval gun is indicated by its caliber (the diameter of the bore) and by its length in calibers. Thus, the designation "five-inch-38" (5"/38) indicates that the gun has a bore diameter of five inches and is 38-times-five-inches, or 190 inches long. Guns in common use in the Navy today range in size up to the 16"/50 gun, which is more than 66 feet in length and throws a shell weighing 2700 pounds. Typical examples as found on cruisers, aircraft carriers and destroyers are the intermediate caliber guns—3"/50, 5"/38, 5"/54 and the major calibers such as 6"/47 and 8"/55. Battleships carry the 16"/50.

The Navy also uses the millimeter (mm) system of designating gun caliber. A millimeter is 0.03937 of an inch. Except for certain technical applications, the length of a gun in calibers is not included in its descriptive title when the dimensions are in mm (i.e., we always say 3"/50, but we never normally say 40mm/60), although gun designers do think in such terms.

Guns are further classified according to the method of loading and firing. Large guns are non-automatic; the breech must be opened after each round, the

# Navy Fighting Power

projectile and powder placed in the chamber, and the breech closed before firing.

Guns of intermediate caliber, such as the 5"/38 are semi-automatic; the firing of one round causes the breech to open, the empty cartridges case to be ejected, and the firing mechanism to cock. Placing the new round in the chamber closes the breech and the gun is ready to fire. Most guns of more recent design are fully automatic in that they will continue to fire as long as the firing key is closed and ammunition is available in the loading mechanism.

Guns are also arranged in batteries. They are usually of the same caliber and controlled and fired as a group. They are classified as follows:

- **Main battery**—Guns of the largest caliber aboard ship, used primarily for fire against surface targets.

- **Secondary battery**—Guns of smaller caliber than the main battery, also used against surface targets. This term is rapidly disappearing from use since no true secondary batteries remain in any but the oldest ships.

- **Dual-purpose battery**—A battery, usually of intermediate caliber guns, used against either air or surface targets.

- **Antiaircraft battery**—A battery of small-caliber guns used against air targets only. This battery is usually referred to as the machine-gun battery. It may be further classified as a heavy machine-gun or a light machine-gun battery.

Ships of various classes may have all or only some of these batteries. A typical modern battleship, for example, has a main battery of nine 16"/50 guns in three 3-gun turrets, a dual purpose battery of twenty 5"/38 guns and several 40mm and 20mm machine guns.

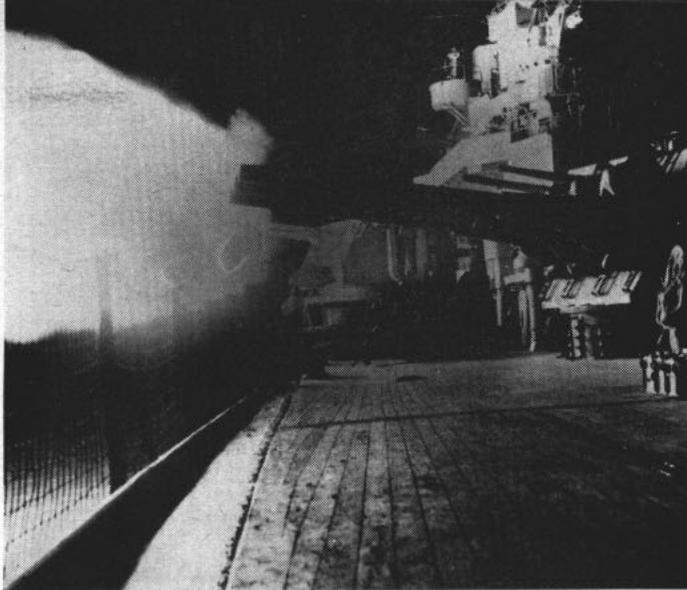
Aircraft because of their increased size also use guns of larger caliber than the original 30-cal. machine guns dating back to World War I. Today naval aircraft carry 20mm guns with a faster firing rate. Multiple barrel guns are also being included in aircraft armament.

The twin-barreled 3"/50 has in many instances replaced the 40mm gun aboard carriers, cruisers, and destroyers. Ammunition is fed manually into a power loading mechanism which is fully automatic in operation. The gun is a dual-purpose mount and characterized by a high rate of fire.

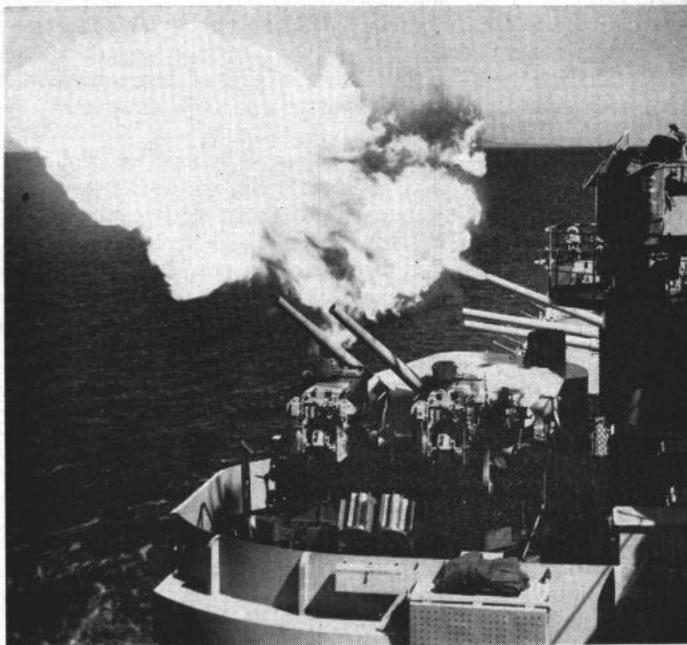
The new 5"/54 dual-purpose gun is the successor to the 5"/38 in new construction vessels. The new gun has a much faster loading and firing rate as well as increased range. It is fully automatic in operation, and fires a projectile of increased payload.

**FIRE CONTROL**—Under ordinary conditions, guns are aimed and fired from remote positions by gunfire control systems which use the most modern techniques in radar and electronics. Gunfire control systems may be designed for use against surface targets only, against air targets only or for use against both air and surface targets.

Specifically, fire control systems obtain range, bearing and elevation of the target, either by radar or by optics and correct these quantities for target course and speed, own ship's course and speed, roll and pitch, wind and weather conditions and various other factors. These corrections are then relayed automatically to the

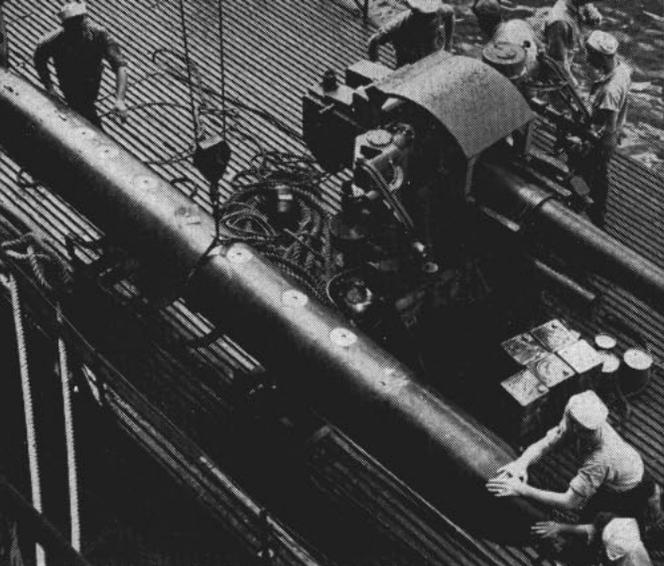


FLASH from five-inchers signals two-gun salvo. Below: Eight-inch rifles of heavy cruiser 'bark' at the enemy.



BIG GUNS—16-inchers—fire shells weighing 2700 lbs. Typical BB has nine 16" guns in three three-gun turrets.





ELECTRIC TORPEDO is lowered to the deck of a submarine. Right: Destructive 'fish' is fired from a destroyer.

guns which are power-driven to the correct train and elevation.

There are, of course, additional underwater fire control systems carried in submarines which receive and analyze the information that is fed by sonar equipment. Aircraft also have their own specially designed fire-control units for remote firing of guns.

**TORPEDO**—The torpedo is a self-propelled explosive missile whose path of flight under water is influenced by an automatic mechanism within the weapon.

Some torpedoes employ an air-alcohol-water superheated gas turbine method of propulsion. This system was used in the torpedo in World War I and in most of those used in World War II. Gradually these are being replaced by either electrical (battery) or chemical torpedoes, which are favored since they cause no wake as is the case with steam-driven torpedoes.

The steam-driven torpedoes were controlled through a predetermined course set by use of gyros while they were in the torpedo tube, prior to actual firing. But during World War II, target-seeking, acoustic-homing weapons were developed. These torpedoes could "home" on the noise produced by the target's screws and machinery. This type of "fish" is known as the "passive type" acoustic torpedo. An "active-type" acoustic torpedo sends out its own "ping" and homes when a returning echo indicates a target present.

Today's torpedo explosive charge (warhead) has been increased to as high as 900 pounds. The means of detonating this charge incorporates magnetic mechanisms that fire the charge when the fuze is influenced by the magnetic field of the target. Other warheads, particularly those mounted on strictly anti-submarine torpedoes, have decreased in size. A larger warhead is not necessary to cause lethal damage to a submarine.

In destroyers, torpedoes are fired from torpedo tubes mounted amidships topside, in submarines from submerged torpedo tubes. On destroyers the mounts can be trained, but on submarines the tubes are in a fixed position. Aircraft of certain types also have the means of firing torpedoes which they launch from the air at the target. Even helicopters and lighter-than-air ships can carry and launch torpedoes.

**MINES**—A mine is defined as an underwater explosive weapon placed in a planned position to await the arrival of a target. Before World War II, mines were

normally laid by vessels called minelayers, which were especially designed for that purpose. However, aircraft and submarines have now assumed a major role in minelaying. Aircraft possess such advantages as speed of operation, accessibility to harbors, and the ability to avoid detection. Submarines possess the advantage of being able to carry sufficient mines to lay an entire field or sow a strategic channel with mines (the mines are carried instead of torpedoes in torpedo storage racks and are "fired" from torpedo tubes). Submarines can also do their mine laying while submerged and thereby are afforded a better chance of going undetected.

Mines can also be carried by destroyers and patrol craft. The purpose of a mine is to create underwater and internal damage to a ship. Although most early mines were designed for detonation on contact, modern mines are of the "influence" type designed for sonic or magnetic detonation. *Sonic mines* are detonated by the effect of sound waves from the target; *magnetic mines* are detonated by the change in the magnetic field caused by a passing ship. *Pressure mines* are affected and triggered off by the change in water pressure when a ship passes over their position.

**DEPTH CHARGES**—The depth charge is a comparatively simple weapon used almost exclusively for combating submarines. It is carried by destroyers, escort vessels, aircraft, patrol craft, subchasers, and other vessels likely to engage submarines. Depth charges were first used in 1916 and continue to prove effective against submarines.

The depth charge is usually a thin-walled container with a heavy charge of high explosives and is fitted with a mechanism designed to detonate the charge either at a predetermined depth, or by magnetic or acoustic influence caused by proximity to the submarine's hull.

Depth-charge attacks usually are made in conjunction with sound-detecting gear. The depth charges, when launched from ships, are rolled into the water from inclined racks, installed on the fantail of the attacking vessel or are projected from special launching racks that throw them clear of the vessel's side.

Weapon Able, a new launching device, fires depth charges in rapid succession considerable distances to either side and in front of the sub-hunting ship.

Depth charges may also be carried by helicopters,



DEPTH CHARGE of World War II fame, is wheeled to plane. Right: Old-style 'ashcan' is fired from Navy PC boat.

lighter-than-air ships, and heavier-than-air aircraft.

**AIRCRAFT BOMBS**—Aircraft bombs, although used to some extent in World War I, are a comparatively new development in ordnance. Bombs are classified as offensive weapons and vary widely in their size, construction, content and purpose.

They are divided into four classes according to use.

- *Service bombs*—For use against the enemy to do damage to material and personnel or to perform specific operational functions.

- *Clusters*—Groups of bombs released together to do damage to a larger area than a single bomb or to increase the load capacity of an aircraft by carrying two or more small bombs on a station intended for one large bomb.

- *Practice bombs*—Full size and miniature, used for training aircraft crews. These bombs have approximately the same flight characteristics as service bombs, but usually are "inert loaded" with sand, water, etc., and have a spotting charge to give an indication of the burst.

- *Drill bombs*—Totally inert, with no filler, to train crews in assembling, fuzing, unfuzing and handling bombs.

These bombs may in addition be divided into seven general classifications according to their tactical use.

- *General Purpose*—For demolition use primarily against heavy material or buildings to cause damage by mining and general demolition after penetration. These contain high explosives for blast effect.

- *Fragmentation*—For use against personnel and light ground targets, because of their fragments rather than demolition effect.

- *Armor Piercing and Semi-Armor Piercing*—For use against resistant targets. In this type, demolition effect is sacrificed somewhat for greater penetration.

- *Chemical*—For dispersion of chemicals, smokes, or incendiaries against personnel or inflammable targets, or for laying down a smoke screen.

- *Light Case*—Where damage is done to material primarily by blast effect alone.

- *Depth*—For use against underwater targets or hull of a ship. Damage is done primarily by blast effect.

- *Special Purpose*—Such as photo flash, radio acoustic ranging or for dispensing pamphlets.

Aircraft bombs and missiles are beginning to take specialized form and shape. For example, mines are

dropped from aircraft with a special fitted parachute which detaches itself in the water. Bombs are losing their bulky shape, and becoming streamlined so that they can be carried externally without causing a big loss of speed to the plane.

**ROCKETS**—Although rockets were not used in combat by the U. S. Navy until early in 1943, they are not new weapons to the military world. Actually they were employed successfully more than 700 years ago.

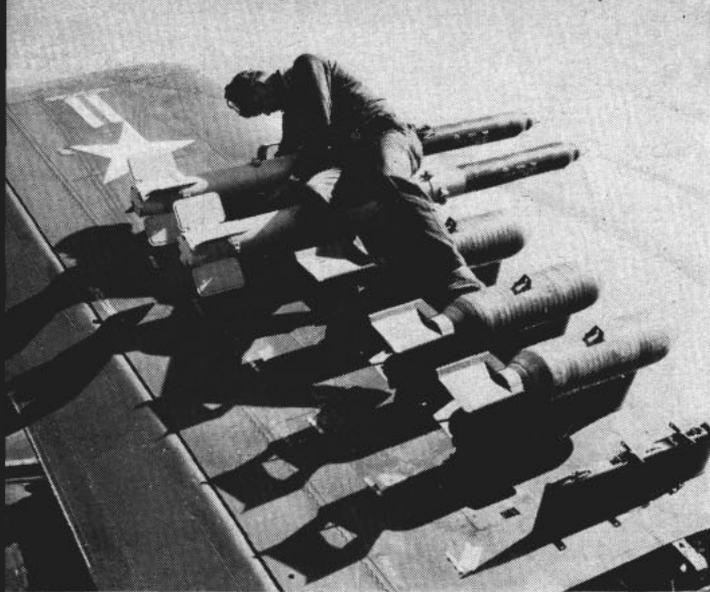
During World War II, the U. S. made great advances in rocket warfare when 4.5-inch rockets were fired from multiple launchers mounted on landing craft. The head of this type of rocket is thin walled, so that it has not only a high explosive effect but is fragmentary and showers the area with shrapnel-like pieces of casing.

The rockets presently used by the Navy may be classified into two types: those that are *fin-stabilized* in flight, and those that are *spin-stabilized*. They may be further classified as *surface-launched* rockets and *aircraft-launched*. Presently designed surface rockets have head diameters of 4.5, 5.0, and 7.2 inches. Aircraft rockets have head diameters of 2.25, 2.75, 3.5, 5.0 and 11.75 inches. Recently the Navy designed an ATAR (Anti-tank aircraft rocket), 6.5 inches in diameter, which was used in Korea against tanks. This was an improvement over the then existing 5.0 inch rocket, but it has since been further improved.

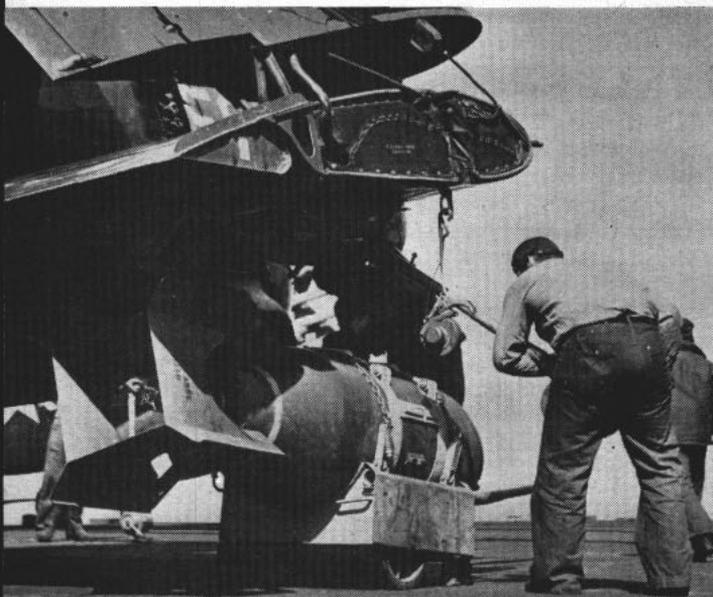
Rockets are not intended to supplant gunfire but rather as supplementary weapons. Their primary advantage is lack of recoil. This makes it possible to install heavy hitting power on small craft and aircraft which could not stand the shock of a gun which could pack equivalent destructiveness. The rocket, with its two main components of head and motor, is the equivalent of a projectile plus its propellant powder charge. The rocket head carries varying amounts of high explosives or smoke-producing chemical; or it may be made of solid steel and designed to penetrate thin-walled hulls, even below the waterline.

The rocket's motor is aft of the head. It contains the propellant, a material that generates expanding gas when electrically ignited. This gas, forced through a restricted opening in the after end of the motor tube, exerts a force on the base of the head, thus propelling the rocket forward.

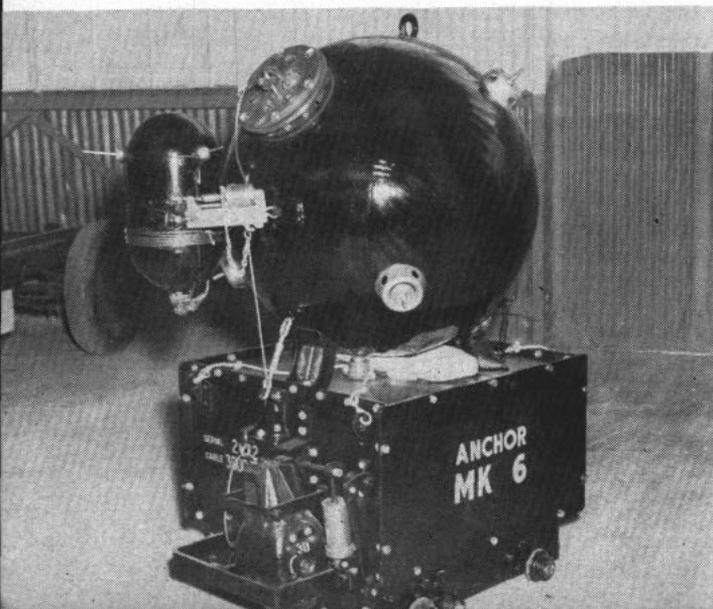
**PYROTECHNICS**—"Pyrotechnics" is the name for an-



LETHAL LADDER of bombs and rockets is fitted into place. Below: 1000-pound bomb mounted in plane's bomb rack.



MODERN MINES are 'laid' by planes, submarines as well as minelayers. Photo shows 'Mark 6' mine and anchor.



other class of naval ordnance whose purpose is not direct destructiveness, but rather as a means of signaling or illumination. For aircraft purposes pyrotechnics take the form of parachute flares, photo flash bombs for lighting large areas, drift signals for windage determinations, colored markers for tracking submarines, pistol (Very) flares for signals and identity, and float lights for tracking submarines.

Submarines also often use various colored flares for emergency signal use. Surface vessels use flares, smoke or colored slick on water for marking position of submarines.

The pyrotechnics have a special type of fuze peculiar to themselves. In smoke and slick flares dropped by planes, the velocity of the dropped flare hitting the water initiates firing action. In parachute flares for illumination, a "time lag" fuze is used. Submarine flares use a "ring type" fuze which is pulled like a hand grenade to start the action.

**GUIDED MISSILES**—A guided missile is an unmanned vehicle designed as a weapon which travels along a course or trajectory that can be altered by an automatic or remotely controlled mechanism within the vehicle itself; this vehicle destroys itself in carrying out its mission.

A missile-launching "platform" can be from the air such as an aircraft, or the surface of the sea (aboard a ship), or dry land launching ramps.

Each of these platforms can provide the means for launching a missile toward a target found in the air, on the surface or under water and any combination of platform and target can be used—land to sea, sea to air, air to land, land to underwater, air to sea, etc.

A missile's particular function or purpose further describes it. For example, a missile can be defensive or offensive. If offensive, there can conceivably be more time given to the preparation of a missile prior to launching. If it is defensive, the reliability and accuracy must be extremely high and its pre-launching preparations kept to a minimum so that it can be launched within a limited period of time to intercept and destroy an enemy plane or missile.

Contrary to a good many misconceptions, a guided missile need not be supersonic in speed and fly only in the stratosphere. Actually a guided missile can be something as slow and simple as a training plane. The Japanese Kamikaze "One Way Charlies" were guided missiles since they were designed to explode against their target just as a guided missile does. The only difference between the Kamikaze and today's guided missile is that electronic guided mechanisms have been substituted for human hands and thinking processes. As for propulsion the methods are essentially the same as those found in jets or rockets.

Every missile is divided into five components; *airframe, power plant, intelligence, servo and warhead, and fuze.*

The airframe is the principal structural component (less the propulsion, intelligence and warhead components) of the missile. The various appendages such as wings and tail surfaces attached to the airframe together form the configuration of the missile. These wing and tail surfaces change the course and elevation of the missile in flight and maintain its "flight attitudes." The elevators control pitch, the rudder controls yaw and the ailerons control roll.

These control surfaces take different forms, shapes and positions depending on the type of missile they are attached to. For example, a subsonic missile may have quite conventional wing and tail surfaces. It may be the latest in streamlined weapons.

Supersonic missiles are often more radical in design and use wings resembling fins. Supersonic airfoils (wing and tail surfaces) must have sharp leading (front) edges on the wings whereas the subsonic airfoils have blunt leading edges. This difference is necessary because of the shock waves that occur in supersonic flight.

Encased in the airframe and located in the stern of a guided missile is its power plant. The jet-type power plants take different form and are designed on identical principles but apply it differently. There are seven types presently used.

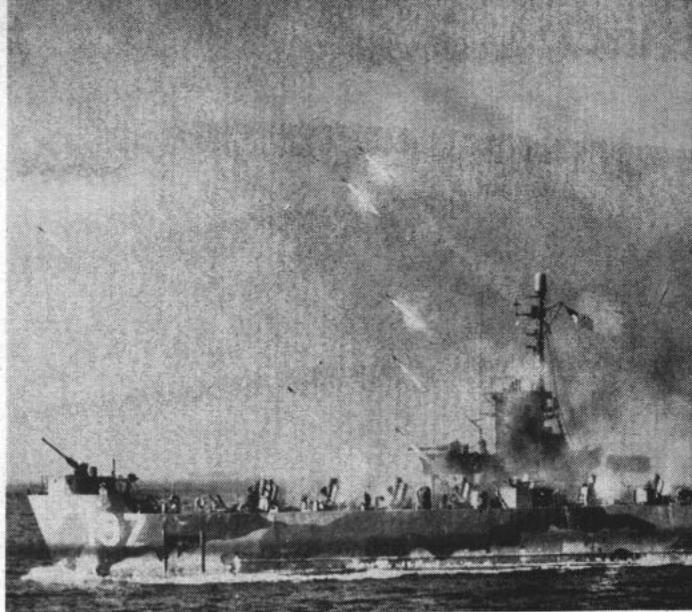
The "air breathing" types consist of *reciprocating*, *turbojet*, *turbo-propeller*, *pulsejet*, and *ramjet*. The "self-contained" types include the *solid rocket* and *liquid rocket*. The air breathing type obtains air from the surrounding atmosphere for combustion of the fuels in the power plant. The self-contained type carries its own chemical to support combustion.

You are probably familiar with the appearance, principles and operations of the *reciprocating engine*. Modified for missile use, its exhaust is used to create added thrust. The other forms of jet propulsion are perhaps not so well known.

The *ramjet*, sometimes called the "stovepipe engine," is a continuous firing air duct engine which looks like an elongated barrel with the ends knocked out. Gasoline is fed through a ring of small orifices ahead of the combustion chamber in the middle of the duct. It requires a relatively high speed of travel to initiate operations. The air entering at the front is expanded and sped on its way by the combustion of the fuel. The increased velocity, induced by combustion of the fuel, provides sufficient jet reaction to produce the power.

The *pulsejet* is an air ducted propulsion unit which operates on an intermittent cycle (similar to a conventional piston engine) and is dependent upon the oxygen of the atmosphere for combustion of its fuel. At the front of the engine is a grill with openings covered by shutter-like valves that open inwardly against spring pressure. As these shutters are forced open by the inrushing air, fuel is injected and the mixture ignited by an electric spark. The shutters are forced shut by the combustion pressure and the thrust-producing gases exhausted through a tail pipe or nozzle. As the departing gases and forward motion create suction in the combustion chamber, the shutters reopen and the cycle repeats.

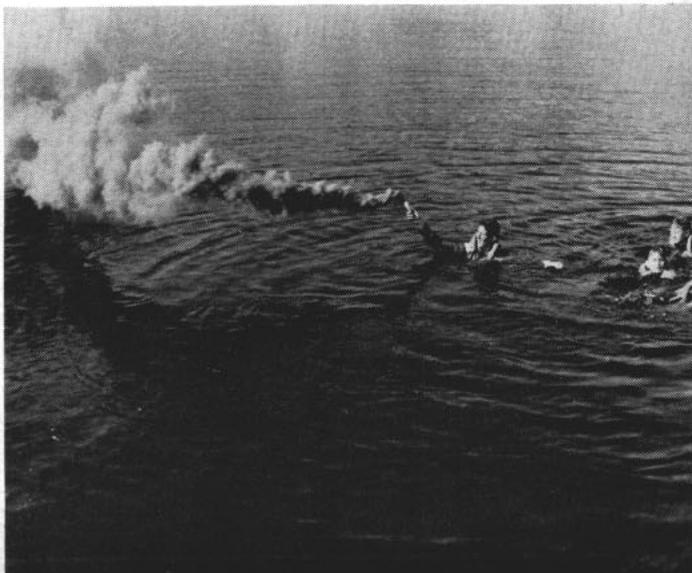
The *turbojet* is quite similar to the ramjet except that it increases the air supply to the combustion chamber by use of a turbine-driven compressor. A turbine in the exhaust section drives a shaft connected to a rotary air compressor in the forward end of the engine. The air is further compressed before it enters the combustion chamber. Because of this added compression, fuel can be burned at better economy. For the turbojet propeller type, the same engine is used except that in addition a propeller is attached to the turbine-driven shaft for additional power which also produces still further economy at lower speeds.

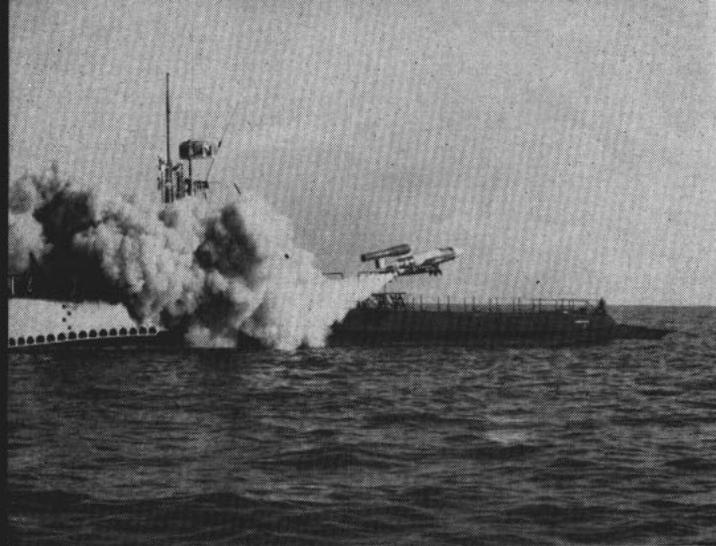


BARRAGE of rockets softens Okinawa beach. Below: Air-to-air guided missiles hang from racks of F3D Skyknight.



SMOKE grenade served as marker for downed WWII airmen. Pyrotechnics include flares, photo flash bombs.





GUIDED MISSILE is launched from sub. Missiles also may be launched from surface ships, aircraft, land.

The *rocket* is the only form of jet propulsion that does not require gaseous air. Its propellant is either a solid, like the powder in an ordinary Fourth of July "skyrocket" or a liquid such as gasoline, kerosene, acetylene, alcohol, or liquid hydrogen.

The liquid propellant rocket carries three tanks—one for fuel, and another for the oxidizing medium (usually liquid oxygen) which enables the fuel to burn. The fuel and the oxidizer are fed into the combustion chamber by small turbo-pumps frequently driven by the release of hydrogen peroxide in the form of steam, from a third tank. Ignited in the combustion chamber, the propellants react to form the hot gases that are ejected at high velocity through the exhaust, imparting a thrust to the system. The rocket continues in operation as long as the propellant supply lasts.

Possibly the most complex part of a guided missile is its intelligence components which guide the missile and take the following form:

- **Television**—Two television cameras are mounted in the robot missile. One focuses on the instrument panel and the other "looks" straight ahead. The remote control engineer, equipped with television receivers, is able to see where the robot is going, and also has a constant view of its instrument panel. He can then make changes in direction, altitude or speed to bring the robot to its target.

- **Self-navigation or auto-celestial**—Here the missile is "asked," while en route to its target, for its position. It automatically gets its bearings from the stars, exactly as a mariner uses his sextant. Not only does it report its computed bearings to the control engineer but it also gives information about its altitude, speed, fuel supply, temperatures of its various mechanisms, density of the surrounding atmosphere and other items affecting progress of its flight.

- **Command guidance**—In this method, the missile carries only sufficient instrumentation to obey directions. A ground radio-radar station simultaneously "tracks" both the missile and its target. These facts are computed and adjustments made in the missile's course to bring the two into collision.

- **Beam guidance**—A radar path, much like a searchlight beam, is directed from the missile launching device toward the target, which may be a considerable distance away. The "beam-riding" missile is fired into

this radar path, provided with suitable mechanisms to keep it within the confines of the directional beam, until it arrives at the point of interception and collision.

- **Homing Guidance**—Homing actually takes three forms; active, passive and semi-active. Homing is a system by which a missile *steers itself* toward a target by means of a self-contained mechanism which is activated by some distinguishing characteristic of the target.

*Active* homing is a system of guidance in which both the receiver and the source for "illuminating" the target are carried within the missile. (Illuminating in this sense means to "light up" or "make known" the location of the target with instrumentation such as radar so the missile can "see" it).

*Passive* homing is a system wherein the receiver in the missile utilizes natural radiations from the target for guidance—radiations such as heat, noise, etc.

*Semi-active* homing is a system of homing guidance wherein the receiver in the missile utilizes radiations from the target which has been illuminated from a source other than the missile.

Most missiles used to intercept targets traveling at supersonic speeds must be equipped with "homing" intelligence. This is accomplished by a radar unit carried by the missile that actually searches out its target.

To illustrate: a missile is launched in the general direction of an approaching target. While in mid-course, it is controlled by one of the methods previously described, such as beam, command, etc.

During its flight, its radar unit is sending out signals and, as it is guided closer and closer to the objective, its own radar begins to receive return echo signals. The closer the missile gets to the target, the stronger become the echo signals, until finally they become strong enough to take over the controls completely. The missile now "rides" its own signal and follows it to a final collision.

All the maneuvering around that the missile must do to effect collision calls for the functions of the *servo system*. This system in broad terms translates command signals received from the command point, and causes the control surfaces to move, thereby steering the missile. The servo system does this with its "muscles" which are hydraulic, pneumatic, mechanical or electric power systems.

Finally, there is the *warhead*. A missile of course is in the last analysis only a means of getting its warhead or payload where it can do the most damage. Warheads may be made up of high explosives, fragmentation or even atomic (special) explosives. The fuzes that actuate the explosive are conventional in most aspects. They are proximity, point of impact, command, and elapsed time fuzes.

These terms are self-explanatory but in brief, command would be the firing of the missile's warhead by electronic signal and elapse time would be merely a time fuze which is rarely used because of the unpredictable variables in flight time and the required necessity for split-second action when a missile is traveling at supersonic speeds.

That is ordnance as it is, but cannot stay, for ordnance is a constantly moving picture, and regardless of your rating, ordnance is important to you because in the final analysis your ship, plane or station, is merely a "platform" to get ordnance where it can defend or counter.



## Marine Ordnance

**T**HE U. S. MARINE CORPS has its specialized ordnance, too, ranging from the armament on tanks and aircraft to the familiar M-1 rifle.

Recoilless rifles, machine guns and hand grenades are included on the long list of Marine armament. During the conflict in Korea, such weapons as the mortar played a big part in holding back enemy advances and in destroying enemy positions.

The photographs on this page show several types of Marine ordnance in action.

*Upper left:* PVT James F. Mahoney, usmc, a Korean veteran, gets set to lob over a hand grenade. *Upper right:* Marine mortar crewmen, wearing lightweight nylon-plastic body armor, load their weapon. *Right center:* Riflemen undergoing rigorous training charge with fixed bayonets. *Lower right:* Members of Assault Platoon Weapons Company bring firepower of 57mm recoilless rifle to bear on enemy. *Lower left:* Three-man machine-gun crew takes part in NATO exercise at Orphano Bay, Greece.



# THE WORD

## Frank, Authentic Advance Information On Policy—Straight From Headquarters

• **ANNUITY PLAN** — If you're a Navyman with 18 years' service (or longer), BuPers reminds you that you have but little more than a month to enter the new Survivor's Annuity Plan if you wish.

1 November is the deadline to get in on the plan in the case of Regular and Reserve personnel with 18 or more years service who are *not* on the Retired List or members of the Fleet Reserve or Fleet Marine Corps Reserve. (However, personnel transferred to a Retired or Fleet Reserve or Fleet Marine Corps Reserve status *subsequent* to 30 Apr 1954, also have until 1 Nov 1954 to participate).

After that date, the plan will enter its permanent phase in which a Navyman will be asked to elect *before* his 18th service anniversary whether he wishes to set aside part of his future retired pay to put toward an annuity for his surviving family.

If you've missed the details on the plan, check the issues of **ALL HANDS** for September 1953 (page 46), December 1953 (page 43) and August 1954 (page 48), as well as the new directive from BuPers just off the presses.

The directive, BuPers Inst. 1750.1A, explains in simple language the important provisions of the Annuity Plan, giving considerable emphasis this time to the evidence you need to have on hand when you decide to enter the plan (i.e., birth certificates, etc.).

In addition to this, on the last three pages of the directive you will find a summary of the various monetary benefits which may be available to your survivors should you die while on active duty. Over against that, you'll find the decreased benefits available to your survivors should death occur after your retirement.

The facts in the instruction and **ALL HANDS** articles can help you decide whether the annuity plan would be a good thing for you.

• **EARLY SEPARATION** — Here is the latest word on early separation of Navy men on current enlistments.

Early separation of enlisted personnel of the Regular Navy, Naval Reserve, and Fleet Reserve according to the schedule set forth in BuPers Inst. 1910.5B is automatic. No individual requests need be submitted.

That instruction calls for personnel to be separated two months early if their normal separation date is on or before 10 Jan 1955. Those eligible for separation 11-20 Jan 1955 will be separated 1-20 Dec 1954 and those eligible for separation during the period 21-31 January will be separated during the period 6-31 January.

Early separation is normally mandatory. However, ships or units that, upon receipt of BuPers Inst. 1910.5B, are on duty in areas where available regularly scheduled transportation will not permit return of personnel in time to meet the schedule may

retain such personnel until transportation is available. In such cases, they must be sent back in sufficient time to insure their separation no later than their normal separation dates.

• **SAFETY MANUAL**—A revision of *United States Navy Safety Precautions* (OPNAV 34-P-1, 1953) is in the mill and officials are asking for suggestions and comments from the field.

The manual rounds up safety precautions to be taken in almost every type of work done in the Navy from seamanship through refrigeration. It is a 500-page looseleaf volume with 25 chapters devoted to various categories of work.

Sent out to the Fleet and to shore installations in December 1953, the manual has proved to be of great value. However, the need for some modifications has been noted and there were certain omissions in the first edition.

As a result the revision is now under way. Any personnel or commands who have recommendations for additional precautions, for deletions or revisions in the manual should address their suggestions to the Chief of Naval Operations (Attention Op 342), Washington 25, D. C., through the regular chain of command.

• **WEIGHT ALLOWANCE:** The 9000-pound net weight limit on shipment of household goods has been lifted and W-4 warrant officers and officers ranking from lieutenant commander to captain have had their old weight allowances restored.

W-4 warrants and lieutenant commanders now can ship up to 9500 pounds; commanders 10,000; captains and above 11,000. These are the same weight limits in effect prior



PASS THIS COPY ALONG — Don't hide **ALL HANDS** from your shipmates — this magazine is intended for 10 readers.

to the time the 9000-pound limit went into effect, with the exception of rear admiral and above.

Weight allowances for other officers and for all enlisted men never exceeded the 9000-pound limit so they remain unchanged. Information on, and authorization for the new weight limits can be found in A1nav 28.

### • DEPENDENTS TO HAWAII —

If you're being ordered to the Pearl Harbor, T. H., area for duty, you no longer have to obtain entry approval for your dependents. This new regulation applies to personnel being ordered to shore-based activities or to ships and aircraft squadrons having home ports or home yards located on Oahu, T. H.

The reason for this change is that the housing situation on the island of Oahu, for both civilian and military, has greatly improved. Naval housing units now available to officers and enlisted men are as follows:

There are 1050 units of Public Quarters (furnished) available. In Navy rental housing (unfurnished), there are 1610 units in the immediate Pearl Harbor area and 316 units in Pearl City.

In addition to the above housing there are 2077 Wherry Act housing units on Oahu, 615 units at the Barber's Point Naval Air Station and 1462 units in the Pearl Harbor area.

The above figures, naturally, do not show just how many housing units are actually in use or how many are vacant. This is not possible because of the constant departure and arrival of military personnel and their dependents. Civilian and some veteran housing units are also available to Navymen, but these figures are not available.

Officers and enlisted men are strongly advised to make advance arrangements for housing prior to the arrival of their dependents on Oahu.

Incidentally, applications for government transportation from the U.S. to Hawaii should be submitted direct to the Commandant, 12ND, San Francisco, Calif.

### • SHELLBACK CERTIFICATES —

Commanding Officers who expect to be hailed by Davy Jones on entering the domain of Neptunus Rex may order Shellback Certificates from their appropriate District Publica-

tions and Printing Offices until present stocks are exhausted.

The decorative certificates, 15" by 20" in size and of distinctly nautical phraseology, are printed in four colors and have space for the ship's seal and CO's signature. They are considered "war surplus" by the Special Services Division of BuPers, having been purchased by individual commands during World War II.

Once the present supply is exhausted the certificates will no longer be available through the Navy Department. When ordering, specify the "diplomas" listed as "Neptune Shellback Certificates."

Individual requests will not be honored. Incidentally, such certificates are not normally available through official channels, the certificates being of an unofficial nature. So don't ask your publication and printing office for any other certificates except these excess Shellback ones. You'll be out of luck.

• PERMANENTLY COMMISSIONED officers and warrant officers of the Regular Navy may now apply for voluntary retirement upon completing 20 or 30 years of active service.

Requests for voluntary retirement received from officers with more than 30 years' service will normally be approved by SecNav but requests for voluntary retirement from officers with 20 years' service will be considered on a basis of "the over-all needs of the service and the merits of the individual case."

All requests should be submitted at least three months in advance of the desired date of retirement and should be addressed to the Secretary of the Navy. They should be forwarded via the chain of command and the Chief of Naval Personnel.

Complete details can be found in SecNav Inst. 1801.1 and BuPers Inst. 1801.2.

### • INTEGRATION PROGRAM —

A selection board will convene in February 1955 to recommend candidates for the officer training school in Newport, R. I. from 2215 applicants taking the fleetwide examinations on 1 Sept 1954.

Last year's selection board nominated nearly 100 enlisted personnel and warrant officers for the Regular Navy "integration program." Following their selection the applicants are sent to the school and upon graduation are appointed Ensign, USN.

In baseball, you get only three strikes, but in this quiz you get six tries. See if you can make a grand slam by getting all six correct. Five right is a triple, four is a double, and three is a scratch single. Batter up!



1. Pictured above is the bow of the yard tug *Maquinna* (YT225). Small craft sailors will recognize that "gimmick" on the bow as a (a) bitt (b) bollard (c) Samson post.

2. The small pole that goes through it horizontally is known as the (a) Norman pin (b) thole (c) pintle.



3. You should easily recognize this ship. Commissioned in March 1953, she is (a) *USS Norfolk* (b) *USS Northampton* (c) *USS Nautilus*.

4. The ship was originally laid down as a heavy cruiser but was re-designed in July 1948 as our first (a) Tactical Command Ship (b) Communications Command Ship (c) Amphibious Command Ship.



5. The above medal is the (a) Bronze Star (b) Soldier's Medal (c) Silver Star.

6. It's awarded for (a) meritorious service while on active duty (b) personal heroism in combat, but of less degree than that required for the Medal of Honor (c) For saving the life of another person.

To find out your batting average, and the answers to the quiz, check on p. 53.



SHIP'S COMPANY of USS Apache (ATF 67) listens intently during a group discussion on 'sense of values.'

## Navymen: 'Characters' with Character

SOMEONE once said, "Character is that which, if you are one of, you haven't any of." The U. S. Navy is continuing proof that the statement is false, for nowhere can be found so many "characters" to the square inch, or as many men with character so deeply ingrained.

Every ship has its crew of "characters"—a boatswain who will linger in memories and sea stories for years to come, a division officer who was especially rough yet went right down to the finish line for his men, or possibly a seaman whose antics set him apart and at the same time drew the crew closer together. It's easy to become a "character"—a lot harder to become both a "character" and a man with character.

To be both, a man has to stick to a set of long-range rules and regulations. Not only the rules and regulations set down by the U. S. Navy, but also those handed down after standing the test of time. They are the rules of society, of sportsmanship—they are the Golden Rule, the

Ten Commandments, all the other basic teachings of the free world.

These are presented to youngsters during their formative years, sometimes with "Pop" administering a strong hand aft to prove his point. By the time a youth reaches the age of 18 or so, he's ready to leave home to take a place in society. Here's where the Navy enters the picture.

While many go into the business or professional fields, and others head for more education, approximately 150,000 enter the Navy each year.

What happens then? Do *Navy Regulations* supersede the other rules that these young people have learned? Can the teachings of parents, schools and churches be stored during their time in service? The answer

to both of these questions is a definite and loud "No."

Recognizing this fact, the Navy has always tried—in addition to training and producing the world's finest fighting men—to make good citizens of all who pass through the rank and file. This used to be done on an informal basis in ships and stations, but recently a formal organized program to promote good citizenship has been established.

In April of 1953 the Bureau of Naval Personnel, in terse military language, issued an instruction to all ships and stations. It concerned the maintenance of "moral standards" and fell in line with a memorandum sent to each of the services by the Secretary of Defense.

The instruction directed flag officers, commanding officers, and all subordinate officers to use every means to help maintain these standards. Petty officers were also given the word that they must share in this responsibility of leadership.

Letters and directives alone can't

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Everybody Gets Into The  
Act In This Popular  
Navy Discussion Program

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change a man's outlook on life nor can they serve as a protection against outside influences. Some definite type of program, the Navy decided, was needed which could reach each and every man in the Navy. At first glance that looked like a tremendous task. At second glance it looked impossible.

Since the impossible is something the Navy delights in doing immediately—the job of setting up such a program was begun at once. It has become known as "Character Education" and as such is well underway at all recruit training centers, at various service schools, and on many ships and stations. Eventually it will be Navy-wide, reaching each man and officer.

The program has all the outward appearances of a course of instruction. The meetings are held in classrooms and there is an instructor. Yet, in the actual sense, it is not a course of instruction at all, but rather a series of group discussions, with no texts or examinations other than self-examination.

No one stands up in front of a class to dictate a line of thinking. The instructor, or more properly the "moderator," starts a controlled discussion and then merely serves as a guide while the men voice their own questions and find the answers.

Properly enough, the moderators are usually members of the Chaplain's Corps, although many other officers and petty officers serve as moderators.

One of the points that is stressed most in this program is that it is not religion or a substitute for religion. The chaplains play a big role

in the program because they are trained to discuss the subject of moral and spiritual growth, the foundations on which the entire character education program is based.

"Moral and spiritual growth"—these words mean a lot and at first glance sound like a very personal matter. As personal, for example, as a diet. Something that is strictly the individual's own business. However, harken back to your childhood days. Remember how your folks kept you on a balanced diet, as a youngster, even though you might have preferred a diet of ice cream and candy?

By the time you had grown up to the point where you could have all the ice cream and candy you wanted, when the choice was up to you, the idea didn't have the appeal

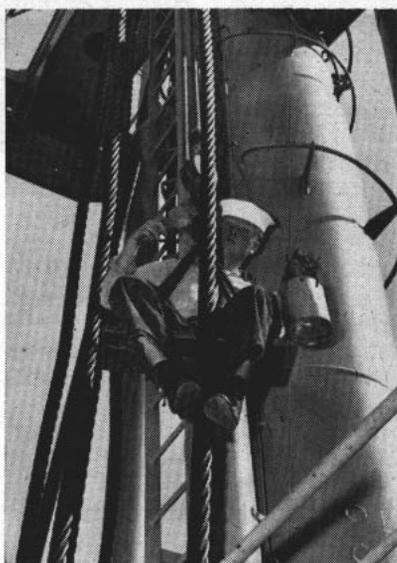
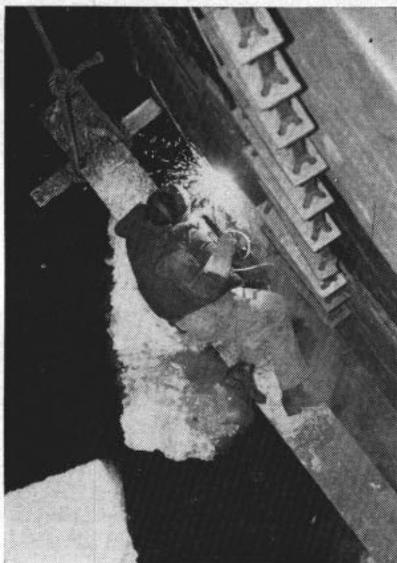


NAVY JOBS call for men of action and character, as witness crews manning guns, battling the elements.



KNOW-HOW pays off at times like this. Sense of responsibility for others is carried into other activities.





INDIVIDUAL PRIDE in one's job is sign of 'solid citizen.' Damage controlman works on vessel damaged by ice (left). Divers climb aboard salvage vessel (center). Sailor applies preservative compound to ship being inactivated.

that it would have had during your younger days. Possibly some few did go on ice cream and candy for a short while to satisfy a longing, but no one could exist long on that alone.

Watching the moral and spiritual growth of an individual is similar to watching a balanced diet. During childhood parents guide their children, explain right from wrong and generally serve as shock absorbers along the way. When the child has grown to the age where he leaves home, he is on his own.

The first taste of complete freedom may go to a person's head and cause him to let down the barriers, forgetting the rules and regulations of life, just as he might forget the rules and regulations of diet.

One of the prime aims of the Navy's character education program is to help young men and women to put a voluntary rein on themselves, to stop and think, to build for the future instead of confining their thoughts and actions only to the present. However, the program isn't limited to new men entering the Navy; it is also designed to serve as a reminder to older men whose ideals may have slipped a little or whose coat of shiny armor may have gotten a little rusty due to long exposure to salt water.

Designing a program to hold the interest of both the "boots" and the "salts" took a lot of thought and time. To aid the "discussion leaders" conducting the classes, a special

guide book has been prepared. It sets the pace of the discussions and provides the topics for each class.

While this manual has proved invaluable it is not a text book to be studied and digested. It is merely a starting point for the students. It is true that most of the discussions pretty much follow the outline of the book, but that is not a detriment—it points up the fact that a lot of good hard thinking was done by the men who prepared it.



DISCUSSION leader speaks informally on deck. Participation by all hands adds value to the program.

They worked thoroughly, studied the results of other informal classes and as a result have generally been able to predict the chain of thought that will be provoked.

Take a look at the various topic heads. You don't need a formal class to get something out of the ideas presented. All it requires is a little—or a lot—of thinking.

• "Let's Look Around," is the first topic head for discussion. In the first get-together students are encouraged to take a check on the world, the U. S. and the U. S. Navy, to figure out, as much as possible, just what is wrong and where. Once that has been accomplished the big question of "Why?" arises.

Almost invariably the classes arrive at the same conclusion—that individuals are more than just on-lookers on the world situation, that people are a part of the *problem* as well as part of the *solution*.

• Once the students have placed themselves right in the middle of things the class is rolling and it is time to move on to a closer look in "Let's Look at Me." At this point each man is encouraged to find out just what he is—an animal, a number, an accident or a total person.

The importance of an individual, not only to himself, but to his family, his friends and his shipmates is brought out into daylight and laid before the class. The men pick it up from there and find out just how the individual can exert a positive

influence on life, how he can make significant progress in the service as well as build toward a better future.

- The future plays an important part in the next discussion which is headed, "How Important Is What I Want?" By weighing the deeds of today against the goals of tomorrow the class moves on to "Which Way Am I Going?" and "Can I Learn to Take It?"

These three topics are all tied closely together and point up the choices that face everyone during his life. Perhaps these three discussions are the most important of all. Here the Navyman gets a chance to compare his hopes and dreams with those of the other students. Airing his future plans—and hearing what his shipmates say a man should be to attain his ambitions—can bring about self-understanding quicker than anything else.

- The remaining regular discussion is "Let's Look at My Freedom." Here some of the liveliest discussions are generated. Once the smoke has cleared and the battle lines secured, the Navyman, often to his own surprise, finds that he has more freedom than he thought he had.

From the very beginning of the discussions to the end, the emphasis is placed on the individual, and that is the prime aim of the course. The moderator has his book-full of illustrations to arouse interest, and boards and movies to stimulate lagging classes, but the main feature of the whole program is to get the individual standing on his own two legs and taking part in the discussion.

If each of the students takes part in the discussions the course is a success. Each will, either in a direct or indirect way, carry the seeds of the ideas presented for the rest of his life. Once a man has been "inoculated," so to speak, he may spread the learning to others, both in and out of the service.

It's a big program that may well produce untold results. Yet, seldom, if ever, are the results of the tangible type that can be put down in black and white. Unlike physical growth there is no way to record moral and spiritual growth. It is an inner thing—its importance cannot be measured.

While it is hard to pin down a certain instance and say, "This is the result of the Navy's character education program," there have been occurrences which indicate that the program is having an effect.



FAMILIES OF CREW wait for USS Libera (AKA 12) as the attack cargo ship moors at Norfolk, Va., after cruise.

One of the most rewarding has been the attitude of the men and women who have taken part. Questionnaires filled out at the end of the course have been enthusiastic. Many students have praised the discussion periods and told of the aid it has given them. A few have turned thumbs down on the program.

In one instance a Navy ship returned from the Mediterranean with amazing set of statistics. During that cruise there had been a character education program underway. In the

previous trip there had been none.

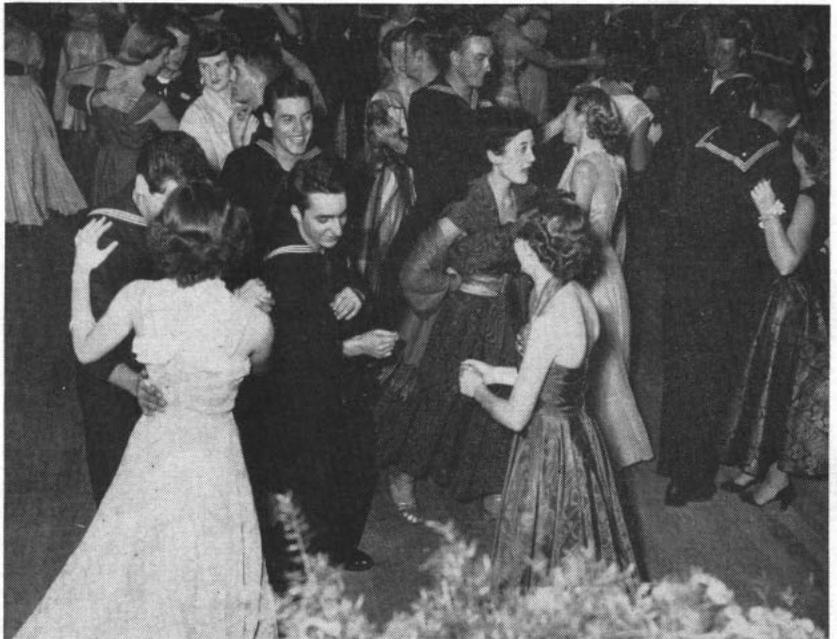
The statistics showed that the VD rate was perceptibly lowered and far fewer men at captain's mast. The counseling load of the chaplains had increased and church attendance at Catholic, Protestant and Jewish services had tripled, as compared with the figures of the trip made before the program got underway.

While that is indicative of headway, officials are loath to give the program all the credit. There are too many outside influences that can enter into the picture. It may have been that the majority of the crew was making the voyage for the second time and they had learned the hard way the first trip. That could have a lot to do with the statistics. However, without a doubt, a good part of the credit did belong to character education.

In another instance, a service newspaper ran a story about a small ship which had not had a mast case since instituting the character education program. Again, although this does show a trend, it does not mean that character education is the whole answer.

While the program isn't the answer to all problems, it is certainly a large step in the right direction if it can make people not only stop and think—but think, and when necessary, stop.

—Bob Ohl, JO1, USN.



SAILORS ON LIBERTY make and get a good impression as they visit this foreign port. Here, Navymen enjoy dance during stop-over in New Zealand.

## NEWS OF OTHER NAVIES

In this new section ALL HANDS continues its report of news items of interest concerning navies of other nations.

★ ★ ★

THE LARGEST WARSHIP ever built in Canada, HMCS *Labrador*, has been commissioned and is now on a five-month voyage to the North.

*Labrador's* construction is based on that of the *Wind* class icebreakers. The ship has an over-all length of 260 feet, maximum displacement of nearly 6,500 tons and a maximum draft of 29 feet. Her speed is given as 16 knots and the shell plating of the hull ranges up to one and five-eighths of an inch special steel.

At present she carries a crew of 24 officers and 204 men. Her current mission is to acquaint Canadian sailors with the northern waters and operating conditions in the event of a conflict in which the Arctic would be a line of observation and defense.

Although *Labrador* will be immediately engaged in extensive scientific research, it is believed that ultimately she and others of her type will take their place in the North as part of a protective screen. To this end the Canadian Defense Department has equipped *Labrador* with many electronic devices, some modified versions of old types and others entirely new, to enable her to chart the North, test Arctic weather and sea conditions, do major cosmic ray research and listen for any unidentified airborne objects.

★ ★ ★

ITALY—The Italian Navy is using a sailing vessel that looks like a ship from the past to train its cadets of today.

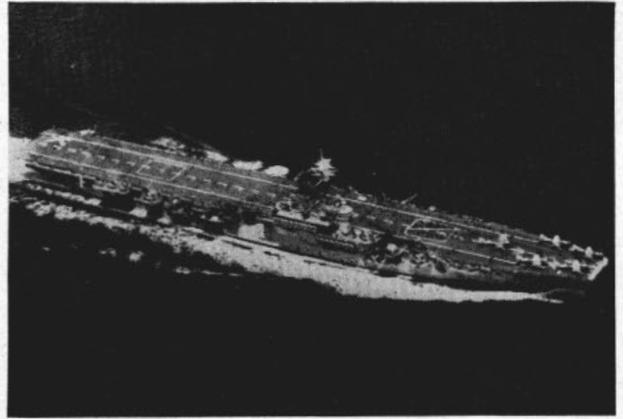
Although old in appearance (she was designed along the lines of the vessels of British Admiral Horatio Nelson's fleet), *Amerigo Vespucci* carries within her sides the most modern devices for accurate navigation as well as diesel engines for auxiliary power.

She is 270 feet long and displaces about 4000 tons. She is used to initiate first-year naval cadets to a sailor's life at sea before they become too engrossed in the technical aspects of Navy life.

Her cruises generally take place in the Atlantic



FRENCH naval aviators, learning to fly U. S. Navy's *Nep-tune* at NAS Whidbey Island, Wash., try a three decker.



AUSTRALIAN carrier, HMAS *Sydney*, veteran of Korean conflict, visited Baltimore on return from Coronation.

Ocean and she has often skirted the coastline explored by the navigator whose name she bears.

Usually in the spring, the ship leaves the naval base at La Spezia and sails to Leghorn where the Italian Naval Academy is located. There she takes the cadets on board and sails out on the cruise.

★ ★ ★

NATO — Six North Atlantic Treaty nations joined forces in mid-summer in a major air-sea maneuver held in the English Channel.

Ships and planes of the U. S., Britain, France, Norway, Belgium and the Netherlands took part in the NATO maneuvers called "Exercise Haul."

In the mock naval battle, convoys of merchant ships were attacked by submarines from Britain and the Netherlands, a force of Norwegian, British and U. S. patrol boats and squadrons of Allied planes.

Defense of the convoys was the mission of the escort vessels. Air defense was provided by planes of the Royal Air Force's Coastal Command and air defense forces from Britain, Belgium and the Netherlands.

★ ★ ★

GREAT BRITAIN—Building of "small ship types" is going on apace in the Royal Navy. Recently launched were three vessels of new and different design: an inshore minesweeper, a coastal minesweeper and a seaward defense boat.

The inshore minesweeper is designed to operate in shallow waters such as rivers and estuaries. An entirely new type of vessel, it embodies features learned from lessons of World War II and subsequent developments. Along with its minesweeping gear, the inshore sweeper will carry one small gun. In size the ship is 106.5 feet long and 20.5 feet in beam.

The coastal minesweepers, the largest of the three new types, are 152 feet long and nearly 30 feet at their widest. Aluminum is used in their construction for the framing and structural casting. The outer bottom is wood planked. As a result of the use of these materials the hull is largely non-magnetic.

Diesel-driven, they are equipped with the latest minesweeping equipment to operate against both contact-type

and influence-type (magnetically or acoustically triggered) mines. Whereas the inshore sweepers are designed for operations in rivers and shallow waters, the larger coastal sweepers will operate in coastal waters.

The seaward defense boats are Diesel-powered craft measuring 117 feet in length and 20 feet in beam. Their job is to detect, locate and destroy enemy submarines in the approaches to defended ports. For their detecting and locating missions they are provided with electronic equipment. Their armament includes depth charges and deck guns.

★ ★ ★

NATO—Two major training exercises designed to test naval air defenses as well as the naval forces of NATO and other national forces took place recently in the Mediterranean and Southern Europe areas.

Exercise SHIELD ONE, the air exercise, was based on the simultaneous activation of all air defenses systems in the Mediterranean area. The maneuver provided national and other commands with an opportunity to defend their respective areas in coordination with other forces. During the exercise, the national units operated as part of an international air defense system coordinated through Airsouth Headquarters in Naples. The national forces taking part included air defense facilities of France, Italy, Turkey and the United Kingdom.

The naval exercise, MEDFLEX ABLE, began in the Gibraltar Command with tactical training in anti-submarine warfare for U. S., French and United Kingdom naval and maritime air forces. Later, French and United Kingdom naval units moved into the Western Command area.

The combined fleets, forming a powerful *force de raide*, cruised in North African, Italian and French waters, carrying out aircraft carrier ASW surface attack and replenishment exercises.

★ ★ ★

BRAZIL—Under its construction program the Brazilian Navy has ordered 22 new vessels from a shipyard in the Netherlands.

The ships to be purchased include ten coast guard units and six troop transports. Six tugs have already been completed by the Dutch shipyard and are now operating with the Brazilian fleet.

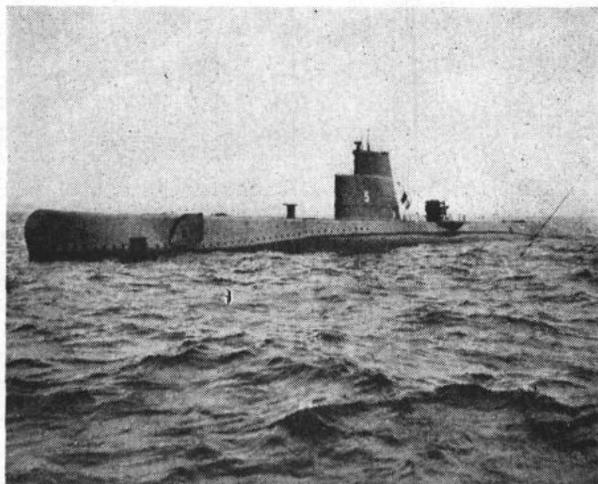
Also under construction for the Brazilian Navy are two troop transports that are being built by a shipyard in Tokyo, Japan.

★ ★ ★

CANADA—Prompt action by the crew of a motor cutter from HMCS *Prestonian* saved the lives of four U. S. Navymen when their plane crashed into St. George's Harbor, Bermuda.

*Prestonian* was on exercises in the Bermuda area with several other Canadian ships when the plane overshot Kindley Field, stalled and smashed tail first into the water within 50 yards of the ship.

Seamen from *Prestonian* manned their cutter as soon as they saw the plane was going to crash and were at the site of the crash within minutes.



PERUVIAN NAVY launched two new submarines in recent months. Here's one, *Tiburon*, making a trial voyage.

They towed one of the survivors to a U. S. Air Force crash boat, then returned to pick up three more. Two others were rescued by the Air Force boat.

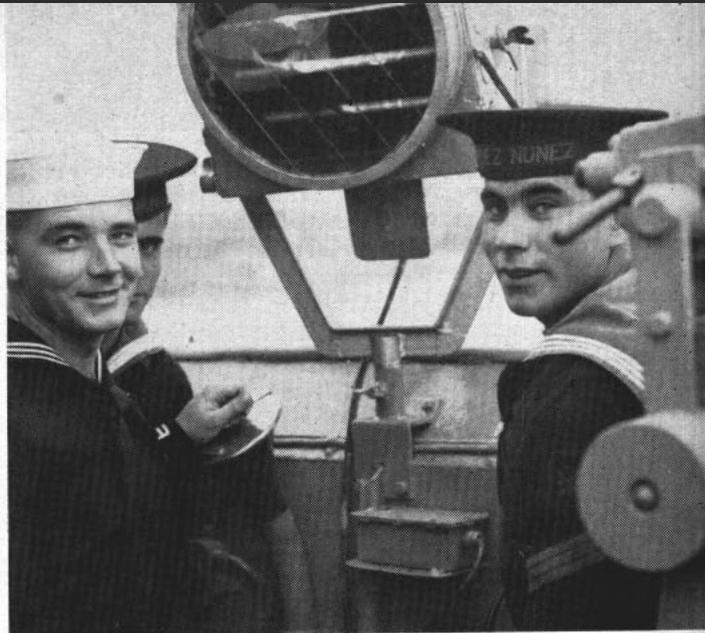
★ ★ ★

GREAT BRITAIN — A new-type Diesel engine has been developed for the Royal Navy. It is an opposed-piston, two-stroke cycle engine. Each cylinder has two pistons working in pairs on three crankshafts. The triangular cylinder arrangement gives rise to the term "Deltic" after the Greek letter "Delta," a triangle.

By means of the "Deltic" arrangement, 18 or 24 cylinders can operate in a space that would be taken by three or four of the usual cylinders. The compact engine is said to have a high power-to-weight ratio.



ITALIAN petty officer is welcomed on board USS *Coral Sea* (CVA 43) during visit to Sardinia on recent cruise.



## ¿Habla Usted Español?

**N**AVYMEN sailing to the Mediterranean frequently hit one or more ports of call in Spain.

There they find ancient cathedrals, colorful towns and villages, and a picturesque countryside among the many interesting attractions.

Sometimes sailors are able to attend a bullfight—always an exciting occasion.

The first liberty port is often Palma, resort city on Majorca Island, chief seaport for the strategically-located Spanish Balearic Islands. Junkets to Madrid and other points of interest frequently start at Palma, which, has been nicknamed "Spain's Riviera."

*Upper left:* CPO from *uss Columbus* (CA 74) chats with people dockside at El Ferrol. *Upper right:* Sailor from *uss Roanoke* (CL 145) inspects signal light on bridge of Spanish cruiser *Mendez Nunez*. *Left center:* Trolley car provides transportation for sailors from *uss Salem* (CA 139). *Lower left:* Radarmen from *Roanoke* examine well in courtyard of ancient Spanish home. *Lower right:* Cathedral overlooking harbor at Palma, Majorca Island, attracts these Navymen.

—Mac Fry, JO3, *uss Roanoke*



# LETTERS TO THE EDITOR

## Living Conditions in Formosa

SIR: I have received orders to MAAG, Formosa, and cannot find any information on living conditions there. Can you give me a run-down on what to expect or the address of someone I could contact for this information?—T. A. C., LCDR, USN.

• Since few Navy people are assigned duty in Formosa, BuPers has little information on it. However, a letter to the "Naval Section, MAAG, Navy No. 3840, care of FPO, San Francisco, Calif." will bring you full details. Also, before being assigned to your new duty station you can expect a period of indoctrination during which you will get all the dope on living conditions.

From what we could dig up, the Army has things pretty well under control in that area. There are 27 houses that have been built by local banks for the exclusive use of MAAG personnel with dependents. These are allotted on a priority basis and the waiting list is quite long.

Most personnel with dependents live in private rental units, houses that are Japanese-style and often require improvement. Screens, Western-style bathrooms, septic tanks, closet and shelf space, a hot water system, additional electric outlets and improvement in the kitchen may cost the renter about \$300 for the work.

Houses are unfurnished; electric heaters and electric stoves are prohibited. Automatic washers are impractical; generally it is not advisable to bring any type of washer. An electric refrigerator is highly recommended and a deep-freeze is most desirable as supplies come in slowly.

Automobiles with automatic transmission should not be taken as there are no provisions for repairs. In addition many roads are rugged and the upkeep is expensive on all types of automobiles.

Good clothing should not be taken to Formosa, especially woolens. During the hot rainy seasons, woolens and leather articles mildew. Cleaning is expensive and sometimes ruinous. It is recommended that any civilian clothes be of a washable type as most people wear sport shirts and slacks the year around.

Limited medical and dental care is available and there is a relatively modern hospital in the city of Kaohsiung.

At the present time the only means of elementary education in southern "Taiwan" is through the Calvert School

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to: Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington 25, D. C.

correspondence system. An American school is in the process of being built with grades one through eight. High school education will continue to require correspondence courses.—ED.

## United Nations Service Medal

SIR: My previous ship, a destroyer, is eligible for the United Nations Service Medal. In the Navy Department Bulletin of 30 June 1952, Joint Letter 52-304 states that commanding officers should submit lists of eligible personnel, including rank or rate, to the Chief of Naval Personnel.

My question is: If no list was submitted from the ship, can I submit my own request through proper channels from my new duty station, or will I have to write to my previous duty station and request that they submit my name to the Bureau.—W. J. E., YN2, USN.

• To obtain the UN Service Medal—or any other campaign or service medal which you believe you rate—you may apply to the Chief of Naval Personnel (Attention: Pers E3), Navy Department, Washington 25, D. C., via your present commanding officer.

Make your request in a letter and give your full name, service number, rate, the dates of service for which the medal is claimed and the units to which you were attached during each period of eligibility.

Your eligibility will be checked and you will be sent all available medals for which you qualify.—ED.



UN Service Medal

## Quarterly Marks While In School

SIR: There has been some conflict concerning a question regarding assignment of conduct and proficiency marks of enlisted personnel attending schools. It is my understanding that in accordance with BuPers Manual, Article 7821, (7)(a), that a person will not be assigned marks other than those in conduct, in as much as he is a student undergoing instruction.

Can the commanding officer of a school assign a mark in proficiency? Also, can he assign a mark in conduct of less than 4.0, if the student was disenrolled and no disciplinary action was taken during that period the student attended school?—L. L. P., YN2, USN.

• Article C-7821(7)(a), "BuPers Manual" indicates that proficiency in rate marks are not assigned to students undergoing instruction. As for your second question, normally, lowered conduct marks are assigned only as a result of offenses committed for which punishment is awarded. However, lowered conduct marks MAY be assigned for other good and sufficient reasons. These must be accompanied by an entry on the administrative remarks page of the man's service record to explain the mark of less than 4.0.—ED.

## Court Reporters

SIR: I read in a commercial handbook that enlisted men are entitled to additional pay for acting as court reporters for general courts-martial, courts of inquiry, military commissions and retiring boards, pursuant to an Act of Congress dated 25 Aug 1937. The rate of pay was listed as 25 cents for each 100 words transcribed and ten cents for each 100 words additional copy. Is there such a provision still in effect?—G. C. C., YN2, USN.

• The provision mentioned in your letter is not applicable to courts-martial in the cases of members of the U. S. Navy.

The Naval Supplement to the "Manual for Courts-Martial (1951)" provides that no expenses shall be incurred to the government by the employment of a reporter or interpreter to assist in a court-martial except under authorization of the convening authority. Under no circumstances are naval military personnel authorized to be paid additional compensation for the performance of such duties. Compensation of civilian personnel so authorized will be paid at the prevailing wage scale for such duties.—ED.



**BIG GUNS** of USS New Jersey (BB 63) add their destructive firepower to weight of naval artillery blasting enemy locations in Korean conflict.

### What Was the Heaviest Single Salvo of Naval Guns?

**SIR:** In line with the request published in *ALL HANDS* for little-known Navy records, here is one that, if not a unique occurrence, is unlikely to be duplicated at any time in the foreseeable future.

It happened during the Gilberts operation in World War II. Six battleships (two *Washington* class and four *South Dakotas*) were detached for a hit-and-run raid on Nauru Island. I was fortunate enough to have been the officer of the deck during General Quarters on board the battleship *uss Indiana* (BB 58) and Admiral (then Captain) William M. Fechteler, USN, was our skipper at the time.

The approach was made with the heavies in line-of-bearing parallel to the shore. The six battleships made a simultaneous turn to column and on signal fired what I suspect was the heaviest single salvo of naval guns in this or any other war, 54 sixteen-inch guns firing together.

This action had little if any effect on the course of the war, but as one of the few opportunities after 1942 that the fast battleships were free to maneuver without the aircraft carriers underfoot and as a display of sea-borne power it has a warm spot in my memory.—LCDR H. F. Burr, USNR.

• To add a few facts to yours, the Nauru bombardment took place on 8 Dec 1943 and subjected the enemy-held island base to a withering shell-fire that started huge fires, destroyed planes, shops and other installations, killed a number of the enemy, and eliminated the small island's effectiveness in the future (at least the Japa-

nese never made any further use of it).

Prior to the bombardment, Japanese aircraft had been taking off from Nauru to attack our shipping supply line. U. S. aircraft had made several bombing attacks on the island but the Japanese were always able to make rapid repairs.

The six battlewagons that mounted the attack you mention were *uss South Dakota* (BB 57); *uss Indiana* (BB 58), *uss Massachusetts* (BB 59) and *uss Alabama* (BB 60) of the *Indiana* class; and *uss North Carolina* (BB 55) and *uss Washington* (BB 56) of the *North Carolina* class. However, they weren't all alone; the carriers *uss Bunker Hill* (CV 17) and *uss Monterey* (CVL 26) were nearby and their planes furnished the battleships air cover.

As to whether the opening shots of this two-hour bombardment represent the largest simultaneous broadside of the war is difficult to determine.

For instance, another whopper that comes to mind is the simultaneous broadside fired by the battleships *Pennsylvania*, *California*, *Tennessee*, *Mississippi*, *Maryland* and *West Virginia* (plus broadsides from eight cruisers and a number of destroyers) in the action of Surigao Strait in the Philippines in October 1944. This broadside, the famous "Crossing of the T," opened the big-ship attack on the advancing Japanese surface force, an attack which resulted in one of the biggest surface naval victories in history.

With this salvo, we fire it back to you.—Ed.

### Factors in Selection for OCS

**SIR:** When submitting an application for OCS, are the applicants considered mostly on their GCT, ARI tests and quarterly marks, or does the individual's civilian training, time-in-service and other qualifications have a bearing on final selection?—D. R. D., HN, USN.

• GCT and ARI scores are important, but there are many other factors that are taken into consideration. The selection boards consider the score made on the Officer Selection Test; the commanding officer's evaluation and recommendations; the ratings of a local board of officers appointed by the commanding officer to assess the personal qualifications of the applicant to determine whether he possesses officer-like qualities and, of course, the individual's service record. Comparisons of all these factors are made and the applicants who appear most qualified in all of these categories are selected to fill the authorized quota.—Ed.

### 'Obliserv' for Navy Schools

**SIR:** A recent *ALL HANDS* carried an article entitled, "Training and Transfer to FT and ET Ratings Offered to Men in Grade E-4 and Above."

I find that I am fully qualified in all respects for this program, except for having two years' naval service over the maximum 12 years.

It seems to me that every time some program like this comes along, one where I can advance my knowledge and position, one that I can qualify for by reason of background and training, I meet the requirements stated for GCT, ARI, MECH and proficiency marks, but I miss out on a time requirement ranging from a few months to a few years under or over the time I have in service. Furthermore, in some previous cases where my time was under that required, I found that when I did have the required time the program either no longer existed, or the needs of the service no longer called for my rating in a particular program.

Would it not be possible to get some sort of waiver in my case, inasmuch as I would still have the five years obligated service required by reason of agreeing to extend my present enlistment—expiring in August 1956—for four years; or I could request discharge for immediate reenlistment for six years, whichever would be satisfactory—G. D. C., Jr., RDC, USN.

• BuPers Inst. 1440.12, which sets up this particular rating change program, states that waivers may be requested for any of the requirements except the obligated service time and gives instructions for forwarding your request.

Obligated service requirements set up to insure that personnel entering a

given program will complete the necessary schooling and be returned to the Fleet with enough duty time remaining to make it worth the cost to the Navy of training.

Under the program you mention, personnel are required to have at least five years' obligated service. Since you already have 14 years' service, and schooling with necessary transfers would take a year or more, even if you shipped for six the Navy has no assurance that you would not transfer to the Fleet Reserve in four and a half years—as you would be entitled to do. The Navy does not feel that its investment could be repaid in less than five years.—ED.

#### Transfer to Retirement List

SIR: I will finish 30 years of active duty soon, with no bad conduct. The highest rank held was Chief Machinist (W-2).

Will you please tell me how much retirement pay I will draw each month, and how long it will take the first check to reach me after I leave the service?

I have been told several different answers to these two questions, and would like you to give me the "straight scoop."—H. S. K., BTC, USN.

• A Navyman transferred to the retired list after completion of 30 years' active service is entitled to 75 per cent of his base pay in the highest rate or rank satisfactorily held. Therefore, your pay will be based on the W-2 rank with over 30 years' service.

The initial retired pay check is normally mailed on the tenth day of the month following the month in which retirement became effective.—ED.

#### Officers Eligible for Retirement

SIR: I have two questions regarding officers' retirement that I hope you will be able to answer for me.

(1) If six months or more count as a full year in computing the number of years that the two-and-one-half per cent factor is multiplied by, may an officer request retirement effective at 19 years six months?

(2) If an officer had 60 days' earned leave could he take this leave as his last 60 days of active duty just prior to retirement date, instead of receiving a lump sum payment for it?—L. R. L., LCDR, USN.

• (1) While six months or over count for pay purposes, the law states that the member must complete 20 years' active day-for-day service before he is eligible to request retirement.

(2) An officer who has 60 days' earned leave prior to his retirement date must receive the lump sum payment in lieu of taking leave.—ED.



ADMIRAL DEWEY, shown here against background of fighting at Manila Bay, was only 'Admiral of the Navy.'

#### Dewey, 'Admiral of the Navy'

SIR: I have been having a pretty heated argument with one of the chiefs aboard ship and I hope you will be able to settle it for us. I'm sure that I read someplace that George Dewey was given the rank of a six-star admiral by a special act of Congress and that this rank was discarded upon his death in 1917. I'd be willing to bet my shirt that this is true. Am I right?—D. C. G., QMC, USN.

• Hold onto your shirt Chief—there never was a six star admiral. The highest position held in the history of the U. S. Navy is that of Fleet Admiral with its five stars. Admiral George Dewey, USN, held the rank of a four-star admiral with the title of "Admiral of the Navy."

The rank of Admiral of the Navy was created by Act of Congress on 2 Mar 1899. The Act provided that the officer holding this rank should not be placed on the retired list except upon his own application. It further provided that when such office became vacant by death or otherwise, the office would cease to exist.

On the date of this act, Rear Admiral George Dewey was appointed Admiral of the Navy. He held this rank until his death on 16 Jan 1917, whereupon the rank of Admiral of the Navy ceased to exist.—ED.

#### Antarctic Expedition

SIR: Has a ribbon or medal been authorized for the Antarctic Expedition of 1946-47? I was a member of that expedition and have since noticed that ribbons have been authorized for previous expeditions. If it hasn't been, is it possible that Congress might yet authorize one?—W. M. B., MM3, USN.

• The Navy Department has not established a medal for the Antarctic expedition during the period 1946-47. Moreover, authorization for one in the future is not contemplated.—ED.

#### USN Integration Program

SIR: As a destroyer skipper who has on board a graduate of the first OCS class under the Regular Navy Integration Program, I am at a loss to understand why the initial commissioning rank is limited to ensign.

Why not start such officers as LTJG, if they have completed at least 10 years of active duty and have passed their 30th birthday? In the case of my officer he is worth his weight in gold and is well qualified to serve as a LTJG. Are there any provisions for a spot promotion in such a case?—G. W. R., CDR, USN.

• Your idea has much merit, Commander, as it is a recognized fact that officers appointed under the Regular Navy Integration Program are outstanding; however, it all hinges on the needs of the service. At present the needs of the service do not dictate the necessity for appointing these graduates, either initially or through spot promotions, in the line to a grade above ensign.—ED.

#### Officer With Good Conduct Medal

SIR: I enlisted in the Naval Reserve in January 1943 and was discharged in March 1946. I received a commission in the inactive Naval Reserve in 1949. Am I entitled to wear the Good-Conduct Medal on my officer's uniform—R. M. G., LTJG, USNR.

• Yes. If you earned the Good Conduct Medal while you were an enlisted man you may now wear it on your officers uniform.—ED.

#### Attache and Mission Assignments

SIR: I put in for attache duty four months ago and I received notice that I was put on the waiting list.

I would like to know how the Bureau maintains this list, and if higher rated men are chosen for assignment first. I would also like to have some idea as to when I can expect my orders.—L. D. O'B., YN3, USN.

• Missions, Attaches, MAAGs and NATO activities have an established allowance assigned, broken down by rates. Whenever possible these allowances are filled rate for rate; however, in some rates where there is a shortage on the eligibility list, it is sometimes necessary to fill a second class billet with a third class, etc.

The best qualified personnel of all applicants on the list by rate are selected to fill requirements. This is determined by reviewing duplicate service records of each applicant upon receipt of a request for the above duty. It cannot be predetermined when or if an individual on the list might be selected.

Incidentally, BuPers Inst. 1306.6 and the December 1953 issue of ALL HANDS contain pretty complete information on duty with attaches and missions.—ED.

## Assignment of WOs

SIR: As a comparatively new warrant officer, I am quite in the dark concerning the assignment and distribution of WOs in the aviation designator group. Your answers will be highly interesting to me and other newly designated aviation WOs.

(1) Is duty in Fleet Air Units based in the continental U. S. considered sea duty and is island duty, such as Japan and Hawaii, considered foreign shore duty?

(2) Who assigns aviation warrant officers?

(3) Is there any way for a warrant officer to get into the guided missile program?

(4) Is it possible to get any sort of list which covers the schools or specialized training programs available for air gunners?—V. C. H., GUN, USN.

• (1) *Duty with Fleet Air Units based in the continental U. S. counts as sea duty for rotation purposes. Foreign shore duty, as such, is not defined by BuPers Inst. 1300.5A. This instruc-*

*tion, however, defines "overseas service" as duty performed ashore at naval activities beyond the continental U. S. and aboard non-rotated naval vessels in the European and Asiatic areas.*

(2) *Orders are written by BuPers on individual nomination from CNO (Op 541).*

(3) *There are no 7210/WO billets in the guided missile field. However, there are schools and billets in AUW and Mine Warfare assigned by BuPers.*

(4) *There is no list compiled covering the schools or specialized training available for Air Gunners.—Ed.*

## Changing WO Designators

SIR: What is going to happen to the warrant officers whose category is being eliminated under the new warrant program? To be more specific, in my case I am a 7632 with no electronic background. I fail to see where I would fit into an electronic billet. Will we be reverted or just what plans are being made for us?—R. E. J., CHRELE, USN.

• *All 7632 Radio Electricians are being changed to 7662 and will be ordered to the Electronics Maintenance School, Great Lakes, Ill., for 12 months' duty under instruction to prepare them for ultimate assignment to Electronics billets ashore and afloat.—Ed.*

## Shore Duty Before Retirement

SIR: I have been under the impression that it was standard procedure for a naval officer to be assigned a shore duty billet in the naval district in which he is to retire one or two years prior to his retirement.

Since I have 28 years' service at present and intend to submit a request to be placed on the retired list upon completion of 30 years' service, I would like to know if I am correct in my thinking. Can you tell me if my assumption is correct?—W. W. H., LCDR, USN.

• *Officers becoming eligible for retirement may request assignment to a specific shore duty for their last tour provided the date of retirement is known and if the officer is due for normal rotation to a tour of shore duty. This privilege of requesting a specific duty applies to any officer and is not restricted to or more binding for officers due for retirement. Every consideration is given such requests, but the assignments naturally must be made on the basis of the needs of the service.—Ed.*

## Acting CPO in Fleet Reserve

SIR: Provided that a man is eligible for transfer to the Fleet Reserve upon completing 20 years' continuous service and his rate is chief petty officer, acting appointment, what would his rate become upon transfer to the Fleet Re-

serve? He is not eligible for any special considerations nor has he ever held a commission. We have been wondering, since the issuance of permanent appointments to CPOs is being held in abeyance, if the individual requesting such a transfer would be placed on retainer pay as a CPO, acting appointment or as a PO1, his last permanent rate?—J. L. F., PNCA, USN.

• *Your worries are over, Chief. Such a person would be transferred to the Fleet Reserve as chief petty officer, acting appointment. He would receive retainer pay as specified for pay grade E-7.—Ed.*

## Is It JOOD or JOOW?

SIR: What is the official title of a junior officer on watch on the bridge while underway—Junior Officer of the Watch (JOOW) or Junior Officer of the Deck (JOOD)?

I have always heard this officer referred to as the JOOD to distinguish him from a junior officer on watch in the engineering department.

Navy Regs does not seem to state specifically. The latest edition of the *Watch Officer's Guide* is consistent in use of "Junior Officer of the Watch." *Naval Terms Dictionary* is not too clear on the point.—E. E. H., LT, USN.

• *Both the title "Junior Officer of the Deck (JOOD)" and "Junior Officer of the Watch (JOOW)" are used aboard ship. The former is considered to be more popular as it has, through usage and custom in recent years, become a familiar title. Most instruction books, however, such as Watch Officers Guide use the term "JOOW" throughout. The majority of standard ship organization books also use this term. Prior to 1851, the "Officer of the Deck" was called the "Officer of the Watch," which probably accounts for the title "Junior Officer of the Watch." In view of the above, it is believed that "Junior Officer of the Watch" is technically correct, but that "Junior Officer of the Deck" is more popular.*

*In addition to the "JOOD" or "JOOW" on board large naval vessels, a junior officer undergoing instruction may be assigned a watch as "Gentleman of the Watch." The title has been used as late as February 1953. This officer is supervised and directed by the "Officer of the Deck." After a qualification period in this capacity, he then becomes qualified as "Junior Officer of the Deck" or "Junior Officer of the Watch." According to one authority an officer standing an indoctrination watch is called the "Assistant Officer of the Watch.—Ed.*

## SS—Qualified in Submarines

SIR: Would you please help me settle an argument we have been hashing out here for some time? I say that a person who is qualified in submarines is entitled to use the letters "SS" after his rate, i.e. ENC(SS) USN. Can you tell me just where to find the authority for this, if there is one?—J. W. S., HMCA (SS) USN.

• *Right you are, Chief. Did you get too carried away with talk to think of the "BuPers Manual"?*

*Article C-7404.6a states: "When a man has been examined and is qualified for submarine duty, an entry shall be made in his service record as follows: '(Date)—Qualified in submarines this date and assigned the enlisted designator.' The enlisted (SS) designator shall be placed immediately after the man's rating abbreviation, in parenthesis, e.g. YN1(SS), and shall appear with his rating abbreviation on all service record pages and on all correspondence pertaining to him thereafter, or until such time as his submarine qualification may be revoked. A man who has so qualified and who subsequently is detached from duty in submarines is considered to retain his qualification."—Ed.*



Submarine Insigne

### Return to U.S. Before Discharge

SIR: Are personnel serving overseas supposed to be back in the U. S. any specified period of time before their discharge date? I have always been under the impression that they are supposed to return at least 30 days before they are due to be discharged, possibly earlier if they have any unused leave. Am I correct?—C. L. M., AK3, USN.

• To insure that personnel are separated not later than the date they become eligible, regulations provide that an individual should be transferred for separation in sufficient time to allow for completion of all travel plus an additional seven days to allow for separation processing and unforeseen delays. Also, no leave can be granted en route.—ED.

### Promotion Requirements for CWOs

SIR: What are the sea duty requirements for promotion of an officer in a case such as mine? My permanent rank is Chief Boatswain (W-3) and I hold the temporary rank of lieutenant. How much time at sea will I need for selection to lieutenant commander when I come up for it in 1956?—J. E. P., LT, USN.

• The Officer Personnel Act of 1947 provides that sea service is a requirement for promotion of only those officers whose permanent status is above the grade of commissioned warrant officer. There is no legal sea-duty requirement for promotion purposes for officers in your category.—ED.

### Grade of CPOA in Fleet Reserve

SIR: Some two years ago I was rated CPOA (T). Since that time, the (T) designator has been dropped from the CPO. However, all CPOs who made their rate since 1952 are temporary. Does the Navy ever intend to bring back a permanent CPO rating? What would be the retirement or retainer pay of a man holding a temporary chief rating who desired to go into the fleet reserve? What rate would he hold in the Fleet Reserve?—B. J. S., QMCA, USN.

• Paragraph 4b of BuPers Notice 1433 of 5 Jan 1954 states that when it becomes possible to authorize the issuance of permanent appointments, they will be issued in accordance with the provisions of Article C-7209, "BuPers Manual." In other words, permanent appointments have not been abolished but their issuance is being held in abeyance.

The retainer pay of a CPO acting appointment on transfer to the Fleet Reserve will be that specified for pay grade E-7. Your rate in the Fleet Reserve will be the rate held upon transfer, permanent or acting appointment as applicable.—ED.



HIGH SCORERS in good will—Members of soccer team from USS Pittsburgh (CA 72) await start of their game with the All-Arabian team at Aden.

### Soccer Team Has Record in Games (Lost), Good Will (Won)

SIR: Thought you might be interested in a ship's sports story—the USS Pittsburgh Soccer Team. We have just returned from a five-month cruise to the Indian Ocean and the Mediterranean. As soon as we arrived in Europe in late January we organized a soccer team to play the local teams in various ports we were to visit. Only three men had ever seen a soccer game before, but about 15 officers and men came out for the team. We didn't know much about the game but we had very flashy blue and gold uniforms and usually a band to play at the games.

Pittsburgh played the following teams on the cruise: Karachi All Stars (Pakistan), Royal Ceylon Navy, All Arabian Team (Aden), Ethiopian Army, the University of Barcelona and the Italian Naval Academy. Though Pittsburgh lost every game played to the expert native players,

thousands of people attended the games and enjoyed the contests and music. In Asmara, the Capital of Eritrea, the daughter of Haile Selassie presented a silk banner to the Pittsburgh team and individual medals to each player.

We feel that our team did quite a job in spreading good will in the countries we visited and played soccer. The natives appreciated the fact that soccer is not the U. S. national sport and we found many of them rooting for our team when the games got one-sided.

I should add that we won every basketball game we played on the cruise (nine games) at the same time we were losing all the soccer games.—P. D. Gallery, CAPT. USN, Commanding, USS Pittsburgh (CA 72).

• Congratulations to the Pittsburgh soccer team, which piled up a top record in good will.—ED.

### Reenlistment and Retirement

SIR: I have heard a number of conflicting stories concerning retirement and reenlistment. Could you check me out by giving the answers to these questions:

(1) I left the Naval Service in 1945 with the rate of MU1. I reenlisted in August 1948 with the rate of MU3. What rate will I retire with, at the end of 20 years' service?

(2) Was there a law which stated that a man would lose only one rate upon reenlistment after broken service?—R. C. B., MU3, USN.

• First, as you probably know, upon completion of 20 years' service, you must transfer to the Fleet Reserve and

remain there for another 10 years whereupon you are eligible for retirement. Your rate upon entering the Fleet Reserve will be that rate you hold at that time.

There is no provision to advance you to the highest rate held unless you retire for physical disability and only then if the rate was temporary.

In regard to your second question, the instructions in effect at the time of your reenlistment in August 1948 provided that ex-members of the U. S. Navy who were discharged with an Honorable Discharge, as in your case, on or after 15 Aug 1945 in the rate of MU1 would be accepted for reenlistment in the lower rate of MU3.—ED.

**Ship Reunions**

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying The Editor, All Hands Magazine, Room 1809, Bureau of Naval Personnel, Navy Department, Washington, 25, D. C., four or more months in advance.

• *uss Lexington* (CV 16, now CVA 16)—An annual reunion of crew members of *Lexington* is scheduled for 10 September at the Lakewood Country Club, Long Beach, Calif. All former crew members are invited. Contact Tallie James, 2651 Cedar Ave., Long Beach, Calif., or T. E. Laffin, 1659 Washington St., Long Beach, Calif.

• *uss Kitkun Bay* (CVE 71)—All personnel of this ship and Air Squadron VC-5 who are interested in a reunion to be held in New York on 25 October, write to Rowland B. Haines, 80 East Palisade Ave., Englewood, N. J.

• *Task Unit 77.4.3*—All personnel of the ships and air squadrons of this Unit who are interested in holding reunions on 25 October, the tenth anniversary of the Battle for Leyte Gulf, such reunions

to be held at places to be determined by the responses, write to Rowland B. Haines, 80 East Palisade Avenue, Englewood, N. J., who volunteers to act as a clearing house for responses until local committees can be formed.

• *62nd Naval Construction Battalion*—This Battalion will hold a reunion at the LaSalle Hotel in Chicago, Ill., on 4th and 5th of September. Contact Willard Richardson, 432 W. 74th St., Chicago, Ill.

• *North Sea Mine Force*—This association will hold its annual reunion at the Hotel New Yorker, New York City on the 14th and 15th of October. All Mine Force men welcome. For further information, contact J. J. Kammer, 54 Walnut Ave., Floral Park, Long Island, N. Y.

• *uss Trego* (AKA 78)—A reunion of those who served on board *Trego* during World War II is proposed for 26, 27, and 28 November in Atlanta, Ga. Contact J. N. Sorrow, 150 Hawthorne St., Athens, Ga., or M. A. Garner, Rt. 2, Box 92, Greenwood, S. C.

**Assignment to UDT Duty**

SIR: I am presently serving in the Naval Reserve on active duty in the rate of SWS2 and would like to know the procedure for assignment to UDT duty.

I served as a boatswain's mate in UDT for more than two years while in the Regular Navy and feel that I am still qualified for this type of duty. How do I go about getting it?—H. L. B., SWS2, USNR.

• *Commander Service Force, U. S. Pacific Fleet and Commander Service Force U. S. Atlantic Fleet disseminate the information concerning UDT training. Requests should be submitted via the chain of command to the appropriate service force commander. They will notify you if you are eligible and assign you to school if there are any openings.*—Ed.

**Cooks and Bakers School**

SIR: At present I am on duty in Hawaii but I'm about due for a transfer back to the Mainland where I would like to go to a service school. I have heard about an Army school in Chicago for the advanced training of cooks and bakers, but haven't been able to get any definite information on it. Can you help me out?—C. A. P., CS1, USN.

• *The school you are referring to is probably the U. S. Army Meat and Dairy Hygiene Enlisted Course at 1819 West Pershing Road, Chicago, Illinois, an eight-week course of instruction.*

*Naval personnel are no longer being sent to this school. The Naval School, Cooks and Bakers, Class "B" at Newport, Rhode Island, was established to provide specialized training for cooks and bakers. If you are interested in this school your ship's office can give you the details.*—Ed.

**Third Substitute**

SIR: Is the following interpretation of Article 151.2, DNC 27, correct? The pennant known as the "third substitute" is flown for the first 72 daylight hours of a commanding officer's absence. It is then used as an indication of the executive officer's absence until return of the commanding officer.

I would also like to know if anything besides custom or habit dictates use of the anchor ball in international waters.—L. N. B., QMC, USN.

• *Your interpretation of the subject article is incorrect. If the commanding officer of a ship departs for an absence to exceed 72 hours, the executive officer immediately succeeds to command on a temporary basis. Then, as long as the XO remains acting CO, the Third Substitute (formerly known as the "Third Repeater") is displayed to indicate his absence from the ship.*

*As for your second query, Rule 11, International Rules of the Road," dated 1 Jan 1954, prescribes the display of a black ball when anchored in international waters.*—Ed.

**...how to send ALL HANDS to the folks at home**

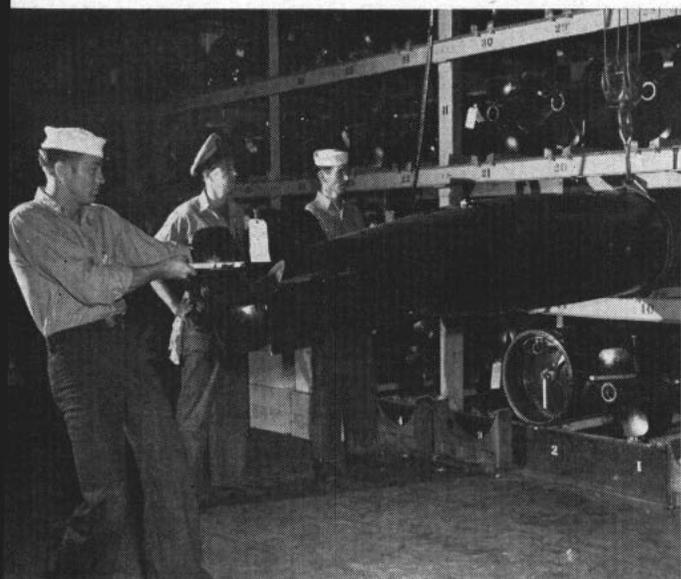
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## Torpedo Takes a Trip

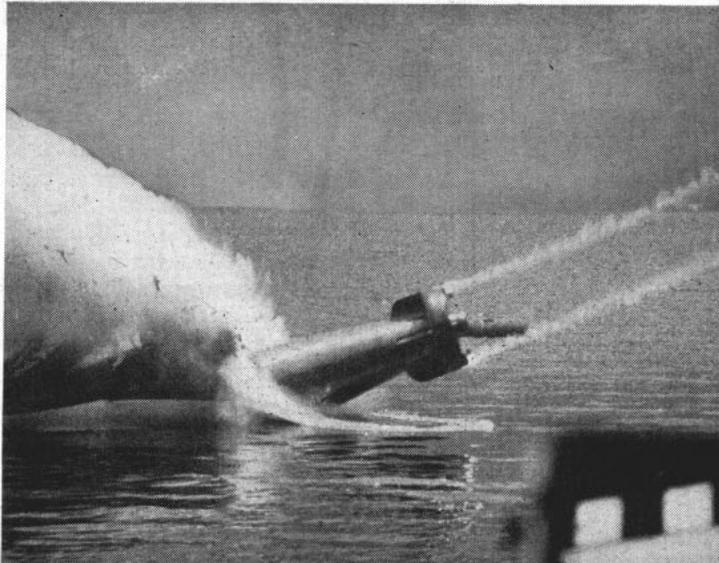
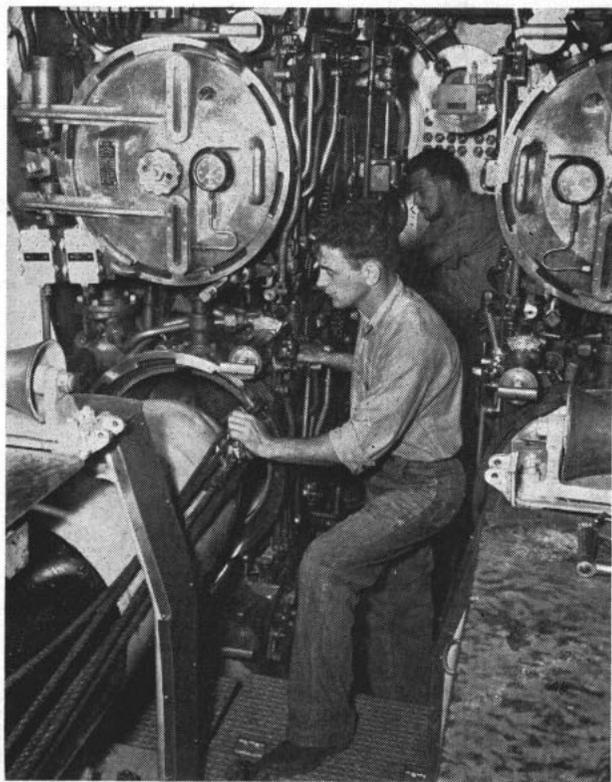
**T**ORPEDOES — those mechanical puzzles of some 1200 assemblies with 4000 parts—have played an important role in naval warfare for many years.

Sometimes called “tin fish,” sometimes known as “steel barracuda,” the modern torpedo is a deadly instrument, whether launched from submarine, aircraft or surface vessel.

Training sailors to torpedo-elusive targets could be an extremely costly project for the Navy. Torpedo repair shops, however, have saved the Navy upwards of one million dollars a year by overhauling and repairing “used” torpedoes.

The photos on this page typify a torpedo’s “life.”

*Upper left:* Torpedo is broken out of storage at submarine base for delivery to undersea vessel. *Upper right:* Crewmen load practice torpedo aboard attack submarine. *Right center:* Navymen prepare to launch torpedo during simulated attack. *Lower right:* Test torpedo makes a big splash. *Lower left:* Enemy vessel goes under after being torpedoes by U. S. submarine during World War II.



# The Greatest Show on-or off-Earth

If you are walking the deck of your ship on a starry night and you take a casual glance at the sky overhead you get the impression of a helter-skelter assortment of stars, distributed at random without a pattern. There are so many bright stars and faint stars, all mixed together,



that it seems impossible for you to learn much about them without years and years of study.

Fortunately, however, this is not true. Looking up at the sky you'll notice little groups of stars that form the design of a square, a diamond, a kite or a cross. The Big Dipper, for example, is one of the most famous of these star groups which are imagined to look like familiar things.

As a new observer, however, you will find that there is more difficulty in being able to see the mythological figures outlined in the stars. These figures, called "constellations," are the basis of legend and folklore throughout the world. The constellations are harder to spot because few of them look at all like the objects for which they are named. Just what then, are the constellations? How did they get their names?

The constellations are groups of stars around which imaginary creatures or objects have been drawn for scores of centuries. They were created in the minds of the ancients



for two reasons: *first*—to illustrate a story, and *second*—to help in recognizing and remembering the stars.

Thousands of years ago it was just as hard as it is today to point up to the sky and expect to select a single star from the myriads twinkling in the heavens. It was not hard,

however, to speak of the star next to the end of the tail of a bear which was imagined to be up there. Everybody came to recognize the figures and they have come down to us through the ages.

Stars were grouped into constellations at very remote times in all the lands of the earth. Originally, the constellations formed in different parts of the world were quite different from one another; but in time, they began to influence one another. The principal constellations now recognized are nearly the same as the ones recognized among the ancient Greeks before 300 B. C. (excepting the ones added at various later times in the southern sky that could not be seen from Greece).



Even before there was written history, stories of great heroes and beautiful heroines were told by father to son, or by a group leader



to his followers, as they sat around a camp fire. These legends grew more wonderful with each generation of retelling until the heroes became gods. The stories of these gods who battled the forces of evil and won the hearts of the beautiful maidens marked the beginnings of mythology.

As the tales of these adventurous gods became accepted fact in ancient life, the "story tellers" decided that the gods deserved magnificent monuments in their honor but nothing as perishable as monuments on earth would be satisfactory. However, when they looked up at the distant, mysterious stars they knew that they had found a fitting memorial for their gods.

One group of stars they named for a great hero, another they named for the maiden he rescued, still another they named for the sea monster that was going to destroy her. As time went on, these constellation figures came to be more widely recognized and finally were



incorporated as part of early astronomical writings.

Most of the constellations do not actually look like the objects or persons for which they are named. Just as *uss Doyle C. Barnes* (DE 353) does not look like Mr. Barnes even though it was named for him so the stars do not necessarily resemble the objects or persons for which they are named. However, a few of the star groups do bear some resemblance to the objects in whose honor they are named.

## The Constellations

The most familiar group of stars in the sky is the "Big Dipper." Found in the northern sky the Big Dipper is not a constellation—it is really part of the constellation *Ursa Major*, the Big Bear. The handle of the dipper is the tail of the bear and the bowl is its back.

There are many legends that tell how the Big Bear happened to be in the sky. The most familiar story is that Jupiter, the ruler of the gods, made his wife Juno very jealous



by admiring Callisto, a beautiful woman. In revenge Juno turned Callisto into a bear. The transformed Callisto had a son named Arcas. Walking in the woods one day he saw a huge bear coming toward him. His mother, even in her animal form, recognized her son and started to

greet him. Arcas thinking that he was being attacked, was about to kill his mother when Jupiter looked down from the heavens. In order to prevent the tragedy that was sure to follow, Jupiter took the big bear by the tail and tossed it up into the sky. Because the bear was very heavy its tail stretched—that's the reason the sky bear has such a long tail. So that Arcas could be with his mother, Jupiter turned him into a little bear and placed him in the sky too.

When Juno heard what had happened she made sure the two bears would never get any rest. They can be seen, at any time of the year, swinging unceasingly around in the northern sky. In fact, the tail of the Little Bear is tied to the almost stationary North Star. As he swings about every day his tail has naturally stretched too. The Little Bear is the constellation *Ursa Minor*—also recognized as the "Little Dipper."

The forward pair of bright stars in the bowl of the Big Dipper are com-



monly known as the "Pointers" for they point to Polaris, the North Star. This star is almost exactly above the North Pole of the Earth.

Just as a spot on the Earth near the end of the axis at the North Pole scarcely moves while the rest of the Earth's surface moves rapidly as it spins, so the North Star seems to stand still in the sky and we can see it in the same place every night of the year. The other stars appear to revolve around Polaris but the stars are not really moving at all—it is the Earth's turning that makes them appear to move.

There are many stars, like those in the Big and Little Bears, which are so close to the North Star that they never go below the horizon and they too are visible in the northern hemisphere every night of the year. These stars are called circumpolar stars and *Ursa Major* and *Ursa Minor* are circumpolar constellations.

Polaris, the North Star, is an important star to help you find your directions if lost in the northern hemisphere. The height of Polaris

above the northern horizon tells the observer's distance north of the Equator—in other words his latitude. For example, if you were standing at the North Pole of the Earth, Polaris would be directly overhead, just 90 degrees above the horizon. As you travel southward over the surface of the Earth, the North Star would no longer appear overhead, but would seem to descend farther and farther in the northern sky until it appears exactly on the horizon. Its altitude would then be zero degrees, which would indicate that your latitude is zero and you would be on the Equator.

By following the line of the pointers beyond Polaris you can locate

### Why Do Stars Shine?

The planets do not shine by their own light but are merely reflecting the light from the Sun. However, the stars shine by their own light. This light, astronomers say, may be produced by nuclear reactions similar to those of the hydrogen bomb. When the element hydrogen is transformed into helium, which happens on most stars, about one per cent of its mass (weight) is changed into energy. This energy keeps the temperature in the star's interior at millions of degrees. At the surface the temperature varies from about 5500 degrees Fahrenheit to over 55,000 degrees, depending on the star. One pound of hydrogen changing to helium liberates energy equal to about 10,000 tons of coal. On the stars the tremendous energy released in this way is reckoned in millions of tons of matter per second.

The nearest star, our Sun, is a mere 93 million miles away. The next nearest star is 26 million million miles—or nearly 300,000 times farther than the Sun. For these great distances, miles are not a good measure. Instead, the *light year* is often used. This is the distance that light travels in one year moving at 186,000 miles per second—nearly six million million miles!

On this scale the nearest star (excluding the Sun) is 4.4 light years away. Sirius, the brightest star, is 8.6 light years away. Other stars are hundreds, thousands and even millions of light years away.

the constellation *Cassiopeia*, which, depending upon its position in the sky, looks very much like a capital "W" or a sprawled-out "M" written on a slightly upward slant. Cassiopeia, sometimes called the "lady in the chair," was queen of Ethiopia. Directly below her chair toward Polaris are several faint stars which represent her husband King *Cepheus*. He is not nearly so conspicuous as his wife.

An interesting myth is told about these constellations and others that are prominent in the northern sky. Queen Cassiopeia was very beautiful, and exceedingly vain. Her boast that she was more beautiful than even the sea nymphs so offended them that they sent *Cetus*, a great sea monster, to attack the coast of her realm. King Cepheus was told that the only way to save the country was to chain their lovely daughter *Andromeda*, to a rock, that the sea monster might devour her. As the monster approached the lovely maiden, the great champion *Perseus*,



came by in winged shoes that enabled him to fly through the air. He saw Andromeda and immediately fell in love with her. Now it seems that Perseus had just killed and beheaded Medusa, the gal with snakes on her head instead of hair. The sight of Medusa's head was so horrible that anyone looking directly at it was turned to stone. All Perseus had to do was hold the head before the sea monster and it turned to stone, then he freed Andromeda and claimed her for his bride. All of these mythological characters can be located on the chart showing the northern sky.

The constellation *Andromeda*, the maiden who was chained to the rock is located next to Cassiopeia. Perseus, the champion who rescued her is nearby. This constellation is made up largely of faint stars which take the shape of a script "A" in the northern sky. There are only two bright stars in this constellation.

Also in the northern sky are the four stars which form the Great Square of *Pegasus*, the famous flying

horse, produced by the blood which flowed when Medusa was slain by Perseus. His head, wings and shoulders are shown in the constellation.

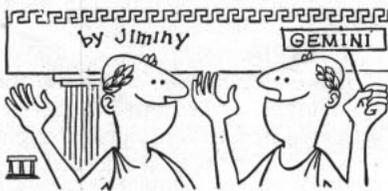
Another constellation easily located in the northern sky is that of *Leo*, the Lion. This constellation is



a sort of a reversed question mark—a semicircle of five fairly bright stars, with one very bright star below. This group of stars looks so much like a sickle that it has been called such for many centuries. The semicircle forms the blade of the sickle—Regulus, the bright star at the end, marks its handle.

To the left of the sickle is a long right-angled triangle, pointing away from Regulus. The star at the very point of this triangle is Denebola, which means "lion's tail." In the star pictures that have come down to us from the ancients, Denebola marks the tip of the Lion's twisted tail. The sickle represents the Lion's head, with Regulus marking his heart. The name "regulus" comes from *rex* meaning king. It has often been called the Royal Star since it is the brightest star of the constellation which is the king of heavenly as well as earthly beasts. Near Leo are five stars that make up the constellation of *Cancer*, the Crab. At the center of Cancer is a fuzzy spot that field glasses or a small telescope will reveal to be a cluster of some 300 stars.

A very rich mythology has been built up around another constellation near Leo in the Northern sky—that



of *Gemini*, the Twins. The two bright stars in the constellation are known as Castor and Pollux. Now Castor and Pollux, the sons of Zeus and Leda, helped the Romans win a great military victory. For this feat they were honored by a temple

erected in the Roman Forum. Later they became the favorite gods of the Romans and finally the constellation was named in their honor. When ancient people wanted to make a solemn oath they called on the heavenly twins to be their witness. They said "By Gemini" and even today, without thinking how it began, we often say "by jiminy."

The most brilliant of all star groups is *Orion*, the Hunter, which is seen in the southern half of the northern sky. Its shape is an irregular oblong. Just below the middle of the oblong is a row of three bright stars, slanting upward to the right. They are spaced at equal distances, and are known as the belt of the hunter. Some faint stars above and to the right of the three bright ones have been pictured as the uplifted arms of Orion, one holding a club and the other carrying a lion's skin. Below the belt are the three stars which form the handle of the Hunter's sword. However, the middle star isn't really a star at all, it's a fuzzy



spot which can be seen as a cloud of light when viewed through field glasses or a telescope. It is known as the Great Nebula of Orion. If lines are imagined connecting the four corners with the end of the belt, Orion looks like an hour-glass or dumb-bell.

Orion was a great hunter, but he was also a great boaster. He claimed that there was no animal on earth that he could not defeat. To punish him for being so conceited, the gods caused a scorpion to come up out of the earth to bite his foot causing his death. Jupiter placed both Orion and *Scorpius* in the sky but put them exactly opposite each other, so that the Scorpion could never harm Orion again. Consequently, they are never above the horizon at the same time.

The stars in Orion's belt are very useful as "pointers" to other stars. If you follow them upward and to the right they point to the star Aldebaran, the eye of *Taurus*, the bull, another constellation. Aldebaran is at the upper left of a V-shaped group of faint stars. They

are called the Hyades, and form the face of the bull. Above and to the left of the Hyades are two stars of medium brightness which mark the tips of the bull's horns—the upper one is brighter and is called El Nath, which means the "butting one."



The story of *Taurus*, the Bull, is that Jupiter fell in love with Europa, the daughter of the king of Phoenicia. So that he could be near her, he changed himself into a snow-white bull and mingled with her father's cattle. While Europa was gathering flowers in the field one day, he went over to her. Europa stroked the beautiful animal and then because he was so tame she sat upon his back. Then with the lovely maiden on his back *Taurus* swam away from the land of Phoenicia. Legend says that the continent to which he brought her is named after her. Since most of the body of *Taurus* was in the water while he was swimming away, only his head and shoulders are seen in the constellation.

To the right and above the Hyades is a group of rather faint stars which can be distinguished easily only because they are close together. They are the famous *Pleiades*, known since ancient times as the Seven Sisters. Many see this group as a small meat cleaver and still others mistakenly call it the little dipper.

Only six stars in this constellation can be seen with the unaided eye, but legend says that seven used to be visible, and it is interesting to



note the different stories that try to account for the missing Pleiade.

The *Pleiades*, appearing in the shoulder of *Taurus*, are supposed to be the daughters of Atlas (the giant who supported the heavens on his shoulders) and Pleione. Six of their

seven daughters married gods, but the seventh married a mortal, which explains why she cannot be seen in the sky. Another legend however, says the seventh star was their daughter Electra who hid her face so that she would not have to witness the overthrow and burning of Troy.

Scorpius, the Scorpion who caused Orion's death, is located on the opposite side of the sky from the Hunter. This constellation has only one very bright star, and this is the bright-reddish Antares. However, the other stars are easily picked out. Three stars mark the position of the scorpion's head—and form a slightly curved line. Extending downward from these three stars and to the left is a sweeping curve of stars forming a fishhook-line that makes up the scorpion's tail. There is even a faint star to represent the sting on the end of its tail. Red Antares, the bright star, marks the scorpion's heart. It is centered between two fainter stars.



To the right of the scorpion's head are two stars of medium brightness. These are the only two prominent features of the four-star constellation of *Libra*—the Scales. This constellation is supposed to represent the scales used by the goddess of Justice in determining her judgments on men.

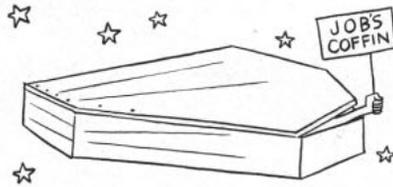
To the rear of Scorpius is *Sagittarius*, the Archer, who is half man, half horse. He is pictured with a drawn bow, as though he were going to send an arrow into the scorpion's heart. Sagittarius can also be recognized as a teakettle with its handle at the left, its spout on the right and with a triangular lid.

High in the sky above the "teakettle's handle" is a bright star between two faint ones. This star is Altair in the constellation of *Aquila*, the Eagle.

To the left of Altair is a very faint group of stars looking like a tiny kite with one star for a tail. This is *Delphinus*, the Dolphin. It also has, for some unknown reason, come to be known as Job's Coffin. Although

there is no reference in literature to justify this name, it is a popular one.

Above Delphinus in the sky is the constellation *Cygnus*, the Swan. It is also called the "Northern Cross" and it actually looks like a cross. Albireo



is a bright star at the head of Cygnus.

Between *Aquila* and *Cygnus* is a very small constellation known as *Sagitta*, the Arrow. This constellation consists of four stars. Two of the stars are very close together and they form the arrowhead.

To the right of *Cygnus* you may find the constellation of *Lyra*, the Harp. In this constellation is the brightest star that can be seen from the U. S. during the warm months of the year. This is Vega, and it shines as a constant beacon-light all summer.

To the right of *Lyra* are a number of stars of medium brightness. Six of these stars can be imagined in the form of a butterfly. This is *Hercules*, the Kneeler. Some observers see, instead of a butterfly, the letter "H" standing for the heroes initial.

Above *Hercules* is *Draco*, the Dragon. This is a group of very faint stars that wind their way in and out between the Big and Little Bears with the Dragons' head visible as a small irregular diamond looking at *Hercules*.

To the right of *Hercules* is the constellation *Corona Borealis*, the Crown. Although the stars in this constellation form a much smaller group it is often easier to recognize than many of the larger ones. The brightest star in the middle of the

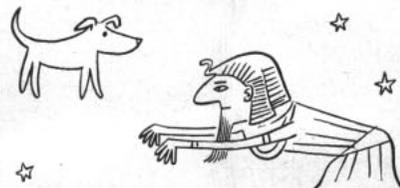


crown is called Gemma. It has often been said that this star represents the gem of the crown. However, the crown is actually supposed to be a wreath of flowers worn by the Greek heroine, Ariadne. "Gemma" means

bud or blossom and this was supposed to be the principal ornament of the wreath. Ariadne, daughter of King Minos of Crete, had an unfortunate romance with Theseus who deserted her. Because she was so much admired, her crown was placed in the sky to commemorate her.

To the right of *Corona Borealis* is *Bootes*, the Herdsman or Bear Driver. *Bootes* can be found by following the curve of the handle of the Big Dipper to the bright orange-tinted star *Arcturus*. The stars in *Bootes* form a kite-shaped figure extending close to the dipper's handle. *Arcturus* is a giant star, about 30 times the sun's diameter and 33 light-years away.

Below *Bootes* is *Virgo*, the Virgin, beginning as a Y-shaped line of stars extending toward the tail of *Leo*, the Lion. *Virgo* looks like a boot that is bent a little backwards at the ankle with the toe pointing toward *Leo* and the bright star *Spica* forming the heel. It is always easy to find



*Spica* and *Arcturus* (*Bootes*) because these two bright stars lie on a curved line extending from the handle of the Big Dipper. *Arcturus* is about a dipper-length beyond the handle of the Dipper, and *Spica* is about a dipper-length beyond *Arcturus*.

Below *Virgo* and to the right you can locate the constellations *Corvus* the Crow, *Crater* the Cup and *Hydra* the Sea-Serpent. *Hydra* sprawls below *Leo* and *Virgo*. *Corvus*, a lopsided square, is close to *Spica* in *Virgo*. *Crater* is to the right of *Corvus*.

*Canis Major* and *Canis Minor* are two constellations you may locate southeast of *Orion*, the Hunter. Each of these constellations has a major star. In *Canis Major*, the Big Dog, is *Sirius*—brightest of all stars. *Sirius*, also called the Dog Star, was worshipped by the Egyptians and some of their temples were built in its honor. When the bright star was seen in the east before sunrise, they knew that the River Nile would soon begin its yearly floods so they came

(Continued on page 34)

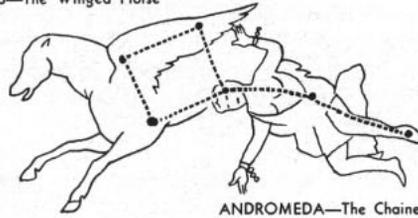
THE PLEIADES—Seven Sisters

PEGASUS—The Winged Horse

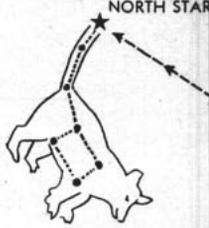
NORTH STAR

CASSIOPEIA  
The Lady in the Chair

PERSEUS—The Hero



ANDROMEDA—The Chained Lady



URSA MINOR  
The Little Dipper  
The Little Bear

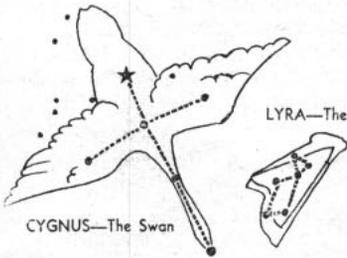


CEPHEUS—The King

THE NORTHERN SKY  
extended to 40° south  
of the equator

# STARS AND CONSTELLATIONS

Today, as down through the ages, the night skies are filled with stars. Here is a map to the major constellations and their mythological characters.



CYGNUS—The Swan

LYRA—The Harp

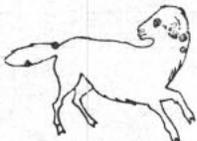


DELPHINUS—The Dolphin



SAGITTA—The Arrow

AQUILA—The Eagle



ARIES—The Ram



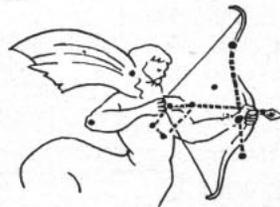
PISCES—The Fishes



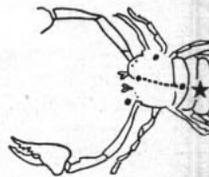
AQUARIUS—The Water Carrier



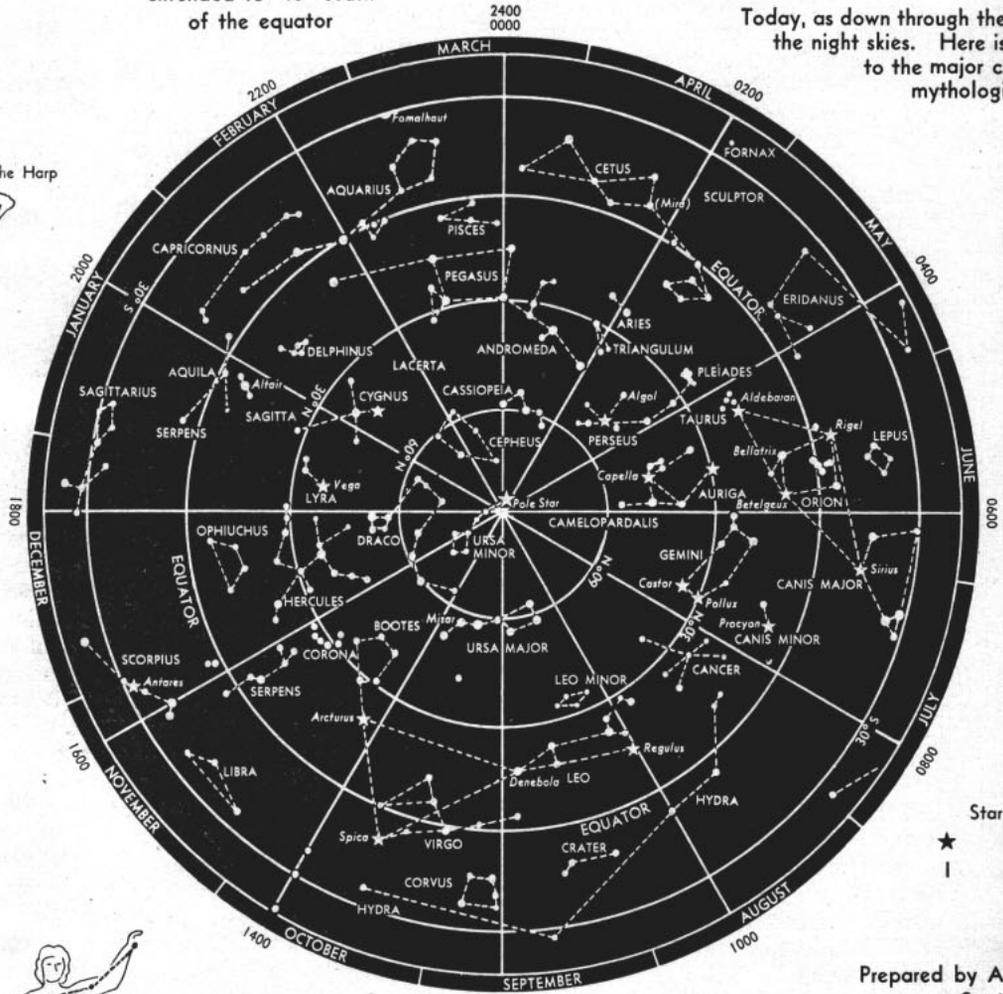
CAPRICORNUS—The Sea Goat



SAGITTARIUS—The Archer



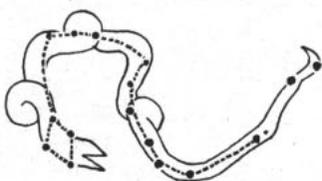
SCORPIUS



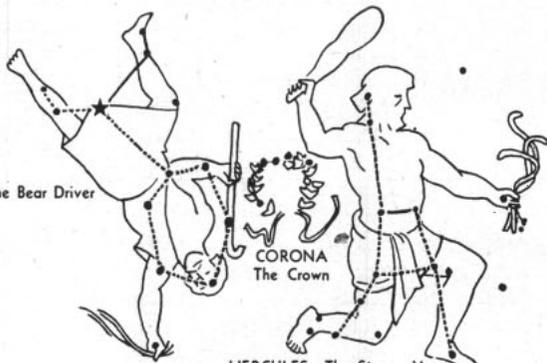
Prepared by ALL  
Septem



URSA MAJOR  
The Big Dipper  
The Great Bear



DRACO—The Dragon



BOOTES—The Bear Driver

CORONA  
The Crown

HERCULES—The Strong Man

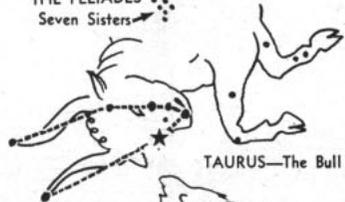
# ATIONS FOR THE SAILOR

es, men of the sea need to know  
andy guide to the heavens,  
relations and their  
counterparts.

THE SOUTHERN SKY  
extended to 40° north  
of the equator



THE PLEIADES  
Seven Sisters



TAURUS—The Bull



ORION—The Hunter

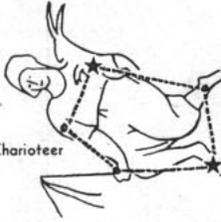
LEPUS—The Hare



CANIS MAJOR  
The Great Dog



AURIGA—The Charioteer

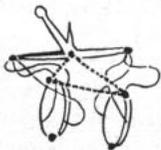


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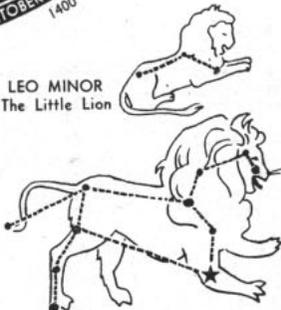
The Scorpion



LIBRA—The Scales



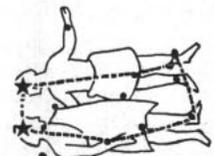
VIRGO—The Virgin



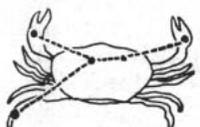
LEO MINOR  
The Little Lion



LEO—The Lion



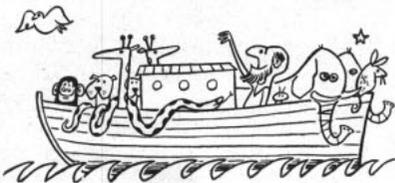
GEMINI—The Twins



CANCER—The Crab

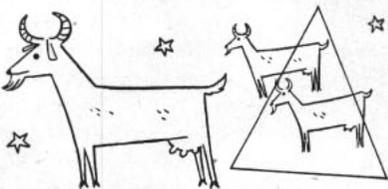
to regard it as a sort of watch dog. They also noticed that during the hottest months of the year Sirius was in the same part of the sky as the sun. It was then supposed to be adding its heat to the Sun's which caused the unusual heat of summer. These days thus came to be known as the Dog Days. The belt of Orion points to Sirius. The rest of Canis Major includes double and triple stars and several star clusters. Canis Minor, the Little Dog, is smaller and has only one easily visible star besides Procyon, its bright star.

*Lepus*, the Hare and *Columba*, the Dove, are two smaller constellations near Orion. *Lepus* is south of Orion



and due west of Canis Major. The main part of the constellation is a four-sided figure. *Columba*, the Dove, commemorates the dove which flew out from Noah's Ark. It is an even smaller constellation south of *Lepus* and in most parts of the U. S. is seen close to the southern horizon.

*Auriga*, the Charioteer is the last of the autumn constellations to come above the horizon, heralding the

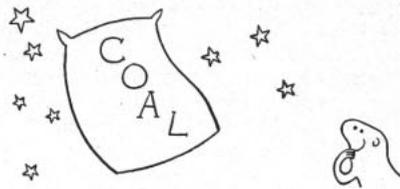


coming of winter. *Auriga* lies to the east of *Perseus*. A line drawn from the top stars of the Big Dipper's bowl points close to *Capella*, a bright star in the constellation. *Capella* is sometimes known as the Goat—a nearby triangle of stars are the "kids."

Other minor constellations of autumn include *Triangulum*, the Triangle, a small group of stars just south of *Andromeda* between *Pegasus* and *Perseus*. About seven or eight degrees southwest of the Triangle is *Aries*, the Ram. Nearby is *Pisces*, the Fishes, south and slightly to the west of the Square of *Pegasus*.

The farther south you travel the more stars you can see south of the

celestial equator. At 40 degrees North Latitude about half the southern stars are visible. In southern Florida and Texas you can see the *Southern Cross*. The southern



constellations as shown on the chart are in a circle about 40 degrees from the South Pole. The most famous of these constellations is the Southern Cross, six degrees long and pointing toward the South Pole. A line drawn through the long axis of the Southern Cross points to the South Pole. There is no guiding star above the South Pole like *Polaris* in the North.

Between the Southern Cross and *Centauri* is a starless patch so dark in comparison with the rest of the sky that it is known as the "Coal Sack." This starless space is believed to be due to some dark matter between us and the bright part of the Milky Way in which it lies.

In the sky there are 88 constellations but we will not attempt to describe each one of them for you. Instead, we have covered the most common and most easily recognized constellations so that you may become familiar with them. By studying the accompanying charts you should be able to locate the popular constellations without any trouble. In your study of the stars you will run across many interesting stellar attractions—among them the Milky Way and the Planets.

#### Milky Way and the Planets

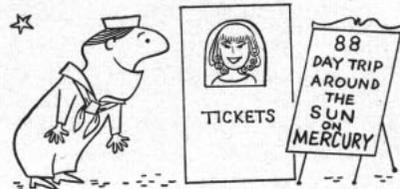
The Milky Way, which appears at its brightest in *Sagittarius*, is caused by the combined light of an unknown number of very distant stars.



It appears to encircle the entire sky and is known as the Galaxy—the group of stars in which we live. Our Sun is only one of the millions of stars in our Galaxy. The Galaxy

is shaped like a great grindstone and we view it from the inside looking out. When we look toward the Milky Way we are looking in the direction where the stars are the thickest but when we look at the skies away from the Milky Way we are looking through the thin part of the Galaxy. Just as there are millions of stars in our Galaxy, so are there millions of galaxies outside of ours, and each of them is made up of millions of stars like our Sun.

Revolving around the Sun are nine planets which are not shown on the accompanying charts. As the planets move around the Sun they are in different parts of the sky at different times. Because of this movement they appear to be "in" one constellation at one time of the year and then again a few months or a few years later are seen in another constellation. The stars in the constellations are "fixed" and can easily be plotted on a chart but the Earth and the other eight planets are "always on the go" and can only be



plotted on a changing scale. However, the following information will help you to locate them as they move along:

- *Mercury* is the planet closest to the Sun. It is so close that it takes only 88 days for it travel around the Sun—this is the length of its year. *Mercury* is very hot and has no atmosphere.

Because it is so close to the Sun, it always sets very soon after the Sun sets, or rises just before the Sun rises. Since it almost always appears during the twilight period there are comparatively few evenings in the year when *Mercury* can be seen as an evening star after sunset.

- *Venus* is about twice as far from the Sun as *Mercury*. Its year is 225 days. It is entirely covered with clouds so that the surface of the planet can never be seen. *Venus* receives more than twice as much heat from the Sun as the Earth. This summer and until October *Venus* will appear to be in the constellation *Leo*. From October until next Janu-

ary it will appear in Libra and then from January to April of next year you may see it in Scorpius.

• **Mars**—After Earth, Mars is the next planet away from the Sun. Its diameter is only slightly more than half that of the Earth. It travels around the Sun in 687 days—its year. It is about half again as far from the Sun as the Earth.

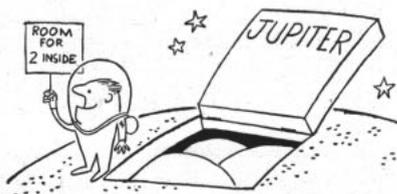
Mars has days and nights of almost the same length as the Earth's. It spins on its axis once every 24



hours and 40 minutes. It has seasons like the Earth and also has white caps at its north and south poles.

Mars is often called the red planet because of its ruddy color. It has an atmosphere but one that is far different from ours. There are definite markings on this little planet which have been carefully studied. Changes take place in the appearance of its surface from one season to another. However, there is nothing to show that life like that on Earth could possibly exist on Mars. Mars will appear to be in the constellation Scorpius until October. From October to January it will appear in Sagittarius and from January to April of next year it can be seen in Aquarius.

• **Jupiter** is the largest of all the planets. It is so big that all the other planets could be placed inside it—



with room to spare. It is about five times as far from the Sun as the Earth. It takes about 12 of our years to make one year on Jupiter.

• **Saturn** is about 10 times as far from the Sun as the Earth. It is the outermost of the planets that can be seen with the naked eye. It is almost as large as Jupiter, and is surrounded by a set of rings which are like nothing else in the known universe. These rings are made up of vast

## Here's The 'Celestial Sphere'

To designate places on the Earth, the terms latitude, longitude and poles are used. A similar set of terms is used to refer to places on the celestial sphere. To help you understand better the accompanying chart here are a few brief definitions:

**Celestial Poles** are the points at which the Earth's axis, extended to the sky, intersects the celestial sphere. This is the very center of the star map.

**Celestial Equator** is the great circle of the celestial sphere that is always 90 degrees from the poles. It is the Earth's equator projected on the celestial sphere and is labeled on the chart.

The **Hour Circle** of a star is a great circle of the celestial sphere that passes through the celestial poles and that star. The hour circle moves with the star as it makes its daily trip around the Earth.

The **Declination** of a celestial body is the angular distance from the celestial equator along the hour circle to the star. It is measured in degrees, minutes and seconds, up to 90 degrees, and is said to be "north" or "south" depending whether the star is north or south of the celestial equator. **Declination** is similar to **latitude** on Earth.

The **Right Ascension** of a celestial body is the arc of the celestial equator, or the angle at the celestial pole, between the hour circle of the vernal equinox and the hour circle of the star. **Right Ascension** is measured counter-clockwise from the hour circle of the vernal equinox through 360 degrees. The **Right Ascension** of a star is comparable to **Longitude** on Earth.

When we say that Washington, D. C. is located at Latitude 38 degrees, 55 minutes North, Longitude 77 degrees, 0 minutes West, we give its fixed position. However, a plane flying in the air is continually changing its location and cannot be given a fixed position.

Similarly, in the celestial sphere, a star is in a fixed position, whereas the sun travels around the celestial sphere once in the course of 12 months.

The 12 months you see listed around the chart show the **Right Ascension** of the Sun at the corresponding time of the year.

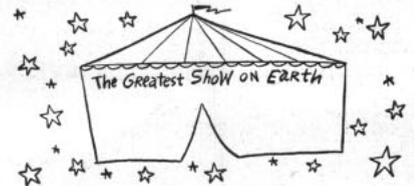
clouds of tiny satellites which travel in a regular course around Saturn.

• The three outermost members of the Sun's family can only be seen with a telescope. **Uranus** is 20 times as far from the Sun as the Earth. **Neptune** is about 30 times as far. **Uranus** goes around the Sun once in about 84 years. **Neptune's** year is 164 of our years. **Pluto**, the farthest member of our Solar System, is 40 times as far from the Sun as the

Earth. It takes 248 years for Pluto to travel once around the Sun.

With this information you can not help but feel and appreciate the vastness of the universe in which we live. And with a realization of the spectacular exhibition that is available to you every clear night of the year you will probably take a longer look and have a better understanding the next time you glance up at the sky. You have before you one of the best shows available—it has been going on for centuries and will probably go on for many many more—and it's free.

A bright, full moon will interfere with seeing the faint stars, so plan your star-gazing accordingly. If you begin observing at sunset, the brighter planets will soon be visible and Mercury may occasionally be seen then. As a beginner you will find the hour after sunset a good time to learn the major constellations and brightest stars. Since many fainter stars will still be hidden by the twi-



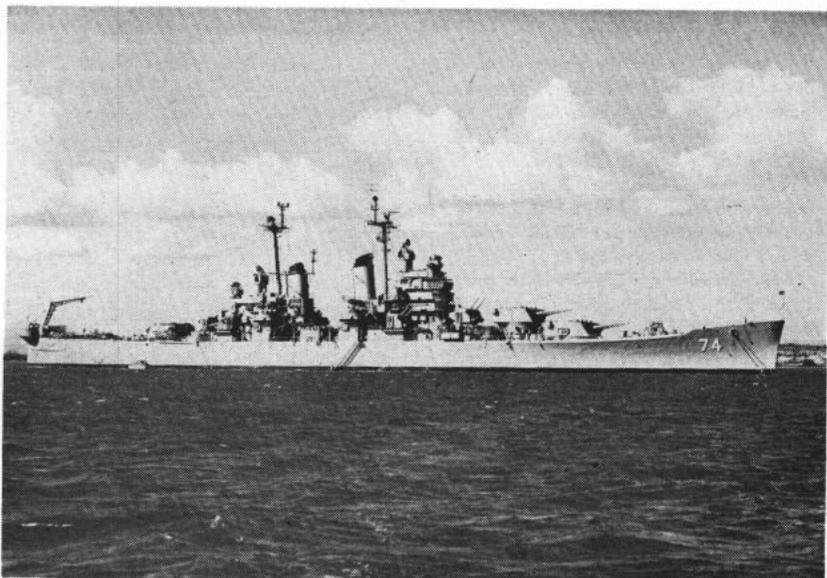
light, you can concentrate on the brighter stars with less chance of being confused. Because of the earth's rotation, new stars and constellations come into view in the eastern sky as the evening progresses. Thus, very late at night you may see stars which were not visible in the evening sky.

To appreciate star-gazing fully you should make yourself comfortable. A stiff neck will detract from the stellar beauty of the sky, so find a comfortable position before you start.

You need no equipment to see and study the thousands of stars—nothing more than your two eyes. However, later you may find your enjoyment enhanced by the use of field glasses (6 to 8 power). With these you can see the moons of the planet Jupiter, many fainter stars and nebulae and details of the moon. Larger field glasses (12, 15 or 18 power) will reveal finer lunar details and hundreds of interesting stellar objects. But a clear night and good eyes will enable you to see one of the greatest shows on—or off—Earth.

—Ted Sammon

# ★ ★ ★ ★ TODAY'S NAVY ★ ★ ★ ★



USS COLUMBUS (CA 74) rides at anchor at Guantánamo Bay, Cuba. The cruiser, one of several ships, participated in 'Operation Springboard, 1954.'

## 'Total War' Maneuvers

Total war broke out on the West Coast late in July as PacFlt's Cruiser-Destroyer Force swung into one of the largest training exercises conducted since World War II. More than 50 Navy warships, including cruisers, aircraft carriers, destroyers, escort, mine and amphibious warfare vessels, submarines and supporting auxiliaries participated in the operation.

Concept of the exercise, which covered the coast from San Diego to Puget Sound, assumed total war between the U. S. and a major enemy power whose submarines were operating in the shipping lanes off California.

Task Force 12, under over-all tactical command of RADM Maurice E. Curtis, USN, was formed for the exercise and conducted a "vital" Navy convoy from southern California ports to Seattle, Wash., and back to California. En route, the convoy was opposed by mine layers, aircraft, submarines and surface raiders consisting of cruisers and destroyers.

Primary purpose of the exercise was to train different types of ships

to operate together in anti-submarine and mine warfare operations, while also giving surface ships training in the various phases of convoy operation.

Mid-way in the three-week exercise a number of the ships took part in Seattle's annual "Seafair."

## From Commander to Admiral

Promotion to the honorary rank of rear admiral has been approved by Congress for CDR Donald B. MacMillan, USNR (Ret.), in recognition of his "lifelong and invaluable services on behalf of the United States and the United States Navy through outstanding contributions to the sciences of hydrography, meteorology, and geography in the polar areas."

The promotion was announced on the eve of the 80-year-old explorer's departure from Boothbay Harbor, Me., with his 30th polar expedition. RADM MacMillan joined the Navy as an ensign in the aviation service in 1918. In 1941, the now-famed explorer was recalled to active duty and assigned to the Hydrographic Service, later serving with the Research and Development Branch, and as a War Department geographer. He was appointed to the rank of commander in 1942.

MacMillan's first polar expedition was kept from being his last by RADM Robert E. Peary, who warmed the young scientist's wet feet against his own body to keep them from freezing.

The explorer, college professor and Navyman has received a number of awards for his work in the Far North, including a special Congressional medal recognizing his services on the Peary Expedition in 1908-09. Other honors include the National Geographic Society's Hubbard Gold Medal, the Explorer's Club Medal, the Elisha Kane medal "for daring exploration and scientific research," and election to the Florence Nightingale Institute of Honorables for successful endeavors to improve physical and mental conditions of the Eskimos.

## Fallon Takes 'Quake In Stride

"The world's biggest little air station"—NAAS Fallon, Nev.—recently got "shook," but only because it happened to be in the epicenter of an earthquake.

Immediately after the initial shock, cool-headed air station personnel turned to with such a will that the

## YESTERDAY'S NAVY



In September 1923 U. S. Navy ships on duty in the Far East rendered prompt assistance to Japan when an earthquake demolished Yokohama and Tokyo. In September 1944, U. S. Forces in Central and Southwest Pacific invaded the Palau Islands, Ulithi and Morotai, final stepping stones to Leyte. At the same time powerful task forces of the Third Fleet struck at the Philippines with air-sea strikes at Japanese air, shipping and ground installations. Official end to World War II came on 2 Sep 1945.

field was open again within five hours.

When the first shocks were felt at 0415 in the morning, men ran from the barracks believing they were under attack from an unknown enemy, or that a naval ammunition dump 75 miles away had blown up. They soon learned the truth from spurting water mains and disrupted lighting and communication facilities.

By daybreak a systematic inspection of the station was underway, conducted by the commanding officer. Damage was much less than expected. Runways showed no breaks or cracks, building damage consisted mostly of broken windows, and civilian electricians who worked on the station were already restoring broken power lines.

The only major problem was extensive damage to the water supply system, including a shattered storage tank and an inoperative filter system. Water rationing was put into effect until the station's civilian workers and sailors could repair the water system, a matter of only 24 hours.

After the initial inspection revealed relatively slight station damage, emergency parties were dispatched to aid small, isolated communities around Fallon.

### 'Mushrooms' for O-and-R Plant

A new jet overhaul plant which utilizes the latest in construction methods has been built and is now in operation at NAS Alameda.

Covering four acres, the new building rests four feet above the ground on hundreds of mushroom-shaped pilings. As a result of this innovation, all utilities and connecting electrical, water and fuel lines may be reached and serviced by plant repairmen in a matter of minutes.

Every feature of the giant structure was planned, designed and engineered by NAS Alameda personnel. It is believed to be the only O-and-R building of its kind. All bulkheads on one side are removable, allowing for expansion of the facility if and when jet engine overhaul demands for that area are increased.

The structure took nearly two years to build at a cost of approximately five million dollars. However, it is large enough and so well equipped that jet planes from all

## New Tropical Uniform Is Approved for Officers, CPOs

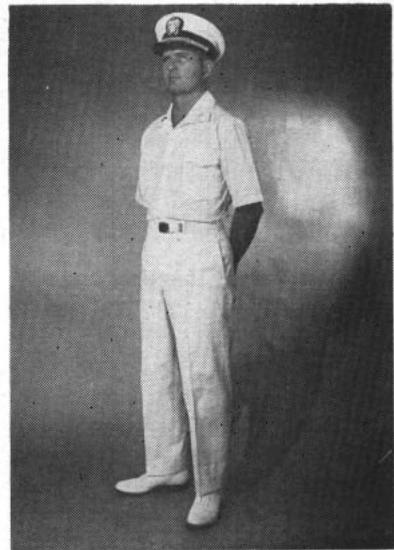
Relief may be on the way for officers and CPOs who are serving in hot duty stations and have no appropriate summer dress uniforms.

A forthcoming change to Uniform Regulations will authorize commands to prescribe long trousers in lieu of shorts as part of the present Tropical Uniform, either khaki or white.

Thus the new alternate tropical uniform will be open-neck, short-sleeve shirt with collar insignia, long trousers, shoes, socks and cap cover match, in either white or khaki.

The new uniform is considered to be cool and practical; and in white should be good looking enough for summer service dress occasions as well as duty, if considered suitable and appropriate by the prescribing command.

Uniform Regulations currently provide tropical white or khaki (shorts); khaki working uniform, service dress khaki (with or without coat), white service, full dress white for ceremonies, and dinner and evening dress white (or white jacket optional) for social occasions.



**TROPICAL DRESS** — Officers and chiefs serving in hot climes may wear cool, practical new uniform.

The new alternate tropical (with long trousers) is expected to fill the need for a uniform that is more dress than shorts, but cooler and more practical than service khaki or white service.

over the West Coast, Pacific overseas bases, carriers in the Pacific and nearly every Naval activity west of the Mississippi can be handled without undue strain.

### Chief Invents Towing Device

An ordnance problem that has puzzled Navy airmen for the last three years has been solved by Edwin R. Farady, AOC, usn, attached to Fighter Squadron 174 at NAS Cecil Field, Fla. He worked out a successful method of towing and releasing banner targets from F9F *Cougar* jets. Not-too-successful experiments with various towing methods have been made since 1951.

The ingenious, yet simple, towing and releasing device designed by Chief Farady is a stripped-down, obsolescent bomb rack, mounted beneath the *Cougar's* fuselage through the catapult hold-back hook. An electrical lead, plugged into the after section light receptacle, is connected to the suspension hook that releases the tow target. The target is released electrically by controls in the cockpit.

The release device has been test-

ed and used extensively this year, and up to the present time, has never failed to release properly.

### 'SecondsCart'

The old slogan "Take all you want, but eat all you take" has become no problem at all for Navy-men at the Subic Bay, P. I., Naval Station mess.

The unique solution is a "seconds-cart," loaded with the day's menu items (at the proper temperature too!) which travels throughout the mess hall.

The cart has the following advantages:

- It reduces waste of food to a bare minimum, since the availability of easy second servings is an inducement to personnel to reduce the quantity taken on the first serving.
- The mess lines are not obstructed by men going back to the steam tables for seconds.
- The spilling of food from overloaded trays is greatly reduced.
- Volume and weight of wasted food is reduced as much as 50 per cent.

**New Jet Attack Bomber**

A tiny jet attack bomber, designed to out-perform many current jets more than twice its size, has been announced by the Navy. Named the A4D *Skyhawk*, the plane is so small it has been built without the folding wings traditional in Navy carrier planes, yet it will take up less than half as much space as most present flattop jets.

The single-place, low-wing monoplane with a designed weight under 15,000 pounds, has a wingspan of about 30 feet and is only 40 feet long.

It is powered by a J-65 "Sapphire" engine and is designed for speeds of approximately 600 miles an hour.

With a combat radius greater than current propeller-driven attack planes, the A4D is capable of carrying small atomic bombs or rockets, machine guns, missiles and other weapons to fit the wide variety of attack plane missions.

The *Skyhawk* was designed and built in only 18 months—an accomplishment believed to be without precedent.

The simplified design of the plane itself, plus new techniques in engineering, tooling and manufacture, will make test quantities of the craft available to the fleet about June 1955.



MIDGET JET—A4D *Skyhawk*, carrier-based attack bomber, is one of the smallest combat planes ever built.

**New Version of Cutlass**

A new version of the F7U *Cutlass*—the swept-wing F7U-3—will soon be reaching Navy squadrons in the Fleet.

Powered by two afterburner-equipped engines of nearly 6000 pounds thrust each, *Cutlass* is an all-purpose fighter capable of serving with equal effectiveness as a day fighter or attack plane. It is equipped with folding wings and arresting gear for carrier operations.

Top straight-and-level speed of the *Cutlass* is in excess of 650 miles an hour and its rate of climb is more than 13,000 feet per minute. Combat ceiling is more than 45,000 feet. The airplane has flown faster than the speed of sound during development tests and pilots reported very good handling characteristics through the sonic range. Carrier tests were originally made aboard USS *Coral Sea* (CVA 43).

One factor which fits *Cutlass* for carrier operations is its remarkable low-speed handling characteristics. The airplane is unusually stable right down to the stalling point.

Versatility of the *Cutlass* is reflected in other ways too. The airplane has a load-carrying capacity that makes it usable on attacks as well as fighter missions. The Navy has ordered an attack version of the F7U-3, designated the A2U-1. The A2U-1 has basically the same airframe as its fighter twin but incorporates changes for added range, increased armor protection from ground fire and provisions for carrying a more varied bomb load.

**Calmness Pays Off in a Plane**

A mid-air collision between two F9F-4 *Panther* jets resulted in negligible loss at the Marine Corps Air Station, Cherry Point, N. C., because a young flight student remained calm.

Six *Panthers* of Marine Fighter Training Squadron Twenty, on a routine practice bombing run, were regrouping in hazy weather when Second Lieutenant Kenneth S. Carlson, USMC, "felt a thud" as he assumed his original position in the flight. The next moment Carlson was told that he had lost his left horizontal stabilizer.

A quick aerial check showed that the other plane responded well to controls and was only lightly damaged, with a lost radio antenna and scraped paint on the nose. There was a grave doubt, though, as to whether the lieutenant's plane would respond to controls.

After hurried radio consultation with the aircraft manufacturing company's agent, it was decided to try downing the landing gear and flaps and slowing the damaged craft to landing speed while at 20,000 feet altitude. Although the plane would still be going about 60 miles faster than normal landing speed, it could be landed—if the lieutenant could control it.

As the plane slowed, instruments showed that both landing gear and flaps were in an unsafe condition, and the craft became increasingly nose heavy. Despite the difficulties, however, it was decided to attempt the landing rather than ditch the \$450,000 aircraft.

Nearing the landing strip the plane became even more nose-heavy, while Carlson exerted all his pressure on the stick in an attempt to hold the nose up. Touching the runway the *Panther* skipped, hit again, and then started "porpoising" or bouncing on and off the strip. Shortly, the nosewheel collapsed and the craft skidded in for a crash landing.

Carlson, calm throughout the 30-minute ordeal, had already turned off the battery and fuel master switches, unbuckled and unstrapped himself, and pulled the pre-ejection lever to rid the F9F-4 of its canopy. As the plane screeched to a halt, the lieutenant jumped out and moved away fast, but because of his precautions there was no fire.

**Marines Get Official Seal**

For the first time in its 178-year history the Marine Corps now has a standard official seal.

The new seal consists of the traditional U. S. Marine Corps emblem displayed on a scarlet background and encircled with a navy blue band edged in a gold rope rim and inscribed "Department of the Navy, United States Marine Corps," in gold letters.

Marine Corps Seal



President Eisenhower signed the executive order establishing the official seal. The design was proposed by General Lemuel C. Shepherd, Jr., Commandant of the Marine Corps, with the approval of the Secretary of the Navy.

## Shooting For Records

Navy rifle and pistol qualification records will be up for possible revision when all reports are received for the qualification year which has just ended.

Here are records that Navy gunners were shooting for in this year's qualifications:

The Navy record score for expert course "B" with the M-1 rifle is 319, fired by Delbert C. David, CSCA, USNR, Surface Division 8-43, of Norman, Okla., on 2 Feb 1952. High for the fiscal 1953 training year was 314, fired by R. D. Weigle, GMI, USN, Bremerton Group, Pacific Reserve Fleet.

For the carbine course "C" the Navy record is 196, posted 1 May 1945 by F. R. "Bob" Chow, TDIC, USNR. Fiscal 1953 honors were shared at 193 between Ensign Peter A. Stark, Jr., USN, of the U. S. Naval Academy, and Captain L. M. Mustin, USN, of the Defense Department.

Captain Mustin is the Navy Member of the National Board for the Promotion of Rifle Practice.

The .45 caliber pistol course "E" record is a tremendous 395, recorded on 1 Dec 1950 by L. W. "Woody" Yocum, GMC, USN, while serving in USS *Agerholm* (DD 826). High for 1953 was a 388 score by John A. Young, GMC, USN, of ComPhibTra-Pac.

The .38 caliber pistol course "F" record is 347, fired on 26 Apr 1951



**CRACK SHOT**—Wave marksman Wilma Ellenburger, SA, USN, member of the 'Jax' Navy-Marine rifle team, gets pointers from TSgt Henry Leveque, USMC.

by Commander M. H. Shoemaker, USN, of BuOrd.

The elite of the shooting world, of course, are the Distinguished Marksman and Distinguished Pistol Shots. Since the first Navy Distinguished awards were made in 1925, there have been issued only 31 Navy Distinguished Marksman and 35 Navy Distinguished Pistol Shot medals.

In fiscal 1953, Jack R. Kanavel, CWOHC, USN, of Camp Lejeune, N. C., joined the Distinguished

Marksman list, while in the same year, Roy Chancey, QMSC, USNR, Thomas D. Elton, AD1, USN, and F. R. Chow, TDIC, USNR, were added to the Distinguished Pistol Shot group. So far in 1954, only Fred E. McFarland, AD1, USN, has become a Distinguished Pistol Shot.

Only six Navymen currently hold both the Distinguished Marksman and Distinguished Pistol Shot awards. Captain T. O. Dahl, USN, is the only one of these now on active duty. The others, all of whom are retired, are E. P. Amy, BMC, USN, Lieutenant (Junior grade) John E. Berns, USN, Lieutenant Commander Frank M. Criswell, USN, Eli S. Peterson, GMC, USN, and Lieutenant Harry G. Stipp, USN.

## Sailors Compose Operetta

Shipboard composers on board USS *Randolph* (CVA 15) hope soon to stage the premiere of an operetta written by them during the carrier's recent cruise in the Mediterranean.

William Harty, MU3, USN, and James L. Smith, SN, USN, have collaborated in writing a three-act operetta, "The Kingdom of Hankah," which has to do with mythical kingdoms and princesses.

The collaboration of Harty and Smith started with simple outlines of plot, lyrics and melodies, but has now developed into a hard-working song-writing routine with Harty, a member of the ship's band, doing his own arranging for orchestra.



**READY ON THE RIGHT**—Men of USS *Yorktown* (CVA 10) take time out to improve their small-arms skill under the instruction of Marine Corps officer.



**TUG OF WAR**—Sailors from HMAS *Arunta* 'dig in' during meet with Navy-men of USS *Mt. McKinley* (AGC 7).

### U.S.-Aussie Sports Meet

Relations between the U. S. and Australian navies received a personal touch when the crew of the amphibious command ship USS *Mt. McKinley* (AGC 7) played host to personnel of the Australian Naval Base at Kure, Japan, and to the crews of the destroyer HMAS *Arunta* and frigate HMAS *Murchison*.

Plans for the day included a track and field meet and a picnic lunch at Anzac Park in Kure, Japan. Music for the festivities was provided by the orchestra from *Mt. McKinley's* crew.

In the sports events, *Arunta* athletes placed first in the 100 and 200 meter sprints and also the tug-of-war and line heaving contests. The *Mt. McKinley* crewmen defeated the Australian softball team by a score of 15-1 and copped first place in the 50-yard dash, the 440-yard and 880-yard relays.

Surprisingly enough, the *Mt. McKinley* athletes held their own against the Australian All-Stars in the cricket match, although the U. S. Navymen finally lost out 52-25. The team from the frigate *Murchison* won first place in the difficult 50-meter three-legged race.

The highlight of the meet was the senior officers' 50-meter sprint—with handicaps. Lieutenant Commander F. B. Glynn, RAN, of the shore station won first followed closely by Commander Dovers, RAN, of the *Arunta* and Captain Scarritt Adams, USN, of *Mt. McKinley*.

### Spare Time Golfer

The big surprise of this year's British Amateur Golf Tournament was a sailor from NTC Bainbridge who advanced to the sixth round before being eliminated by the eventual champion.

Dick Davies, SN, USN, was a complete unknown when the tournament opened but after the fifth round his name was on every tongue. At that point he was one of five surviving Americans in the field.

In the sixth round he was matched with Doug Bachli, a former Australian champion. In a hard fought match Bachli ended Davies' quest for the crown with a 3 and 2 victory. Bachli went on to defeat Bill Campbell, another American, for the championship.

Davies, who calls himself a "spare time golfer," made the trip to Scotland on annual leave at his own expense. He had been planning the trip for a year.

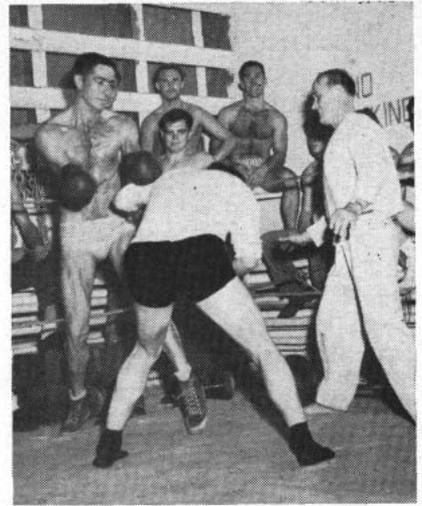
During his two years at Bainbridge Davies has sparked the NTC golf team to two undefeated seasons and has also been a varsity player on the "Commodore" basketball team.

### One-Man Band

Ever hear of a "one-man band" consisting of trumpet, alto saxophone, trombone, piano, string bass and drums? You could add clarinet, flute, oboe, bassoon, French horn and violin too—the Navy School of Music's Martin L. Orres, MU2, USN, would still be the man to play them for you.

Orres, a rehearsal conductor in the school's Dance Band Division plays all of the above instruments, and has just completed a pair of one-man recordings at the Naval School using the first six instruments and a tape recorder. He recorded separate readings of "Tin Roof Blues" and "C Jam Blues" on each of the instruments, then blended them into complete "combo" recordings of his stylized jazz.

One of the Navy's all-around music makers, Orres considers the saxophone his major instrument, but he can walk into a rehearsal room, pick up almost any musical instrument, and sit in with a concert band, dance band or combo. His proficiency in jazz and swing interpretation is considered outstanding by his fellow musicians.



**GIVE AND TAKE**—Two crew members of USS *Merrick* (AKA 97) help initiate new gym the hard way.

Now in his sixth year as a Navy musician, Orres completed the basic course of study at the U. S. Naval School of Music in 1949, and was assigned to the Navy unit band at Guantanamo Bay, Cuba, for two years.

As a rehearsal conductor of Navy dance bands, he leads music ensembles through the paces of standard and "special" arrangements of all types of popular music. In addition to a multitude of projects in the Navy music programs, Orres has also found time to write some original "show" arrangements.

### Water-Racing Sailor

Dennis E. Polk, AMC, USN, had barely put the finishing touches on his speed boat before he entered and won top honors in a summer regatta at Kodiak, Alaska. Polk, who is stationed at the Kodiak Naval Station, had finished building his runabout at the station hobby shop only two days before the race.

The first race that Polk entered was for a distance of four miles for boats in the 10 horsepower class. He out-distanced his nearest competitor by a full mile.

The second race in which Polk took top honors was for boats with engines of 25 horsepower or less. Despite his smaller engine Polk won the six-mile event by a quarter of a mile.

The high flying sailor's interest in boat racing began in 1940 but was short-circuited by World War II. In 1948, however, he drove a hydro-

plane in the National Championships at Celina, Tenn., and finished third. This was one of the 33 races he entered that year and one of the 31 in which he finished among the top three.

Last year, Polk took third place in the Region 10 Championships at Devil's Lake, Ore. Out of 15 races entered in '53, he finished first, second or third 13 times.

Chief Polk's hobby in racing boats goes further than just driving them. Out of the boats he has raced to date, he has built all but one himself.

### Mountain Climbers

Ever wake up in the morning and think about taking a walk before breakfast to watch the sunrise? Most people have at one time or another, but they always turn over and go back to sleep, forgetting their moment of foolishness.

It's different in the Marine Corps. At least in one platoon of Marines from the 3rd Marine Division Reconnaissance Company stationed in Japan.

Starting out on the overnight hike, the platoon climbed Mt. Fuji, reaching the summit of the mountain in time to watch the sun rise out of the Pacific Ocean.

It all started one day when 2nd Lt. Wesley H. Rice and members of his platoon eyed the extinct volcano and remembered an old Japanese proverb they had heard which goes "He who fails to climb Fuji in his lifetime is a fool; he who climbs it twice is a bigger fool."

That was enough to set them off. Late in the afternoon they were on their way.

At first the going wasn't too bad, but by the time they reached the 10,000-foot mark, several of the platoon cast eager eyes at the downward trail. By this time they had run into wind, snow and rain which cut the visibility to zero, and the rarefied air was causing the best conditioned of them to puff a little.

No one turned back and there was only one way to go. They pushed on up the steeper portion of the mountain, using their "Fuji sticks" to keep their balance and prevent a spill over the rough lava rocks.

Just as the first rays of the rising sun touched the peak of Fuji, the Leathernecks trudged triumphantly through the Torii-entrance to the Shinto Shrine at the mountain's top.

# SIDELINE STRATEGY

Inter-Service Sidelines — Navy athletes performed outstandingly at the second annual Inter-Service Track and Field Meet, many of them competing in two or three events with little rest in between. Despite the intense heat—101 in the shade—the Sea Service athletes were still able to finish among the top four in each event almost every time.

Navy's entry, which was made up largely of the NTC San Diego track team, lived up to the expectations of coach Stan Winters. But as in last year's meet, lack of depth proved Navy's stumbling block. The winning Army outfit had a large, well-conditioned team. Army's ability to place men in the second, third and fourth spots gave them a big edge over the other services.

Navy was also hampered by injuries. The Bluejacket squad lost the services of Moses Clay, SN, USN, of NTC San Diego, a member of the crack 440-yard relay team and also Ensign Meredith Gourdine, USNR, of USS *Coral Sea* (CVA 43), who had been counted on in the hurdles and broad jump. Both athletes had suffered injuries in the All-Navy meet a week before.

The civilian officials at the Inter-Service meet voted for the "Outstanding Athlete" award and their decision was announced at the banquet held after the meet. Although a very popular decision, it came as a mild, but pleasant, surprise that

the Navy's Fred Lucas won the award.

About the most surprised athlete at the banquet was the modest Lucas himself. When his name was called out and he went forward to receive the coveted award, the hundreds of other athletes gave him a standing ovation.

★ ★ ★

Norman Brinker, JO3, USN, of 14th ND, won the All-Navy triathlon event, the first time this event has been staged as an All-Navy sport. Brinker was a member of the Navy's 1952 Olympic equestrian team. The triathlon event involves swimming, shooting a .45 caliber pistol and a two-mile run.

Brinker, along with Ensign William Andre, USNR, of USS *Albany* (CA 123), has been selected to compete for a position on the U.S. pentathlon team. This year's Modern World Pentathlon will be held this October in Budapest, Hungary. The pentathlon includes the three events in the triathlon plus horseback riding and epee fencing.

★ ★ ★

Baseball Note: The "Gators" from ComPhibLant, who last year lost out to NAS Los Alamitos in the All-Navy baseball tourney, have again fielded a strong nine and look like the team to beat for Eastern and All-Navy baseball honors. The Parris Island "Boots" look to replace Quantico as All-Marine champions.

—Rudy C. Garcia, JO1, USN.



# THE BULLETIN BOARD

## You'll Get Bigger Reenlistment Bonuses Under New Program

**R**REENLISTMENT bonuses are better than ever under the recently enacted change to the Career Compensation Act of 1949.

Designed to encourage first reenlistments especially, the new bonus plan, enacted as Public Law 506, pays the biggest sum to men executing a first reenlistment, with payments growing consecutively smaller for second, third, and fourth or following reenlistments.

The new law also encourages higher-rated men to remain in the service, while giving non-rated men an incentive to study for advancement—the amount of reenlistment bonus is geared to the pay grade in which you are serving at the time of discharge.

Before we go into the new law let's look at a couple of definitions which you must understand:

**Reenlistment** — For the purpose of determining your right to a bonus under the new law, "reenlistment" means:

1. An enlistment in the Regular Navy after compulsory or voluntary active duty in either a Regular or Reserve component of the Navy, or
2. A voluntary extension of an enlistment for two or more years.

For the purpose of the new law only those reenlistments for which a *reenlistment bonus* was previously authorized will be counted. Take the case of a man who served one hitch and was entitled to the "*reenlistment allowance*" (\$50 for each year of the old hitch) instead of a bonus for his second hitch. He is now about to enter his third hitch, *but* he is in effect starting only his *first* reenlistment. However, if he had been authorized the *bonus* at the start of his second hitch instead of the *allowance*, he would now be facing a *second* reenlistment and would have to settle for less money.

**Active Federal Service** — "Active federal service" is defined as active service in the Army, Navy, Air Force, Marine Corps, Coast Guard, or any of their components. Only such time as is *actually* served dur-



"He's hit me with everything but the . . ."

ing a minority enlistment or an enlistment which is terminated prior to its normal expiration date may be counted as active service. The following *are not* counted as active service:

- Inactive service as a member of the Army, Navy, Air Force, Marine Corps, Coast Guard, or any component thereof.
- Time while on leave without pay.
- Time lost as defined in para. 044018 *Navy Comptroller Manual* and para. 84041 *BuSandA Manual*. Generally, this includes unauthorized absences which are not excused by competent authority, sickness due to misconduct (misconduct injury, intemperate use of alcohol, drugs, etc.), non-performance of duty due to civil arrest (unless acquitted or released without trial and without making restitution or reparation), or confinement (under general court-martial sentence or while confined awaiting trial which results in conviction and sentence by general court-martial, to confinement and to a total loss of pay and allowance, if such court-martial is not later wholly remitted or set aside).

**Eligibility** — With a few restrictions (listed elsewhere) the new reenlistment bonus law applies to the following:

- Any enlisted person who reenlists in the Regular Navy on or after 16 Jul 1954, if such reenlistment

occurs within 90 days after his date of last discharge or release from active duty in the same service.

• Any officer or warrant officer who reenlists in the Regular Navy on or after 16 Jul 1954 within 90 days after date of release from active duty as an officer or warrant officer, if he served in a Navy enlisted status immediately prior to serving as an officer or warrant officer.

Men who reenlist in the Regular Navy on or after 16 Jul 1954 and are entitled to a reenlistment bonus must decide whether to receive payment under the new bonus law or under the previous one (which provides the set sum of \$160 for a four-year reenlistment or \$360 for a six-year reenlistment). Also, men who have the option of the pre-1949 enlistment allowance retain their right to select the allowance instead of a bonus.

However, once a man decides to receive the reenlistment bonus under the new law, any further bonuses must be paid under the new law. Moreover, men whose initial enlistment occurred after 16 Jul 1954 will be eligible for reenlistment bonuses *only* under the new law.

**Provisions of the Law** — Here are the main points of the new bonus set-up. The amount of your reenlistment bonus will be computed by multiplying the *number of years for which you reenlist* by (1) an amount equal to *one month's basic pay* to which you were entitled on the date of your last discharge or release from active duty for your first reenlistment, or (2) an amount equal to *two-thirds, one-third, or one-sixth* of one month's basic pay to which you were entitled on the date of last discharge or release from active duty, for the second, third, or fourth (and following) reenlistments, respectively.

Basic pay is considered to be the base pay of your grade, plus the longevity you were actually drawing at the time of discharge for reenlistment purposes. (It should be noted

that when a man, completing a four-year hitch, reenlists for a second hitch, if he has had no prior service other than the enlistment just completed, he is drawing longevity for only two years. The second two-year period, even though completed, does not increase your basic pay until the service is actually confirmed and you have served at least one day over four years.)

With the above terms in mind, here are the restrictions which govern the amount of reenlistment bonus you are entitled to under the new law:

- A person in pay grade E-1 (seaman recruit) on date of last discharge or release from active duty is entitled to a bonus for a first reenlistment computed on the basis of only two-thirds of the monthly basic pay to which entitled on date of last discharge or release from active duty.

- Persons in pay grades E-1 and E-2 (SR and SA) on date of last discharge or release from active duty are not entitled to any bonus for a second, third, fourth or subsequent reenlistment.

- Men in pay grade E-3 (seaman) on date of last discharge or release from active duty are not entitled to any bonus for a third, fourth or subsequent reenlistment.

- Any man who reenlists after completing a total of 20 years of active federal service, is not entitled to a reenlistment bonus.

- The reenlistment bonus payable for a reenlistment which will extend your total active federal service beyond 20 years will be computed by using as the multiplier only that number of years or fraction thereof (months and days) which, when added to your previous active service, totals 20 years.

## WAY BACK WHEN

### Parachutes

The first recorded use of a parachute device occurs in Chinese legend, a tale of a young lover eluding an angry father by jumping from a high wall with a large coolie hat held in each hand, but it was not until 1495 that anything resembling the present-day 'chute was actually designed. It was sketched by Leonardo da Vinci and consisted of a pyramid of cloth.

An early account tells of an Italian who made a jump in 1617. His "silk" was a square wooden framework, covered with canvas and intended for use in escaping from burning buildings. However, little use or real interest developed until 1783, when the Montgolfier brothers' balloon made a quick means of escape necessary.

In 1808 a Polish balloonist named Kuparento became the first aerialist to leap to safety with a parachute. With the rising popularity of balloons in the late 1800s, 'chuting became an added means of entertainment.

The first successful jump from a plane was made by a man holding a loosely folded parachute in his arms. In 1912 a loaded 'chute came into being, packed in a cone-shaped cylinder which hung under the plane's fuselage. Its "harness" was a trapeze bar.

Parachutes were not mandatory during the First World War, but both sides used them, the aviators buying their own.



The predecessor of present-day "silks" was a foolproof pack known as the "Type S," developed in 1923 by an Army Air Corps major. The chest, back and seat packs were originated about the same time.

Since the Navy began buying and issuing parachutes in 1924, nautical airmen have instigated a number of improvements to the safety devices.

The Navy, in conjunction with the Air Force, is now testing barostatic and timing devices, which will open parachutes automatically, even if the pilot is unconscious. BuAer is also testing a method which uses a pyrotechnic cartridge actuated by a timer, to open the pack and stream the silk.

- The cumulative amount of reenlistment bonuses which you may be paid under this and any other authority for a reenlistment bonus, may not exceed \$2,000.

Now, if you have figured up your base pay, the following table will help you figure how much reenlistment bonus you are entitled to under the new law:

Here is an example of how the

table works. Suppose you are a third class petty officer (pay grade E-4) at the time of discharge, have no previous service other than the four year enlistment just completed, and are facing your first reenlistment. According to the table you are entitled to one month's basic pay for each year of your reenlistment. This base pay, with longevity for over two years' service, amounts to \$129.95. If you reenlist for four years your bonus will be four times \$129.95, or 519.80; a six-year reenlistment would give you a bonus of \$779.70.

Say that you entered a six-year hitch, following your initial four year enlistment and that you advanced to pay grade E-6—first class petty officer—during this six year hitch. Now, if you ship for another period of six years (your second reenlistment) you will draw a bonus of \$794.94. (As a first class PO with over 8 years longevity your basic

Pay Grade	1st Re-up	2nd Re-up	3rd Re-up	4th & Other Re-ups
E-7	*	**	***	****
E-6	*	**	***	****
E-5	*	**	***	****
E-4	*	**	***	****
E-3	*	**	None	None
E-2	*	None	None	None
E-1	**	None	None	None

\*Equals one month's basic pay for each year of reenlistment.

\*\*Equals 20 day's basic pay for each year of reenlistment.

\*\*\*Equals 10 day's basic pay for each year of reenlistment. (One third of a month's basic pay.)

\*\*\*\*Equals 5 day's basic pay for each year of reenlistment. (One sixth of a month's basic pay.)

pay is \$198.74. For a second reenlistment the bonus, according to the table, is figured on the basis of two-thirds of your base pay, or \$132.49. Therefore, your bonus will be six times \$132.49.)

On completion of this third hitch you have a total of 16 years' active service; however, your basic pay on date of discharge is based on longevity of only over 14 years. If you are still first class your base pay is \$221.68. Ship for four and you are entitled to one third of this amount (\$73.89) for each year of your third reenlistment, making a final "re-up" bonus amount of \$295.56.

Thus, by the time you've signed for the last four years of your "twenty," you will have drawn a total bonus of \$1870.20, plus the leave pay, rations, travel allowances, etc., which you normally draw at the time of each discharge. Under the old bonus system the same three reenlistments would have given you a total bonus of only \$880.

Men with long service may not fare as well under the new bonus law as under the old, but they have the right to select whichever plan will benefit them most.

## Navy Nonagenarian Swings a Wicked Baton

A 93-year-old former Navyman came out of retirement (temporarily) to lead a Navy band in one of his own compositions.

Pasqual De Santis, who celebrated his birthday last month, made a guest appearance at a band concert at the U. S. Naval Hospital, Annapolis, Md. He was formerly bandmaster at the Naval Academy, starting that assignment more than half a century ago.

A native of Italy, De Santis came to the U. S. and enlisted in the Navy in 1893, beginning his naval career with ten years of sea duty. The old-timer saw action in the Spanish-American War where he acted as interpreter in addition to his duty as a Navy musician. At one time he served as interpreter for Lieutenant R. P. Hobson, USN, who sank the collier, *USS Merrimac*.

After becoming bandmaster at USNA in 1903, De Santis stayed on to lead the band until 1923, when he "retired on 30."

## Regulations Set on the Refund Of Reenlistment Bonus by Navy men for Time Not Served

Instructions concerning the refund of part of the reenlistment bonus by servicemen who are discharged early for any of a number of reasons can be found in Alnav 18.

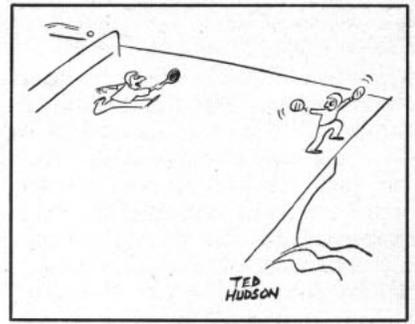
The Alnav calls for repayment of money on a *pro rata* basis for years, months, and days of time lost and/or time not served during an enlistment or extension of enlistment entered into on or after 26 Oct 1951 for which a reenlistment bonus was paid.

Under its provisions, any of the following periods of time (in excess of one day) will be considered as "time lost" and a refund will be due, except when the time lost has been made up in accordance with *BuPers Manual*.

- (1) Unauthorized absence.
- (2) Confinement as the result of conviction by courts-martial.
- (3) Confinement while awaiting trial and disposition of case, if later convicted.
- (4) Arrest and confinement by civil authorities, if convicted.
- (5) Time lost on account of injury, sickness, or disease resulting from intemperate use of drugs or alcoholic liquors or other misconduct.

In any case where naval personnel are discharged for any of the following reasons, refunds will be required for the time not served, computed from the actual date of discharge through the date of normal expiration of enlistment:

- Transfer to the Fleet Reserve and release to inactive duty prior to the expiration of the number of years service for which the bonus was paid.
- Separation for convenience of the Government in the case of women members when marriage provides the sole basis for such discharge.
- Separation by reason of disability resulting from misconduct, willful neglect or incurred during a period of unauthorized absence.
- Separation by reason of misconduct as provided by Article C-10313, *BuPers Manual*.
- Separation by reason of approved sentence of court martial.
- Separation by reason of unfitness.
- Separation by reason of unsuit-



"Great scott, Smedley! Wave him off. This is set point."

ability when repayment is specifically directed by the Chief of Naval Personnel.

- Separation as a result of writ of *habeas corpus* when directed by the Chief of Naval Personnel.

- Early discharge for the purpose of reenlistment for a specific reason. (Example: To attend a service school or to complete a tour of duty).

- When specifically directed by the Chief of Naval Personnel in cases of individuals electing discharge or transfer to a Reserve component, if required by law, who are erroneously reenlisted in a higher temporary rate or rank rather than in their permanent rate or rank, subsequently reduced to the lower rate or rank, and then promoted to a temporary rate or rank.

- When specifically directed by the Chief of Naval Personnel in cases of individuals whose discharge or transfer to a Reserve component, if required by law, is directed for the convenience of the Government upon the application and in the interest of the individual because of special or unusual circumstances.

It should be noted, however, that Navy personnel who have been paid a reenlistment bonus for a reenlistment or an extension of enlistment entered into prior to 26 Oct 1951 shall not be required to refund any portion of their reenlistment bonus because of any time lost or failure to complete the term of enlistment for which the bonus was paid.

Personnel in the above category who *were required* to refund a portion of a reenlistment bonus because of failure to complete the term of enlistment, may submit claims for the amount due in accordance with Paragraphs 044296 and 044298 of the *NavCompt Manual*.

# USN Officers Must Take Exams or Courses to Get Promotions

**W**RITTEN examinations or completion of specified courses of instruction will be required once more for promotion of most Regular Navy officers effective 1 Jan 1955.

Not included in this plan, which is outlined in BuPers Inst. 1416.1, are officers eligible for promotion to lieutenant junior grade or to rear admiral and above, or officers of the Medical Corps, Dental Corps, Medical Service Corps and Nurse Corps, all warrant officers and all temporary officers.

All other regular officers will be required to take an examination after selection for promotion, or have on hand proof of completion of the required courses, either correspondence courses or residence courses.

The examinations will cover three broad areas: *Executive, Operations and Technical.*

Generally, the executive part of the examinations will be the same for all officers, whether line or Staff, while the operations and technical portions will vary for the line and Staff Corps and the other fields of specialization within the line and Staff Corps.

Each area of examination is further broken down into various subjects designed to "stimulate the professional growth of officers." However, to prevent placing an undue load on those groups who will be selected for promotion in the next few years, the examinations will be "phased in" with the number of subjects required of each officer growing annually until the plan is in full operation about 1961.

Special provisions have also been made for officers taking Navy-sponsored courses at different schools or colleges. Those attending a school lasting between six weeks and nine months may request that the examination be rescheduled at a later period (within 12 months).

Officers attending a course of instruction lasting nine months or more will, as a general rule, be examined on their records in the operations and technical areas but will be required to take the written examinations in the executive area unless otherwise exempted.

In the case of an officer being examined on his record, the naval

examining board is authorized to call the officer for personal appearance or require further examination should the record prove inconclusive.

Examination questions will, in general, be of the objective type for promotion to the grades of LT and LCDR. Essay type questions normally will be used for examinations to the grades of CDR and CAPT. The contents of the examinations will vary according to rank with the higher grades needing a more general knowledge of duties required.

Enclosures to the directive give a detailed account of the subjects the examinations will cover, bibliographies for study, and the accepted correspondence and resident courses which will exempt an officer from the formal examinations. Twenty-eight categories of officers are covered with all the requirements needed for promotion to the grades of lieutenant to captain.

It has been emphasized that through use of the correspondence courses and resident courses it is possible, in many instances, for an officer to meet all requirements for promotion without taking the formal examinations. However, in several of the limited duty officer categories it will be necessary to write a theme, dealing with new developments

within the specialty, at each promotion period.

Most of the courses providing exemption from the examination are good for two promotion periods. As an example, a LTJG notified of his selection for promotion to LT can waive part of his exams by proving that he has taken a correspondence course in, say, Strategy and Tactics. This same course would also count toward his promotion to LCDR. However, before being promoted to CDR he would either have to take the course over again to refresh his memory or take the examination when selected.

Officers of the Medical Corps, Dental Corps, Medical Service Corps and Nurse Corps do not come under the new system. BuMed will promulgate the professional requirements for these officers shortly.

This is not the first time formal examinations have been held for officer promotions. Prior to World War II the system was in effect but was dropped when the war started. The plan was picked up again in 1949 but the Korean war forced its abandonment once more.

*(Professional requirements for promotion of warrant officers, temporary officers USN(T), and Naval Reserve officers will be the subject of future instructions).*

## Here Are Pamphlets on Living Conditions Overseas

From time to time ALL HANDS runs articles on living conditions at various overseas stations; however there are many stations overseas where the small quota of naval personnel on duty does not justify a long account.

Here is a complete list of pamphlets available on living conditions

at overseas stations, large and small.

Personnel can get the latest information on living conditions and various other compiled information by writing the Chief of Naval Personnel (Attn: Pers G212), Navy Department, Washington 25, D. C., requesting one copy of the appropriate pamphlet.

Alaska (Adak and Kodiak)  
Azores  
Bermuda  
Brazil  
Bahrein Islands, Saudi Arabia  
Trinidad, British West Indies  
Cuba (Guantanamo Bay)  
France (including Paris)  
French Riviera (Staff, Sixth Fleet)  
Port Lyautey, French Morocco  
Formosa  
Germany  
London, England  
Greece (Athens)

Guam and Saipan  
Hawaii  
Iceland  
Italy (Rome and Naples)  
Japan  
Johnston Island  
Kwajalein  
Midway Island  
Argentina, Newfoundland  
Panama Canal Zone  
Philippine Islands  
Puerto Rico  
Tripoli, Libya  
Turkey

**New Oxygen Equipment Course Teaches On-the-Spot Repairs And Testing of Apparatus to PRs**

A new eight-week Oxygen Equipment Course is open to parachute riggers, second class and above, and equivalent Marine Corps ratings, providing special training in repair and testing of aviation breathing-oxygen and carbon dioxide apparatus now in use by the Navy. Waves are also eligible for the course, given at NAS Lakehurst, N. J.

The new course is the result of several years' research proving that on-the-spot repairing and testing of regulators would bring about substantial savings in the time required for repairs. The shorter time in-

creases the availability of planes and offers oxygen crews a better opportunity to instruct pilots and crewmen in proper use of the equipment.

Studied in the oxygen phase of the course are the types of oxygen systems and masks; sizes, pressures, hydrostatic testing, and painting of cylinders; instruments, gauges, flow indicators and regulators; and oxygen transfer process and transfer machines.

The carbon dioxide phase embodies CO<sub>2</sub> properties, cylinders, valves, systems, and transfer process and transfer equipment.

Other safety and survival equipment, sewing machine maintenance and special parachutes are also studied.

**Tenth Anniversary Survey Shows G. I. Bill Has Aided Millions of WW II Veterans**

This year marks the tenth anniversary of the G.I. Bill (Servicemen's Readjustment Act) for veterans of World War II.

Through the G.I. Bill, signed into law in June, 1944, veterans of World War II have proved themselves to be among the "best financial risks" in the country as well as one of the better educated groups of citizens.

During the past 10 years one out of every five men and women who served in World War II obtained a VA-guaranteed and insured loan. Broken down these loans consisted of the following:

- Home loans accounted for 90 per cent of all loans obtained; actually 3,300,000 loans amounting to a total of 22.8 billion dollars. The average veteran used his loan to buy a substantial, middle-priced home that was neither a "cracker box" nor a mansion.

- Farm loans numbered 66,000 and totaled \$256,000,000.

- Business loans numbered 213,000 and totaled \$575,000,000.

Already 650,000 of these loans, amounting to three billion dollars, have been repaid in full.

In the 10 years' time more than 7,800,000 World War II veterans have trained under the G.I. Bill. Of this total:

- 2,200,000 attended colleges and universities.

- 3,500,000 went to schools below the college level.

- 1,400,000 took on-the-job training.

- 700,000 enrolled in institutional on-farm training, a combination of classroom work and practical experience on the farm.

Under the G.I. Bill, World War II veterans trained for nearly every occupation at which man earns his living.

As a result, the nation's reservoir of trained civilian manpower, depleted at the end of World War II, has been replenished.

The Korean G.I. Bill (Veterans Readjustment Assistance Act of 1952) provides similar benefits for servicemen on active duty after 27 Jun 1950. As yet it is too early to measure the accomplishments of this new G.I. Bill.

**WHAT'S IN A NAME**

**The Sargasso Sea**

The Sargasso Sea probably has had more wild and untrue tales told about it than any other body of water. It is named after a brown alga, a plant group that includes seaweeds and allied plant forms.

In olden times, and even today, many people believed it to be a sort of a graveyard of ships, ships which had become entangled in its abundant weed growth. Stories have been told of whole ships rotting in the weeds, their crews slowly starving while they awaited help.

Nothing could be further from the truth. History records not a single vessel entrapped in the Sargasso Sea. The dense fields of weeds growing over ships is a figment of the imagination. True, there is a lot of surface vegetation in the Sargasso Sea, but spread over an area roughly the size of the U. S. these weeds offer little if any obstruction to shipping.

To get an idea of the location and size of the Sargasso take a quick check of a chart of the Atlantic. A line drawn from the mouth of the Chesapeake Bay across to Gibraltar, then on to Dakar, back across the Atlantic to the island of Haiti and from there to the original starting point, would pretty well cover the area.

In that space there is an estimated 10 million tons of weed, thousands of different types of marine life and not a single rotting hulk. The Sargasso Sea is like no other spot on earth and may well be considered a definite geographic region.

The weeds come floating from various places. The Gulf Stream brings most of them from the coasts of the West Indies and Florida, and once there they grow and multiply at a fantastic rate.



In addition to the plants, many small animals come riding into the Sea, mostly as unwilling passengers on the weeds which served as their homes when the weeds were attached to the shore.

Once in the Sea these small animals, crabs, shrimps, small fishes and innumerable assorted species of marine creatures, often undergo a drastic change of life. They form special organs for attachment to the weeds so they won't sink into the deeper water where fish of all kinds are waiting for a tasty meal. Some change their appearance completely in an attempt to disguise themselves. These changes, of course, only arise over a great period of time.

There is danger in the Sargasso Sea, but not for man. It is more of a place of wonder and beauty where men of science can take accurate observations of the life and ways of the sea. For sailors it is an unusual spot to be appreciated, not feared.

## Taking Children Overseas? Get the Word on School Facilities

If you are a Navyman assigned to duty at an overseas base and are taking your dependents with you, you may be assured that there will be reasonable educational facilities available for your school-age children—either through attendance at organized schools or through correspondence work.

The Department of the Navy provides financial assistance, within limitations, for the education of dependents of Navy men in overseas areas. Detailed information is contained in SecNav Inst. 7820.3.

Who is eligible for this educational assistance?

Any unmarried child, stepchild, or adopted child who is actually dependent on the Navy parent and who will have reached his sixth but not his 21st birthday by 31 December of the school year currently in progress is eligible for educational assistance up through the high school level at the expense of the U. S. Navy.

The dependents of civilian personnel employed by the Navy overseas are also eligible for educational assistance under the same conditions as dependents of uniformed naval personnel.

What type of schooling is available overseas?

Navy dependents overseas make use of the following types of schooling at Navy expense:

- Navy-maintained schools.
- Schools operated by other branches of the Armed Forces.
- Schools operated by local civilian agencies (churches, governmental or private).
- Correspondence and home study courses.

Where a Navy-maintained school is established it is expected that naval personnel attached to the activity maintaining the school or stationed within a reasonable daily commuting distance will send their dependents to that school. However, naval personnel sending their dependents to other schools, when there is a Navy-maintained school available, must bear the expense of such schooling without assistance or reimbursement from Navy funds.



"How can you expect me to read it when you've misspelled every word on it?"

### Navy-Maintained Schools

Following is a list of 14 overseas duty stations where Navy-maintained schools are available for dependents' education:

- Argentina, Newfoundland
- Guantanamo Bay, Cuba
- Izmir, Turkey
- Kwajalein, Marshall Islands
- Midway Island
- Naples, Italy
- Port Lyautey, French Morocco
- Sangley Point, Luzon, P. I.
- Subic Bay, Luzon, P. I.
- Saipan, Marianas Islands
- Tainan, Formosa
- Tsoying, Formosa
- Trinidad, B. W. I.
- Yokosuka, Honshu, Japan

### Other Types of Schools

At activities where Navy-maintained schools are not available, naval personnel are expected to send their dependents to schools in the immediate vicinity maintained by the Army or Air Force, or by a local organization. For example, naval personnel stationed in Paris would send their dependent children to schools maintained by the Army. The Army in turn would be reimbursed from appropriated Navy funds available for dependents schooling in that area.

In cases where naval personnel are expected to send their dependents to local schools other than those

maintained by the Armed Services, the following points are taken into consideration before appropriated Navy funds are made available:

- It must be determined that the school will accept dependents of naval personnel and can adequately accommodate them.
- The schooling provided should be equal to that normally provided in public schools in the U. S.
- English should be the language of instruction.

The Navy will contribute toward tuition in some schools even though the last two considerations are not met if the parents willingly accept it for their children.

Since the purpose of dependents' schooling overseas is to keep the Navy family together, appropriated Navy funds will not be used to provide schooling that requires a child

### Bronze Star and Air Medals Are Now Issued by Certificate

Navy and Marine Corps personnel who receive the Bronze Star Medal or the Air Medal will now receive *certificates* (instead of *citations*) as they are awarded by delegated authority.

Citations and certificates are both issued to confirm awards. There is no difference to the individual between receiving the citation or the certificate. The only variance between the two is in the administrative procedures involved. Permanent citations will continue to be issued for all Bronze Star medals and Air Medals that are awarded by the Secretary of the Navy.

The certificates, like the citations, will be signed by the Secretary of the Navy and will be issued by the Chief of Naval Personnel and the Commandant Marine Corps, as appropriate.

No certificate will be issued to any individual to whom a permanent citation has previously been issued. Also, certificates will not be issued for any other naval decorations. Information on the issuance of these certificates is contained in BuPers Notice 1650 of 9 Jul 1954.

to live away from his parents.

When the establishment of a Navy school is not feasible and attendance in any other local school is impossible or impracticable Navy parents may instruct their children through home study or correspondence courses provided at Navy expense. Various schools have well-prepared courses available for all grades from one through eight and the majority of high school subjects. Requests for information about home study courses should be addressed to the Chief of Naval Personnel (Attn: Pers C113), Navy Department, Washington 25, D. C.

**Spare Time College Study Earns Chief BA Degree**

A Navy chief has taken advantage of the G.I. Bill of Rights for World War II veterans and completed a full four-year college course while competently filling his Navy billet.

Transferred from time to time in line with his Navy duties, Charles L. Carter, DTC, USN, attended five different colleges before he obtained his degree.

Chief Carter admits that it took many long hours of study and hard work but it was worth it. In June while on duty at Great Lakes, Ill., he received a Bachelor of Arts degree in History from Lake Forest College at Lake Forest, Ill. In addition he was awarded honors for his senior thesis.

Previously Chief Carter had attended college in his off hours at various duty stations. In 1940 he was enrolled at San Diego Evening Junior College, San Diego, Calif. In 1943 and 1944 he was studying at the University of Washington, Seattle, Wash. He continued in 1950 and '51 at the College of William and Mary, Norfolk, Va., and during the 1951 summer session was taking courses at Northwestern University, Chicago, Ill. From September 1951 to June 1954, his spare time studies were at Lake Forest College.

The chief now intends to study law. Then, when he retires with 19½ years service, he plans to set up his own law practice.



"There's been a mistake—my orders say travel first class and I'm only a seaman."

**NROTC Ensigns and LTJGs May Request Transfer To Civil Engineer Corps**

NROTC trainees commissioned in the U. S. Navy as ensigns and lieutenants (junior grade), who have not yet been selected for retention in a career status and who possess an appropriate baccalaureate degree from a properly accredited college, may now request change of designator to the Civil Engineer Corps after completing 12 months (and before completing 24 months) of active commissioned service.

Authority for requesting the change of designator is contained in BuPers Inst. 1520.5B of 2 Jul 1954, which supersedes BuPers Inst. 1520.5A.

A board will be convened in July of each year to consider the applications of qualified officers. Applications may be forwarded during the first year of commissioned service, and prior to 15 June of each year, but no request will be presented to the board until the requesting officer has completed 12 months' active commissioned service.

Officers recommended by the board will be transferred to the Civil Engineer Corps and assigned to duty in a CEC billet at the earliest practicable date after selections have been made. Officers transferred to the CEC who submit requests for retention in the Navy will be considered for retention as Civil Engineer Corps (Code 5100) officers during their third year of active service.

The new instruction also allows other NROTC ensigns and LTJGs to request Staff Corps designators prior to their selection for retention

in a career status. Formerly such officers could only request retention as line officers, applying for a change of designator after their selection for retention as career officers.

Requests for a change of designator, if approved, will not affect an officer's obligated service or his privileges in regard to career status selection.

**Special Duty Legal Officer Program Is Open to Qualified EMs, Officers on Active Duty**

An annual program for the procurement of Special Duty legal officers in the Regular Navy has been established. The deadline for receipt of applications in BuPers is 1 Nov 1954.

Among those eligible under the new program are Regular Navy enlisted men, Reserve officers on active duty and enlisted Reservists on active duty who hold a law degree from a law school accredited by the American Bar Association and who are members of the bar of a federal court or of the highest court of a state or territory of the U. S. or District of Columbia.

Applications are desired only from male members of the Navy between 21 and 32 years of age (by 30 June of the calendar year in which appointed). No tests are required of officers and officer candidates but enlisted applicants on active duty must attain a combined GCT, MECH and ARI score of at least 195.

No professional examinations will be given. The applications of all qualified applicants will be delivered to a selection board which will recommend those candidates considered best qualified to fill the existing vacancies.

Officers selected under the program will be appointed to the rank of LTJG, USN, with the designator 1620. Enlisted candidates selected will be ordered to four months of Officer Candidate training in their present rate, will undergo training as an Officer Candidate and finally be appointed to LTJG, USN, upon successful completion of the training.

This will be an annual program with applications accepted up to 1 November each year.

Full details and instructions may be found in BuPers Inst. 1120.21.

## List of Latest Motion Pictures Available for Distribution To Ships and Overseas Bases

The latest list of 16-mm. feature motion pictures available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn 1, N. Y., is published here for the convenience of ships and overseas bases. The title of each movie is followed by the program number. Technicolor films are designated by (T). Distribution of the following films began in July.

Films distributed under the Fleet Motion Picture Plan are leased from the motion picture industry and are distributed free to ships and most overseas activities. Films leased under this plan are paid for by the BuPers Central Recreation Fund (derived from non-appropriated funds out of profits by Navy Exchanges and ship's stores) supplemented by annually appropriated funds. The plan and funds are under the administration of the Chief of Naval Personnel.

*Casanova's Big Night* (101) (T): Comedy; Bob Hope, Joan Fontaine, Basil Rathbone.

*Johnny Dark* (102) (T): Racing Drama; Tony Curtis, Piper Laurie, Don Taylor.

*The Man Who Came To Dinner* (103) (Re-issue): Comedy-Drama; Monty Woolley, Bette Davis, Ann Sheridan.

*Limping Man* (104): Murder Mystery; Lloyd Bridges, Moira Lister.

*The Command* (105) (T): West-

## Retired Navymen Go Back to School Under Both G.I. Bills

A lot of retired Navymen are heading for the little ole school house upon retirement instead of the proverbial chicken farm they once looked forward to.

Take Arne Haggblom for instance. Arne was a chief machinist's mate who was an expert on machinery of all kinds. There were a lot of other things he was interested in too, and here was a chance to find out more about them. So when Arne went into the Fleet Reserve he also went to college.

He eventually received his Bachelor of Arts degree (back in 1952) and proved once again the value of education in opening up new horizons, both in jobs and avocations.

Arne wasn't the first nor is he the last. Another Navy chief, now retired, obtained his law degree and permission to practice before the U. S. Supreme Court.

Dozens of other retired Navymen are mingling with younger students on college campuses, all having a common goal — to improve their education and qualify themselves for better positions.

As one retired chief explained, "My rating was connected to strictly sea-going duties. It was hard to find a civilian counterpart for my qualifications unless I entered the Merchant Marine. I discovered one answer to my problem—get some academic education. When I got it, I tied it to my naval experience and found I had the necessary qualifications to do something besides watch over empty buildings between midnight and daylight."

Under the terms of the G.I. Bill

of Rights, retired career men of the services, as well as veterans, can qualify for educational benefits of a wide order. The fact that the G.I. Bill eases the financial burden the retired Navyman would otherwise face in trying to go back to college is the big reason many such retired sailors are steering the course toward higher education.

For example, Chief Jones retires on 22 years' service. He has a wife and child and his retirement pay amounts to \$159.60 and he decides that perhaps he needs some more education in order to qualify for a job he wants to do. He has the practical experience. If he can get the qualifying academic credits, he will be in line for a more responsible job.

Chief Jones files application with the Veterans Administration for educational benefits. By virtue of World War II and Korean conflict time spent on active service, he is eligible for the educational benefits that accrue to veterans of both periods.

He finds that under his World War II eligibility he can obtain a maximum of 48 months of education and under the Korean Bill he is eligible for up to 36 months of education. There is a difference in the allowances granted in each case. But even the use of both bills will entitle him only to a maximum of 48 months of education.

Jones did not happen to reenlist during the period of 6 Oct 1946 to 5 Oct 1947, therefore under World War II eligibility he must complete any education started by July 1956. If Jones had enlisted

or reenlisted between 6 Oct 1946 and 5 Oct 1947, he would have had four years after discharge from that enlistment in which to start his education and until nine years after discharge to complete his education.

But Jones still has the Korean Bill for which he is eligible. Thirty-six months is four academic years—sufficient time under normal resident study to obtain a bachelor of arts or science degree.

He finds out also that his dependency status (two dependents) makes him eligible to receive \$160 per month, out of which he must pay his tuition and provide necessary books, etc. He can supplement his allowance with part-time work if he so desires. Any such extra compensation does not reduce his VA allowance—if he is going to school under the Korean G.I. Bill.

The \$160 allowance is tax-free and, added to his service retainer pay which is also virtually tax-free by reason of his dependent exemptions (\$1800 in Jones' case) gives him a total net income of close to \$3100 per year. If he attends summer school in order to shorten the time necessary to obtain his degree, he could increase this total to \$3500 per year.

Accordingly he is able to subsist on it with very little sacrifice in his usual personal living standards.

If, at the end of your normal Navy career, you too feel the need to hit the books again and thus gain for yourself a broader background, you may be interested in following the path marked out by Jones and the others.

**First Hand Look at Navy Relief Work Brings in Cash**

A good example of the Navy's taking care of its own came when 75 Naval Reserve officers on annual two weeks' training duty at Newport, R. I., donated \$1500 to the Navy Relief Society following the arrival in port of the carrier *uss Bennington* (CVA 20) with casualties from an explosion aboard the ship.

The officers were attending the Senior Reserve Officer's Course at the Naval War College in Newport, R. I. They had reported aboard just a few days after the disaster on the carrier.

At that time a great many of the dependents of men on board the carrier were in the area. After the officers had seen at first-hand the job Navy Relief was

doing in aiding all concerned, they suggested that as a group they could contribute to the aid of Navy people affected by the losses.

Within a day about \$1000 had rolled in, to be turned over to Navy Relief. By the time the course was completed the sum had grown to \$1500.

When the Chief of Naval Operations, Admiral Robert B. Carney, USN, heard of the officers' fine response he stated, "This manifestation of a warm and understanding attitude of these Reserve officers toward the needs of their brethren, both Regular and Reserve, is a heart-warming example of devotion among service comrades."

**Revised Fitness Report Form For Officers Goes Into Use After Trial Runs in the Fleet**

The new officer's fitness report form, which has just gone into effect, is designed to provide a form which will give a standard and more precise picture of an officer's capabilities and performances at all grade levels.

It is a result of a comprehensive study and pre-evaluation of the fitness report undertaken by BuPers. Sample forms received a trial run in the Atlantic and Pacific Fleets before the final form was approved.

The new form has instituted the "adjectival scale" of grading officer performance, doing away with the old "numerical scale."

Another change is in Section 11, pertaining to "duties." Under this section, a more descriptive outline of the individual officer's duties may be included. This is especially helpful in the case of an officer whose assignment is in other than a customary Navy billet, or involves duties not well established, such as being a member of the recent UN Truce Commission in Korea.

Another big change is in Section 13, covering qualities for which an officer is graded. This section under the old form included 13 categories while on the new form, there are only six, including two new ones: "promotion potential" and "management effectiveness."

Work on the new form began more than a year ago. A board, under the direction of Rear Admiral R. N. Smoot, USN, was appointed by the Chief of Naval Personnel to implement the development of the new form.

This board, together with the professional staff of the Personnel Analysis Division, put in almost 12 months' time on research and development of this project. A try-out was given the new form shortly after initial work got underway. A sample form was sent out to CinCPacFlt and CinCLantFlt.

These two commands redistributed the forms to other commands in order to blanket all ranks and types of duties performed by officers. Approximately 1000 officers, from ensigns to captains, were covered by this experiment.

The sample forms were used in

ern Melodrama; Guy Madison, Joan Weldon.

*Conquest of Everest* (106) (T): Documentary; Members of Expedition.

*Tanganyika* (107) (T): Jungle Adventure; Van Heflin, Ruth Roman, Howard Duff.

*Arrow In The Dust* (108) (T): Western; Sterling Hayden, Coleen Gray.

*Hell Below Zero* (109) (T): Sea Adventure; Alan Ladd, Joan Tetzl.

*The Outcast* (110): Western; John Derek, Joan Evans.

*The Carnival Story* (111) (T): Melodrama; Anne Baxter, Steve Cochran.

*Angels With Dirty Faces* (112) (Re-issue): Drama; Humphrey Bogart, Ann Sheridan.

*The Siege of Red River* (113)

(T): Western; Van Johnson, Joanne Dru.

*The Iron Glove* (114) (T): Historical Drama; Robert Stack, Ursula Thiess.

*Heat Wave* (115): Murder Drama; Alex Nicol, Hillary Brooke.

*Stage Door* (116) (Re-issue): Musical; Katherine Hepburn, Ginger Rogers.

**Navy Mutual Aid Association Observes 75th Birthday**

Celebrating its 75th anniversary, the Navy Mutual Aid Association has announced one of the most successful years in the \$26 million-dollar organization's history.

The aid association is a non-profit group whose membership is open to regular commissioned and warrant officers, both permanent and temporary, on the active list of the Navy, Marine Corps and Coast Guard.

Membership in the organization provides dependents of deceased members with immediate aid in the form of a substantial cash payment which can be wired or cabled anywhere in the world, and prompt preparation and submission of all government claims.

Interested officers may write directly to the Navy Mutual Aid Association, Navy Department, Washington 25, D. C., for full information regarding membership.



conjunction with the old, except that the new or "test" forms were used only as a comparison and were not made a part of the individual officer's record. The comparison, however, brought out the fact that the new form was a definite improvement, giving a clearer picture of the officer's capabilities and serving as a better measuring instrument of duties performed by officers in the various ranks.

But this trial run also showed where changes and improvements could be made in the form. Taking the sample form, along with the opinions and recommendations of the 70 various flag officers polled, work was begun on a still better form. Thus the new fitness report form reflects the ideas of the officers who actually fill out those forms as well as the technical know-how of the people in Personnel Analysis Division.

The new Fitness Report is the third major revision of this form since the beginning of World War II. It is expected to show a more precise distinction between the "excellent" and "outstanding" officers. The new form, however, is not expected to be a cure-all, but will remain under constant evaluation for possible changes and improvements.

### 'Jonah's Jaybird' Certificates Go to Airmen Rescued by Subs

Requests for "Jonah's Jaybird" certificates are still being filled by the Navy's Office of Information, Navy Department.

The unique, but unofficial, certificate commemorates the rescue of Navy, Marine or Air Corps personnel by submarines off the coast of Japan during World War II.

In a recent issue (see ALL HANDS July 1954, page 6) it was mistakenly reported that all personnel participating in the rescues are entitled to the certificate.

In fact, only those survivors from downed aircraft who were actually picked up and rescued by a submarine rate the certificate.

Any Navyman who believes himself eligible for the award may write to the Chief of Information, Navy Department, Washington 25, D. C., giving full particulars. The certificate will be forwarded without charge.



### This Sailor Gets a Bang Out of Music

Los Angeles sailors who've been ashore in the Orient and have heard the unique native music originating from native restaurants, temples and theatres are likely to wonder if CruDivOne's E. S. Solomon, MU2, USN, knows what music really is.

He is not only spending a lot of liberty time and a good bit of money collecting the instruments that give out with those weird jangles and plunks, he is also buying recordings of them.

Included in the Navyman's collection of Oriental musical instruments are three varieties of flutes, including the bird-voiced *sukachi* from Japan; a set of temple blocks; three of the major types of drums, one of which is a scale-model of the huge double-headed drums that are drawn on carts in parades, religious festivals and funeral processions.

The latest tune maker picked up by Solomon is a Chinese moon guitar bought when Cruiser Division One visited Hong Kong in CA 135 recently. On the same visit to the British Crown Colony he also collected a four-stringed *chua hook kee*, a lute-like instrument used in theatres and festivals.

Perhaps the oddest item in his collection is a *tsuzumi*, a queer-looking hand drum used by mem-

bers of certain sects to solicit donations from superstitious shopkeepers. According to legend, if the merchant fails to "come across" a different rhythm on the *tsuzumi* will cast a spell upon the shop.

Another of his ceremonial musical devices is the *koto*, much used by entertainers and in traditional dramas, such as *Kabuki*. The usual *koto* is a nine-foot stringed instrument which closely resembles the zither. Solomon's, however, is a small-scale model since space aboard the cruiser is limited.

Solomon explains to the curious that his musical taste is not really "off beat," though. Since his plans for the future include teaching music, he has taken the opportunity offered him by duty in the Far East to study Oriental musical history and to collect instruments and recordings for use in his future teaching.

The musical Oklahoman had two years of college behind him when he entered the service. He attended the Naval School of Music, Washington, D. C., after which he was assigned to sea duty. While overseas, Solomon has taken correspondence courses in music history, band arranging and psychology to further his musical knowledge and ability.



## Summary of New Legislation And Bills Under Consideration Of Interest to Naval Personnel

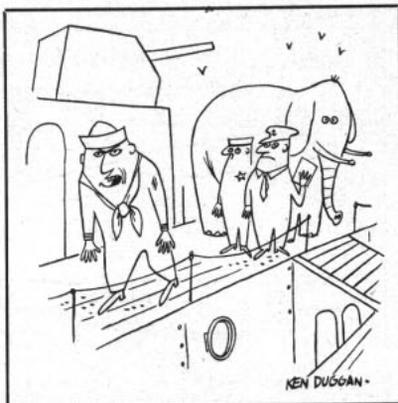
Here is a roundup of the legislation of interest to the naval service considered by the 83rd Congress as ALL HANDS went to press.

This summary, as usual, includes new bills introduced as well as changes in status of other bills previously introduced and reported in this section. The following list covers Congressional action taken during the month since the last roundup.

The final summary of legislation produced by the 83rd Congress will be carried in next month's issue of ALL HANDS.

**Reenlistment Bonus** — Public Law 506 (evolving from H. R. 9377 and S. 3539); establishes a new system of paying reenlistment bonuses and makes provision for more generous amounts. The formula for figuring the amount of bonus due is based on taking a fraction of the Navyman's monthly pay and multiplying it by the number of years contracted for in his new enlistment. The fraction is "1" for the first reenlistment, "2/3" for the second, etc. (see page 42 of this issue for details). Personnel are given the option either of taking their reenlistment pay as computed under the new law or as computed under the former regulations.

**Home Loans for Military** — Public Law 560 (evolving from H. R. 7839): allows military personnel on active duty, officer and enlisted alike, to qualify for low-interest-rate, government-insured mortgage loans in order to buy a Federal Housing Authority-approved house. The law provides that FHA will guarantee 95 per cent of a loan up to a maximum of \$18,000, leaving the serviceman to pay the remaining five per cent as down payment. In order to qualify, the serviceman will have to get a certificate from the Department of Defense stating that he needs the housing, that he has had at least two years of active service and that he will remain at least two years longer. The new law is expected to benefit a large number of career service personnel, especially continuous active duty officers who heretofore were unable to qualify for a G.I. loan guarantee due to the fact that they were not "veterans."



"Aw, take it . . . I didn't want him as a pet anyway!"

**Naval Construction** — Public Law 548 (evolving from H. R. 8571): adds authorization for 16,000 tons of combatant naval vessels in the mine warfare and patrol vessel categories to the current naval construction program.

**Officer Integration** — Public Law 549 (evolving from H. R. 6725): reenacts a law previously in effect which permits the Navy and Marine Corps to transfer a number of Reserve and temporary officers of the grade of lieutenant or below to the Regular service. The Navy estimates that during fiscal 1955 it will transfer about 400 such officers while the Marine Corps estimates it will transfer some 300.

**Savings Deposits** — Public Law 501 (evolving from S. 3284): makes uniform for the armed forces a savings deposit system for enlisted personnel in lieu of present systems. Interest under the law on savings accounts left with the disbursing officer would be computed at four per cent. For Navy men, the passage of the new law should mean no essential change in the Navy's deposit system as it now functions.

**Old Ships** — Public Law 523 (evolving from H. R. 8247): provides for the restoration and maintenance by the Federal government of the historic frigate *uss Constitution* and for its continued presence at Boston, Mass. The law authorizes the transfer of the *uss Constellation* to the city of Baltimore for restoration as a public memorial and the similar transfer of *uss Hartford* to the city of Mobile, Ala. for the same purpose. It also sets a six-month period in which other cities or non-profit organizations may apply for custody

of two other old ships, *uss Olympia* and *uss Oregon*.

**Reserve Officer Promotion** — H. R. 6573: passed by House; would provide for the promotion, precedence, constructive credit, distribution, retention and elimination of officers of the Reserve components.

**More Family Housing** — H. R. 9924: introduced; in part authorizes the Secretary of the Navy to construct or repair more family housing units for military personnel and their dependents at various naval stations and Marine Corps activities in both the continental U. S. and overseas.

## DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs and NavActs as well as current BuPers Instructions, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult Alnavs, NavActs, Instructions and Notices for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; NavActs apply to all Navy commands; BuPers Instructions and Notices apply to all ships and stations.

### Alnavs

No. 24 — Concerns safety precautions to be observed in handling JP-3 and JP-4 jet fuels.

No. 25 — Makes a number of minor changes relating to initial clothing monetary allowance for Naval Aviation Cadets (NavCads) and for women personnel.

No. 26 — Announces passage of the Department of Defense Appropriation Act of 1955 and permits naval activities to incur obligations within authorized allotments.

No. 27 — Makes a change in SecNav. Inst. 1030.6 (Change One) which concerns shore patrol orders and expenses.

No. 28 — Announces restoration of more liberal weight limits on shipment of household goods for officers (see page 12).

No. 29 — Informs all hands of impending legislation which would increase the reenlistment bonus for armed forces personnel, and gives instructions to commands concerning

retention of certain men aboard ship up to the end of their enlistment, if they so request (see page 42).

No. 30—States that entry approval for dependents is no longer required for personnel ordered to shore-based activities in, or ships and aircraft having home ports in, Oahu, T. H.

No. 31—Announces the promotion of seven officers of the Marine Corps to the grade of major general.

No. 32—Contains instructions implementing the payment of the new reenlistment bonus to eligible members of the naval service.

No. 33—Lists the promotion zones which will be used by selection boards recommending promotions to the grade of captain and commander.

No. 34—Announces the temporary promotion to the grade of rear admiral of 27 officers of the Navy.

No. 35—Announces the temporary promotion to the grade of brigadier general of 13 officers of the Marine Corps.

#### BuPers Instructions

No. 1030.6A. — Designates commands which are authorized to approve requests from enlisted personnel for subsistence and quarters allowance and states the regulations governing allowances for personnel at activities outside the U. S.

No. 1030.17 — Outlines the basic documents naval personnel must present when applying for Basic Allowance for Quarters (BAQ).

No. 1120.22—Announces the procedure that will be followed each year to select certain Naval Reserve officers for active duty contracts of up to five years' duration under the program authorized by Congress.

No. 1301.10B — To reduce the length of message and letter orders to Reserve officers being ordered to active naval service.

#### QUIZ AWEIGH ANSWERS QUIZ AWEIGH is on page 13.

1. (c) Samson post. Also called king post by many.
2. (a) Norman pin.
3. (b) USS Northampton (currently designated as ECLC-1).
4. (a) Tactical Command Ship.
5. (c) Silver Star Medal.
6. (b) For personal heroism in combat, but of less degree than required for the Medal of Honor or Navy Cross.

No. 1416.1—Reinstitutes the written professional examination for promotion of Regular Navy officers to ranks from lieutenant through captain inclusive, and explains how postgraduate instruction courses and correspondence courses may be used in lieu of the written exam.

No. 1440.14 — Contains the new qualifications required of personnel who desire to enter the ratings of Guided Missileman (GS), Aviation Guided Missileman (GF) and Aviation Fire Control Technician (AQ) and gives procedures for making the change of rating.

No. 1520.5B—Makes provision for ensigns and lieutenants (junior grade), appointed from NROTC colleges, to enroll in certain training programs and courses of instruction before they pass their third year of active service and become eligible for retention in the Regular Navy.

No. 1745.3—Provides for a new-type punched-edge card (NavPers 711) for maintaining records of unit or composite recreation funds.

No. 1750.1A—Summarizes the provisions of the survivor's annuity plan, the "Uniformed Services Contingency Option Act of 1953" and shows how the plan is intended to fit into the picture of monetary benefit available to survivors of naval personnel.

#### BuPers Notices

No. 1120 (6 July 1954)—Makes a change to BuPers Inst. 1120.11A, stating that applications are not now desired for restricted line commissions from enlisted men of the Regular Navy.

No. 1650 (9 July 1954)—States that hereafter certificates rather than full citations will be awarded for all Bronze Stars and Air Medals awarded by field commands (although citations will continue to be written for awards of this type issued directly by SecNav).

No. 1710 (14 Jul 1954)—Gives eligibility requirements for naval personnel seeking to participate in the 1954 World Championship Rifle and Pistol matches at Caracas, Venezuela.

No. 1520 (19 Jul 1954)—Makes a number of changes in BuPers Inst. 1520.32 (Change Two) which lists the courses available in BuPers-administered schools.

No. 1552 (23 Jul 1954)—Contains

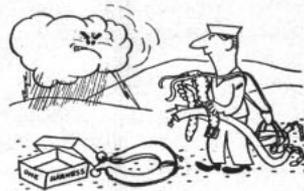
## HERE'S YOUR NAVY

Hurricane season is still with us, so keep a keen eye to windward and be ready to go into action. Spawmed in the Atlantic belt of doldrums, these big blows pack a wallop that can send a ship reeling in their wake. Tremendous waves and powerful winds may cover an area of from 50 to 500



miles in diameter, an area it is best to avoid (the only safe way to fight a hurricane).

To give you an idea of the terrific power packed by one of these runaway storms, which are actually the same as the Pacific typhoons, scientists have determined that in one day a hurricane expends enough energy to run all the power plants in the world for several years. As yet no one has



come up with a means of harnessing this energy. To the contrary, each year hurricanes claim many lives and do terrific damage, both at sea and ashore.

If you have plenty of advance notice, riding out a hurricane aboard a Navy ship isn't too bad. Because of the make-up of a man-of-war, the watertight integrity is much superior to that of other ships. There are several precautions each Navyman should ob-



serve during hurricane conditions. Stay below decks, use the life line if it is necessary to go across any weather deck and always be alert for sudden gusts or boarding waves. Never attempt to secure gear adrift without observing all the precautions. Your best bet is to check the do's and don'ts of your ship's heavy weather instructions.

a bibliography of material to be studied by those preparing for advancement in the ratings of Aviation Guided Missilemen (GF) and Aviation Fire Control Technician (AQ).

No. 1743 (27 Jul 1954)—Authorizes leave for personnel of the Jewish faith who wish to observe the Jewish High Holy Days.

**Procedures on Applying for Active Duty Agreements Are Outlined to USNR Officers**

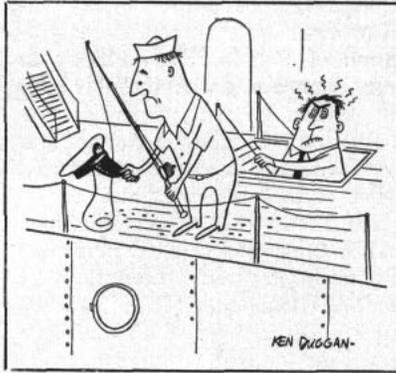
The eligibility requirements and the procedure to follow for Naval Reserve Officers applying for active duty agreements have been outlined by BuPers Inst. 1120.22.

The board to recommend officers for active duty agreements for periods of one to five years will be convened in the Bureau of Naval Personnel about 1 April of each year.

Sometime prior to 1 January of each year a Notice will be issued, asking for applications and setting forth the categories and grades of officers from whom applications are particularly desired.

Agreements tendered will be phased in so far as practicable to expire evenly by months within each year. Because of this requirement the effective dates of agreements and the stated dates of expiration must be phased by month throughout each year. Thus all agreements will not become effective with the beginning of a fiscal year, nor will they all terminate with the end of a fiscal year.

If there is no break in active duty, acceptance or termination of an active duty agreement shall not be considered a "separation" for purpose of entitlement to either mustering out pay or lump sum payment for accrued leave.



**Eligibility Requirements:** Naval Reserve officers on active and inactive duty are eligible to receive active duty agreements subject to the following conditions:

- Active duty agreements will be entered into with individual Reservists only after individuals have applied in writing for such agreements and have been recommended by a board of officers convened annually to pass on the qualifications of applicants.
- The term of an agreement will not extend beyond the known date of an individual's eligibility for retirement.
- Officers who have twice failed of selection for promotion while serving in their present grade are ineligible for consideration.
- Active duty agreements will not be entered into with officers on inactive duty except in cases of particular service need for such officers.
- The number of officers with agreements on active duty in the grades above lieutenant will be necessarily limited not only by the present but also by the future needs of the service for such officers.
- The grade and age which an officer might attain during the period covered by a requested agreement will be among the factors considered in determining the duration of an agreement tendered.
- While agreements cannot cover any period of obligated service, personnel serving under obligation may request, be selected for, and be tendered agreements that will become effective upon completion of their period of obligated active duty, provided the obligated service does not extend beyond the end of the succeeding fiscal year.

*Method of Application:* Following

are the instructions governing the submission of an application:

- Applications must be submitted in letter form to the Chief of Naval Personnel (Attn: Pers B111r) between 1 January and 1 March as will be indicated annually by a BuPers Notice. Applications submitted by personnel serving on active duty shall be forwarded via the commanding officer or reporting senior. Applications submitted by personnel on inactive duty should go via their district commandant or the Chief of Naval Air Reserve Training as appropriate. Applicants should include any pertinent information in support of their application and qualifications which in the knowledge of the applicant is not available in BuPers.

- The commanding officer, reporting senior, commandant or the Chief of Naval Air Reserve Training, as appropriate, shall include in his endorsement comment on the suitability of the applicant for service on active duty under the terms of an active duty agreement. He shall also make comment regarding any particular qualifications of the applicant.

- Applicants shall state in their applications the desired duration of the requested active duty agreement and the minimum duration they are willing to accept should an agreement be tendered.

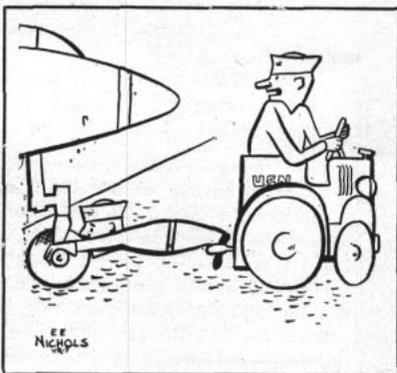
- Applications contingent on location and type of duty assigned should not be submitted.

**New Correspondence Course Ready for Medical Officers**

A new officer correspondence course, "Special Clinical Services (Blood)" (NavPers 10998), is now available. The course is designed to acquaint Medical Department officers with the basic principles and techniques involved in the preparation and administration of blood and blood substitutes, collection and storage of blood, preparation of plasma and laboratory procedures.

The course consists of eight assignments and is evaluated at 24 points credit for Naval Reservists.

Application for enrollment should be made on Form NavPers 992 and forwarded via official channels to the Correspondence Training Division, U. S. Naval Medical School, National Naval Medical Center, Bethesda 14, Md.



"Hey Ed, did you find the tow bar?"

# DECORATIONS & CITATIONS



LEGION OF MERIT

"For exceptionally meritorious conduct in the performance of outstanding service to the Government of the United States..."

Gold star in lieu of second award:

- ★ BOLSTER, Calvin M., RADM, USN, Chief of Naval Research from 1 Aug 1951 to 30 Dec 1953.
- ★ HOGLE, Reynold D., CAPT, USN, Naval Aide to the Secretary of the Navy from 18 Aug 1952 to 30 Apr 1954.



DISTINGUISHED FLYING CROSS

"For heroism or extraordinary achievement in aerial flight..."

- ★ GARVEY, Hugh M., LCDR, USN, serving in Composite Squadron 61 on 30 Oct 1952.
- ★ NEILSON, Thomas L., LT, USN, serving in Composite Squadron 61 on 23 Jul 1952.
- ★ PAPPAS, Louis R., ALC, USN, serving in Patrol Squadron Six from 8 Jul 1950 to 28 Jan 1951.
- ★ SMITH, Billie E., LT, USN, serving in Helicopter Squadron One, Detachment One, Unit 13, and serving under the operational control of Commander Wonsan Defense and Blockade Unit on 1 Apr 1953.
- ★ SMITH, Lester R., LTJG, USN, serving in Fighter Squadron 52 on 12 Jul 1953.
- ★ SPEER, Paul H., ENS, USN, serving in Fighter Squadron 172 on 2 Jan 1952.
- ★ STANEK, Robert, LCDR, USN, serving in Fighter Squadron 152 on 3 May 1953.
- ★ STARNES, Charles E., LT, USN, serving in Fighter Squadron 92, Carrier Air Group Five on 1 Apr 1953.
- ★ STULTZ, Jack T., LT, USNR, serving in Helicopter Squadron One, Unit 11 on 29 Jan 1952.
- ★ SULLIVAN, Patrick E., LT, USNR, serving in Composite Squadron 35 on 31 Mar 1953.
- ★ THUESON, Theodore S., LCDR, USN, serving in Patrol Squadron 42 from 24 Aug 1950 to 25 Jan 1951.
- ★ VAN BIESBROECK, Edwin, LT, USNR, serving in Fighter Squadron 52 on 24 Jul 1953.

- ★ WALLACE, Henry K., ENS, USNR, (posthumously), serving in Fighter Squadron 22 on 20 Jul 1953.
- ★ WALSTROM, Clifford C., LT, USN, attached to Composite Squadron 35 and serving with Carrier Air Group Five on 2 Jul 1953.
- ★ WARNER, Marvin H., LTJG, USN, attached to Fighter Squadron 111 on 6 Jan 1952.
- ★ WARREN, Burtis "W.", LT, USN, serving in Composite Squadron 34 on 1 Apr 1953.
- ★ WEINBECK, Eugene J., LT, USN, serving in Composite Squadron 35, Fighter Squadron 54 on 9 Apr 1953.
- ★ WEST, Arch T., ADC, USN, serving in Helicopter Squadron One, Unit 10, on 20 Oct 1950.
- ★ WILBER, Walter E., LTJG, USNR, serving in Fighter Squadron 194 on 20 May 1953.
- ★ WISEMAN, Richard F., LTJG, USN, serving in Fighter Squadron 194 on 2 Jun 1953.
- ★ WITTERS, Gary M., ENS, USNR, serving in Fighter Squadron 194 on 17 May 1953.
- ★ YEAGLE, Carl H., LT, USN, serving in Composite Squadron 61 on 22 Sep 1952.

Gold star in lieu of second award:

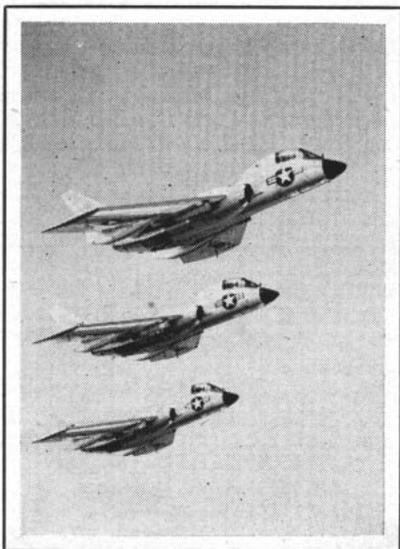
- ★ GROSSER, John F., LT, USN, attached to Composite Squadron 61 and serving on additional duty with Fighter Squadron 121 on 25 Apr 1953.
- ★ JOHNSON, Ace, LCDR, USN, CO of Fighter Squadron 91, serving with Carrier Air Group Nine, on 19 Jun 1953.
- ★ JOHNSON, Charles E., LT, USN, serv-

- ing in Fighter Squadron 94 on 5 Jun 1953.
- ★ MUNCIE, Wendell B., LT, USN, serving in Fighter Squadron 54 on 4 Sep 1951.
- ★ NEILSON, Thomas L., LT, USN, serving in Composite Squadron 61 on 30 Oct 1952.
- ★ OBEX, Roland J., LCDR, USN, serving in Attack Squadron 95 on 17 Jul 1953.
- ★ OSEN, Arlo M., LT, USNR, serving in Fighter Squadron 721 on 27 Dec 1952.
- ★ POWELL, Rolan D., LT, USNR, serving in Composite Squadron 61 on 30 Oct 1952.
- ★ REYNOLDS, John M., Jr., LTJG, USNR, serving in Composite Squadron 35 on 27 Mar 1953.
- ★ ROBERTS, Carlton B., LCDR, USN, serving in Fighter Squadron 151 on 10 Jun 1953.
- ★ SUERSTEDT, Henry Jr., LCDR, USN, attached to Fighter Squadron 54 on 8 Apr 1953.
- ★ VERDIN, James B., LCDR, USN, as pilot of an XF4D-1 *Skyray* on 3 Oct 1953.
- ★ WARREN, Burtis W., LT, USN, attached to Composite Squadron 35 and serving with Carrier Air Group Five on 7 Apr 1953.



BRONZE STAR MEDAL

"For heroic or meritorious achievement or service during military operations..."



- ★ ANDERSON, Donald M., LT, USNR, serving in *USS Barton* (DD 722) from 18 Jun to 19 Oct 1952. Combat "V" authorized.
- ★ BAUER, Louis H., CDR, USN, serving in *USS Bon Homme Richard* (CVA 31) from 18 Jun to 24 Dec 1952. Combat "V" authorized.
- ★ CURTIS, Archibald W., LCDR, USN, CO of Fighter Squadron 72 from 23 Jun to 18 Dec 1952. Combat "V" authorized.
- ★ FITZ, Harold L., HM3, USNR, (posthumously), serving with a Marine Infantry Company on 24 Feb 1951. Combat "V" authorized.
- ★ FONVIELLE, Charles D., Jr., CDR, USN, CO of Fighter Squadron 74 from 23 Jun to 18 Dec 1952. Combat "V" authorized.
- ★ FORSTER, Donald L., HN, USN, serving with a Marine Infantry Company on

## ★ DECORATIONS

10 May 1952. Combat "V" authorized.

★ HILL, John S., CDR, USN, CO of Fighter Squadron 71 from 23 Jun to 18 Dec 1952. Combat "V" authorized.

★ JACOBSEN, H. T., LT, USNR, CO of USS *Symbol* (AM 123) from 1 Feb to 8 Aug 1952. Combat "V" authorized.

★ JOHNSON, Charles D., HN, USN, serving with a Marine Infantry Battalion on 7 Jul 1952. Combat "V" authorized.

★ MARECKI, Vincent J., LTJG, MC, USNR, attached to the First Marine Division from 20 Apr to 1 Nov 1952. Combat "V" authorized.

★ MAYER, William E., LT, MC, USN, attached to a Marine Medical Battalion from 21 Dec 1951 to 22 Aug 1952. Combat "V" authorized.

★ MCCUBBIN, Gerald E., HN, USN, attached to a Marine Infantry Company on 7 Aug 1952. Combat "V" authorized.

★ McDONALD, Guy E., HM2, USN, attached to a Marine Infantry Company on 13 Jul 1952. Combat "V" authorized.

★ McDOWELL, Noah L., LT, ChC, USNR, attached to a Marine Artillery Regiment on 13 Sep 1952. Combat "V" authorized.

★ MCGIVERN, Charles F., CDR, USN, CO of USS *Jenkins* (DDE 447) from 12 Jun to 24 Nov 1952. Combat "V" authorized.

★ McIVER, Dewitt C., Jr., CAPT, USN, CO of USS *Rainier* (AE 5) and Commander Task Element 92.11 from 21 Nov 1951 to 28 Jul 1952.

★ McLAUGHLIN, Thomas B., HM3, USN, attached to a Marine Infantry Company on 19 Oct 1952. Combat "V" authorized.

★ McNEAL, Dale W., HN, USN, attached to a Marine Infantry Company from 7 Sep to 5 Nov 1952. Combat "V" authorized.

★ MCPHAIL, Philip E., HN, USN, attached to a Marine Infantry Company on 16, 17 and 18 May 1952. Combat "V" authorized.

★ McWILLIAMS, Bernard, HN, USN, attached to a Marine Infantry Company from 7 Sep to 5 Nov 1952. Combat "V" authorized.

★ MENDONSA, August G., LT, ChC, USNR, attached to a Marine Infantry Regiment from 2 Apr to 25 Dec 1952. Combat "V" authorized.

★ MILLER, Charles D., LTJG, MC, USNR, attached to a Marine Infantry Battalion from 14 Sep to 3 Oct 1951. Combat "V" authorized.

★ MONTGOMERY, William W., LTJG, MC, USNR, serving with a Marine Artillery Regiment on 13 Sep 1952. Combat "V" authorized.

★ MOSCARITOLO, Francis R., SN, USN, attached to USS *Douglas H. Fox* (DD 779) from 26 Feb to 24 Jun 1952. Combat "V" authorized.

★ MURTO, Robert E., LT, MC, USNR, serving with a Marine Infantry Regi-

ment from 16 Mar to 15 Oct 1952. Combat "V" authorized.

★ NICHOLS, Lavern E., ENS, MSC, USN, serving with the First Marine Aircraft Wing from 21 Feb to 2 Dec 1952. Combat "V" authorized.

★ NORGAARD, Rollo N., CAPT, USN, on the staff of Commander Seventh Fleet from 25 Feb to 19 Jul 1952. Combat "V" authorized.

★ PATRIARCA, Frank A., CDR, USN, serving in USS *Essex* (CVA 9) from 31 Jul to 28 Nov 1952. Combat "V" authorized.

★ PAWER, Jacob L., Jr., LTJG, USN, (posthumously), on the staff of Commander Carrier Division Three, who had assumed the operational title of Commander Task Force 77, from 19 Jun to 12 Jul 1953. Combat "V" authorized.

★ PEARCE, James G., HN, USN, attached to a Marine Infantry Company on 25 May 1952. Combat "V" authorized.

★ PEREZ, Leopoldo, Jr., HN, USN, serving with a Marine Weapons Company on 24 Apr 1951. Combat "V" authorized.

★ POPE, David A., HN, USN, attached to a Marine Infantry Company on 9 Aug 1952. Combat "V" authorized.

★ PRICKETT, Albert D., LCDR, ChC, USN, serving with a Marine Infantry Regiment from 20 Sep 1952 to 16 Mar 1953. Combat "V" authorized.

★ RATHMANN, Fridrich A., QM3, USN, attached to USS *Douglas H. Fox* (DD 779) from 26 Feb to 24 Jun 1952. Combat "V" authorized.

★ RIEL, Harold E., HM3, USN, serving with a Marine Infantry Company on 19 Mar 1953. Combat "V" authorized.

★ ROACH, Francis L., LT, MC, USNR, attached to a Marine Medical Company from 31 Jul 1952 to 4 May 1953. Combat "V" authorized.

★ ROBBINS, Peter G., LT, MC, USNR, attached to a Marine Infantry Battalion from 4 Apr 1952 to 14 Feb 1953. Combat "V" authorized.

★ ROBINSON, Dean F., HM3, USN, attached to a Marine Infantry Company on 5 Sep 1952. Combat "V" authorized.

★ ROPER, Charles A., HN, USN, attached to a Marine Infantry Company on 17 Aug 1952. Combat "V" authorized.

★ ROUDEBUSH, Dwight W., LT, USNR, serving with a Naval Construction Battalion Detachment from 13 Oct 1951 to 12 Jun 1952. Combat "V" authorized.

★ RUBINOW, Sydney G., Jr., CDR, USN, CO of USS *Stembel* (DD 644) from 19 Jul to 29 Oct 1952. Combat "V" authorized.

★ SAMMIS, Jon K., HM3, USN, attached to a Marine Infantry Company on 22 Aug 1952. Combat "V" authorized.

★ SCHAPIRO, Robert HN, USN, attached to a Marine Infantry Company on 13 Aug 1952. Combat "V" authorized.

★ SCHUYLER, Robert M., LTJG, MC,

USNR, serving in a Marine Medical Battalion from 14 Apr 1952 to 15 Jan 1953. Combat "V" authorized.

★ SEARCY, Henry D., HN, USN, attached to a Marine Infantry Company on 27-28 Oct 1952. Combat "V" authorized.

★ SHEPHERD, Chester C., Jr., SN, USN, attached to USS *Douglas H. Fox* (DD 779) from 26 Feb to 24 Jun 1952. Combat "V" authorized.

★ SKILES, Dan, HN, USN, attached to a Marine Infantry Company on 30-31 Aug 1952. Combat "V" authorized.

★ SMITH, John E., HN, USN, serving with a Marine Infantry Company on 25 Oct 1952. Combat "V" authorized.

★ SOBEL, Samuel, LT, ChC, USN, attached to a Marine Division from 10 July 1952 to 12 Apr 1953. Combat "V" authorized.

★ STEIN, Arthur H., Jr., LTJG, MC, USNR, serving as medical adviser to a ROK Marine Corps Regiment from 9 May to 6 Sep 1952. Combat "V" authorized.

★ STRONG, Zenos W., HM1, USN, serving with a Marine Infantry Company from 21 Sep to 5 Nov 1952. Combat "V" authorized.

★ THORN, Lawrence J., HN, USN, serving with a Marine Infantry Company on 27 Oct 1952. Combat "V" authorized.

★ WARD, Joseph M., LTJG, MC, USNR, attached to a Marine Infantry Battalion from 6 Feb to 13 Aug 1952. Combat "V" authorized.

★ WARFIELD, Larry R., HN, USN, serving with a Marine Infantry Company from 28 May to 3 Jul 1952. Combat "V" authorized.

★ WATKINS, Thomas R., HN, USN, serving with a Marine Infantry Company from 14 Sep to 8 Dec 1952. Combat "V" authorized.

★ YARBRO, Harold R., LTJG, MC, USNR, attached to a Marine Infantry Battalion from 11 Jul 1952 to 22 Jan 1953. Combat "V" authorized.

★ YEAKLE, George A., HM3, USN, serving with a Marine Engineer Company on 18 Dec 1952. Combat "V" authorized.

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

★ BOWEN, Harold G., Jr., CAPT, USN, Commander Destroyer Division 92 from 23 Jan to 10 Jun 1952, and Commander East Coast Blockade and Patrol Group, Korea, and Commander of the Wonsan Element of the East Coast Blockade and Patrol Group Korea, from 16 Apr to 17 May 1952.

★ CAREY, William J., Jr., CDR, USN, CO of USS *Conway* (DDE 507) from 15 Jun to 1 Nov 1951. Combat "V" authorized.

★ CARRISON, Daniel J., CDR, USN, CO of USS *O'Bannon* (DDE 450) from 4 Dec 1951 to 2 Apr 1952. Combat "V" authorized.

★ CLARK, Robert W., CDR, USN, CO of USS *Rogers* (DDR 876) from 13

Jun to 2 Dec 1952. Combat "V" authorized.

★ DRAGICEVICH, Joseph, HN, USN, serving with a Marine Infantry Company on 25 Feb 1953. Combat "V" authorized.

★ DURHAM, Harold D., LCDR, USN, CO of *uss Ptarmigan* (AM 376) from 25 Jun 1951 to 15 May 1952. Combat "V" authorized.

★ HARRUM, Roger W., HM3, USN, attached to a Marine Infantry Company on 7 Aug 1952. Combat "V" authorized.

★ HAYES, George A., CDR, USN, CO of *uss Fletcher* (DDE 445) from 29 Dec 1951 to 17 Feb 1952. Combat "V" authorized.

★ HILDRETH, James B., CDR, USN, CO of *uss Hopewell* (DD 681) from 10 Sep 1952 to 2 Mar 1953. Combat "V" authorized.

★ KELLEY, John D., GM1, USN, attached to Underwater Demolition Team Three from 30 Jun to 8 Jul 1951. Combat "V" authorized.

★ KINNEY, Sheldon H., CDR, USN, CO of *uss Taylor* (DDE 468) on 18 Sep 1952. Combat "V" authorized.

★ KLEE, William M., CDR, USN, CO of *uss Wedderburn* (DD 684) from 10 Sep 1952 to 2 Mar 1953. Combat "V" authorized.

★ LARKIN, Richard A., CAPT, USN, Chief of Staff to Commander Cruiser Division Five from 9 Sep to 29 Nov 1951. Combat "V" authorized.

★ LAVRAKAS, Lefteris, LCDR, USN, CO of *uss Horace A. Bass* (APD 124) from 22 Oct 1951 to 3 Jul 1952. Combat "V" authorized.

★ MCGIVERN, Charles F., CDR, USN, CO of *uss Jenkins* (DDE 447) from 12 Jun to 24 Nov 1952. Combat "V" authorized.

★ McIVER, Dewitt C., Jr., CAPT, USN, CO of *uss Rainier* (AE 5) and Commander Task Element 92.11 from 21 Nov 1951 to 28 Jul 1952.

★ PALMER, William O., HM3, USN, serving with a Marine Infantry Company from 21 to 26 Jul 1952. Combat "V" authorized.

★ PENNOYER, Frederick W., LCDR, USN, CO of *uss McGinty* (DE 365) from 14 Nov 1951 to 12 May 1952. Combat "V" authorized.

★ ROBERTS, Leigh M., LTJG, MC, USNR, serving with a Marine Infantry Battalion on 3 Jun 1951. Combat "V" authorized.

★ SHEPPARD, Walter P., Jr., LT, USN, CO of Minesweeping Boats of Mine Squadron Three from 20 Dec 1950 to 22 Aug 1951. Combat "V" authorized.

★ SMITH, Charles W., Jr., CDR, USN, serving in *uss Bon Homme Richard* (CVA 31) from 18 Jun to 24 Dec 1952. Combat "V" authorized.

★ STEPHAN, Charles R., CDR, USN, serving in *uss Iowa* (BB 61) from 31 Mar to 24 Sep 1952. Combat "V" authorized.

★ VEJTASA, Stanley W., CDR, USN, serving in *uss Essex* (CVA 9) from 31 Jul 1952 to 10 Jan 1953. Combat "V" authorized.

★ WHITBY, Frank R., Jr., CDR, USN, CO of *uss Richard B. Anderson* (DD 786) from 13 Jun to 2 Dec 1952. Combat "V" authorized.

★ ZIMANSKI, Frank A., CDR, USN, CO of *uss Walke* (DD 723) from 29 Jul to 15 Nov 1952. Combat "V" authorized.

Gold star in lieu of third award:

★ CLAY, Donald N., CDR, USN, for meritorious achievement in Korea from 1 Dec 1952 to 16 Mar 1953. Combat "V" authorized.

★ COHEN, David B., CDR, USN, on the staff of Commander Naval Forces, Far East, from June 1950 to June 1952.

★ RAMAGE, Donald B., CDR, USN, for meritorious service in Korea from 19 Mar to 27 Jul 1953. Combat "V" authorized.

## HOW DID IT START

### Change of Command Ceremony

The line officer of today's Navy looks forward to the time when—with added years and varied experience in the sea service—he will be ordered to command a ship. The order will stem from the Chief of Naval Personnel in about these words:

"Proceed to the port in which USS *Advance* may be and upon arrival, report to your immediate superior in command, if present, otherwise by message, for duty as commanding officer of USS *Advance*."

At this point the new CO will be participating, for the first time actively, in the "change of command" ceremony. What is the tradition of the change of command?

Very little has been written on the subject. The basic source, outside of custom and tradition, is Navy Regs. Going as far back as 1865 and the Navy Regs of the Civil War era, the rules show that there has been little change in the procedures of the change of command.

The latest edition of Navy Regs states, in Article 0739, that a "commanding officer about to be relieved of his command shall . . . inspect the command in company with his successor before the transfer is effected . . . [and] cause the crew to be exercised in his presence and in the presence of his relief at general quarters and general drills, unless conditions render it impracticable or inadvisable." Among other things, the outgoing occupant turns over all keys to the incoming CO.

Relating specifically to the change of command ceremony is the regulation that at the time of turning over command the outgoing CO shall "call all hands to muster. The officer about to be relieved shall read his orders of detachment and turn over the command to his successor, who shall read his orders and assume command."

Today, a new commanding officer after reporting to the Senior Officer Present Afloat, and to his type, division or task force commander or other prospective senior in the chain of command, reports in turn aboard his new ship to the CO.

The change of command ceremony itself is under way when all hands are called to Quarters at the appointed hour. On a destroyer, the crew usually musters on



either the forecastle or fantail. Sufficient room is left for the ceremony. The uniform is service dress, blue or white.

When the executive officer reports the crew at Quarters, the retiring CO and his relief proceed to the ceremonial area together. If the retiring officer wishes to say a few words to the crew that he is leaving, this is the proper time. After a brief speech, he faces forward and publishes his orders of detachment to the officers and crew. He then steps back. The new commanding officer steps forward and publishes his orders to command, after which it is appropriate to face about, salute the retiring officer and say, "I relieve you, sir."

The retiring officer then leaves ship's company with its new skipper, who may or may not give a brief talk to the men of his new command. He will include a statement that standing orders will remain in effect. The new skipper then turns to the Exec and orders him to continue with ship's routine.

The ceremony is over and he is now CO of USS *Advance*.

Navy Regs also specifies that the officer relieved, though without authority after turning over the command, is, until his final departure, entitled to all ceremonies and distinctions accorded him while in command.

An important tradition, the change of command ceremony is firmly established in today's Navy.

# BOOKS:

## MORE GOOD, NEW VOLUMES ON WAY TO NAVY LIBRARIES

VOLUMES OF HISTORICAL and biographical fiction, diving adventures and "how-to-do-its" in the field of color and underwater photography are among the many new books selected for Navy libraries by the BuPers library staff. Here are reviews of some of the latest:

• *To Hidden Depths*, by Captain Philippe Tailliez, French Navy; E. P. Dutton and Company.

Undoubtedly the growing interest in diving, spearfishing and exploration of undersea "flora and fauna" is responsible for the many books approaching the field from various viewpoints. This volume, by one of the collaborators of J. Y. Cousteau, author of *The Silent World* (see ALL HANDS, March 1953, p. 58), tells of the author's pioneering in the field of "skin diving," his work with the Undersea Study and Research Group, which he helped found.

At the end of World War II, Tailliez and his compatriots, Cousteau and Dumas, expanded their activities in undersea research. Their adventures took them from the

waters of Brittany to such faraway points as Indochina, Siam and other Far Eastern regions.

This is an engrossing account, told in a highly readable fashion by one of the most famous divers of our time.

★ ★ ★

• *Underwater Photography*, by Hilbert Schenck, Jr., and Henry Kendall; Cornell Maritime Press.

The authors of *Shallow Water Diving and Spearfishing* (see ALL HANDS, June 1954, p. 58) have come up with a guide to underwater photography.

It is a practical handbook, containing details on the techniques of box construction, waterproofing, cameras and the like. There is a comprehensive survey of underwater exposure, both with natural and artificial light. And, of course, there is a chapter on the actual taking of underwater pictures, covering the problems and their solutions, revealing many of the tricks of the trade.

This book should prove exceptionally helpful to the growing list of Navymen now trying their hand at underwater photography.

★ ★ ★

• *Successful Color Photography*, by Andreas Feingers; Prentice-Hall, Inc.

Here is a good, solid, down-to-earth "how to do it" on color photography, written by a world famous photographer with more than a score of years in the field.

Starting with a description of the "new medium," the volume surveys the subject for the beginner, delves into the nature of color, color perception, color film. It tells how to take color photographs and how to process color film. It discusses transparencies and prints. And there is an interesting chapter on mistakes—and how to profit from them.

Many amateur photographers—and not a few professionals—are turning to color photography. Beginner and pro alike will find this book valuable.

★ ★ ★

• *Banners Against the Wind*, by John Jennings; Little, Brown and Company.

When Sam Howe was graduated

from medical school, his father wanted him to begin practice in Boston, marry a wealthy young socialite and, in general, lead the good life as was fitting for a man of his social position.

But Samuel Gridley Howe had other plans. Greece was fighting for her independence from the Turks and Sam wanted to join forces with the Greeks, putting his medical training at their disposal.

Once in Greece, Sam undertook his first big assignment—to organize Greek army medicine in the field. Medical science was far behind the times in Greece and men had to be trained for the task of caring for casualties.

There were professional jealousies among the medical men, political and military rivalries among the leaders, to plague Howe's work. Howe was equal to the task, proving himself an able administrator as well as a fine surgeon.

Returning to the United States, Howe pioneered in the field of educating the handicapped—starting with blind children and eventually including deaf-mutes. At 41, he married Julia Ward—who later wrote the famed "Battle Hymn of the Republic."

This is a well-written book—calculated to hold your interest—by the teller of such tales as *The Strange Brigade* and *Rogue's Yarn*.

★ ★ ★

• *Captain Lightfoot*, by W.R. Burnett; Alfred A. Knopf.

This historical novel—by the author of such books as *Little Caesar* and *High Sierra*—is set in the British Isles during the early years of the 19th century.

Michael Martin, reckless young Irishman and member of the secret society, "Five Minus One," gets into difficulties with the local authorities and has to flee to Dublin. En route, he falls under the care of John Doherty, a notorious highwayman and operator of a gambling house.

It doesn't take long for the back country boy to acquire a certain amount of polish and savoir faire. He soon becomes Doherty's right-hand man.

There follows a series of adventures ranging from brushes with nobility to a duel "with pistols at 10 paces," to imprisonment at the hands of the British.

There is plenty of excitement for those who like historical fiction.

## SONGS OF THE SEA



### The Glorious Sea

The sea, the glorious sea  
How pleasant it is on the sea  
When 'round us the billows are heaving,  
And boldly our vessel is cleaving  
Her pathway thro' open sea.  
The bright, the glorious sea.

—Old Naval Song

# AWAY BOARDERS!



## ALL HANDS BOOK SUPPLEMENT

### World-War II U-boat Capture

How a small group of resourceful modern-day sailors boarded the German U-505, the first enemy vessel to be successfully boarded and captured on the high seas by the U. S. Navy since 1815.

*Ten years ago, in the sparkling Atlantic 150 miles off North Africa, was enacted the drama shown on these pages. In a feat that harked back to the days of sail and cutlass, an imaginative and plucky bunch of hard-fighting Navymen succeeded in outwitting a German submarine crew, capturing not only a relatively undamaged U-boat but its priceless secret code books as well, then towing the salvaged submersible toward port.*

*Faced with the danger of exploding demolition and scuttling charges, running the risk of being trapped in a sinking boat, a handful of brave men led by a single-minded lieutenant (jg) charged past the fleeing German sailors and dived belowdecks (see photo above) to prevent the scuttled ship from sinking, and preserve one of the biggest intelligence victories of the war.*

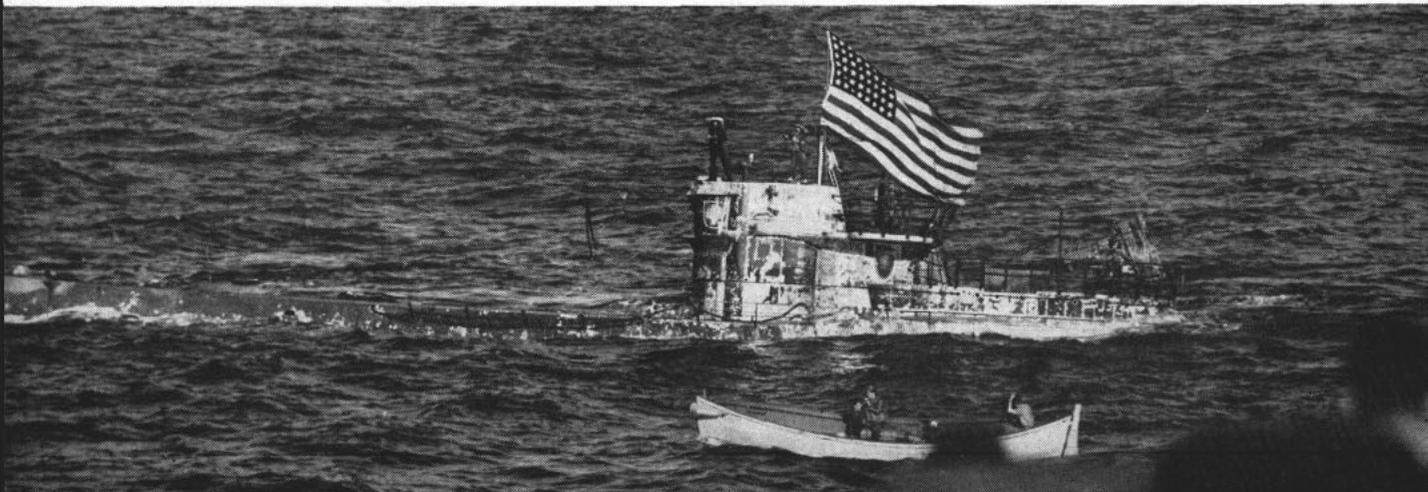
*This daring feat was commemorated only last month*

*when a new exhibit, starring the U-505 itself, was opened at the Chicago Museum of Science and Industry. The submarine had been towed at the expense of a Chicago citizens' committee from its former resting place at Portsmouth, N. H., through the Great Lakes to its new site.*

*How the intrepid U. S. Navymen originally foiled the Nazi scuttling attempt, saved the near-sinking submarine (below) and took their prize in tow, is here vividly told by the task force commander, Rear Admiral (then Captain) Daniel V. Gallery, USN, in an account from the pages of his book, "Clear The Decks!"*

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USS CHATELAIN (DE 146) watches boarding operations after her depth charges forced the sub to the surface.

**A**FTER three weeks of unsuccessful [submarine] hunting, shortage of fuel necessitated starting for Casablanca. One [German] submarine was suspected to be near our route to Casablanca, so we determined to hunt that one as long as fuel permitted.

Meanwhile my communicators decoded another one of those top secret messages from a task group several hundred miles from us, announcing that our sister ship the *Block Island* (CVE 106) engaged on the same sort of duty, had just been torpedoed and sunk. Next morning I assembled the whole crew on the flight deck, made the announcement, and then asked, "Does this news scare us?" I allowed fifteen seconds for the lads to think it over, and then went on to say, "I can see the answer in your faces, and the answer is, 'Hell, no!'" To tell the truth, the actual answer was "You're damned right it does," and that went for me too!

For the next few days and nights we combed the ocean with our planes chasing will-o'-the-wisps. We had briefly glimpsed visual sightings which were either periscopes or porpoises. We had disappearing ghosts on our radar scopes, we had noisy sonobuoys, and our radio direction finders picked up suspicious transmissions. We were sure that there were submarines near us but we couldn't flush them.

On the morning of Sunday, June 4 [interestingly, only two days before the big invasion at Normandy, 1944] we were a hundred miles off Cape Blanco, French West Africa, when the orderly brought me in a copy of the Plan of the Day. One section of the plan which the orderly handed me that morning was headed, "Crew for Captured Submarine."

We had been canvassing our crew ever since leaving Norfolk to find people who knew something about storage batteries, Diesels, or anything else that might be useful to the prize crew of a submarine. Everybody wanted to be in this crew, and now the long list of claimants for places had finally been narrowed down to the twenty who were deemed to be best qualified—or, perhaps, least unqualified would be more accurate. I scanned this item on the Plan of the Day somewhat wryly and thought: "Maybe we'll have better luck on the return voyage."

We had stretched our fuel supply to its absolute limit by this time, in fact a little beyond, I think—but subsequent events spared me the acute embarrassments of having this become public knowledge. So we reluctantly abandoned the hunt and headed for Casablanca. I had just come up on the bridge after attending Mass when the radio loudspeaker announced: "USS *Chatelain* to Task Group Commander. I have a possible sound contact."

That was nothing startling. "Possible sound contacts" are made every day. However, our doctrine was to treat them all with respect. The *Guadalcanal* (CVE 60) swung away from the contact and put on full speed, while the two nearest destroyers broke off to assist the *Chatelain* (DE 146). A carrier right smack at the scene of a sound contact is like an old lady in a barroom brawl. She has no business there, and can do nothing but get in the way of those who are going to need elbowroom for the work at hand.

So far, this was no different from any other doubtful sound contacts. But, now, LCDR Dudley S. Knox, Jr., skipper of the *Chatelain*, reported, "Contact evaluated as sub. Am starting attack." He immediately dropped his depth charges.

Our two *Wildcat* fighters which had streaked over to the *Chatelain's* position, were just starting to circle overhead like hawks ready to pounce on their prey. As the *Chatelain's* depth charges hit the water, both fighter pilots sighted the long dark shape of the submarine running fully submerged.

Ensign J. W. Cadle, flying one of the *Wildcats*, sang out on the radio, "Sighted sub." Lieutenant W. W. Roberts, in the other fighter, confirmed.

At this point the sub first spotted us and reversed course, jamming her diving planes to the down position to shake off the *Chatelain* and go deep. But the airplanes promptly reported this to the *Chatelain*, advising her to reverse course too, and fired their machine guns into the water to indicate the spot where the sub was disappearing. The *Chatelain* swung around, following the directions from the air and the indications of her sound gear, and delivered her Sunday punch of depth charges. This is one of the few cases in which an aircraft actually directed the attack of a surface vessel on a submarine.

By this time all eyes were on the *Chatelain*. Cheers went up as the depth charges exploded. As the first depth-charge plumes were subsiding, Ensign Cadle clamped down the transmitter button in his plane and jubilantly shouted, "You've struck oil! Sub is surfacing!" At 11:22½, just twelve and half minutes after the *Chatelain's* original report, all doubt was dispelled.

As she broke surface with depth-charge plumes still rising all around her, the *Chatelain*, *Pillsbury* (DE 133) and *Jenks* (DE 665) opened fire with their small-caliber antiaircraft guns, and the two fighter planes cracked down on her, strafing her decks with their .50 caliber fixed machine guns. The *Guadalcanal*, *Pope* (DE 134) and *Flaberty* (DE 135) had itchy trigger fingers too, but held their fire because the other destroyers were in the way.

Hundreds of men lined the decks of our carrier and crowded to topside positions on the destroyers for ring-side seats. The three destroyers firing on the U-boat formed a rough crescent around her and hammered streams of shrapnel shells into the U-boat's conning tower. From above, the *Wildcats* swooped down, their .50 caliber machine guns blazing and sending torrents of hot steel ripping across the sub's deck and ricocheting through her superstructure. All this gunfire was potentially lethal to personnel but was harmless so far as the pressure hull of the U-boat was concerned.

We found out later from the Nazis that their first warning of danger came when the *Chatelain's* depth-charge pattern shattered the peaceful noonday atmosphere

by exploding all around them just as they sat down for Sunday dinner. The explosions smashed the lights, rolled the U-boat on her beam's end and dumped everybody into the bilges under a heap of mess tables, crockery and food. The panic-stricken Nazis scrambled out of the bilges and rushed for the conning tower escape hatch, yelling that the after torpedo room was blown wide open and that the boat was sinking.

The stunned skipper took their word for this, blew his tanks, surfaced, and gave the order to scuttle and abandon ship.

As the sub surfaced, it flashed through my mind, "Here is exactly the situation we were hoping for—this is where we came in on the U-515!" [A few weeks before the task force had brought another U-boat to the surface with depth charges, but sent her to the bottom with shellfire—Ed.] So I grabbed the mike on the bridge and broadcast, "I want to capture this b- - if possible."

Our crazy plan worked to perfection and the Nazis performed as predicted. [Ever since the U-515 incident, task force personnel had been carefully rehearsing the newly written boarding bill, a bill based on the premise that the crew of a boarded enemy submarine would be too intent upon saving their own lives to put up any effective resistance to the boarding.—Ed.] We plastered the U-boat with small stuff and the Germans went overboard so fast they didn't even stop the engines, but left the sub circling at eight knots! The ancient call, "Away all boarding parties!" boomed out for the first time over modern loudspeakers.

Whaleboats plopped into the water and streaked for the sub. LT David [Albert LeRoy David, LTJG, USN] from the *Pillsbury* leaped aboard the U-boat just after the last Nazi took his departure. As his whaleboat plunged alongside the circling sub and made fast for this historic Nantucket sleigh ride, I broadcast for the benefit of the task group: "Heigh ho, *Pillsbury*, ride 'em cowboy!" Not a very salty exhortation, but readily intelligible to all concerned.

There was no one on the sub's deck now except one dead German—miraculously, the only man on either side killed during the entire engagement. However, there was every reason to believe that there were still Nazis below, opening sea cocks and getting ready to blow up the vessel. The very fact that the sub was running at good speed, surfaced, seemed to indicate that she was not totally abandoned. But this didn't give David pause. Without hesitating, he and A. W. Knispel, TM3, and S. E. Wdowiak, RM2, plunged down the conning tower hatch, ready to fight it out with any Germans below.

David and his party of eight laid their lives on the line when they boarded that U-boat. They had every reason to believe that they would be greeted by a blast of machine-gun bullets when they started down the hatch. They also knew that all German fitted subs were fitted with fourteen time-fused demolition charges, but they didn't know what time it was by the German's clocks. This made no difference to David and his boys.

David got the Medal of Honor for this job. Only one other was awarded in the Battle of the Atlantic. His two principal helpers, Knispel and Wdowiak were given Navy Crosses.

The boarders found that the Nazis had done a hurried job of scuttling, and the sub was rapidly filling with water. As soon as our boys pulled the switches on the

sub's main motors, she went down so far by the stern that they had to start the motors up again to keep headway and hold the stern up.

They also found that the sub wasn't as badly damaged as the Germans thought she was. As we found later, the damage was confined to her external ballast tanks, and the boat's pressure hull was intact.

The rest of the boarding party now were busy closing the valves which the Nazis had opened. In the main control room they found a stream of water six inches in diameter pouring into the hull, through a large strainer in a sea connection which had the cover knocked off, to make certain that the boat went down, even if all the other scuttling measures taken should fail. This stream of water would have sunk her in a few more minutes, but the boarders found the missing cover, slapped it back in place and stopped the water.

Boarding parties from the *Guadalcanal* were now swarming aboard. One party literally arrived with a bang when its boat was picked up by the sea and deposited bodily on the deck of the submarine. This crash caused some concern to the stouthearted lads from the *Pillsbury*, who were busy down below and didn't know what was going on above. Only a few minutes earlier the sub had received a bad bump from the *Pillsbury* when she finally got alongside. This bump drove the submarine's port bow diving planes clear through the paper thin plates of the destroyer, and when the *Pillsbury* sheered out again, she wrenched off the diving planes. The *Pillsbury* was then obliged to haul clear with water pouring into her forward engine room and her sound room, both of which were soon flooded to the waterline.

As the *Pillsbury* limped clear of area she signaled us that the submarine had to be towed to remain afloat. So the *Guadalcanal* signaled back, "Have submarine stop engines and we will take her in tow."

The crew of the *Guadalcanal* had been kept informed of each new development in the battle by the ship's public address system. Right after the electrifying announcement that we were taking the sub in tow ourselves a conscientious boatswain's mate on the bridge, carrying out the check-off list for routine daily announcements, boomed over the loudspeakers, "Now the name of the movie for tonight will be . . ." The raucous laughter that broke the tension drowned out the rest of the announcement.

**HIGH SEAS** force the boarding party to hang onto the guy wires as they fasten the towline to the bull-nose.



When the sub stopped, she again settled with her stern down, coming to rest with about twenty feet of her bow and three feet of the conning tower remaining above water. We pulled alongside and put our stern close aboard the submarine's bow. The U-boat's ugly snout, with its four loaded torpedo tubes, was almost touching the side of our ship.

We lost no time passing a one-and-a-quarter-inch tow wire to our lads on the forecastle. Soon we were underway again with our prize in tow. As we gained headway the sub's stern came up again, reviving our hopes, which had been sinking as the sub settled lower in the water.

The boarding parties worked fast and furiously, disconnecting electric leads from demolition charges, looking for booby traps and passing up on deck all secret papers and documents, so that we would have something to show for it in case we still lost the U-boat.

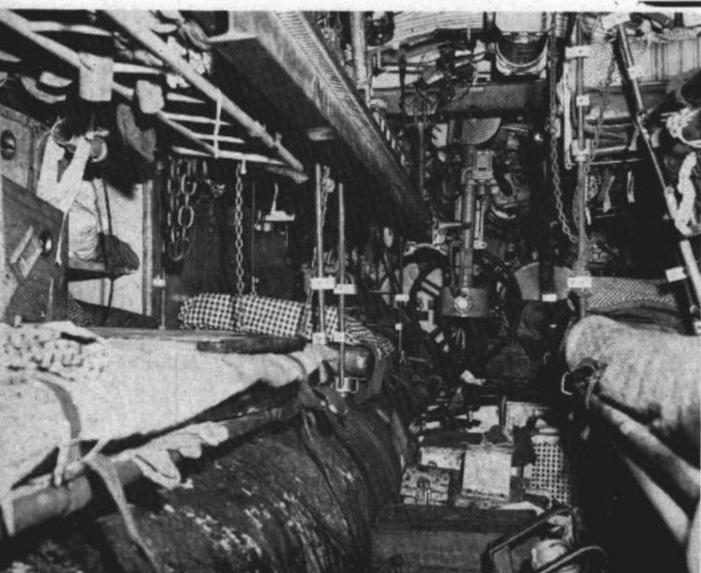
The papers and documents removed at this time were of inestimable value. The crew had abandoned the sub so hastily, and were so sure she was going down, that they hadn't bothered to destroy anything. We thus got possession of every chart, publication, general order and code book that an operating submarine carries. From the point of view of Naval Intelligence it was the greatest windfall of the war.

One group of men, now in the task group, watched the proceedings with different emotion from ours. The *Chatelain* had picked up about forty survivors from the sub, and had herded them on her forecabin, where seamen armed with tommy guns kept them covered. They looked on grimly and silently from a distance of five hundred yards while we took their ship in tow.

Just before the *Pillsbury's* boarding party got aboard the sub, three cheers had gone up from the Nazis, who were then in the water. We found out later the Captain of the U-boat had ordered his men to give "three cheers for our sinking boat." He was convinced that [it] clearly was on its way to the bottom.

Though our maverick was now securely roped, she was not yet broken to the halter. She still wanted to circle on the right instead of towing meekly astern, the way tows are supposed to do. Before she would go our way, she sheered way out on the starboard quarter, drawing the towline as taut as a fiddlestring.

**GEAR-STREWN** interior of the after torpedo room shows how hastily the Germans abandoned their submarine.



I went aboard the sub myself about this time in response to a report that our boys had found a booby trap. I itched for an excuse to get over there and this was a legitimate one. I was an ordnance postgraduate, knew more about fuses than anyone else in the ship, and so at the departure conference I had designated myself "officer in charge of booby traps," and had directed that no one else was to monkey with one.

I found the suspected trap attached to the watertight door of the after torpedo room, in such a manner that the door could not be opened without springing the trap. We had to get into that room to get at the hand steering gear because the sub's rudder was jammed hard over and we couldn't tow the U-boat properly until we got the rudder amidships.

Correct bomb disposal protocol called for clearing everyone else out of the boat while I operated on the suspected mechanism. However, the time was short and I didn't believe it actually was a booby trap; and besides that, it's nice to have company when you're doing a job like that. So with Earl Trosino and a couple of our boarders anxiously kibitzing, I carefully sprung the trap. The broad grins that spread across all faces as we got it open might well have been actuated by a mechanism on the trap. We eased the watertight door open, ready to slam it shut again if the torpedo room were flooded.

It was dry. So we hurried aft to the emergency steering gear and put the rudder amidships.

While I tinkered around below, our hard-working painter had been busy on deck, rechristening our prize. When I climbed back out of the escape hatch I saw daubed in big red letters on the conning tower, her new name, "Can Do, Junior." We soon shortened this by dropping the first two words, and she has been "Junior" ever since to all hands in the task group.

When I climbed the sea ladder again on the *Guadalcanal*, we hoisted the traditional broom at our masthead and squared away on a course for the nearest friendly port, Dakar. I cracked out a dispatch to Admiral Ingersoll telling him what we were doing and requesting a tanker and tug.

Within an hour we got a message back from Admiral Ingersoll, "Stay out of Dakar—proceed Bermuda."

This was a smart move because Dakar was a hotbed of international intrigue, teeming with Vichy French. If we had towed our prize into that nest of spies Berlin would have known all about it that same afternoon.

The sinking of the *Block Island* was still very fresh in our minds and I was in a little bit too much of a humor to get the hell out of the area. During the night we steamed too fast and parted our towline. We had to patrol around the sub all night under a full moon, right smack in the middle of the U-boat lane from Cape Town to Cherbourg, while we roused up our two-and-a-quarter-inch wire from the boatswain's locker.

At the crack of dawn, there was a brisk breeze blowing, and at times we had to go ahead full on one engine and back full on the other to hold the ship in place as we again came alongside the sub. The working party handling the towline on the heaving, slippery deck of the U-boat had a nip-and-tuck struggle to get the cumbersome wire through the bull nose in the bow. It was a tough, dangerous job, a job for real seamen. Most of the lads on the ship's forecastle that morning

had been apprentice seamen until just before joining the *Guadalcanal*. They proved themselves real seamen now.

For the next three days and nights we conducted flight operations with the sub in tow, and with very little wind across the flight deck on account of our slow speed. Admiral King thought I was gilding the lily when I told him about it later, and insisted on seeing the movies to prove it. This was another one of these "impossible" things which we found out you just take in your stride when the chips are down.

Earl Trosino put the heat on me to let him and his gang start the engines on the U-505 and bring her in under her own power. Looking back on it now, I wish I had let them do it. But at the time I was afraid they might open the wrong valve and lose her—so we towed her in. I hereby apologize to Earl and his boys for grossly underestimating their capabilities.

People often ask me if we had anyone in our boarding parties who was an expert on submarines. The answer is "Yes." We had one man who had been a yeoman on one of our own submarines five years previously. So he could have told us anything we wanted to know about the paper work, correspondence, or filing system of submarines. But Earl Tosino was an expert on marine machinery, whether it is installed in the *Queen Mary*, a harbor tug, or a submarine.

Trosino saved the sub after David had captured it. All of Earl's previous training had been as chief engineer of a tanker. He had never been aboard a submarine before, but to him machinery is machinery, no matter what kind of craft it is installed in. He spent hours crawling around the floor plates of that foundering sub, tracing out pipe lines and closing the right valves to keep her afloat. He made no mistakes. If he had, he would have been trapped under the floor plates and would have gone down with her.

On the fourth day we turned our tow over to the fleet tug, *Abnaki* (ATF 96), which, together with a tanker, broke off from an eastbound convoy in response to orders from Admiral Ingersoll.

That tanker, the *Kennebec* (AO 36), coming over the horizon was one of the most beautiful ships I have ever seen. To most of the task group she looked like an ordinary fat old tanker, but to me she was an angel from heaven. I shaved things too close on our fuel supply. I was on the verge of running out of oil.

Maybe there is something that could make a skipper look more ridiculous than running out of oil in the middle of the ocean, but I don't know what it is!

The *Abnaki's* orders had simply told her to rendezvous with our task group "for a towing job." I solemnly scolded her skipper for jumping to the conclusion that the *Guadalcanal* had been hit and that he was going to tow us home.

You could hardly blame the *Abnaki* for failing to read between the lines of her orders correctly. I found out later that our first terse radio report of the capture was greeted with incredulity in London and Washington. The front offices suspected the communication officers of careless decoding on that word "captured," because you just don't do that to modern ships in the 20th Century. As soon as they realized it was true, a super-duper "Top Secret" label was clamped on the news.

After the *Abnaki* took over the tow, Earl Trosino

had an inspiration. "Junior" was still in a precarious state of nearly neutral buoyancy and we couldn't be sure we wouldn't lose her due to a slow leak. By this time Earl had traced all the drainage lines on the sub and knew how to pump her out—if he only had power enough to run the pumps. The battery was completely discharged by now, and I wouldn't let him try to start the Diesels, either to drive the boat or to recharge the batteries. So Earl disconnected the Diesels from the shafts, set the switches properly on the electric power distribution board and persuaded me to have the *Abnaki* tow all night at ten knots. This high speed made the propellers turn over, thus turning the sub's electric motors, on which Earl had set the switches for charging the batteries. The electric motors, now acting as generators, didn't know that the propellers, not the Diesels, were making them turn, so they performed as if everything were normal and recharged the batteries. Next day we used the electric pumps to bring her up to full surface trim, and our worries were over.

The task group arrived in Bermuda on June 19, and turned the U-505 over to my friend, the Commandant. As we were to find out later, you can't enter the lagoon in Bermuda except in daytime, and when our task group steamed through the entrance with the *Abnaki* and "Junior" bringing up the rear, the news spread all over the island about as quickly as the word would go through the ship that Betty Grable was coming aboard wearing a cellophane sarong. I still don't see how the military censors were able to prevent the news from reaching the mainland for nearly a year, but they did.

The vital secret, that the U. S. had the key to the German naval codes, was carefully guarded all along the line. It was well worth preserving! The captured books enabled the Navy Department to monitor messages to all enemy U-boats for the rest of the war. Even future code changes were foreshadowed in the captured documents!

When Germany surrendered, American intelligence officers confirmed that the secret had been one of the best-kept of the war. The Nazi naval command had put down the U-505 as "probably sunk" during that fateful week.

AVENGER starts landing run on the flight deck of carrier *Guadalcanal*, which has the U-boat in tow.



# TAFFRAIL TALK

ONE OF the most difficult ALL HANDS jobs each month is the "centerspread" feature, in which the writers, illustrators and editors get together to present an important Navy story in words, charts and pictures. Currently the centerspread features the stars, having covered the subjects of waves, wind and clouds as they affect the Navyman.

Former spreads have ranged in subject matter all the way from a treatment on compartmentation of Navy vessels to a summary of the colorful but unofficial "certificates" Navy men get for feats like crossing the Equator and sailing to the Far North.

Often, one of these spreads fulfills a long-time need. We understand from letters we get that "Sports for Shipboard Use" (January 1953) and "How Ships Get Their Names" (May 1953) still enjoy wide circulation. The Coast and Geodetic Survey people, to whom we went for guidance on "Clouds Forms and Symbols for the Navyman" (April 1954), told us that this was the first time of which they know that such information has been gathered together in one place.

But the best of centerspreads is of little use if it doesn't come before the reader's eyes. Here are a couple of tips for getting better mileage out of them.

Tear out the spread and tack it on a convenient bulletin board. But remember—don't chop up any issue until it has completed its full round of ten or more men.

If you work in ship's office, you may want to use the centerspreads as references. Stick appropriate ones on the bulkhead or on your desk.



If you run the ship's paper and use offset printing, "shoot" the spread and reprint it any convenient size in your next issue. ALL HANDS encourages reprints in ship's papers, with appropriate credit to the source.

★ ★ ★

They must raise them tough in Idaho. We heard the story recently about Louis Rebillet who walked 48 miles through 14 feet of snow to enlist in the Naval Reserve. When he was told his duty wouldn't start for several months he walked back to his parents' ranch to wait for the call. Sounds as though he'll have to be assigned to a carrier when he comes to active duty. That's the only type of ship he won't feel cramped in.

*The All Hands Staff*

# ALL HANDS

THE BUPERS INFORMATION BULLETIN

With approval of the Bureau of the Budget on 17 June 1952, this magazine is published monthly by the Bureau of Naval Personnel for the information and interest of the naval service as a whole. Opinions expressed are not necessarily those of the Navy Department. Reference to regulations, orders and directives is for information only and does not by publication herein constitute authority for action. All original material may be reprinted as desired if proper credit is given ALL HANDS. Original articles of general interest may be forwarded to the Editor.

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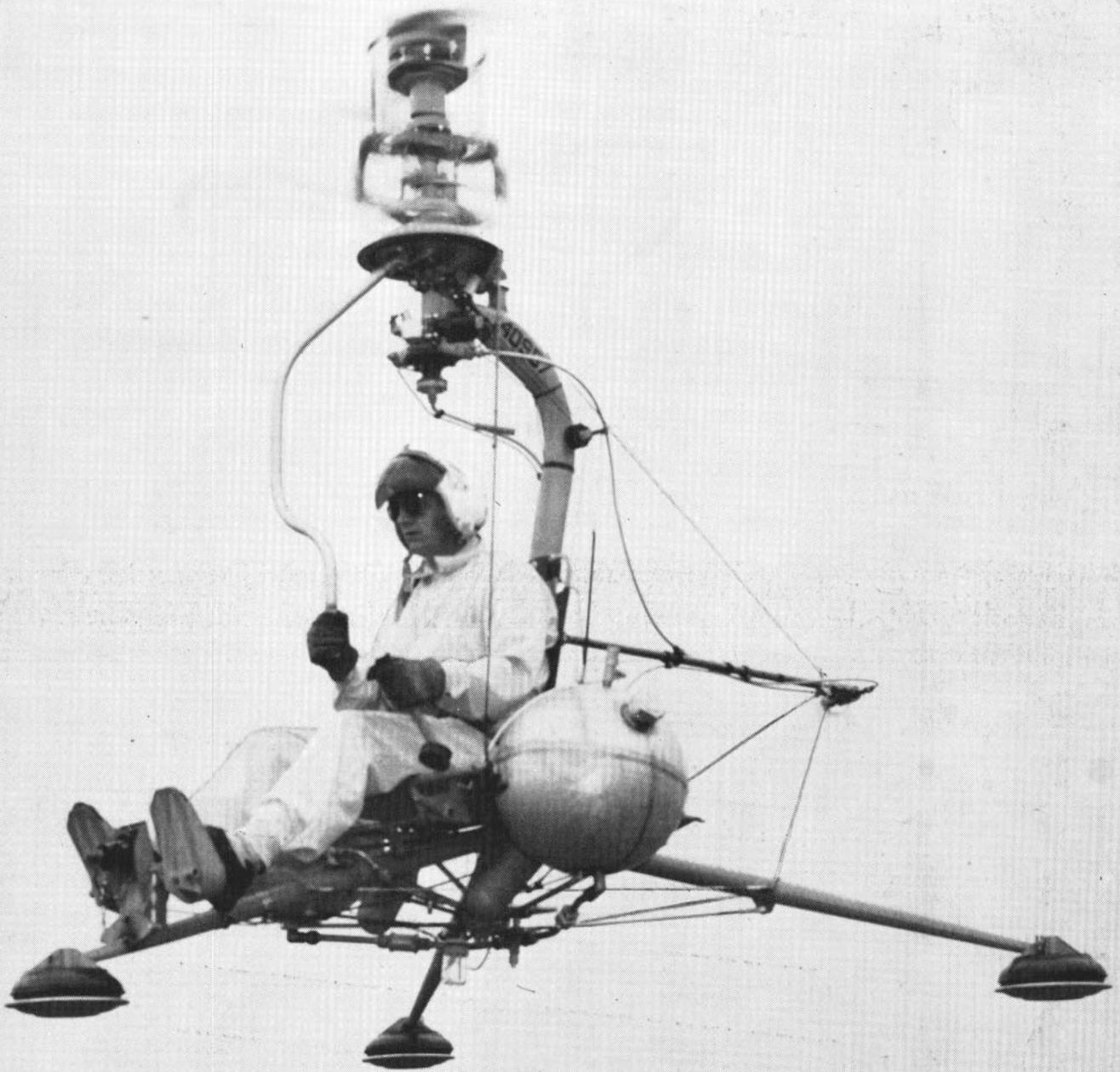
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REFERENCES made to issues of ALL HANDS prior to the June 1945 issue apply to this magazine under its former name, The Bureau of Naval Personnel Information Bulletin. The letters "NDB" used as a reference, indicate the official Navy Department Bulletin.

◉ AT RIGHT: EXPERIMENTAL WHIRLY-BIRD—Navy rocket-powered one-man helicopter, designed for research into gyro-stabilizing controls for 'copters, undergoes tests. ➤



# **THIS MAGAZINE BELONGS TO YOU ... AND 9 OTHER MEN !!**

 **READ IT**  
**don't hoard it**

 **PASS IT ON**  
**so the next man can read it**

initials and date

<b>1</b> _____	<b>6</b> _____
<b>2</b> _____	<b>7</b> _____
<b>3</b> _____	<b>8</b> _____
<b>4</b> _____	<b>9</b> _____
<b>5</b> _____	<b>10</b> _____



**when 10 men have seen this copy  
turn it over to the ship's personnel office  
or library . . . . .**