

ALL HANDS

THE BUREAU OF NAVAL PERSONNEL AND NAVAL MILITARY EDUCATION



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SEPTEMBER 1958



ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

SEPTEMBER 1958 Nav-Pers-O NUMBER 500

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TABLE OF CONTENTS

	Page
Navy at the South Pole.....	2
It's Cold Up North, Too.....	11
Charting the Unexplored Antarctic.....	12
Meet the Machine with a Memory.....	14
From Sea to Campus, Campus to Sea, via NROTC	18
Letters to the Editor.....	22
Rescue at Sea.....	27
The SARmen: It's Nice to Know They're Around....	28
Special Feature: Survival	
Our Good Friend, the Fish.....	30
Centerspread: Sea Life Recognition for the Navyman	32
Today's Navy.....	40
Servicescope: News of Other Services.....	44
The Word	46
Bulletin Board	48
Striking for the Hard Hat? Yes, It's Harder in Some Rates.....	48
Report on the Annuity Plan for Families of Retired Navymen	50
Directives in Brief.....	51
Standard Tug Boat Signals.....	53
Deadline for Applications to Postgraduate School is 1 November.....	54
List of New Movies in the Fleet.....	55
Uniform Tours of Overseas Shore Duty for the Armed Services.....	56
Decorations and Citations.....	58
Special Supplement: Gallant Veteran	
The Story of <i>uss Pennsylvania</i>	59
Taffrail Talk	64

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● FRONT COVER: MIDNIGHT SUN of Antarctic shines above *USS Atka* (AGB 3) and *USS Glacier* (AGB 4) as the ice-breakers make careful passage through bay ice of Kainan Bay off Ross ice shelf during cruise to Little America V. Small ball over *Glacier's* mast is sun's reflection in camera lens.

● AT LEFT: EYE WITNESSES—In the Mediterranean, Secretary of the Navy Thomas S. Gates, Jr., and Vice Admiral Charles R. Brown, watch Navy jets of Sixth Fleet being launched from deck of *USS Saratoga* (CVA 60).

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NAVY AT THE SOUTH

You've been reading a lot recently in the nation's press about the heroic accomplishments of Navymen sailing under the North Pole. But the Navy has been busy at the South Pole too.

The following report will give you a general idea of the different phases of operations at the various locations of Operation Deep Freeze III during 1957-58. This is a penguin's eye view of what it was like.

IT DOESN'T MUCH MATTER where you are located on this globe. Sooner or later, you can expect visitors. This is true even though your location happens to be somewhere near the South Pole.

The men connected with Operation Deep Freeze III found this to be so.

If you were to visit one of the most isolated outposts of the U. S. Navy, the chances are that you would arrive at the Amundsen-Scott IGY South Pole Station. You'd find that this small, smoothly running establishment was designed and built for a small group of Navymen and scientific observers. But, regardless

of your rate, grade, rank or status, you wouldn't expect to become just another sidewalk superintendent, because here everyone works—even visitors.

Suppose you've just arrived. Here are some of the things that are expected of you.

The cleanliness of spaces assigned to you is your responsibility. When fuel is needed for the stove burning in your space, you can walk outside where you will find a 480-pound, 52-gallon barrel of diesel fuel waiting to be rolled in.

But you can't use this fuel unless it has first been warmed because, as is, it will freeze the carburetor of the stove. At this location fire is a great friend but it is also a great enemy. So, you automatically become a firefighter in readiness, and you fall in with the station fire drill.

Next is the water supply. Even though this station is situated on an icecap over 8000 feet thick, you will quickly find out that the water here is conserved just as it would be in the desert. Each man must spend

time at the bottom of a snow mine, chipping hard ice with an ice pick and shovel to be put into bags and brought to the surface for melting.

The whole process involves handling ice bags at least five times. Do this a few times and you'll learn something about water conservation—fast.

The station cook needs help to prepare meals for such chores as washing dishes and swabbing the deck. You will find yourself assigned to this detail. You will learn to cut both ends out of each can you use and flatten the can to conserve trash space. At in-between snacks, you are expected to clean up after yourself.

Summer at the South Pole

During the summer season you concentrate on getting the outside work done. Summer is three months long. There are chores such as rolling in barrels of fuel from the outside and caching them in the tunnel system. These are hand-rolled over distances up to 100 yards, stacked three to four high to a total of over 900. Every additional hand is needed and

your help is greatly appreciated.

Walking is the byword since vehicles are used only for necessary trips.

It takes a while to understand icecap isolated living. If you fail to carry your part of the load you will find, after a few days, some grumbling about it on the part of others. No one will be discourteous, but no one will go out of his way to increase the pleasure of your visit either.

But if you do your share you will find the station is yours. Walks and even a ride over the icecap will be set up for your experience and pleasure. Someone will come up with a beverage of some sort, sit down and just chew the fat. Before you know it a shovel will be in your hands, you'll be warmly dressed and taking off over the icecap—an Antarctic explorer. There's real esprit de corps down there.

A Typical Antarctic Base

Little America V, often referred to as "The Capitol of Antarctica Sun" is more than just another U.S. Navy-IGY base in the Antarctic. It's a pulsating community of 109 womenless men, with thoughts of home but

hall, post office, movie theatre, chapel, library, ships store, sick bay, dental office, recreation hall, gym, ham radio station, photographic processing laboratory and even a steam bath. It also has a "city" airport called Kiel Field.

The major portion of Little America facilities are located in an area 485 feet long, 350 feet wide, and are connected by a tunnel network.

In addition to being the city which houses both the Antarctic IGY headquarters and the commander of Antarctic support activities, Little America is a second Grand Central Station. Though its trains are of a different breed, Little America is the Antarctic hub for traverse parties and tractor trains. They keep a pretty good schedule, despite the weather.

Blizzards can strike any of the Deep Freeze III camps at any moment. High winds with peak gusts of more than 100 mph drive snow through the camps. Temperatures

drop way down into the minus column and storms can last for days.

On such occasions outdoor activities come to a screeching halt. Local and intercontinental flights are postponed, since runways become badly drifted and blowing snow works its way into even the smallest openings of planes. Entrances to buildings are blocked by picturesque drifts. Chimneys packed with snow cause backdrafts. Visibility becomes zero. Movements of men from building to building must be reported.

To the Rescue

But when the weather is good, there's a scurry to get things done, particularly exploration.

What started as an interesting but routine flight on 21 January over unknown territory, between Byrd IGY Station and Amundson-Scott IGY Station at the South Pole, turned into a kingsize adventure for the crew of an R4D-8 based at Little America.

TRAIL-BLAZING is job of Navymen during IGY operation at South Pole.

POLE

with a job to be done "on the ice."

Little America V, the fifth base bearing the name, was begun in late 1955 by the men of Deep Freeze I, with construction continuing through Deep Freeze II and III. It encompasses over 60 buildings and passageways covering over one and one-quarter acres of floor space. Not every building is separate; there are lots of connecting "annexes," each of which was erected to satisfy a specific need in the growing community. Every square foot of space is accounted for.

The spaces include 6272 square feet of living quarters; 12,259 square feet for working; 21,700 square feet for storage; 7253 square feet of passageways (those passageways are important) and 7568 square feet of community facility space.

The working space is available for the various scientific programs, vehicles and building maintenance, communications and other services normally provided in any small city.

Southernmost City Hall

Little America has its own city





COLD JOB—Navymen stop to make repairs on their crevasse detector while trying to locate safe trail over ice and snow full of deep holes and cracks.

Two hours out of Byrd Station, as the plane was cruising at 8000 feet in a cloudless sky, the mechanic noticed oil leaking from the port engine. With the rugged Horlick Mountain range looming just ahead, the plane commander, LCDR Conrad Shinn, usn, decided to return to Byrd Station.

While turning he observed a trail of smoke coming from the engine and immediately descended to examine the snow surface. It appeared smooth. On making the ski landing he discovered that the port landing gear had collapsed and the engine was heavily smoking.

The crew cut the engines, secured oil lines and electrical circuits and removed survival gear to a safe distance. The engine could be repaired, they discovered, but the plane needed a replacement for its landing gear.

Radio contact was established between McMurdo, Little America, Byrd and Pole Stations.

A repair crew stripped parts from an identical aircraft at Little America, put them aboard a rescue plane and they were soon on their way.

While waiting near their downed plane, the crew set up "Camp Charger," named after the aircraft and a stuffed toy koala bear that was carried as a mascot. A snowblock house with orange parachute for a roof was erected along with tents. Duties were assigned and stock

taken of rations on hand—just in case.

When the rescue party landed, they were greeted with enthusiastic shouts. All hands turned to for 18 hours, in zero temperature and a 15-knot wind, to remove the damaged gear, install the replacement and check it. Much of the work was done barehanded. The only break in the

No Time for a Hangover

No matter where you were on New Year's Day the men at the South Pole Station either celebrated at the same time you did—or before. Since all time zones converge at this point, the stroke of midnight can be observed 24 times.

At midnight (in all 24 cases) the sun is shining brightly.

Last New Year's Eve the men held a typical American picnic in minus 20 degree temperature. The station cook provided hot dogs with all the relishes. These were roasted over a fire which was also used to warm the ice cream so it could be eaten. Blankets were spread on snow.

Although there were no worries about ants and flies, DDT was provided—just to give a touch of home.

There is little or no basis to the claim that "Auld Lang Syne" was sung 24 times.

work was to eat one hot meal of roast beef and all the trimmings served by Camp Charger.

After the plane was repaired, both aircraft made normal JATO takeoffs and returned safe to Little America. All in the day's work.

Seeing Antarctica by Air

This territory is big.

Before a traverse party or tractor train leaves from one station to another, reconnaissance flights with exploration parties aboard are sent out in advance to check over the layout of this treacherous land.

One of these was a three-hour flight around the vicinity of Ellsworth Station which disclosed the terrain to be unpassable by surface. Snow-covered crevasses permeated the snow fields south for about 50 miles and westward beyond Gould Bay.

The crevasses ended in a rift about two-and-a-half miles across and some 250 feet deep. Snow-covered crevasses and open pot holes began to show up on the surface about eight miles south of the station. These looked like honeycombs and formed a network of dangerous criss-crossed cracks that can spell disaster to a party traveling on the surface. As the plane skimmed closer to the surface, the holes looked black, ugly and bottomless.

A closer inspection from the ground disclosed snowy ramps about one-half mile wide crossing the rift, running north and south. These arch-shaped ramps were heaved high into the air, with the uppermost section split into triangle wedges. Deep canyons formed sheer walls 30 to 40 feet across.

The exploration party came to the conclusion that, even if a traverse party could travel through the multitude of crevasses to this point, these obstacles would prevent further progress south. Flights such as these can save a traverse party on the ground many days of needless travel.

Finding a Trail

Another exploratory flight from Ellsworth Station probed the unknown area deep into Edith Ronne land in October. Rugged mountains and previously undiscovered features were unfolded.

At about 10,000 feet the plane climbed through a haze bordering on white-out conditions with visibility limited to 10 miles. Minutes later the haze suddenly disappeared. Formidable mountain ranges came into view, towering in front of them.

These mountains spread a hundred miles or so in an east-west direction and extended south beyond the horizon to less than 400 miles from the South Pole. Lofty, bare and snow-covered peaks, rising to 11,000 feet, stood out as the plane flew alongside the mightiest ones. The altimeter readings gave the foothills 5000 feet.

Before the flight had ended the exploration party had discovered an easy trail in a southeast direction from the barrier rift.

What's It All For?

The International Geophysical Year, which started 1 Jul 1957, is the third such in the history of the world. The first was in 1882; the second, in 1932. The scope of each has progressively increased.

Scientific areas in which investigations are now underway as a part of the present IGY include: Aurora and airglow, cosmic rays, geomagnetism, glaciology, gravity measurement, ionospheric physics, meteorology, oceanography, seismology, solar activity, longitude and latitude determination, rocket exploration of the upper atmosphere, and satellite exploration of the upper atmosphere.

Roughly the size of the United States and Europe combined, the Antarctic continent serves as an ideal laboratory for many of these IGY studies. Approximately 40 nations are participating in IGY and, of these, 12 have built 46 stations in the Antarctic.

Interest of the United States in the area long preceded IGY but it was not until 1954 that we decided to move in more or less permanently. During the winter of 1954-55, *uss Atka* (AGB 3) surveyed the ice conditions of the Antarctic and attempted to find a favorable coastal site for establishing a base station.

Deep Freeze I

The 1955-56 mission (Operation Deep Freeze I) was organized to build the Little America Station and the Naval Air Facility at McMurdo Sound. In addition, equipment and supplies for the construction of Byrd and Pole stations were transported to Antarctica.

Other installations included Wilkes Station on the Knox Coast, Ellsworth Station on the edge of the Weddell Sea, and a base jointly maintained with New Zealand at Cape Hallett.

Up through 1957 the U. S. spent



DEEP FREEZE, DEEP FREEZE—Ice- and snow-laden tunnel serves as natural freezing unit as well as trail under the snow during Antarctic night.

some \$32 million in building bases for scientists in the Antarctic. The scientists chose the location of these bases and it was the Navy's job to put them where they were wanted.

The first effort at base-building took place in the Ross Sea during Deep Freeze I, when the Little America Station and McMurdo Sound air operating facility were built. These bases served as staging areas for the construction of Byrd Station and South Pole Station. Byrd Station was a tractor-train operation with air support, while the South Pole Station was an air-drop mission.

Deep Freeze II

Deep Freeze II started when Rear Admiral George J. Dufek, USN, landed at McMurdo Sound in a Navy plane, in October 1956.

Following him a few days later were the other Navy planes that were used for lifting personnel to the South Pole and Byrd Station. (One of these planes crashed on landing and four men were killed.)

The Air Force landed the following week in *Globemasters* and started packaging the material for dropping at the South Pole, by parachutes. The base was completed within a few weeks and scientific studies at the Pole were begun.

An Army-Navy trail party flew to Little America and began the trip to Byrd Station, marking a safe trail over the ice for the heavy tractors

and sleds that followed. Byrd Station was commissioned on New Year's Day, 1957.

Cargo for the South Pole and Byrd Stations was off-loaded at McMurdo Sound for air-drop during Deep Freeze II. Other new bases were constructed at Cape Hallett, Knox Coast, and Weddell Sea. One man was lost through the ice of McMurdo Sound while driving a weasel. In all, Deep Freeze II cost five lives.

Deep Freeze III

Deep Freeze III executed a plan to use minimum forces to resupply the stations established in the Antarctic during Deep Freeze I and II in support of the United States National Committee for the International Geophysical Year.

The basic mission was to resupply the established stations, replace worn out equipment, perform supplementary construction, transport relief scientific and naval personnel to the Antarctic, and finally, to return the relieved personnel to the continental United States.

The summer support phase of Deep Freeze III came to an official close 31 Mar 1958. Staying behind in Antarctica are 347 Navy men, civilian scientists and technicians who man the bases during the winter season.

The first ships to arrive in the Antarctic were the icebreakers *uss Glacier* (AGB 4) and *Atka* (AGB 3)

and the cargo ship USNS *Greenville Victory* (AK 237) at Little America on 1 December. *Glacier* was the last ship to leave the continent, departing from Cape Hallet Station 13 Mar 1958.

In addition to the resupply mission, 10 Deep Freeze ships conducted scientific studies over 33,000,000 square miles of water surrounding Antarctica. Most of the work was meteorological and oceanographic, but other studies were made as a supplement to the regular IGY program.

Planning for No. Four

Planning for Operation Deep Freeze IV is underway. Four of the seven Antarctic bases (Pole, Byrd, McMurdo, Cape Hallet) will be resupplied and their personnel replaced during the Antarctic summer season beginning in October.

The other three bases will either be reduced drastically in operations (Little America), turned over to Australia (Wilkes), or the future is uncertain at present (Ellsworth).

Out With a Traverse Party

On 24 Oct 1957, seven men started out from Little America Station in three snocats (specially built tractors) on the first leg of a 1500-mile ice traverse. The snocats towed three two-and-a-half-ton sleds loaded with equipment and provisions. It was expected to take until 15 February to cover Ross Ice Shelf between Little America and McMurdo Sound, then up to Beardmore Glacier followed by a swing back to Little America—an area about the size of France.

Navy planes of VX-6 supported the traverse party, landing alongside

Mail Call in the Antarctic

Probably the most popular cargo to come into these outposts is mail. This was certainly the case for the men at Little America. They hadn't received any from 10 Mar 1957 until 1725 on 12 October, when a Navy *Neptune* (P2V) arrived from McMurdo. It brought over 800 pounds of mail.

The postal clerk was besieged by volunteers to help sort the precious cargo. When mail call sounded all activity stopped except critical work.

For awhile, a strange silence came over the camp. All hands abandoned themselves to reading long-awaited letters from home.

The silence was soon broken and the air was filled with the chatter of men swapping newsbits and snapshots.

About the same time, similar events were experienced at McMurdo, Byrd, Pole and Hallet Stations. The men at Ellsworth and Wilkes Stations had to wait until January, when ships were able to penetrate the heavy ice and resupply these stations.

about every 10 days with fuel and provisions.

Tests were scheduled to be made of ice thickness, water depth, ice surface elevation, magnetic field strength and magnetic compass variations, and seismic velocity change with depth.

The party also took gravity observations, recorded weather data, sur-

veyed mountain peaks and ranges along the traverse route and studied Sastrugi patterns (wind drift patterns).

Traveling every other day, scientists set up 50 stations about 30 miles apart on the trail. Allowance was made for 25 days' bad weather. Another eight days were set aside for special observations in the vicinity of the Beardmore and Shackleton Glacier area.

The snocats played leapfrog during the complete traverse to get ice shelf elevation data. One cat would move five miles out in front, then the second would catch up. When the third cat moved up, the first would move out ahead again.

This was done to get three separate and more accurate readings.

One two-man tent was carried, but the Navymen slept inside the snocats in most cases. Each cat carried emergency rations. The main messing vehicle carried over 400 pounds of food.

On the other side of the continent, a similar IGY traverse party was exploring Edith Ronne Land. This party had departed Ellsworth Station on 28 October. But it ran into trouble.

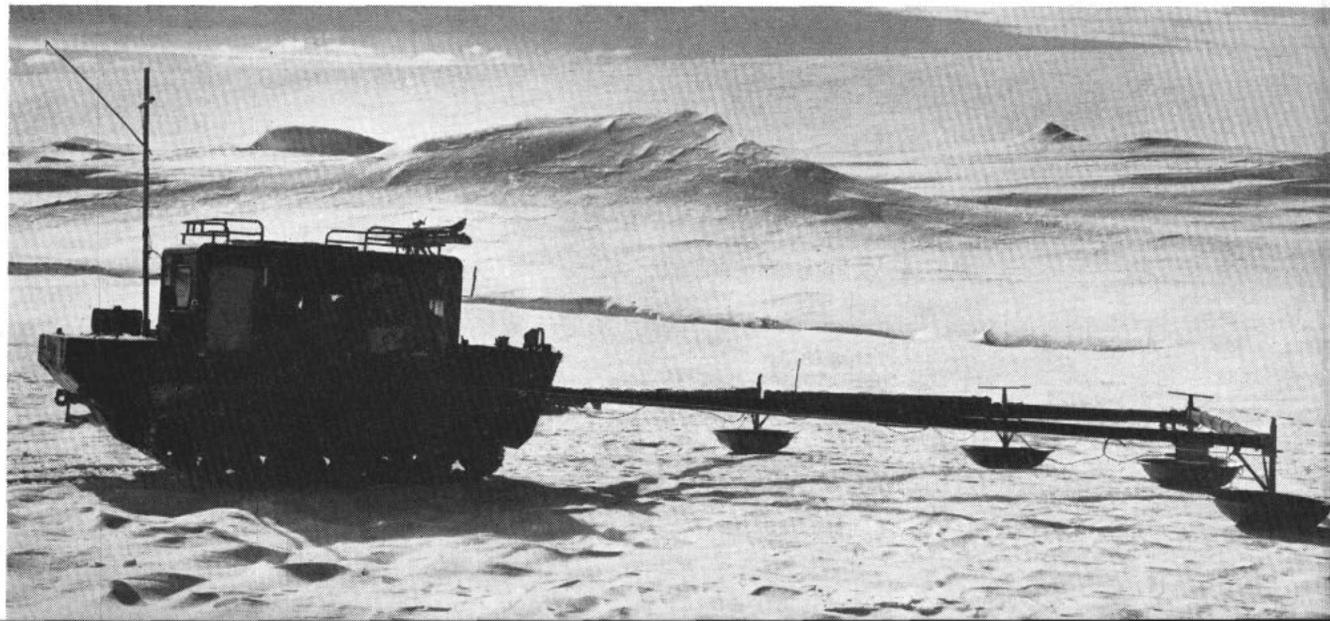
Needed: One Universal Joint

On 14 November, the traverse party came to an abrupt halt when it hit a stretch of undetected—and unexpected—crevasses.

The leading snocat found them by simply falling through.

It found itself resting on the after part of its body, with its rear pontoons dangling gracefully over a bottomless cavern that could easily have swallowed a large airliner. Its

DRIVE WITH CAUTION—Weasel with crevasse detector carefully approaches chasm indicated by depression in snow.



wall dropped straight down to seemingly eternal darkness.

The men eventually succeeded in wedging the snocat on solid surface. After probing, they found that extensive patterns of hidden crevasses honey-combed the entire area. These could not be seen from the air as they were well hidden by a light cover of newly-fallen snow. The crew also found that the universal joint of the snocat was damaged beyond repair.

A replacement was needed before they could move. A message was sent back to camp.

The crew of the plane which ultimately arrived with the necessary gear learned the quick way the inner meaning of that somewhat stuffy phrase "hazardous terrain."

One of the plane crew casually walked a few feet away from the aircraft to stretch his legs. Next thing he knew he found himself in a crevasse some 20 feet below the surface, sprawling on a snowbridge ledge with huge black holes on either side.

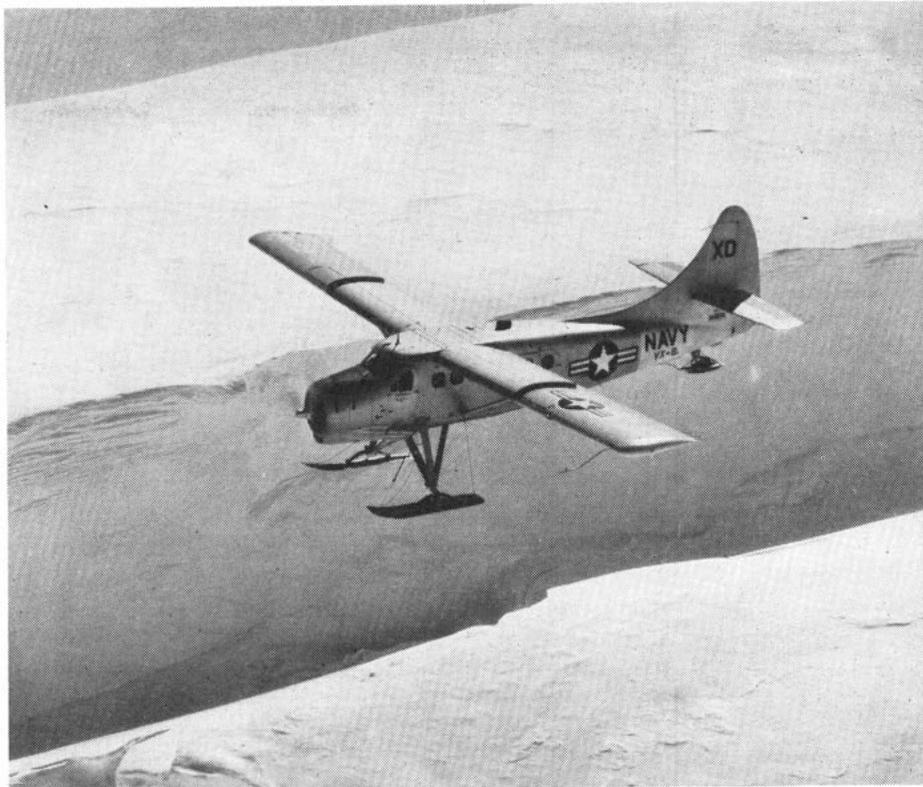
A wire ladder brought him back to the surface, completely purged of any desire to wander.

"Man, those big black holes looked ugly," he commented. "I'll fly combat missions any day to walking around here."

But to the Navy ice explorers, it proved once again the value of the list of safety regulations that had been set up.

Working Up an Appetite

Navy cooks on Antarctic duty meet problems not found in other Navy galleys or home kitchens. Three cooks at the Little America Station



SKY SCOUTS in Navy UC-1 Otter fly over large open crevasse near Ellsworth Station. Such flights over unknown areas save work for the trail-blazers.

fed the 109 men who wintered over during 1957.

Feeding was family style. Three regular meals were served, with an additional one at midnight for night crews.

Except for a short period before and after each meal, the mess hall was open the full 24 hours so that men could grab a cup of coffee or cocoa with a snack. Studies during the winter showed that each man ate

an average of seven pounds of food a day.

Preparation of all meals was done over a single range. Only the constant repairs by resourceful Seabees kept it going. Cooks split the work. One baked bread, cakes, pies and other pastries at night while the other two worked in shifts preparing meals. The big job at the start was the transportation and sorting of food from the edge of the ice bar-

TRACKLESS TRAIN moves out over ice with supplies for inland bases being used by Navy and IGY personnel.





SNOW JOB—Navy Seabees turn to with shovels to dig out building materials covered by snow while building Deep Freeze headquarters at Little America.

rier where it was off-loaded from ships.

Then everything was stored in segregated stacks making it easily available. One of the problems that plagues housewives didn't bother the Navy cooks. This was food storage—here the whole place is a natural storage plant.

The real problem was thawing food out on time. To insure quality and taste, cooks started meals two days in advance.

The menu was scientifically planned and carefully balanced within available means. The job of putting variety into meals taxed the cooks' ingenuity. But the men being fed attested to this success.

They had lots of variety: spaghetti, macaroni and cheese, Spanish rice, stews and pizza, interspersed with steak, beef, ham, veal, pork, rabbit, liver, hamburger, meatloaf and frankfurters. Over 10,000 pounds of fresh vegetables were available.

Desserts were plentiful. Among the favorites were chocolate coconut pie, strawberry shortcake and ice cream sundaes. Liquids served included cocoa, coffee, lemonade and fruit juices of all kinds.

The Supply Problem

Off-loading supplies in the Antarctic may sometimes be a tricky business, and no matter what the problems, it is always tedious. Consider the off-loading difficulties which were experienced while resupplying Little America last December.

A 10-foot thick sheet of ice extended three miles out from the Ross Ice Shelf at Kainan Bay.

The two ice breakers, *uss Glacier*

and *Atka* chipped away. Demolition teams used 2000 pounds of TNT. The ice wasn't even dented. Storms and northerly winds came along to call a halt to the proceedings. And *Glacier* was hampered by the loss of one blade from the port propeller, lost while plowing through an ice pack en route from New Zealand.

Waiting for a channel to be opened was *usns Greenville Victory*, standing outside the entrance with 3000 tons of supplies. A helicopter was used to bring Navy and IGY personnel ashore.

After three days of hammering

Even the Batter Wears Mitts

With all of the work that goes on in the Antarctic, there is still time for sports. In fact, a softball game, played at Little America, has officially been recorded in the archives of baseball's Hall of Fame at Cooperstown, N.Y., as the coldest softball game played.

The game was a two-inning affair played between the civilian scientific personnel and Navy Seabees who wintered over at the Little America Antarctic outpost.

The game was played in "Seal Stadium" on 23 Aug 1957, the first day the sun was seen following the long dark winter night. The players had to hit—or at least swing—to keep warm. The game ended in a Navy 11-6 victory when the temperature of minus 41 forced the players to return inside the snow-covered buildings.

away at the ice, five helicopters were brought into play. They began shuttling supplies ashore. Most of the supplies were carried in cargo nets suspended beneath the helicopters. Some were carried inside. The shuffle of supplies continued around the clock.

Once the supplies reached shore the plan called for all equipment, including nine D-8 and four D-4 tractors and eighteen 20-ton sleds to be put to use. Two snow roads running most of the way from the camp to the barrier edge were used for coming and going traffic. There was a single road through a crevassed valley where only one vehicle at a time could fit. Jeep-like radio-equipped weasels were stationed along the route to keep traffic moving. Further plans called for sorting the supplies at the camp. Then a tractor train would head out for Byrd Station on the 647-mile trail with the IGY equipment and food supplies destined for that base.

During the fourth day of operations a weasel, while searching Kainan Bay ice for a cargo movement trail, tipped sideways in an unsuspected tidal crack, twisting the whole vehicle 90 degrees and turning it over on its side. A helicopter hovered overhead, landed and returned the uninjured crew of three to Little America. Later, the undamaged weasel was pulled out.

And on this same day, *Glacier* bulled her way through 1200 yards of ice.

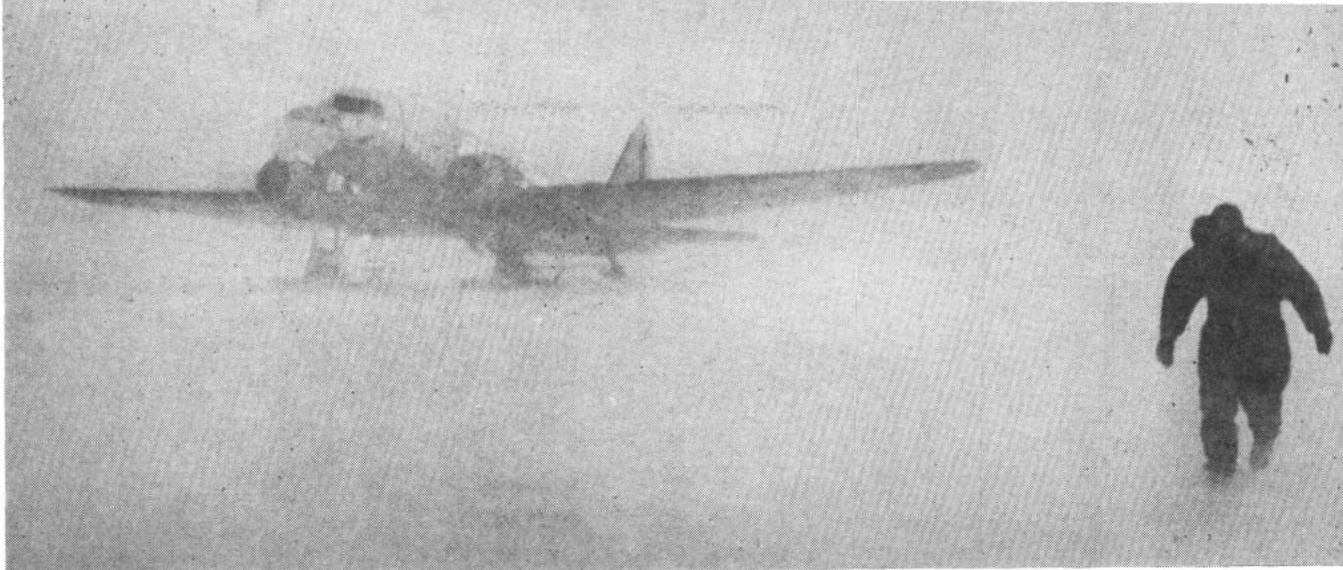
After a 10-day effort the ice breakers crunched their way through a channel about 100 yards wide. *Greenville Victory* moved in stern first (just in case she had to make a quick departure) and began disgorging supplies onto the ice.

Rolling stock was first over the side and was driven off under its own steam. The bulk of the cargo was lowered to waiting sleds on the bay ice and hauled away by heavy tractors. *Glacier*, her job finished, sailed for McMurdo. Five days later, *Greenville Victory's* holds were empty and she and *Atka* also departed for McMurdo. Mission accomplished.

Solving the Traffic Problem

You've probably run across the phrase somewhere in your reading about the "untamed Antarctic." But, according to the drivers at the Little America Station, this just isn't so.

They figured that civilization was



WHITE-OUT—Sudden blinding snow storms with high winds are constant danger to men and planes at Antarctic.

on its way to the South Pole when their highway traffic speed came under the control of radar.

It seems that there was a mile-long stretch of road at Little America where vehicle operators had to watch themselves—or the “electric cop” would get them. Then they’d have to tell their tale of woe to a stern-faced judge—in this case, the officer-in-charge of Little America.

The radar, slightly different from that found Stateside, proved to be just as effective. This radar was normally used for GCA operations at Kiel Field, to govern the road from the main camp to the airstrip.

The speed limit was set at 10 mph. Strict enforcement of this limit was necessary to keep maintenance down on tracked vehicles. It was found that a higher speed over rough terrain had a tendency to snap tracks.

Punishment for “hot rodders” was effective. Driver permits were in jeopardy and offenders were faced with walking whenever they wanted to go anywhere. And in the Antarctic, that’s about as stiff a punishment as you can get.

Riding the Tractor Train

A resupply tractor train left Little America on 1 October carrying IGY equipment to Byrd Station. The train started on the 647-mile trip with seven D-8 caterpillars, nine 20-ton sleds, three 10-ton sleds, three wani-gans, (used for sleeping, eating, etc.) two weasels and 19 men.

One weasel was equipped with crevasse detectors to guide the party through a heavily crevassed area between miles 183 and 190 on Army-Navy Drive. It was left at mile 190 to be picked up and used on the return trip to Little America.

The train was making record-breaking time for the first 222 miles. Then it was stalled by a raging blizzard that lasted for days. The temperature and visibility were zero. Stinging, biting snow, driven by gale winds, swept across the bleak and barren Rockefeller plateau.

Since there was plenty of fuel and food on hand, there was nothing to do but wait for the storm to blow itself out. Some of the men slept in one of the 10 available bunks. Others studied correspondence courses, read

or played cards in the messing wagon or in tractor cabs.

At mile 380, engine trouble forced one of the big D-8s out of the train. It was left to be repaired by a mechanic who would later be flown to the spot. It would be used again on the return trip. Loss of the D-8 meant throwing an extra load on the other tractors. They were run in second gear and the speed of the train was cut slightly.

During the entire trip, drivers worked in two 12-hour shifts. One



FIERY BUT FROZEN—Mt. Erebus, active volcano in land of ice, rises 13,500 feet over waters of McMurdo Sound as USS *Atka* heads for Hut Point base.

extra driver was on each shift to relieve for chow during the mid-shift.

The tractor train pulled into Byrd Station on 22 October. The camp looked beautiful to the crew. And tomorrow—Antarctic liberty!

Time to Retire

It's time to make preparations for leaving one of these stations when the ice starts to break up.

Around the end of February the Ross Sea ice began to break rapidly owing to southerly winds and tides.

When this happened, the men at McMurdo found that open water extended from the base of their camp, around Cape Armitage to within a few hundred yards of the 5000-foot ski runway at Scott Base, and to a point one-half mile beyond the cape.

The breakage continued despite freezing temperatures. Large cracks developed about the skiway. Two D-8 tractors hastily began construction of a safe parking area for an R4D *Skytrain* and a 1200-foot emergency Otter airstrip on fast ice over the volcanic beach behind the New Zealand Scott base.

Portable rubber fuel tanks were laid and an R4D shuttled 7000 gallons of fuel four miles from the cracking McMurdo ice runway to Scott Base. Whirlybirds moved fuel lines, radio gear and the last remaining materials to camp. The GCA tower, generators and two refuelers



UNDER COVER—Navyman digs out of hut for look see at winter night.

were sledged by tractor to Black Island.

While this was going on, other preparations were taking place for the arrival of British explorer Sir Vivian Fuchs. Banners were readied and a nine-piece marching band, dubbed "McMurdo Philharmonic," was practicing.

Fuchs and his trans-Antarctic expedition reached Scott Base on 2 March at the end of a trek that lasted 99 days. He and his party became the first men ever to cross the Antarctic continent overland. NAF McMurdo declared a holiday for the occasion, one for the history books.

The festivities died down and departure continued. Navymen passed around a message which read:

"Ross Sea Ferry Boat Company has announced tentative schedule of last seasonal sailing of the diesel packet ship *Glacier* with stops at Little America, McMurdo and Hallet. Requested to be ready and waiting. Subject to acts of God and the restraint of princes and RADM Dufek, the management intends holding to schedule."

The Long Night

At precisely 1506 on 21 March, the ensign of the United States was lowered from atop a flagpole situated at the geographical South Pole. That was the exact time the sun went down—or rather, went below the theoretical horizon. Afterwards, taps was sounded on a "recorder," a musical instrument of the wooden flute variety.

A 16-knot northerly wind was blowing powdered snow. Traces of red and purple showed in the sky as the group stood at attention during the ceremony. The temperature was minus 52.5 degrees.

The flag will not be raised again until late this month. And, since the sun comes up and goes down but once a year, the men at the South Pole Station were able to say to their families back in the U. S., "We will be home tomorrow, in the morning."

Thomas Wholey, JOC, USN

LAND OF CONTRAST—Dim Antarctic sun shines on barrier ice in dark sea as icebreaker makes patrol cruise.





It's Cold Up North, Too

A LOT OF attention is being given to the spectacular accomplishments of the Navy at the North and South Poles. There's another group of sailors, including men of the Fleet, the Coast Guard and MSTS who have been battling the same foe.

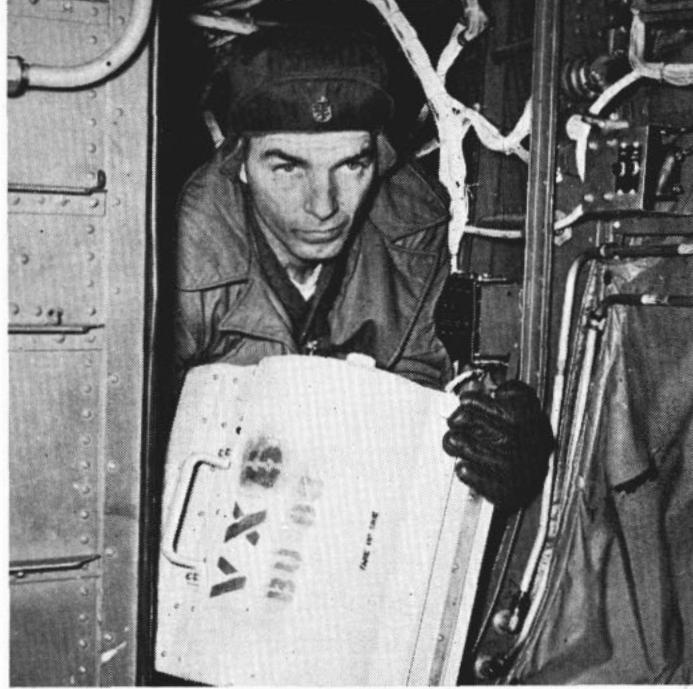
These seafaring men have been sailing the ice-filled Arctic waters on the now "routine" yearly mission of taking supplies to far northern military bases such as Thule, Greenland. Navy's Military Sea Transport Service sailors are old hands at ice-

berg dodging as they have been making this resupply run yearly since 1950.

Ships in the 1958 voyage to the Arctic were: *uss Glacier* (AGB 4), *uss Edisto* (AGB 2), *uss Rushmore* (LSD 14), and *uss Casa Grande* (LSD 13), *ss John Sargent*, and Fleet Tug *uss Nipmuc* (ATF 157).

Here is a frosty group of photographs to give you an idea of the cool job these bluenose sailors performed. Our hats are off to the crews keeping the supplies moving.





IT'S A SNAP—W. R. Kemp, PH1, checks camera during flight. Rt: R. M. Jones, PHC, brings film magazine aboard.

Charting the Unexplored Antarctic

THE ENLISTED PHOTOGRAPHERS of Air Development Squadron Six who photo-mapped nearly 600,000 square miles of frozen Antarctic terrain are more than just photographers—they are airmen and technicians with a little explorer thrown in for good measure.

The six-man team of aerial photographers based at NAF McMurdo Sound used two different systems in carrying out their aerial mapping program. The first employs a lone camera mounted in a single-engined

Otter which is used in exploration flights preliminary to the actual mapping mission in a larger plane.

The second system, known as a tri-metrigon setup, uses three cameras placed side by side in the nose of a twin-engined *Neptune* or in the belly of a four-motored *Skymaster*. These cameras see and record everything from horizon to horizon plus photographing the ground directly below.

There are three phases in each mapping operation. First an informal

exploration run is made over the area to get a general idea of the terrain or coastline.

The information gathered on these flights is applied to existing charts and flight lines are roughly plotted so the pilot may steer a proper course over the desired area. Then comes the next phase which is known as reconnaissance.

This time the photographer uses his "tri-met" system. Back in the photo lab he develops the negatives and makes prints from which newly discovered features of the land or ice cap topography are applied to his existing map. The new discoveries are then forwarded to the U. S. Navy Hydrographic Office, Washington, D. C.

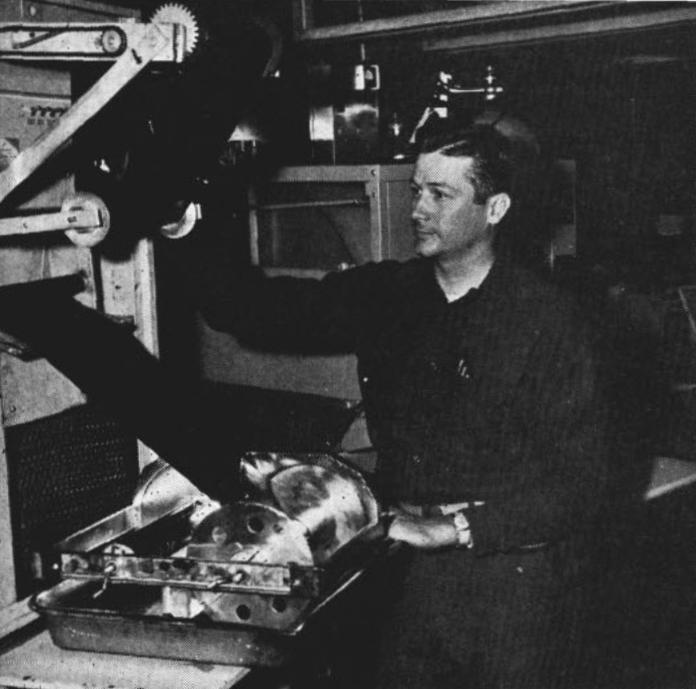
The Hydrographic Office sets up specific flight lines over the areas to be mapped in detail. Then the photo team goes back to work on the last phase of the operation which is simply called "mapping." This requires close coordination between pilot, navigator and photographer.

The navigator keeps a close check on ground speed and course and informs the pilot and photographer whenever there is a change. Photo mapping missions are flown at an altitude of 15,000 feet and the photographer must keep a watchful eye on the electronic altitude computer, adjusting his cameras for any variation.

After each flight the cameras are removed from the plane and checked for proper working order. This in

COOL PHOTOGRAPHY—The mysterious land of Antarctica, is being recorded by enlisted Navy aerial photographers of Air Development Squadron Six.





ROLL ON—P. B. Dickson, PHC, dries negs. Rt: Chief Photographer W. C. Ahlin, points flight lines to pilot.

itself is no small job, for each camera weighs 84 pounds and their magazines—which hold 440 exposures—make them bulky and hard to handle.

Photo-mapping is one of the most important tasks assigned to Air Development Squadron Six which has been a support unit of Operation Deep Freeze since the polar expedition began in 1955.

"Of course, ground survey would be the most ideal way of mapping the continent, but that's impossible," says Chief Warrant Officer Walter C. Ahlin, USN, head man of the Antarctic photo-mapping team. "The only feasible way and the next most accurate is photo-mapping."

The information gained from this work is used by the Hydrographic Office in preparing charts and detailed maps of this largely unexplored land of ice. It is also a great aid to the International Geophysical Year projects now being carried on at the bottom of the earth.

Ordinarily the nine-by-nine inch prints are forwarded direct to Washington but the photographers are sometimes called on to make their own "mosaic" maps. One such map was recently made of the Marble Point area where the Navy is surveying an ice-free section of coastline as a possible site for a permanent Antarctic airfield.

The mosaic is made by cutting up the prints into small irregular segments and then pasting them together with a gum rubber solution on a sheet of plywood. The completed map is then photographed

and additional copies are made.

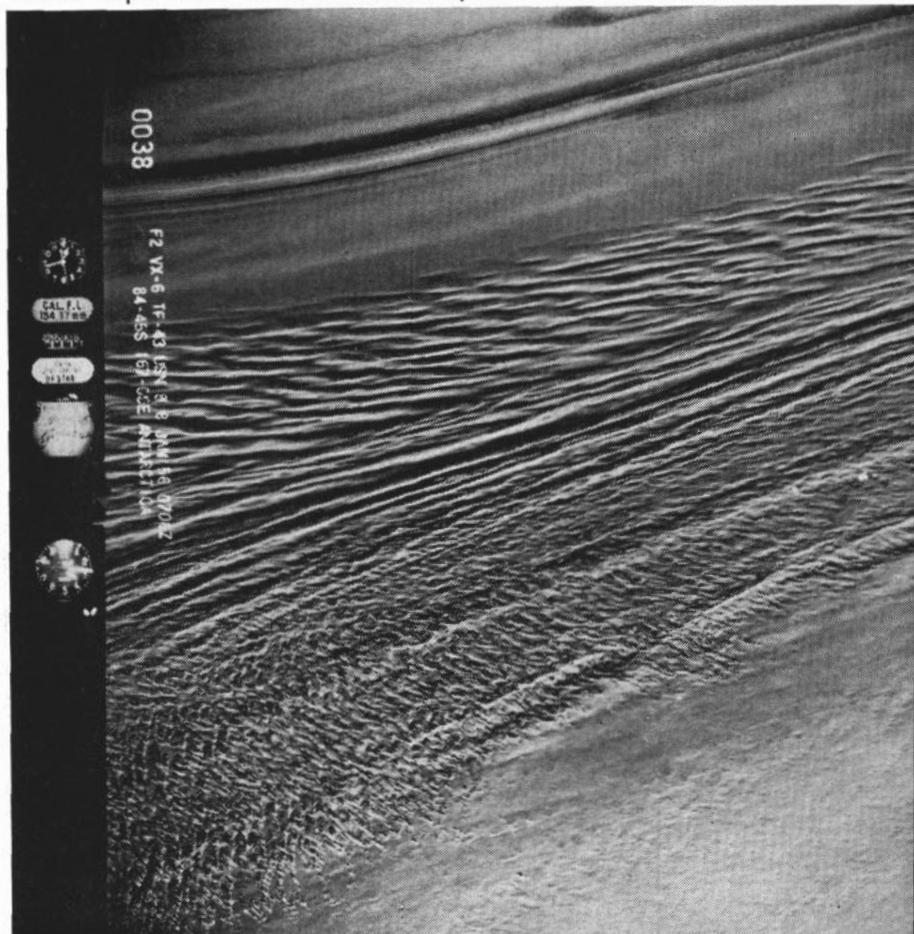
While aerial mapping and the activities associated with it take up a major portion of the men's schedule, they still find time to cover newsworthy events around the Navy's Antarctic base with their press cameras. They are responsible for many of the pictures you see in newspapers and magazines throughout the world

featuring Navy's polar adventures.

In contrast to the climate at Antarctica is that at Pensacola, Fla., where most Navy photographers are trained. The men at McMurdo, however, have gained much of their aerial mapping experience while operating with VAR-62 out of Norfolk, Va., on photo flights.

—Marshall J. Schuon, JO3, USN.

ON ICE—Nine-by-nine prints similar to one below are fitted together to make mosaic maps. Aerial camera records exposure data at side of negative.



MY GREAT GRAND-
FATHER WAS AN
ABACUS

ALL I WANT ARE
THE FACTS, M'AM

WHAT, ME
WORRY?

Meet the Machine with a

HELLO.

WELCOME TO THE MANPOWER INFORMATION DIVISION.

I AM THE 705 DATA PROCESSING MACHINE.

I CAN WORK RAPIDLY AND ACCURATELY.

AS A DEMONSTRATION OF MY SPEED, I AM NOW GOING TO MULTIPLY 31684327591 BY 84365239428.

THE ANSWER IS 267305588332990-1457948.

THAT WAS FAST, WASN'T IT.

I AM NOW GOING TO STOP TYPING FOR MORE COMPUTING. *(There was a 1 second pause.)*

SINCE I LAST STOPPED TYPING, I HAVE MULTIPLIED TWO TIMES TWO, ONE THOUSAND TIMES.

EACH STEP I TAKE REQUIRES 17 MILLIONTHS OF A SECOND. IF YOU COULD TAKE A STEP FOR EACH ONE OF MINE, YOU COULD WALK AROUND THE WORLD IN LESS THAN 19 MINUTES.

I ALSO PLAY GAMES.

WATCH MEMORY ADDRESS COUNTER II IN UPPER RIGHT HAND CORNER OF THE CONSOLE.

WHEN YOU WERE BORN THE CALENDAR LOOKED LIKE THIS.

1933

AUGUST

SUN	MON	TUE	WED	THU	FRI	SAT
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

YOUR DATE OF BIRTH WAS 10 AUG 1933.

AS OF TODAY, 20 AUG 1958, YOUR AGE IS 25 YEARS, 10 DAYS.

YOU WERE BORN ON A THURSDAY. YOUR BIRTHDAY FELL ON THURSDAY AGAIN IN 1939, 1944 AND 1950.

YOU ENLISTED IN THE NAVY ON 10 SEP 1951. IF YOU REMAIN ON CONTINUOUS ACTIVE DUTY YOU WILL NORMALLY BE ABLE TO TRANSFER TO THE FLEET RESERVE ON 20 MAR 1971 AT THE AGE OF 37 YEARS, 7 MONTHS AND 10 DAYS.

THIS IS A SAMPLE of the sort of thing the Bureau of Naval Personnel's new 705 electronic data-processing machine (EDPM) can whip off at a typing speed of 250 words per minute and "figure in its head" at a

COMPUTATIONS made by the 705 data processing machine are turned into printed reports by this machine.



rate much, much faster than that.

If the machine's masters—the Navymen and civilians who push the buttons and tell the machine what to do—had time for such things, they could also teach the 705 to play chess, hum a tune or map the orbits of space satellites (as 705's scientific sister, the 704 EDPM does).

However, the Bureau doesn't use this costly and amazingly complex machine to play games or make music. Nor is the Bureau in the satellite-tracking business.

Its business is you and your career. And now, thanks to the 705 and its ability to handle almost countless facts and figures at lightning speeds, the Navy will be able to give more personal attention to you, your potential, your career problems and your duty preferences.

How?—because data processing with electronic machines will help keep track of more information about you, make personnel records more accurate and up-to-date and give distribution officers and others more facts on the matter and more time to consider those facts before making a decision which might affect you.

At the same time the 705, and the new Naval Manpower Information System (NMIS) built around it, will benefit the Navy by helping it to calculate the future results of present-day personnel policies, providing for more efficient utilization of your skills and abilities, making for improved control over military pay and allowances and permitting more ef-

HUP - TWO - THREE
BILLION

Memory

fective preparation for mobilization or catastrophe.

LOCATED IN THE new Data Processing Center, the 705 installation is made up of a number of machines working together, but the heart of the system is the 705 central processing unit and its magnetic core memory.

Composed of row after row and layer after layer of tiny "doughnuts" of ferromagnetic material, the memory can store for an indefinite time 40,000 bits of information in the form of letters of the alphabet, numbers, punctuation marks or symbols. These are "sensed" by the machine through a code based on variations in the arrangement of positively and negatively magnetized doughnuts.

An accumulator and 15 auxiliary units provide additional core storage for the intermediate results of arithmetic and logical processing. To increase the permanent storage capacity of the memory, magnetic drums, capable of holding 60,000 characters apiece, can be added to the system.

The 705 can "recall" data from its core memory at the rate of 58,800 characters per second.

The memory unit is used for the storage of data and programs (sets of instructions) which tell the machine system just what steps to take to carry out a particular assignment—whether it's listing the names of all the men in the Navy who speak Chinese or calculating the number of ETCs who will still be on active duty five years from now.



'DRIVER'S SEAT'—A. L. Szymanski, MAC, sits at the 705's console monitoring a data processing run. Sailor in back checks on one of the magnetic tape units.

The programs, defining in complete detail exactly what the machine system is to do under every conceivable combination of circumstances, are translated into "machine language" and fed into memory via either punched cards or magnetic tape. If any instruction is omitted, the system is helpless when it comes to that part of the problem.

THE 705'S SPEED is something tremendous. For example, it can add five-digit figures together or subtract them from one another at a rate of 8400 additions or subtractions per second.

It can multiply five digits by five digits, 1250 times in a single second.

And, it's also a whiz at long division, taking only one-550th of a second to divide a six-digit figure by a four-digit one!

The system can read from or write on magnetic tape at a speed of 15,000 characters per second. At that pace, it could go through "Gone With the Wind" in about four and a half minutes if it were so programmed.

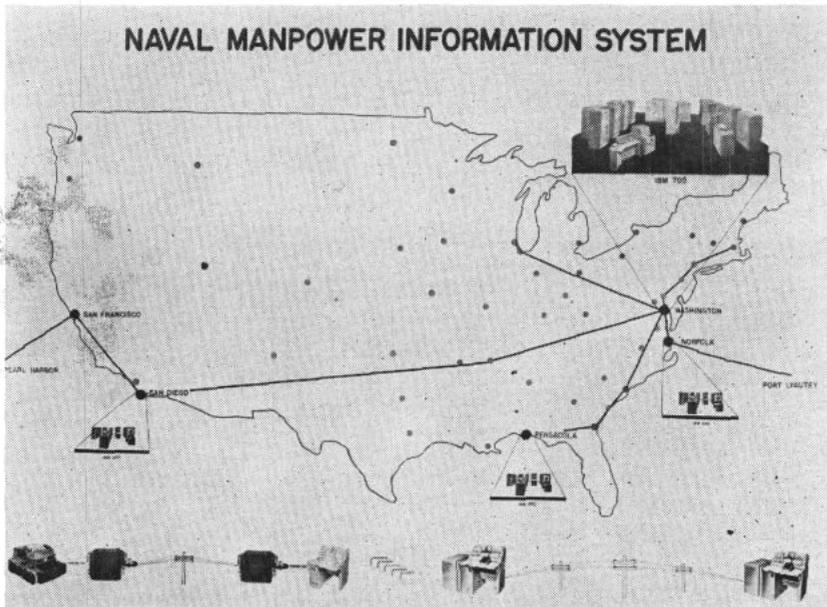
In such operations as compiling

personnel statistics or looking for men with a particular skill, the Bureau's 705 system could work from either punched cards or magnetic tape, but it can handle tape much faster than it does cards.

With tape, the information filed in 60,000 punched cards—well over five million characters—can be stored on a single reel only seven-and-one-half inches in diameter. This means that an officer punched-card record, containing 945 characters of information and taking 12 cards, can be transferred to less than four and three-quarters inches of tape. The 705 system can read that amount of tape in less than one-fifteenth of a second, using punched cards, would take almost three seconds—nearly 45 times as long.

To take advantage of the savings tape will mean, the Bureau is now transferring its punched-card personnel records to tape for both officers and enlisted men. When the job is done, complete records of every member of the Navy will be contained on just 36 reels of tape.

NAVAL MANPOWER INFORMATION SYSTEM



FAR REACHING—There is more than meets the eye at BuPers Data Processing Center. Chart shows data processing system that will be in operation in 1959.

THE EXTERNAL CONTROLS of the Data Processing Center's 705 system are located in a compact console, studded with flashing lights and pushbuttons, which are used to "get things started." Then, the 705 central processing unit, following its memorized instructions, practically runs the machine system by itself until the job is finished.

The reading phase of a typical operation is done by machines called *magnetic tape units*, which relay the raw material of facts and figures to

the 705 for processing. The results appear at another machine, the *tape data selector*, which prints up final reports, statistics and such on either cards or printed listings.

How these machines and the others in the 705 system accomplish all this is complicated enough to leave the layman awe-struck, but there's really no need for fear.

Despite its complexity and usefulness, the EDPM system has no ability to "think for itself." People must tell it how to handle informa-

NEXT QUESTION—Chief Machine Accountant O. E. Luckey, USN, discusses a machine program for new run in BuPers Manpower Information Division.



tion in a specific and logical way before it can produce meaningful answers.

IN THE OLD "everybody knew everybody else" days before World War II, there wasn't much need for anything so complex as the 705 to keep track of the Navy's personnel. And, since the Navy was so small, assignments, transfers and the like had almost a personal touch.

As the size of the Navy grew during the war, a lot of that personal touch was lost. The Navy did what it could to get the right man in the right billet at the right time through the adoption of punched card accounting methods. However, because the information that can be put on a punched card is limited to 80 characters, this didn't leave very much room for consideration of individual desires, skills and backgrounds in the handling of personnel matters.

In the large post-war Navy this continued to be a problem. Although the situation was alleviated to some extent by using more cards for each individual, there were still limitations on the number of cards that could be handled efficiently.

The answer was electronic data processing. The Navy must maintain accurate, current and readily accessible data on 10,000 naval activities, several million peacetime and mobilization billets, 640,000 active duty personnel, 650,000 Reserve personnel and an annual expenditure of \$2,500,000,000.

The Bureau has been getting ready for EDPM since 1955, when the Secretary of the Navy directed Navy-wide action to explore and develop the possibilities presented by this modern means of processing information. That same year the Bureau of Naval Personnel established an Electronic Data Processing Advisory Panel and a Machine Systems Analysis Division. An over-all plan for the Naval Manpower Information System was approved by the Chief of Naval Personnel in June 1956, and the experts have been working out details of the plan ever since. In April of this year, with the installation of the 705 in the Data Processing Center and the establishment of the Manpower Information Division, the new system entered the operational phase.

EARLY NEXT year the division will have: compiled individual magnetic tape records for every man on active duty; begun using EDPM to

work out allowances, complements, manpower requirements and allocation plans for all Naval activities; and started the electronic processing of distribution data for all aviation officers.

In 1959 three electronic data processing installations in the field, using smaller-scale versions of the 705, will swing into full operation.

Located at *San Diego, Calif.*, for the Pacific Fleet; *Norfolk, Va.*, for the Atlantic Fleet; and *Pensacola, Fla.*, for continental shore activities, these installations will have the job of feeding necessary personnel information to the Fleets and shore commands and supplying the BuPers Data Processing Center with change information which will enable the Bureau to keep its files up to date.

Two other important elements of the new Manpower Information System are the *Personnel Accounting Machine Installations (PAMIs)*, lo-

cated at District Headquarters of all continental Naval Districts and the Naval Air Reserve Training Command, and the *NMIS Data Transceiver Network*. The chief function of the PAMIs will be to process data on Reserve personnel and to keep the Chief of Naval Personnel supplied with strength and change information. The transceiver network links the Data Processing Center with the field installations for the transmission of high-priority personnel information. It consists of telephone lines connected to devices which are able to transmit and receive information in punched card form.

The new system is all part of the transition to an electronic, nucleonic, supersonic Navy, for that transition has created an ever-increasing need for trained, skilled personnel.

Besides helping the Navy to put the right man in the right job at the

right time, the system will also help to keep track of 650,000 men and women, forecast training requirements and perform a myriad of other detailed, clerical and accounting functions.

By providing an easily accessible, up-to-date record of every Navyman, the system emphasizes the continued importance of the personal touch, in dealing with the individual, ashore or afloat.

Although much of the work of the Manpower Information System will be done by machines, there is no need to get the idea you'll become just so much fodder for a monster that feeds on magnetic tape. Human beings — not machines — will still make the decisions on matters which might affect you.

The machines are just being used to help the humans get a better idea of the factors that make you an individual.

—Jerry Wolff.

USS 705 Is Commissioned, But Minus That Bottle of Champagne

The Bureau Data Processing Center, home of the 705 EDPM and heart of the new Navy Manpower Information System, officially opened for business on 16 Jul 1958. Among the guests on hand for the ceremonies was William B. Franke, Under Secretary of the Navy.

VADM H. P. Smith, USN, Chief of Naval Personnel, gave a brief talk marking the occasion. Here, in part, is what Admiral Smith said of the significance of the event:

"This is a commissioning ceremony.

"But it is a new kind of commissioning which epitomizes the new kind of Navy which is evolving as a result of scientific advancements and technological progress in the presence of the atomic age and the dawn of the space age.

We believe the Navy Manpower Information System marks a milestone in the Navy's progress in the field of personnel administration. We will begin to harvest benefits from this installation at the end of this calendar year.

"The electronic computer, which is the heart of this system, is only a tool—nothing more. No machine has, or ever will, make a decision concerning a Navyman.

"This machine installation is designed to help men make better

decisions because more complete, accurate and accessible information concerning the individual's qualifications and duty preferences will be available. As a result of this better information which is now available to the officers who are responsible for the assignment and distribution of naval personnel, we are able to achieve the closest thing possible to a personal interview in

the absence of the actual presence of the individual."

After the ceremony Admiral Smith pushed a button at the 705's console to start the machine system on a typical operation—updating the officer master tape record. The job was done in a matter of minutes. Simultaneously, the machine setup was also transferring enlisted records from cards to magnetic tape.



OPENING PUNCH—VADM H. P. Smith, USN, pushes button to start data processing machines on typical job. CAPT Carlyle Ingram sits at right.



experience. Two of these cruises will be to such choice liberty areas as Europe or South America. The third usually takes the midshipmen to Little Creek, Va., and Corpus Christi, Tex., for amphibious and aviation indoctrination.

When they graduate, commissions as ensigns in the Regular Navy or as second lieutenants in the Regular Marine Corps will be waiting for them.

Sounds like a good deal—and it is—but it's not all beer and skittles. Although the midshipman who enters the program from active duty enlisted status retains his enlisted rate on a suspended basis (in case he's separated from the program), he draws only his retainer pay of \$50 a month, or the increased pay he gets during summer cruises.

This is definitely not enough to make him the richest man on campus. In fact, experience has proven that he will probably need an additional

Sea to Campus, Campus to Sea

RIGHT ABOUT NOW, at such well known schools as Cornell, Notre Dame and the University of California, a picked crop of young enlisted men, who were on active duty with the Navy and Marine Corps only a few short months ago, are getting used to the idea of being college freshmen.

On campus, as they scurry from building to building signing up for classes or wait in line at the student book store, these youths don't look much different from their fellow students. Chances are, they're wearing the same style clothes and the same bewildered look that the rest of the freshmen are.

However, there is an important difference between these young men and the rest of the "frosh," for these

particular freshmen, scattered around at 52 NROTC colleges and universities throughout the country, are being trained and educated for careers as Navy or Marine Corps officers, through the Regular Naval Reserve Officers' Training Program.

While they're in the school of their choice, studying for baccalaureates in fields they've selected for themselves, the Navy will provide them:

- All tuition, books and fees.
- Retainer pay of \$50 a month for four years.
- The required uniforms for wear at drills, on cruises, and at other functions for which uniforms may be prescribed.
- Three eight-week-long summer cruises, during which they will receive practical training and first hand

\$300 to \$600 per year—depending on the school and the student—to meet all expenses. Unless his folks can help him out, or he can save up some cash beforehand, digging up that much money can be quite a problem especially when the student is so busy with his studies that it would be almost impossible for him to take a part-time job.

"That's no problem for me," you might be figuring to yourself, "I'm all set to get married and I know my wife wouldn't mind working long enough for me to get through school."

This isn't the solution either. In order to get into the program you must be single, and agree to stay that way until you're commissioned.

Largely because of the problem

ON CAMPUS, NROTC students have a broad choice of majors. Naval subjects are included in study program.



of finances, the Navy is not getting as many active duty applicants for Regular NROTC as it would like to have, so the odds in favor of being nominated for the program are better than you might think.

The program is open to Regular and Reserve enlisted men on active duty and to inactive Reservists and civilians. Each year some 1800 candidates are selected for it. Of that number, 180 candidates are Navy-men or Marines who've applied while on active duty.

The annual deadline on applications for the upcoming program is usually some time in October. For instance, if you want to get in on the program next year, the nomination from your CO must be in the Bureau of Naval Personnel by 16 Oct 1958. Then, if you are considered qualified, your skipper will receive a copy of the Navy College Aptitude Test, which you'll take on the Fleet-wide test date of 13 Dec.

via NROTC

This test and your physical examination are the controlling factors which determine whether or not your application will be given further consideration.

The names of those who pass the College aptitude test will be published in March 1959, and next summer, if you're still interested in the program, you'll be ordered to the Naval Preparatory School at Bainbridge, Md., where you'll get a chance to brush up on your studies. After that (providing, of course, that you get through the Preparatory School successfully) you'll be appointed midshipman in the Reserve and sent to one of 52 NROTC Units.

While in college you may take *any course* leading to a bachelor's degree EXCEPT the following:

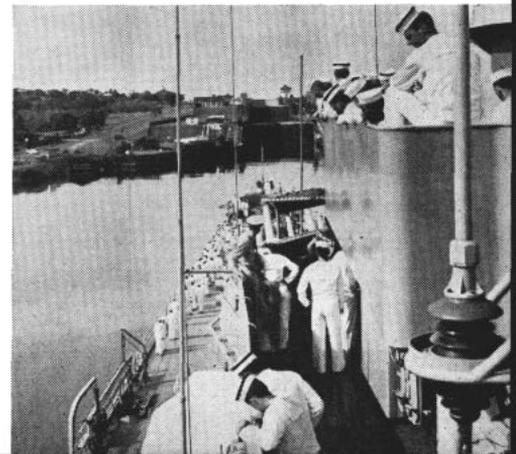


ON DECK—During eight-week midshipman cruises Navy college students get the word firsthand on what they will have to do as future officers.

Pre-Medicine, Pre-Dental, General Agriculture, Dairy Production, Soils, Wildlife Management, Soil Conservation, Hotel Administration, Anthropology, Pre-Veterinary, Pre-Theological, Agronomy, Dairy Manufacturing, Horticulture, Real Estate, Religion, Landscape Architecture, Physical Education, Pharmacy, Music, Art, Law, Poultry Husbandry, Dairy Husbandry, Floriculture, Animal Science, Entomology, Dramatics, Industrial Arts, or Animal Husbandry. Except for these courses the field is wide open to you.

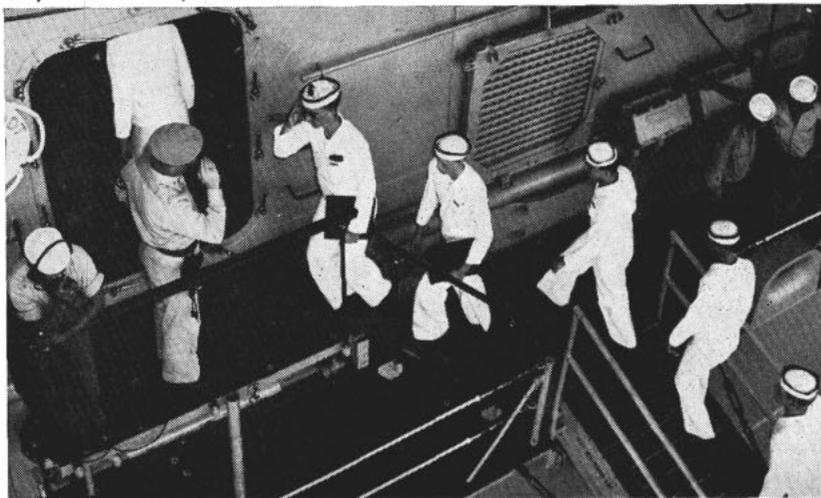
Naturally, there are some courses you'll be required to take. You must have 24 semester hours, or the equivalent in quarter hours, of naval science. You'll also need to complete one year of college mathematics and one year of college physics by the end of your sophomore year. And, you'll be required to achieve proficiency in written and oral English, meeting the standards established by the college you attend. Outside of these few restrictions and requirements, you'll be practically on your own for the four years of schooling.

BACK TO SEA—In summer, midshipmen learn while taking cruises to foreign ports in Europe or South America.





ON TARGET—NROTC students from University of Colorado learn about gunnery on USS Stephen Potter (DD 538). Below: Midshipmen report for cruise.



NOT ALL WORK—Although midshipmen, like most college students, must spend a lot of time studying, there is still time for fun such as dancing.



Upon graduation you'll be commissioned and ordered to active duty for four years. Depending on the needs of the service at the time, your commission will be as an ensign (Line) in the Navy, a second lieutenant in the Marine Corps or an ensign in one of the Navy's staff corps. Naturally, you'll be given a chance to indicate which branch you'd prefer.

Most of the graduates take Line commissions in the Navy. If you apply, and are qualified, you may receive immediate assignment to flight training.

Once you are commissioned you'll be considered a career officer in every sense of the word, since the Regular NROTC program is designed as a supplement to the Navy Academy's output. However, during your third year of commissioned service you must indicate whether or not you want to continue your career as a Regular officer. All those who apply will be screened, and those who are selected, within the authorized strength established at the time, will continue their careers in the Regular Navy or Marine Corps. The probability of continued career service is excellent for those who request it, providing their past performance and potential for the future is at an acceptable level.

Those who do not apply, or who are not selected for retention, will be re-appointed as Reserve officers. They will be retained on active duty for an additional year to complete four years of active duty unless sooner released by the Secretary of the Navy, at which time they may be ordered to inactive duty to fulfill the remainder of their original six-year obligations.

Sound worth looking into? The eligibility requirements can be found in Articles C-1202 and C-1204 of *BuPers Manual*. Briefly, here's what it takes:

- You must be on an enlistment or extension of an enlistment which will not expire before 1 September of the year in which you will enter college.

- You must have reached your 17th—but not your 21st—birthday on 1 July of the year in which you wish to enter the program. However, for men on active duty, the upper age limit will be waived if you have previous college credits, and if you will not have reached your 25th birthday by 1 July of the year in

which you graduate from college. To establish this waiver, you will have to submit a college transcript.

- You must be a high school graduate or possess the equivalent educational background or high school certificate which would be acceptable for admission to an NROTC college or university.

- You must be a male citizen of the United States.

- You must be unmarried and agree to remain unmarried until commissioned.

- You must be of good moral character, have the potential for leadership and be recommended by your commanding officer.

- You must pass a physical examination conducted by two medical officers. (The final determination of your physical qualifications is subject to review and decision by the Chief, Bureau of Medicine and Surgery, and to the approval of the Chief of Naval Personnel. No waivers of physical defects will be granted.)

Enlisted men (except those enrolled in the Naval Preparatory School), who are on active duty undergoing instruction in an officer candidate program, such as the one for Naval Aviation Cadets, are not eligible to apply for NROTC while retaining their officer candidate status.

For those who don't have high school diplomas a passing grade on the USAFI General Educational Development Test battery, high-school level, with a minimum standard score of 45 on the five GED tests, or no score below 35 on any one of the five tests will be considered the full equivalent of high school graduation.

The age of the applicant for the program is a very important factor. If you will have reached your 21st birthday by 1 July of the year in which you'd enter the program, you will definitely *not* be eligible to apply unless you have previous college experience. For each year over 21, you must be able to establish one year of acceptable college credit. In general, 30 semester hours (or 45 quarter hours) are necessary for each year. GED college-level tests are generally acceptable for one year of advanced standing, providing they include additional tests covering college-level algebra or geometry.

Procedures for nominating qualified active duty enlisted men to participate in the Navy College Aptitude Test are covered in BuPers Inst.



FUTURE NAVAL OFFICERS get practice in antisubmarine warfare in mock-up of combat information center. Such studies will be put to use on cruise.

1111.4B. Although much of that instruction deals with administrative matters, it still contains considerable information of direct interest to the prospective applicant.

The Chief of Naval Personnel began receiving nominations for the 1959 program on 1 Aug 1958. However, the deadline on getting nomina-

tions into the Bureau isn't until 16 Oct 58, so there is time to apply.

If, for some reason, you've missed the official word on the program, see your personnel officer about it. He'll be glad to give you a helping hand—because the Navy is eager to get all the qualified applicants it can.

—Jerry Wolff.

LAST CRUISE takes midshipmen to Little Creek, Va., and Corpus Christi, Tex., for amphib and aviation training. Here NROTC men and Marines hit the beach.



LETTERS TO THE EDITOR

Suggestions on Uniform Changes

SIR: Here are a couple of my "crack-brain" ideas that your readers may be interested in discussing:

With the Army branching out in greens to replace the old khaki, and the Air Force now wearing blues, isn't it time to consider the plight of the CPOs, WOs and the commissioned officers in regard to the dress blue "A" and "B" uniform?

Why not modify it to a single-breasted uniform patterned after the khakis? The Navy is the only branch, with the exception of the Coast Guard, that wears a double-breasted coat as part of our dress uniform.

I've worn the CPO uniform for more than 12 years now and I must say there have been many, many times when I had wished it was single-breasted. For the sake of coolness, if for nothing else. That fold of cloth across the middle can really build up the BTUs on a warm day.

Now that I have attempted to get the double-fold off my chest, brace yourself for the second salvo. Has the Navy ever considered doing away with the hashmark in its present shape and size and using one about two inches long instead. Also, why not let warrant and commissioned officers wear similar marks to show their respective time in service? And let's have the hashmark sewn on the sleeve in a horizontal

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.

manner rather than at an angle.—R. T. S., BMC, USN.

• *Your idea about a single-breasted coat is not new to the Navy's uniform experts. It has been proposed before but has received very little support. The double-breasted blue service coat with gold buttons is traditional in practically every country that has a Navy. Although it is true that we should not be hidebound by tradition, it is also true that we should steer clear of change and counter-change without considerable justification. In addition to several other factors, the Navy feels that popular approval is very important in considering uniform changes.*

Incidentally, your comments on hashmarks are the first along these lines that have been received. What's the reaction in the Fleet?—Ed.

Computing Sea Duty

SIR: In May 1955 after serving 18 months of what I thought was a "normal tour of shore duty," I was transferred to the Service Craft Port Control Office at Norfolk, Va. For the next 14 months I served in several types of small craft such as YOGs and YTBs. Then I was ordered to sea on board a destroyer.

Since I departed from Service Craft (in Aug '56) that duty has been redesignated as "preferred sea duty." If such is the case, does my sea duty count since May '55 when I first reported to Service Control or when I reported to this "greyhound" in August '56?—A. C., EM1, USN.

• *During the period you served in Service Craft, Naval Control Office at Norfolk, the duty was classified as Fleet shore duty. Since 19 Jun 1957, however, duty at that activity has been classified as sea duty for rotation and promotion purposes. The Bureau considers it impracticable and administrative unfeasible to credit personnel with sea duty who were not serving in that activity on or since the date such duty was reclassified as sea duty.*

Therefore, in your case, your sea tour commenced in August 1956 when you reported to USS Compton (DD 705). In those cases where commands are unable to compute sea tour commence-

ment dates, official requests for verification or computation of such dates should be submitted to the Chief of Naval Personnel in accordance with the provisions of enclosure (1) to BuPers Inst. 1306.62A.—Ed.

Requirements for NROTC

SIR: Are waivers granted for applicants to the NROTC program who are high school graduates but have not yet reached their 17th birthday? Here is my reason for asking.

My son is due to graduate from high school in June 1960 but will not be 17 until October of that year and so is ineligible to apply for the NROTC until the following year. According to local information, waivers are not granted. This would seem to be a handicap to brighter students who finish high school early.—P. D. M., CDR, USN.

• *Regulations for administration of the Regular NROTC stipulate that candidates must have reached the 17th anniversary of birth by 1 July of the year in which enrolled. The Regular NROTC program regulations require high and rigid standards. Therefore, no waivers for any requirement can be granted.*

Commanding Officers of NROTC Units are authorized to enroll in the Contract NROTC program applicants who are 16 years of age or recently 17 provided they are considered to be of sufficient maturity to pursue Naval Science courses. While in the Contract program they may enter the competitive procedure for enrollment in the Regular program.—Ed.

Path of Advancement to WO

SIR: Unofficially, I heard that a new path of advancement to Warrant Officer has been established for Radarmen.

Since the ship's office has not as yet received any instructions pertaining to this reported change, can you give me the scoop?—J. F. H., RDC, USN.

• *BuPers Notice 1120 of 5 Mar 1958 announced that the primary path of advancement for Radarman, Sonarman, Signalman and Radioman is to Operations Technician (714) for Warrant Officers, and Deck (170) for LDO.*

Electronics Technician (766) and Electrician (175) are now included in the alternate path of advancement for RD, SO and RM to warrant grades and limited duty officer categories.

"The Manual of Qualifications for Advancement in Rating" (NavPers 18068) has been amended to include these changes.—Ed.

Question on LDO

SIR: I am a W-1 interested in an LDO commission. Before I try for this program, however, I would like some information regarding LDO retirement and official action taken if I am selected and later twice passed over for promotion.—DGW, WO, USN.

• *A permanent LDO must have at least 10 years' commissioned service before retirement. A temporary LDO on the other hand, can revert and transfer to the Fleet Reserve after 20 years' active service. So far as being twice passed over for promotion, official action would provide that you be reverted to the warrant grade you would have held if you hadn't accepted an LDO commission. Did you see the article on LDOs in last month's issue of ALL HANDS (pages 16 and 17)?—Ed.*

Starting Off Right

SIR: We invite any Fleet tug to match our record for the ocean tows. During five and one-half months (from 6 Feb 1958 to 24 Jul 1958) this red hot Fleet tug, in service only since January of this year, has towed 105 times its own weight for a distance of more than half-way around the world. This represents 137,768 tons of shipping towed 11,967 miles. These tows included eight assorted CVs, four DDs, nine DEs, one APA, one YR and one YTL. We may be prejudiced, but we think our ship *uss Yuma* (ATF 94), has what it takes.—C. J. P., EN1, USN.

• *Sounds as though you've been busy pulling and tugging. There's little doubt that Fleet tugs justify their reputation as workhorses. However, we suspect that some of the old-timers are going to take pen in hand at your claims. Remember, you're less than a year old and some of these boys have been around for a long time. We refer you, for example, to the claims of *uss Salish* (ATA 187) to be found on page 24.—ED.*

Use of Stenographic Machine

SIR: I have a question regarding shorthand qualifications for YN1 and YNC. The *Manual of Qualifications for Advancement in Rating* states: "Short-hand Method—A machine for the purpose of taking stenographic notes is acceptable when provided by the yeoman."

Does the phrase "provided by yeoman" mean that the YN must own his own machine, or does it simply mean that an available Navy-owned machine would be acceptable?—R. D. D., YNC, USN.

• *"Provided by yeoman" in this case means provided by yeoman. If one is available, he can use a Navy-owned one, or a yeoman can own his own stenographic machine. In any case, the yeoman himself is responsible for providing a machine if he wishes to qualify for advancement by this method.—ED.*

Reserve Clothing Allowance

SIR: While reviewing some back issues of ALL HANDS I came across a letter to the editor concerning clothing allowances for Naval Reservists (P. 46, Dec '57 issue). I believe you're out in left field in regard to the answer you gave to G. E. J., SKC, USN.

When a Reservist is issued clothing, the clothing remains government property and must be turned back in upon discharge from the Naval Reserve. So, if he enlists in the Regular Navy, he should be entitled to the full authorized sea bag.

If a Reservist goes on active duty, he is then issued the remainder of the authorized sea bag or a monetary allowance instead. At least that's what they did during the Korean conflict.

I haven't seen the manual or instruction you quote but I am basing this on

actual experience. Realizing that ALL HANDS strives to be as accurate as possible, I think you should double check.—R. E., SMC, USNR.

• *We double checked, and just for you, we triple checked.*

According to current regulations an inactive Reservist who has not reported for active duty and is discharged on or after 1 Jul 1957 for immediate enlistment in the Regular Navy is permitted to retain items of clothing which have been issued to him as a Reservist.

Assuming that G. E. J., SKC, USN, was an inactive Reservist who was discharged on or after 1 Jul 1957 for immediate enlistment in the Regular Navy, the information published in the December 1957 issue of ALL HANDS is correct.—ED.

Authority for Advancement

SIR: Two questions have come up, discussion of which has turned friend against friend in our personnel department. (1) Are NavPers 624s checked in the Bureau against a man's service jacket for correctness after the Examining Center enters your exam mark if you passed the test? Our personnel department is divided as to whether or not the Bureau checks 624s. Some say the Bureau does make a check for all rates; others say that it is only for E-7, and still others seem to think they aren't checked by the Bureau at all. They say that this is a command responsibility.

(2) Since I have been under the impression that the Chief of Naval Personnel is the authority for all advancements, I was wondering why the



ON HIGH—Navy blimp comes in over aircraft carrier to pass the word during antisubmarine warfare exercise.



SMALL BUT POWERFUL, ocean-going tug, *USS Abnaki* (ATF 96) is moored in her home port at Pearl Harbor.

Examining Center publishes the advancement in rate list for rates E-4 through E-6, and the Bureau for E-7.—J. F. D., DT1, USN.

• *Someone in your personnel department is right on the ball. NavPers 624 forms (Report on Examination for Advancement or Change in Rate or Rating) are checked for correctness by the Bureau of Naval Personnel, but only for advancement to E-7.*

You are quite right in assuming that the Bureau is the authority for advancement of all rates. However, for all except advancement to E-7, authority is delegated to the Commanding Officer of the Naval Examining Center.—ED.

Chest Out, Chin In

SIR: After getting my teeth kicked out about portholes on submarines (ALL HANDS, August 1957, page 19, and subsequent issues), I'm a little leery about sticking my chin out again. But here goes.

In the June issue of ALL HANDS the caption to the cover picture says: "Here, Captain O. D. Waters, Commander Destroyer Squadron Two, presents Marvin Sizemore, BMC, with his fifth Good Conduct medal."

All good yeoman and personnel men know that the fifth award of the Good Conduct medal is nothing more than a service record entry and a star for the Good Conduct ribbon. What gives?—C. E. K., YNC, USN.

• *You and all the other good yeoman and personnel men are right. It's our mistake so here are your teeth back. Our bark is worse than our bite.—ED.*

Uniform Allowance in USNR

SIR: During fiscal year 1937 I was appointed permanent warrant officer. I was attached to an inactive Naval Reserve aviation squadron as a CPO at the time of appointment, and I am now filling an officer billet with the same squadron.

Am I entitled to a uniform allowance? I have not collected one, and no one at this station has been able to find an instruction pertaining to my case. Would you please advise me regarding my eligibility for this allowance and procedure for collecting one if it is due me.—G. H. B., W-1, USNR.

• You are entitled to an initial uniform allowance only upon reporting for active duty in excess of 90 days, after completing 14 days' active duty or active duty for training, or after having attended 14 authorized drills as an officer in the Ready Reserve.

After qualifying under one of these conditions, submit your claim (in duplicate) on NavPers Form 3095 to the Officer in Charge, Reserve Officers Recording Activity, 30th and Fort Streets, Omaha, Neb., via your commanding officer. If the claim is based on active duty or active duty for training of 14 days or more, it must be accompanied by a certified copy of orders to such duty, with all endorsements. A certification by your commanding officer will verify your participation in 14 organized drills.—Ed.

Navy's First RDs

SIR: Since most of the RDs know their rate backward and forward either through course books or by experience, we believe there's one thing that everyone can use—a little information on when this rating was established. Can you supply any information on when the RD rating came into being?—Radar Gang, FADTC, San Diego, Calif.

Souvenir Books

In this section ALL HANDS prints notices from ships and stations which are publishing souvenir records and wish to advise personnel formerly attached. Notices should be directed through channels to the Chief of Naval Personnel (Attn Editor, ALL HANDS) and should include approximate publication date, address of ship or station, price per copy and whether money is required with the order.

uss *Hornet* (CVS 12)—Work has been completed on the 1958 *Hornet* Cruise Book Westpac. It is now available and can be obtained by sending your name and address along with \$4.25 —this includes postage—to Cruise Book Editor, uss *Hornet* (CVS 12), c/o FPO, San Francisco, Calif.

• Glad to oblige. The rating of RD3 and RD2 were established by BuPers Circular Letter 33-43 of 24 Feb 1942; RD1 by SecNav Letter of 15 Feb 1943 and BPCL 22-43 of 26 Feb 1943. BuPers Circular Letter 205-43 of 12 Oct 1943 established the RDC rating. For more on Navy ratings, see the August 1958 issue.—Ed.

Sailing with Salish

SIR: If you don't mind the continuance of a little friendly rivalry, uss *Salish* (ATA 187) submits that she may come close to the top of the "miles steamed" competition among Fleet tugs on the basis of the following statistics: In June 1958, *Salish* covered 4870 nautical miles. Backing and filling boosted this to 7152 engine miles. During the first seven months of this year she's gone 19,488 nautical miles and has towed three tugs, three destroyer escorts, eight Fleet minesweepers, one landing ship, and one high speed transport.

Salish, an 8th ND tug homeported in New Orleans, feels she might well adopt the motto "Have tug; will travel." We

think we might have the most miles in a month of any tug (ATF or ATA), and we're looking forward in another couple of months to beating *Penobscot's* 11-month record of 26,970 miles. "Sayonara," PacFlt tugs!—D. R. S., LTJG, USN.

• Smashing record! Keep up the good sailing.—Ed.

Leave before Retirement

SIR: I would like to pose this hypothetical question. An officer is slated for placement on the retired list on 1 Jun 1959. At that time he will have 77 days of leave on the books.

According to Article C-6105 (1) of *BuPers Manual*, the amount of earned leave upon discharge or separation from active duty cannot exceed 60 days, so this means he has 17 days of extra leave.

In order not to lose those 17 days, could he be detached 14 May 1959 on retirement leave, with his leave to expire at 2400 on 31 May 1959, and still be paid for the remaining 60 days of unused leave?—D.W., Jr., YNC, USN.

• Sorry, but there are no regulations which permit detachment on a date immediately before placement on the retired list for the sole purpose of using up excess accrued leave, which in effect, is what this officer would be doing.

If he does decide to use the 17 days of excess leave he will have to take it as authorized annual leave prior to retirement date, returning in time to complete his processing (physical examination, etc.). If he does not take the annual leave the number of days involved would be lost, of course.—Ed.

Availability for Transfer

SIR: My rotation tour date and expiration of active obligated service is September 1958. In accordance with current instructions, if I agree to re-

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

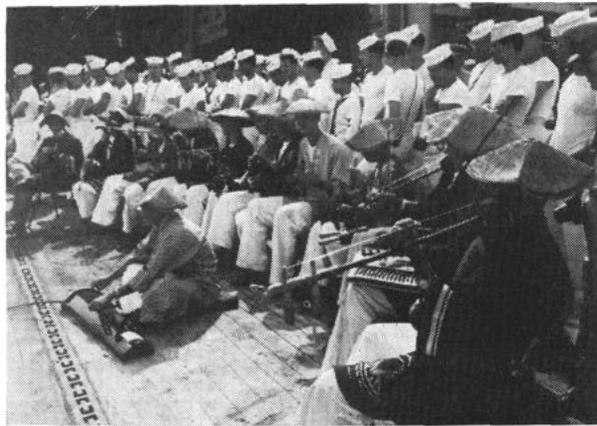
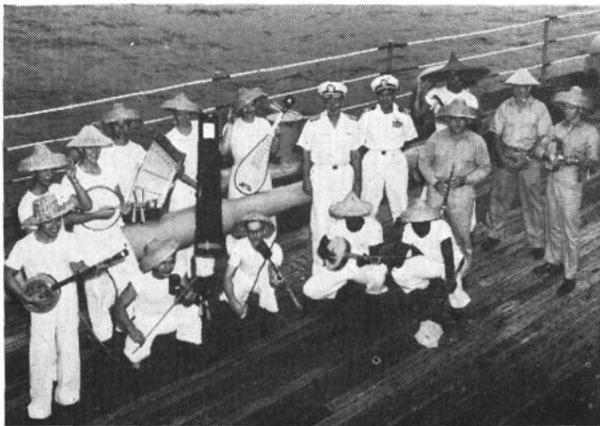
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CRAZY, MAN—Samisen band from crew of USS Salisbury Sound (AV 13) gives out with most in Japanese music.

enlist or extend at the end of my expiration of active obligated service, I will be made available immediately to the Bureau. Supposing I reenlist early, would I still be made available immediately, or would I be allowed to complete my original shore tour?—F. J. D., PN3, USN.

• *Let's make a distinction between "availability" and transfer. You would be made available immediately if you reenlist early, but you will not be transferred until your original tour ends, in September.*—Ed.

For Meritorious Action

SIR: I'm outnumbered and need your help.

Whenever I mention that a friend of mine received a meritorious promotion from BM1 to BMC in 1951, all my shipmates say I'm wrong. I hope you can verify this and set them—or me—straight.—H. W. D., MN1 (SS), USN.

• *This is not the first time that ALL HANDS has been called to the rescue, but it appears that you already know what you're talking about and do not need our help.*

Meritorious advancements are sometimes authorized by the Chief of Naval Personnel during wartime. During the Korean conflict (1950-53) a few Naval personnel were advanced for meritorious action, so it is highly possible that your BMC friend was one of them.—Ed.

Arigato Gozaimasu!

SIR: While browsing through a worn, finger-stained copy of the May issue of ALL HANDS and, in picking out finer details that I overlooked previously, I found an error on the front cover.

You state that the cover picture is a print of a Navyman and his Korean friend. I find this hard to believe since the second man is not Korean, but Japanese! I intend to prove this to you by pointing out that the writing on the old man's apron is in Japanese katakana—(sa) (pause) (bu) (su); the English counterpart to this is "Service." Am I not correct? And, may I suggest that you use an interpreter in the future?—G. E. B., YN3, USN.

• *Say (pause) you are so right. We bet you'd make a perfect lookout. May we offer our muchas gracias, which (for the benefit of non-linguists) is the Latin-American equivalent of "arigato gozaimasu."*—Ed.

Navy Band Hits a New Note

SIR: A little while back I happened to be in Sasebo, Japan, when I came across a group of U. S. sailors garbed in oriental costume and playing oriental instruments. Can you tell me if we have a band like this?—I. S. B., SN, USN.

• *You are probably referring to the band which greeted USS Pine Island (AV 12) when she came alongside USS*

Salisbury Sound (AV 13) to take over flagship duties.

The delicate sing-song strains of the "Sally's Samisen Band" tinkled across the water as the gap between the two ships narrowed.

Idea for the band was first suggested by RADM P. P. Blackburn, Commander, Taiwan Patrol Force, during Salisbury Sound's travels in the Far East to Taiwan, Okinawa, Japan and Hong Kong.

You won't find the instruments used by this "band" in the Navy School of Music's library. They and the "uniforms" were purchased in Hong Kong. For another unusual Navy band, see ALL HANDS, August 1957, page 23.—Ed.

What's in a Name, or How Does It Start?

SIR: I have noticed that ALL HANDS frequently uses such terms as "ship-board," "surface-to-air" or "surface-to-surface" in talking about guided missiles.

If I may, I would like to make a suggestion. Were the terms "sea-based," "sea-to-air," "sea-to-surface," etc., used, perhaps a more accurate impression would be created. The phrase, "sea-based," to my mind immediately paints a vivid picture of missile bases on the move. It tends to differentiate distinctly between land-based missiles and mobile naval missiles, and can highlight the fact that seagoing missiles are very definitely an important part of our FLEET OF THE FUTURE—a Fleet we sailors are proud of.—T. E. L., YNT3, USNR.

• *Your suggestion certainly has merit, and so far as we can tell there isn't much reason why we shouldn't adopt it. In fact, we thought the idea was so good that we passed it along to RADM C. C. Kirkpatrick, the Chief of Information—as you know by now from the letter he wrote you on the subject. For the benefit of our readers, here's what the admiral had to say:*

"I think you have a fine idea there, and I am going to do my best to

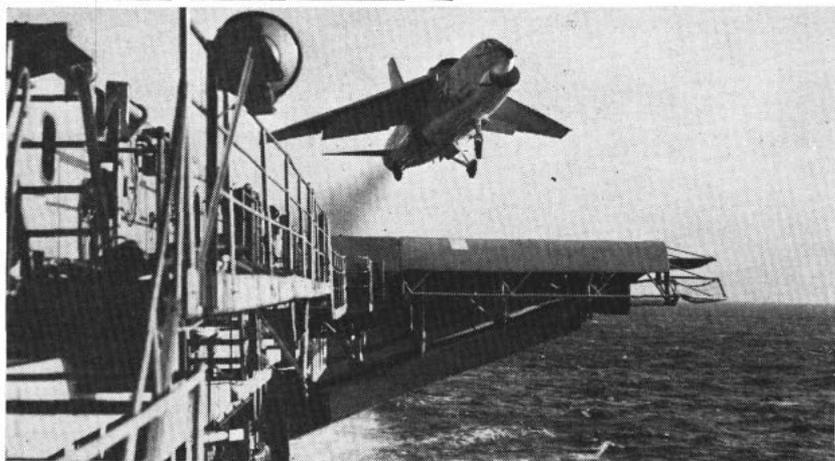
further general adoption of your proposal.

"The sort of thinking evidenced by your letter is what we need throughout the service to further our public information effort. If everyone could come up with one idea as sound as yours, we would have a program that would be hard to beat."

Other than the fact that we just didn't think of it, about the only reason we can dream up for not having used terms like yours before is that "surface-to-surface," "surface-to-air" and such are the classifications used by most missilemen and in most of the articles on the subject.

The word, surface, has been employed in missile nomenclature since the late 1940s, when a standard system, similar to that used in aircraft abbreviations, was set up for missiles. That system of abbreviations is no longer used, but the word, surface, has apparently carried over from it since it is handy in inter-service application. With it there's no need to differentiate between missiles launched from land and those launched from sea.

However, we don't know of any regulations that would keep us from pointing out that our surface missiles are launched from the sea.—Ed.



UP AND DOWN—A jet Crusader F8U-1 makes a touch-and-go landing on the deck of USS Intrepid (CVA 11) during training exercises on the high seas.

Length of Sea Tours

SIR: BuPers Notice 1306 of 10 Mar 1958 states that the minimum average sea tour has been increased to three years and that first cruise personnel will not be rotated ashore.

If such is the case, what happens to the personnel who were qualified to submit rotation data cards under Seavey Segments One and Two, but did not have the three years of sea duty or who may be first cruise personnel? I'm confused!—W. C. S., YNI, USN.

• We went to the source to get the answer. Here it is:

The term "average minimum sea tour" is applicable to certain ratings, such as yeoman, which have a high shore/sea billet ratio. (In other words, where a large percentage of the billets are ashore.) For any particular individual the sea tour in these ratings can be from two to four years depending on the month they start their sea tour and the month they are transferred to shore duty. The average person in these ratings has a three-year tour.

In Seavey Segment 1-58 the minimum sea tour for yeomen was set at 18 months instead of the normal minimum of two years because of the shortage of yeoman who had been at sea any length of time. As soon as the sea service of yeomen builds up, the tour will be moved up to a minimum of two years and an average minimum of three years.

The statement that first cruise personnel are not rotated ashore is a general one and does not hold true in all cases. There are always some exceptional cases. The average first enlistee has 3.2 years of active obligated service (when minority enlistments and reservists are included). Normally, after a first cruise man completes recruit training, Class "A" school, and the minimum of two years at sea, he does not have sufficient active obligated service for shore duty even though he is on the

Seavey. If he extends or reenlists to have the required obligated service, then he is not considered "first cruise." If a man's first enlistment was for a six-year hitch, then there's a good possibility that he will get shore duty during his first cruise.—ED.

The Great White Fleet

SIR: In your May 1958 special supplement, "The Great White Fleet," I noted two errors.

On page 60 you say that at Callao, Peru, white-clad naval cadets spelled out the word "WELCOME" on a mountain side as the Fleet steamed through the harbor. This is not so. The word

was spelled out, as you say, but at Valparaiso, Chile—not Callao. Incidentally, when the Fleet passed out of the harbor the cadets changed position and spelled out "FAREWELL."

On page 63 you have a picture of *uss Maine*, but she isn't the *Maine* which took part in the cruise. Instead, she's the one which blew up in Havana Harbor on the eve of the Spanish-American War.—W. E., LCDR, usn (Retired).

SIR: On page 63 of your May 1958 issue you printed a picture of the wrong *uss Maine* among those of ships which were in the Great White Fleet. The one pictured blew up in Havana Harbor in 1898.

The right *Maine* was the sister ship of the old *uss Ohio* and *Missouri* which are shown on the same page.—P. R. O., CAPT, usn.

SIR: Was surprised to see the illustration on page 63. As you must know, this ship was the ill-fated *Maine*, and not the one which was with the Great White Fleet.—Edwin A. Patt, Executive Secretary, The Steamship Historical Society of America, Inc.

• From now on we'll certainly "Remember the Maines." And, we'll also remember to double-check the location of human greeting signs, since the Naval History Division agrees that the cadets were on a mountainside at Valparaiso, and not Callao.

As for the main error, the *Maine* error, we really knew better, but somewhere along the line we slipped and let the wrong ship get into print. The *Maine* in our picture was the one which blew up in Havana Harbor on 15 Feb 1898.

The keel of the second *Maine*—the *Maine* we should have shown—was laid on the first anniversary of that disaster. Rated a second-line battleship, she had a normal displacement of 6682 tons. She was commissioned on 29 Dec 1902 and, except for one Med cruise, spent most of the next five years along the Atlantic Coast and in the Caribbean.

On 16 Dec 1907, with the rest of the *Battle Fleet*, *Maine* set out from Hampton Roads, Va., on the famous globe-circling good will voyage. Together with the other ships she made the trip around the Horn and the various stops along both coasts of South America. However, while the Fleet was at San Francisco, Calif., from 6 May to 7 Jul 1908, she received orders to head for home.

In August 1909 the second *Maine* was placed out of commission. She had six months' active duty in 1911 and a *Middie* cruise to Europe in the summer of 1914.

On 5 Apr 1917, just the day before America entered World War I, *Maine* went back into service, but by then she had gotten along in years and was relegated to a minor role as a troop transport and training vessel along the Atlantic Coast.

In January 1922 she was sold.—ED.

Ship Reunions

News of reunions of ships and organizations are 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 months in advance.

• 19th Naval Construction Battalion—The 10th annual reunion will be held in New York City on 19, 20, and 21 September. For further information, write to Herbert McCallen, 655 East 14th Street, New York 9, N. Y.

• *uss Donnell* (DE 56)—All former crew members interested in holding a reunion with time and place to be decided may write to BOSN J. P. Hinckle, USN, *uss Shasta* (AE 6), c/o Fleet Post Office, New York, N. Y.

• VR-3, Moffett Field, Calif.—All VR-3 Navy Personnel from E-3 Division that served at Moffett Field, Calif., from January 1952 through June 1955 who are interested in holding a reunion may write to James Franklin, 1942 Higley, Cedar Rapids, Iowa.

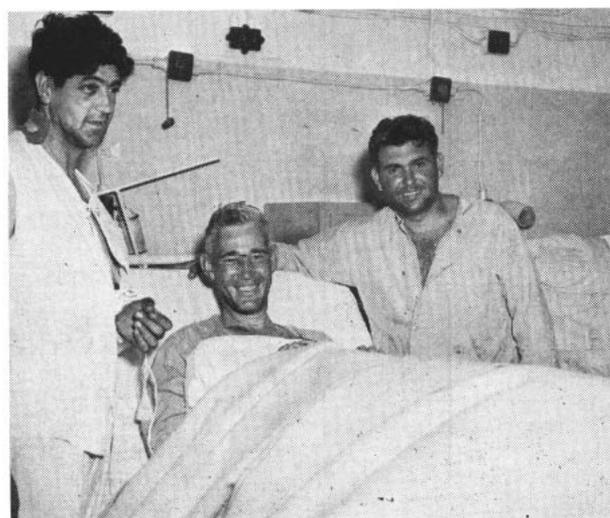


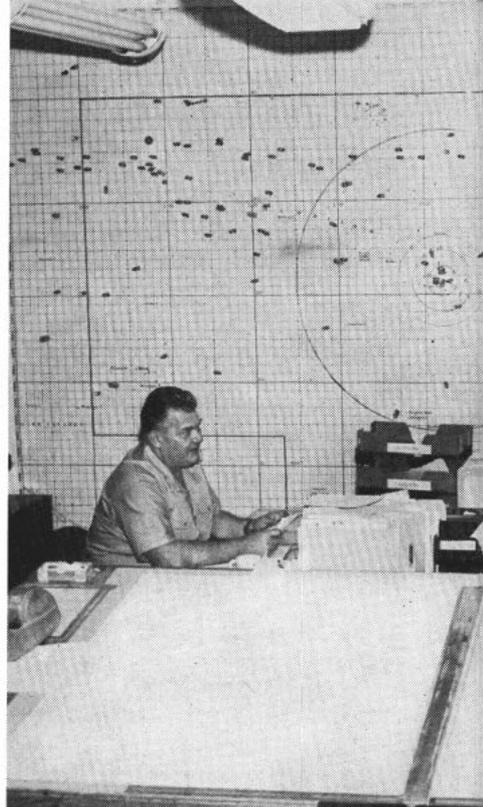
Rescue at Sea

TEAMWORK saved the lives of three Air Force men when their plane crashed into the Pacific 185 miles north-northwest of Johnston Island. A Marine helicopter from the decks of *uss Boxer* (CVS 21) picked up the survivors by means of its rope ladder only minutes after they had been sighted by an Air Force search plane.

The airmen who had been clinging to a wooden box for some 12 hours were "whirlybirded" to the Navy carrier where they received medical attention. From the spot where the plane went down the copter and a whaleboat from *Boxer* also retrieved a mail bag. Three Navy destroyers participated in the search for the *Globemaster* that had reported engine trouble on a flight from Honolulu to Wake Island. They were *uss Spronston* (DDE 577), *uss Ammen* (DD 527), and *uss Ingersoll* (DD 652).

Above: Copter from *USS Boxer* hovers over mail bag as whaleboat moves into site of crash. *Right:* Carrier-men lower boat to search waters. *Lower Right:* Survivors smile, thankful to be safe on board *Boxer*. *Below:* Navy medical corpsmen remove Air Force men from copter on deck of carrier.





KEEPING TRACK — Quartermaster charts ship positions. Rt: Blocks on wall chart indicate merchant ships.



The SARmen: It's Nice To Know

EARLY IN 1958, a major airline celebrated the arrival in Hawaii of the 1,000,000th passenger that it had carried across Pacific waters. It took that airline 20 years to reach this mark, but it will take much less time to repeat that performance.

Among the many people working to make this a safe crossing for servicemen and civilians alike is Search-and-Rescue located in the mid-Pacific. They are the "watch

dogs" of both planes and ships. If you have to pass through or near Hawaii, a team of highly skilled rescuemen will be keeping tabs on your safety. A sizable number of these are Navymen. Here's how they look after you.

At Honolulu position reports are required from your pilot if he, like nearly all overwater fliers, files an instrument flight plan. These reports go to the CAA. If your plane gets

'DRY RUN'—Airline employees take part in rescue drills at sea with SARmen. Above: Copter rescues during drill.





NAVYMEN check Pacific ship traffic.

They're Around

into trouble or is overdue, CAA will contact Navy and Coast Guard rescue centers in Oahu. An escort plane will fly out to intercept and guide you to safety.

If your plane must ditch it will drop you survival gear, and stand topside as a radar target for other planes and ships heading to the rescue area.

At the same time Navy and Coast Guard radiomen will be calling merchantmen and warships to your aid. SARmen also have the power to summon help from any armed forces unit in the Pacific. The Federal Communications Commission will help by using its direction-finder network to pick up and get a fix on any signals you send.

If you are in a ship and need help, the same system will go into action to speed help in your direction. And, after the SARmen have saved you they will put their heads together to figure how they can do it better and faster for the next person, ship, or plane that gets into trouble.

In addition the Search-and-Rescue men hold rescue drills that keep rescue teams as well as personnel from airlines and steam ship lines informed on the procedures they should follow in case of emergency.

—Joseph Harrington, JOC, USN.

SEPTEMBER 1958



FLOAT LIGHTS readied to help plane ditch. Below: Safety team tests gear.



GIBSON GIRL radio and kite antenna demonstrated by Coast Guardsmen. Rt: Navy Search-and-Rescue Control Center gets word of missing plane via CAA.



Our Good Friend, the Fish

MAYBE YOU DO and maybe you don't know something about fishing.

Chances are that, as a salt water sailor, you do. And you've got lots of company. Last year, for example, approximately 20 million people in the United States purchased fishing licenses. In addition, there are an estimated 20 to 30 million more persons who fish without a license—legally. Being a Navyman, you most likely fall into the latter category—no license is required for fishing in salt or tidewaters, except along the coast of California. (For rules on licenses, state by state, see the September 1955 issue of *ALL HANDS*, p. 54.)

But if you don't know anything about it, you ought to investigate.

Fishing may someday provide you with the only source of food available. There's always the possibility that you will have to fish for food—as a matter of life



or death—whether you like fishing as a sport or not. If such were the case, fishing would be a matter of survival instead of a form of recreation.

In the event you are ever forced to abandon ship and spend a number of days in a lifeboat, or are aboard a plane that is forced to ditch at sea, you'll be mighty thankful that you know something about fish and other forms of sealife, and how to catch them. A great majority of the survival training given to naval aviators emphasizes the importance of fish as a source of food and water. This is information that every Navyman should know.

Time after time you hear of persons being rescued after spending countless days at sea without food and water, who credit their survival to fish and other forms of sea life. Before going into the various methods of catching fish, either as a sport or, if the need arises, as a "lifesaver," it is important that you know something about them, such as their habits and characteristics.

TO START AT the beginning, practically all animals that live in the water are called (correctly or not) "fish." There are starfish, cuttlefish, jellyfish, swordfish, seals and whales, to name but a few. All of them live in the water but the swordfish is the only one of those listed that is actually a fish. Seals and whales are warm-blooded mammals while the others are from the wide variety of creatures "without backbones."

Real fish have backbones and are cold-blooded. Although they live in the water, fish actually breathe (through gills). Instead of having arms and legs like other animals, fish have two pairs of fins, and in some species, several other fins as well.

The fins that correspond to arms are called pectoral fins, while the pelvic or ventral fins take the place of legs. The odd or unpaired fins that some fish have are

located on their back (dorsal), tail (caudal) and stomach (anal). There's no fish with more than two pairs of fins, but you'll find some, eels for example, with only one pair of fins.

A great many fish have protective scales, while others do not. The scales overlap each other in the same manner as shingles do on a roof. As a fish grows bigger, so do its scales. If a fish loses its scales, it will grow new ones.

While human growth stops with old age, most fish continue to grow as long as they live. Thus, in most cases, if you catch a real big fish, you can be assured that he's been around for quite some time.

Some fish are very streamlined and have that futuristic look. In fact, many of today's ships and planes, especially submarines, are patterned after fish. U.S. Navy subs are named after them, as well.

FISH ARE FASCINATING. They take on every possible size, shape and form imaginable. You'll find fish that defy all descriptions of the typical fish. As already noted, fish differ according to the number or position of fins, with or without scales and there are even fish that can live out of the water. When it comes to shapes, you name it, and a fish will have it. There's the highly streamlined shark, triangular-shaped skate, and numerous different sea horses—which are true fish—that look like horses standing on their tails.

If you got a "horse laugh" out of that rare fish, brace yourself, for if you ever happen to see a ribbon or oarfish, you may end up telling your shipmates "fish stories" about seeing sea serpents. Most likely, many of the weird stories of sailing days of yesteryear got their start from sailors who saw these creatures of the deep.

The oar/ribbon fish are usually about 60 feet long and have a bluish-silver body. From a distance they look like a horse with a streaming red, ribbon-like mane.



They have a flaming red-tipped dorsal fin that runs the full length of the body and reaches a high crest over their extended jaws.

Other weirdies include the rabbitfish that looks like Bugs Bunny, the flounder or flatfish which is, as its name implies, as flat as a pancake; and the giant ocean perch which appears as if it were all head and no body.

All told, there are more than 20,000 different kinds of known living fish and another 20,000 species of fossil fish. In addition, there are new ones being discovered almost every year.

Possibly one of the most unusual of all fishes are those that carry their own hook, line and bait to catch other fish. For obvious reasons these deep sea fishermen are called angler fish. Their back fin has a spine that

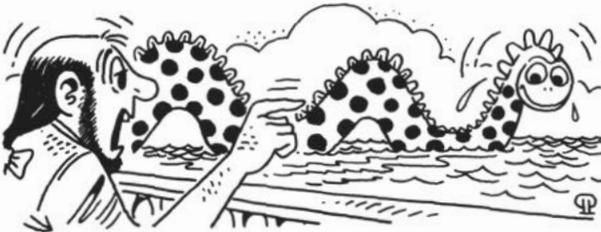
extends—this is their fishing pole—and in some species it's jointed and can be cast forward and pulled back to the mouth. From its tip hangs the "bait" (long, fleshy, tentacles) that can be expanded and contracted.

Other forms of angler fish have luminous bulbs at the end of their fishing poles which they dangle in front of their mouths and flash on and off to attract victims.

FISH DIFFER IN SIZE as much as they do in shape. Some gobies found in the Philippines are only a quarter of an inch long and weigh as little as half a grain. In contrast, the whale shark—the largest of all fish—reaches 50 feet in length and weighs as much as 20 tons.

Although you use your arms and legs to swim, a fish swims by moving its body and tail sideways. They use their arms and legs (fins) for balance, steering and braking.

Some fish even use JATO (jet-assisted-take-off) very



much in the same manner as the Navy uses it on its planes and missiles. Fish, however, use water for fuel—instead of solid rocket propellents—which they shoot out of their gills.

Many fish, especially those with crescent-shaped tails such as mackerel and tuna, are extremely fast swimmers. It's not unusual for them to cruise for hours at speeds up to 30 knots. Sailfish, for example, in short speed runs can go faster than 60 knots. So, if you hook into one of these speed demons, don't try to stop him on his initial run.

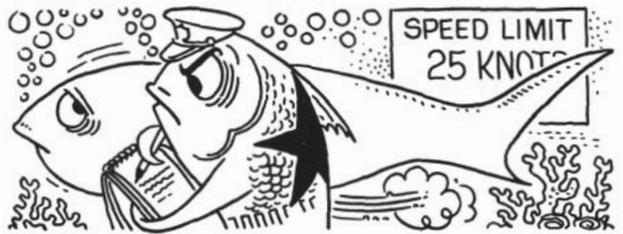
At those speeds, you would think that fish would be flying. That's what flying fish and sailfish sometimes do. They have large pectoral fins which enable them to glide from the crest of one wave to another, and farther.

You'll find some kind of fish wherever there is water. There are exceptions to this (and practically every other statement about fish) as you won't find them in water which is too salty such as that found in the Dead Sea or the Great Salt Lake of Utah, or in water that is polluted. Where the water is too salty or filled with waste, most fish cannot find enough oxygen to breathe. Other than that, fish can be found from the sunny surface of the ocean, down to the blackest depths where light never penetrates.

NORMALLY, THE GREATEST number of fish are found off the continental shelves in cold water regions. They frequent these areas—centered off both coasts of northern U.S. and Canada; in the North Sea, and around Japan—because the greatest source of food—tiny plants called diatoms—thrive there.

In the deep portions of the ocean where there is limited plant life and no light you will find fewer fish. In the murky depths, fish have little to eat except one another or what few scraps sink down from the surface.

Most fish feed on smaller fish and in turn make up the menu for larger fish. Indirectly, however, all fish depend on "plankton" as their main course. Plankton



consists of one-celled plant life (diatoms), one-celled microscopic animal life (protozoa), eggs and larvae of fish and shellfish, tiny shrimp-like creatures, and countless other forms of minute sea life.

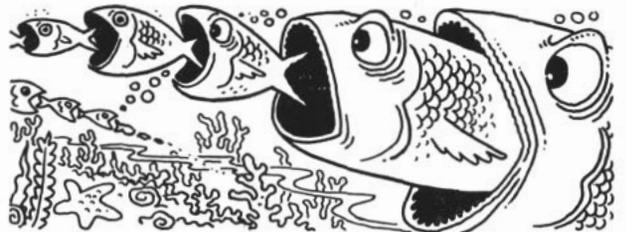
Many fish, such as the herring, eat nothing but plankton. (It's edible for humans too.) Herring, in turn are the main source of food for codfish and pollock. In fact, no matter what fish you name, you can trace its food supply down to the plankton, principally diatoms. When it comes to food, fish are the same as animals on the land—ultimately they all depend on plant life.

Surprisingly, fish drink water. Although they may live in the ocean, their body tissues contain fresh water. You can get enough water from fish alone to keep you alive for many, many days.

FISH HAVE MANY DIFFERENT ways of protecting themselves. Some, such as sharks, tarpon, tuna and salmon, take advantage of their speed, while sailfish, swordfish, marlin and sawfish are armed with deadly spears and saws. The barracuda, for example, is called the "Tiger of the Sea," and is known for its sharp teeth.

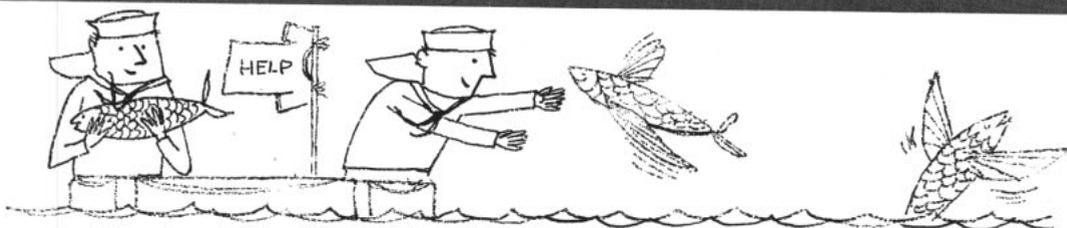
Torpedo and other electric fish can give you the "shock of your life," while other fish have poisonous glands that are capable of inflicting painful or even fatal wounds.

While a few fish have extreme speeds or deadly weapons to defend themselves, the majority of them have protective coloring which enables them to blend in with their surroundings, thus making it difficult for their enemies to see them. Most South Seas or warm water fish are extremely colorful and have vertical stripes which camouflage them. Many fish, the flat fish or flounder for example, are capable of changing colors or patterns depending upon the background.



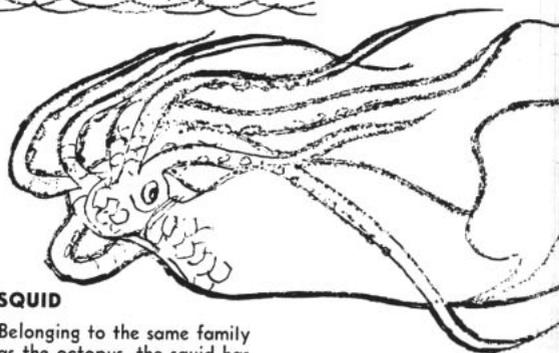
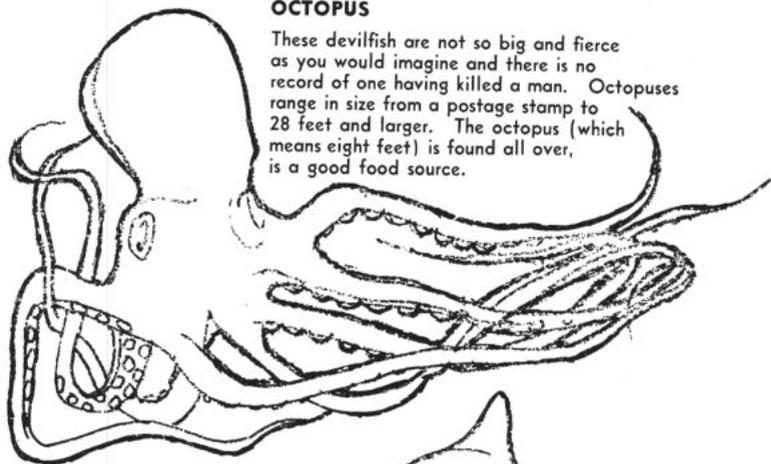
In addition to these features, fish also have their own form of an advanced early warning system. They have a lateral line—made up of a mass of nerves—which extends the length of their body. Scientists believe that through this line fish are capable of detecting movements in the water or else "feel" other fish approaching them. Many fish also have feelers or sensitive barbels under or at the sides of their mouths, with which they search for food on the bottom of the ocean.

(Continued on page 38)



OCTOPUS

These devilfish are not so big and fierce as you would imagine and there is no record of one having killed a man. Octopuses range in size from a postage stamp to 28 feet and larger. The octopus (which means eight feet) is found all over, is a good food source.



SQUID

Belonging to the same family as the octopus, the squid has 10 tentacles and has been known to attain a length of 60 feet. Like the octopus, the squid squirts out an inky fluid to hide it from danger, and, as with all members of the head-footed group, it can change color instantly. Small squid living near the shore are good eating.

OCEAN SUNFISH

The largest fish is one of the oddest. This fish looks like a gigantic fishhead without a body and weighs more than a ton. They are sometimes 10 feet in diameter but very few live to grow up.



COELACANTH

Believed to be extinct for 70 million years, this relic of prehistoric times was rediscovered in 1938 in the Indian Ocean.

HORSE M

This huge f... up to 1000... can be seen... the Bahama... The canned... from small... this family.

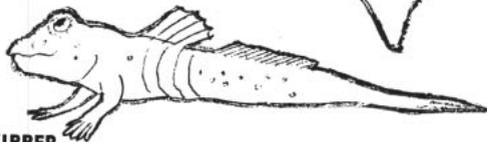


FLYING FISH

These fish do not really fly b... they race through the water, the surface, and spreading th... glide through the air for as m... feet before dropping back in... They live in all warm oceans, eating.

MUDSKIPPER

This remarkable fish not only swims but climbs trees and is able to walk on land while obtaining food. It is only a few inches long and is found in the South Atlantic off West Africa and in the South Pacific.

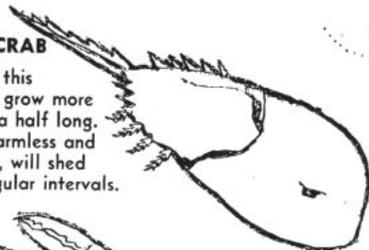


GIANT CLAM

This clam is a native of the oceans west of India and may grow nearly four feet across and weigh as much as 500 pounds. Meat alone from this clam may weigh 25 pounds and is good eating.

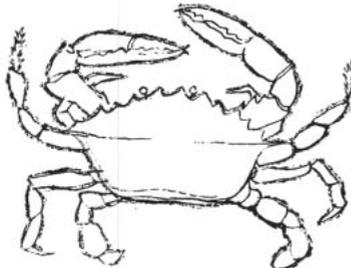
HORSESHOE CRAB

Not a true crab, this fellow will often grow more than a foot and a half long. They are quite harmless and like regular crabs, will shed their shells at regular intervals.



AMERICAN LOBSTER

The biggest lobster ever caught weighed 39 pounds but the average is from one to three pounds. It has two claws—one with sharp teeth for holding food and the other dull for crushing it. They are found crawling amongst the rocks on the bottom.



BLUE CRAB

Found along the Atlantic Coast and the Gulf of Mexico, the blue crab is our most common food crab. When it molts, it may be eaten shell and all as a soft-shelled crab.



SPIDER CRAB

This fellow lives in both Atlantic and Pacific in waters and has given m... swimmer a good nip on

LIFE RECOGNITION GUIDE FOR THE SAILOR

SEAHORSE

Not a fairy-tale as you might suspect but a true fish with gills that swims in an upright position. There are some 50 varieties ranging from two inches to 14.



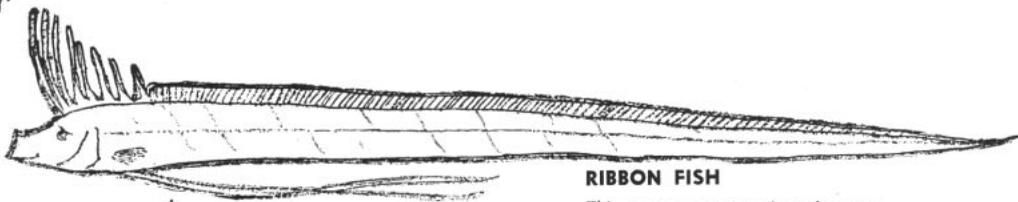
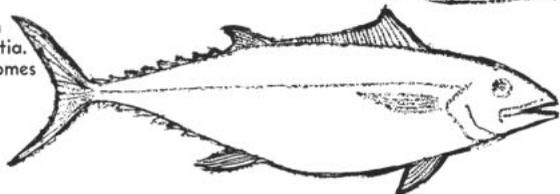
Survival on the ocean depends to a large extent on the rations and equipment you have with you, the use you make of them, and the degree of skill, ingenuity, and resourcefulness you employ. Fish may be your only source of food and water, and since there are over 20,000 species, only some of the main varieties are illustrated here to familiarize the sailor.

Most fish found in mid-ocean are safe to eat. Poisonous fish are usually found near the coast, coral reefs, and along mud and sand banks, except for those found along the shores of

North Atlantic and Atlantic Oceans. Don't eat shark unless you have ample supply of water. The same holds true for skates, rays, seaweed, and crab. Jellyfish, seasnakes, parrotfish, and pufferfish are in most cases poisonous. Don't eat any fish eggs found in clusters on rocks, logs, or reefs. The heart, liver, and blood of fish are good to eat. The stomach of larger fish may contain partly digested smaller fish which are good to eat. Fish eyes contain a large percentage of water. Fish spoil quickly in warm weather; therefore, clean and eat without delay, and dry what is left.

SKEREL TUNA

weighs pounds and waters from Nova Scotia. na we eat comes members of



RIBBON FISH

This strange creature is as long as a railroad car and weighs up to 650 pounds. It has a reddish crest the length of its body.



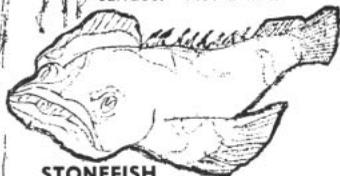
POISONOUS

FISHES



PORTUGUESE MAN-OF-WAR AND JELLYFISH

Stay away from these creatures as their long tentacles can paralyze or even kill you. They range in size from microscopic to 130 feet in length and most varieties live near or float on the surface. Not a fish.



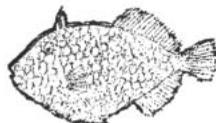
STONEFISH

Another habitant of tropical waters is this poisonous bottom fish with a row of sharp spines each containing enough poison to kill a man.



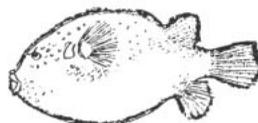
TOADFISH

A poisonous tropical fish found on the bottom. He has enormous jaws and is usually less than a foot in length. He doesn't hunt but waits for his food to swim to him.



TRIGGERFISH

A tropical fish with a sharp dorsal fin, no scales, and eyes set very far back. This creature is also poisonous.



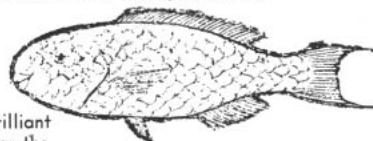
PUFFERFISH

These thick, tough, and slimy-skinned creatures are covered with bristles and can blow up like a balloon when alarmed. Most have a disagreeable odor and are poisonous.



COWFISH

Not only does this fish have a pair of horns, but it lives in a hard shell like a tortoise. It is poisonous in most cases, so beware.



PARROT FISH

A tropical fish of brilliant color which lives near the shore and possesses a toxin in its flesh.

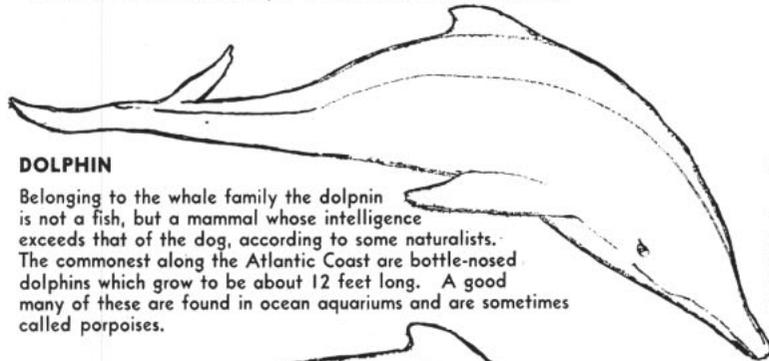
SEA LIFE RECOGNITION CONTINUED

MAMMALS OF THE SEA



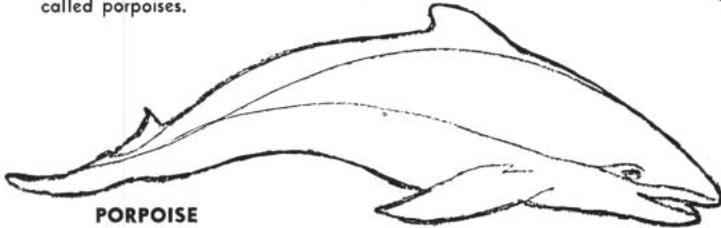
BLUE WHALE

The largest animal that ever inhabited the earth is the blue whale weighing over 150 tons and measuring 120 feet or so. His throat is so narrow that he cannot swallow anything larger than a good-sized orange. When he blows out his breath, a column of vapor is sent 20 to 25 feet in the air.



DOLPHIN

Belonging to the whale family the dolphin is not a fish, but a mammal whose intelligence exceeds that of the dog, according to some naturalists. The commonest along the Atlantic Coast are bottle-nosed dolphins which grow to be about 12 feet long. A good many of these are found in ocean aquariums and are sometimes called porpoises.



PORPOISE

These fellows are a very small kind of whale and come to the surface of the water to breathe as whales do. They vary from four to seven feet in length and weigh up to 125 pounds. They are harmless and have flesh tasting somewhat like pork.

SEA LION

A member of the seal family the sea lion lives mainly in the Arctic waters and males weigh up to 1,300 pounds. The sea lion found along San Francisco Bay is the one you see in circuses.



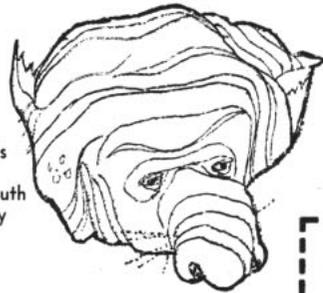
SEA OTTER

The sea otter has the most valuable skin in the world and is found off the coast of Alaska. He is about five feet in length and weighs 50 to 70 pounds.

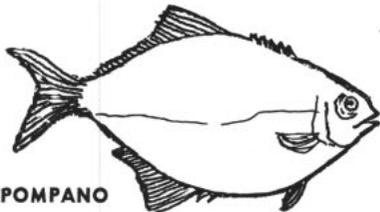


SEA ELEPHANT

This huge seal will grow 30 feet or so and has long, tusk-like teeth and a short, wrinkled trunk like that of an elephant. They are found mostly on islands off the coast of South America and sometimes migrate as far south as the Antarctic ice pack. They are valuable for their oil, sometimes yielding as much as 200 gallons.

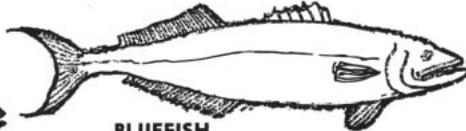


---COMMON FOOD FISHES---



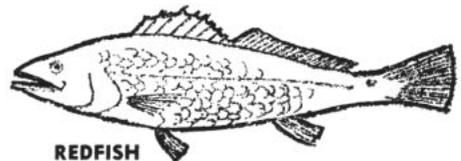
POMPANO

Approximately 18 inches long and weighing two to four pounds, this fellow is one of the most delicious food fishes. He is found around the southern Atlantic Coast and the Gulf of Mexico.



BLUEFISH

Ranging from three to five pounds and maybe 20, the bluefish is another of our best food fishes. The younger ones are called snappers.



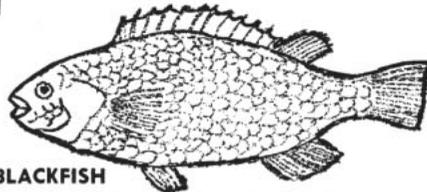
REDFISH

Usually a small fish, the redfish may grow two to five feet long. Much of its meat may be found on your frozen food counter.



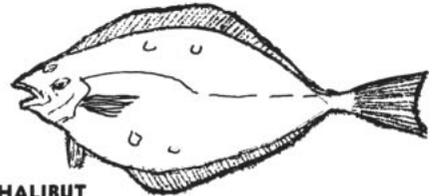
HADDOCK

Weighing about four pounds, this fish is similar to the cod but smaller. Occasionally one may weigh 36 pounds or so.



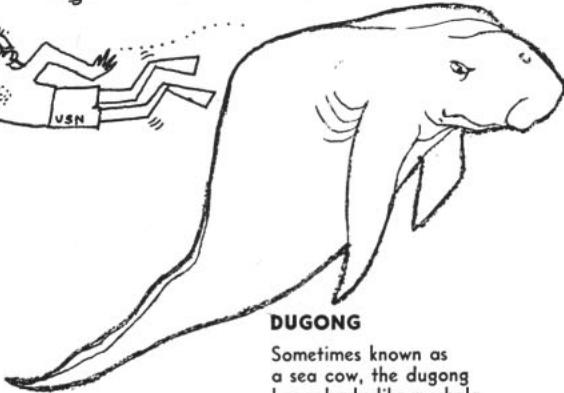
BLACKFISH

The blackfish is generally a foot or two long and weighs about seven pounds. The largest on record weighed 22½ pounds and measured 36½ inches.



HALIBUT

The largest member of the flatfish family, the halibut may weigh as much as 700 pounds but the average is around sixty. They live in the colder ocean waters.

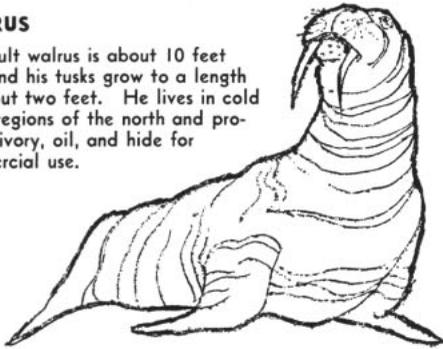


DUGONG

Sometimes known as a sea cow, the dugong has a body like a whale and a head similar to that of a hippopotamus. It is found in the Red Sea, Indian Ocean, and off the coast of Australia and lives on ocean plants.

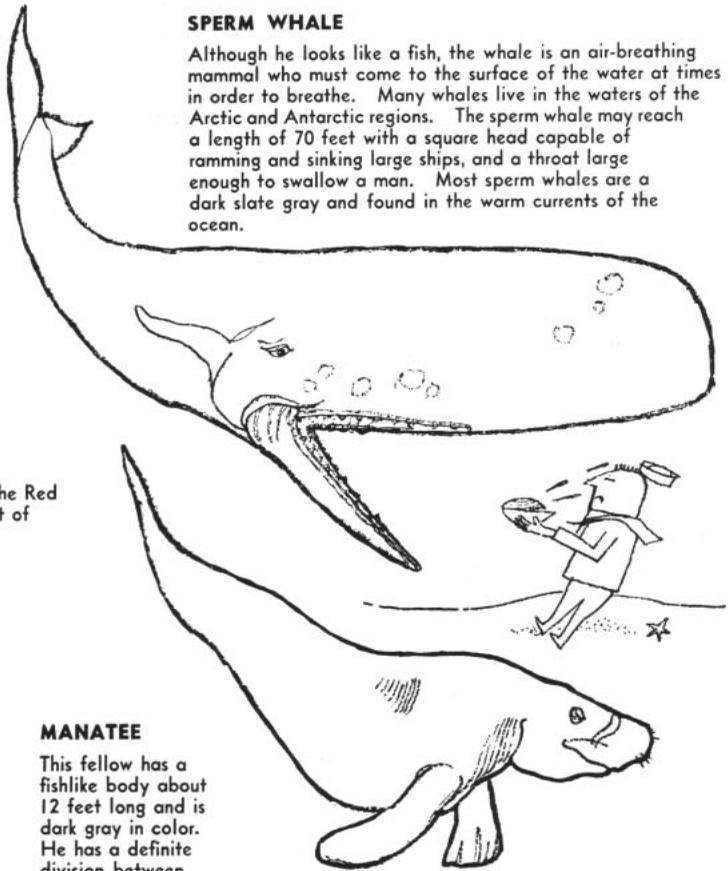
WALRUS

An adult walrus is about 10 feet long and his tusks grow to a length of about two feet. He lives in cold polar regions of the north and produces ivory, oil, and hide for commercial use.



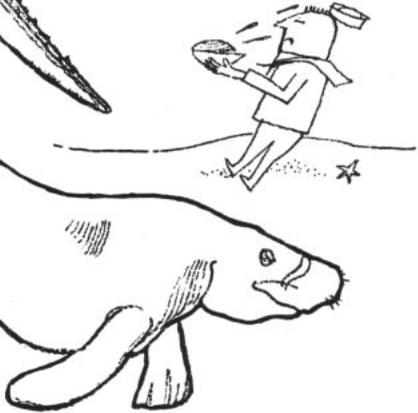
SPERM WHALE

Although he looks like a fish, the whale is an air-breathing mammal who must come to the surface of the water at times in order to breathe. Many whales live in the waters of the Arctic and Antarctic regions. The sperm whale may reach a length of 70 feet with a square head capable of ramming and sinking large ships, and a throat large enough to swallow a man. Most sperm whales are a dark slate gray and found in the warm currents of the ocean.



MANATEE

This fellow has a fishlike body about 12 feet long and is dark gray in color. He has a definite division between head and body, and his skin is thinly covered with hair. He lives in the shallow waters off the southern coast of North and South America and when swimming along in the water with his head above the surface, could easily pass for a "mermaid."



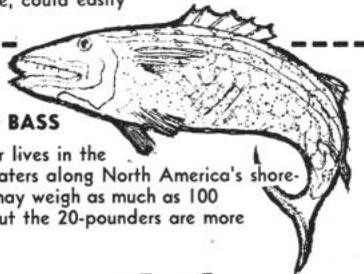
SARDINE

These little fish are actually young pilchards and are caught in the Mediterranean Sea and the Atlantic Ocean.



STRIPED BASS

The striper lives in the shallow waters along North America's shoreline and may weigh as much as 100 pounds, but the 20-pounders are more common.



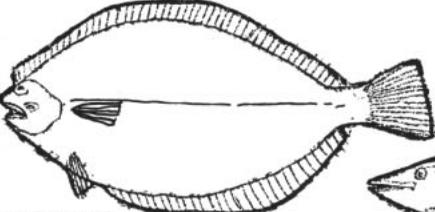
MACKEREL

An adult mackerel is 12 to 24 inches long and weighs upward of seven pounds. Good eating, of course.



FLOUNDER

The winter flounder is most common along the Atlantic Coast and is sand- or mud-colored, living along the ocean bottom. The average length is about 15 inches and weight is a pound or two.



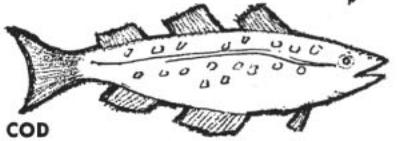
BONITO

Weighing from seven to 15 pounds, the bonito inhabits warmer waters and is very brightly colored.



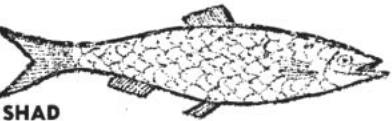
COD

The cod is one of the most important food fishes and the average will be about 12 pounds. The largest ever caught was 211 pounds.



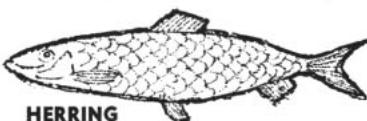
SHAD

Shad weigh from one and one-half pounds to five, although some twelve-pounders have been caught. A single female may lay as many as 50,000 eggs.



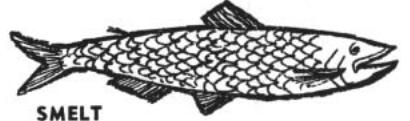
HERRING

Living in deep waters close to the surface, this fish is another very important food source.



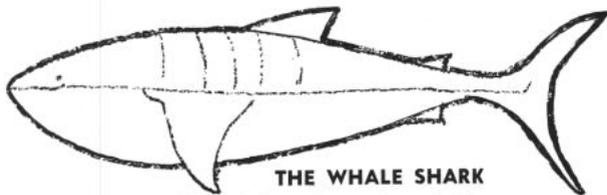
SMELT

Related to the salmon family and found along the Atlantic Coast from Canada to Virginia, the smelt grows about 12 inches long.



SEA LIFE RECOGNITION CONTINUED

SHARK FAMILY



THE WHALE SHARK

Sharks are really not fishes—they are lower in the scale of vertebrates. They are the most fierce of all creatures in the sea and larger ones are not at all afraid of men. The whale shark reaches a length of 70 feet or more and a weight of over 120 tons. It is considered the largest of sharks and is dark or light brownish-gray, covered with light round spots.



SWIVELTAIL SHARK

There are many varieties in the shark family. This fellow may be 20 feet long and weigh 600 pounds. A big swiveltail may have a tail as long as the rest of his body but he is harmless to human beings.

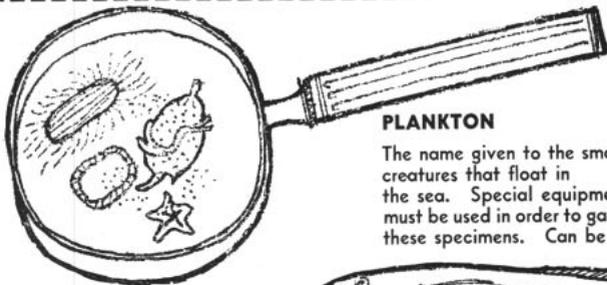
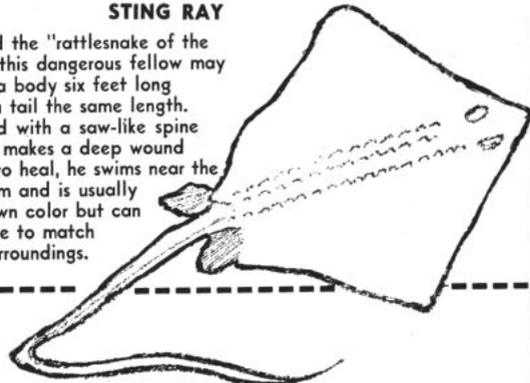


SPINY DOGFISH

This creature, called the dogfish because he hunts in packs, is dark gray above with a row of white spots on his side. He is only about four feet long and weighs 12 or 15 pounds.

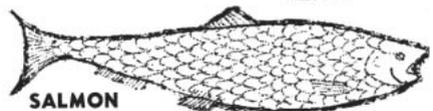
STING RAY

Called the "rattlesnake of the sea," this dangerous fellow may have a body six feet long with a tail the same length. Armed with a saw-like spine which makes a deep wound hard to heal, he swims near the bottom and is usually a brown color but can change to match his surroundings.



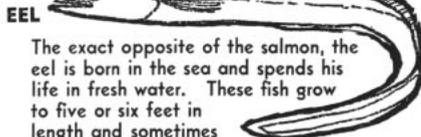
PLANKTON

The name given to the smallest creatures that float in the sea. Special equipment must be used in order to gather these specimens. Can be eaten.



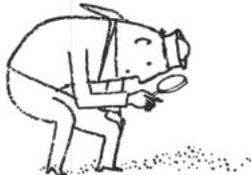
SALMON

Although this fish is born in fresh water, he spends his whole life at sea until he returns to his birthplace, spawns and dies. The land-locked species is the only one spending his whole life in fresh water.



EEL

The exact opposite of the salmon, the eel is born in the sea and spends his life in fresh water. These fish grow to five or six feet in length and sometimes weigh six pounds or more.

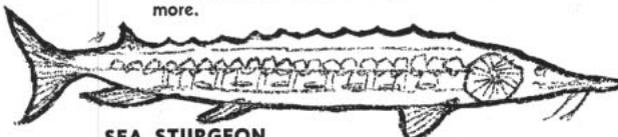


GAME FISH



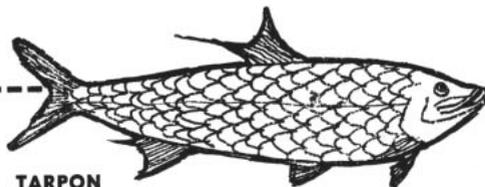
BARRACUDA

"Tiger of the Sea" is how this ferocious fish is known. It will attack anything including man. The most dangerous is found off the West Indies and will attain a length of nine feet or more.



SEA STURGEON

Not so fierce as he looks is this fellow who has a bunch of long whiskers to feel in the mud for food. The sturgeon may weigh 1000 pounds and the female of the species is the producer of many thousands of eggs sold to us under the name of caviar.



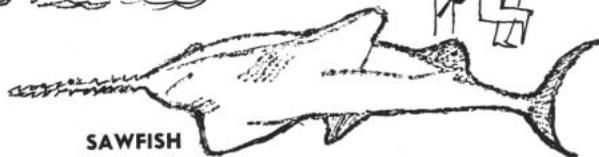
TARPON

A pretty fish with large silvery blue scales, the tarpon may weigh in at 300 pounds and is found in the warm waters off the coast of Florida. The female may produce as many as 12,000,000 eggs.



SWORDFISH

Here is the prize sword-bearer of the ocean with a flat, bony sword more than three feet long. One with a sword this size would be about 12 feet long and weigh about 700 pounds. They have been known to drive their swords through the bottom of a small boat. They are a fine food fish.



SAWFISH

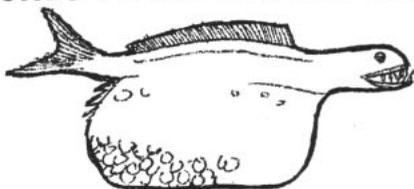
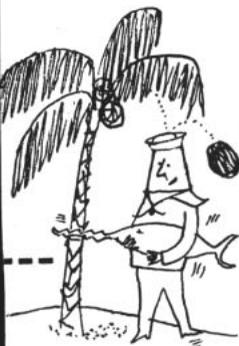
The saw on this fellow is about three feet long and is armed with approximately 28 pairs of sharp teeth. He is harmless unless attacked. He grows to be about 20 feet long and is found near the shores.



MANTA RAY

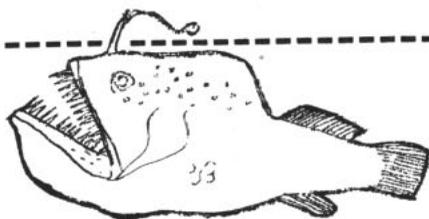
Among the shark family are skates, rays, sawfish, and dogfish. Pictured here is the great manta which has a fin spread of more than 22 feet and may weigh over a ton. He will never attack a man, but if frightened, he can smash a small boat to bits.

FISHES FROM THE DEPTHS



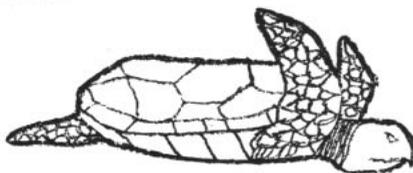
BLACK SWALLOWER

Chances are you will never run into this fish as he lives several miles down, and like most inhabitants at this depth is very dark in color. Fish at this depth have luminous bodies and make their own lights. The black swallower has a huge stomach which can expand three times its size to hold food.



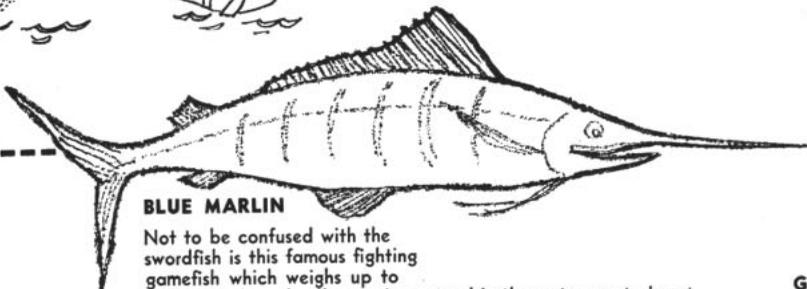
MELANOCETUS

This fish has a light at the end of an antenna to attract fish into its large gaping mouth. At a depth of three miles, the pressure is something like two and a half tons per square inch. When fish living at this depth, and deeper, swim a little too far up in search of food they may keep on going against their will and finally burst at the surface.



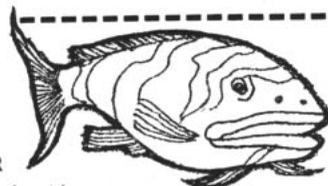
SEA TURTLE

Our turtle soup comes from the green turtle which can attain a weight of 500 to 800 pounds or so, and a length of over four feet. Sea turtles may weigh over a thousand pounds and be more than seven feet long. Watch out for some varieties of turtles as they have a parrot-like jaw which could take off a man's foot with no trouble at all. They are born on land but return to the sea to spend their life.



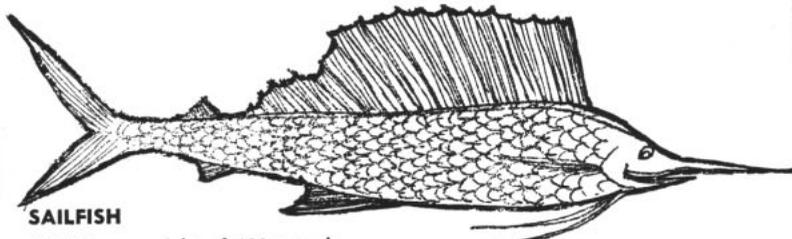
BLUE MARLIN

Not to be confused with the swordfish is this famous fighting gamefish which weighs up to 1200 pounds and will sometimes stand in the water erect almost to its full height.



GIANT GROUPEr

This member of the sluggish grouper family may weigh as much as 750 pounds and like other tropical fish, he can change color at will from black through various shades to white, and is friendly.



SAILFISH

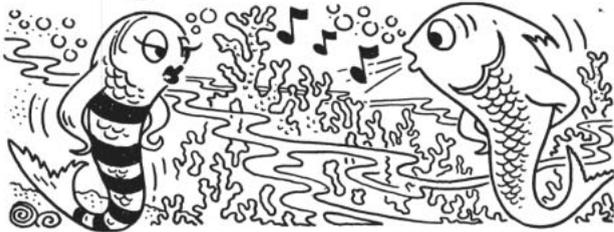
Attaining a weight of 120 pounds and a length of seven feet, this gamefish is adorned in beautiful shades of blue and has a large black fin called its sail. It has a sword about a foot long when grown to a length of about six feet.



OUR GOOD FRIEND, THE FISH (cont.)

AS ANY SONARMAN will tell you, fish make a lot of noise. Sounds from them are often mistaken—even by the most experienced soundman—for submarine contacts. Fish do not talk but their air bladders produce booming, drumming and grunting noises which, on passive sonar, often sound like the thumping of a ship's propellers.

The snapping sounds from a school of swimming shrimp always keep sonarmen on the alert. Shrimp are not quite so troublesome, however, as the croaker—which is about the noisiest of all fish. The two- and three-beat roll of the croaker is caused by drumming



muscles hitting against its air bladder. Other noises are caused by fish grinding their teeth or rubbing their fins against their tough, celluloid-like scales.

So, you see, fish do some pretty odd things. You'll find colorful butterfly fish—in the search for parasites—swimming unharmed in and out of the mouths of giant morays. Damselfish often live among the poisonous thorns of the sea anemone, while sheppard fish live very much the same way among the tentacles of the Portuguese man-of-war. Both attract other fish to the anemone or giant jelly fish. Another unusual fish story concerns the remora, commonly called the shark sucker, which fastens itself to the body of sharks and shares the shark's travels as well as its kill.

ENOUGH ABOUT how and where fish live and their strange habits. Let's briefly review how you go about catching them. Remember, fish can be life savers.

When it comes to sport fishing there are five basic methods: Still fishing, bait casting, fly fishing, trolling and spinning. The methods vary according to the equipment used and the equipment in turn, depends upon the type of fish the fisherman is after, his individual preference, and the amount of money he desires to spend.

• **Still Fishing**—This, as the name implies, is the method of catching fish without moving. You locate yourself on the fantail of your anchored ship, on the pier, or along the shore, throw your baited hook into the water and wait for the fish to come along and take (bite) it. Still fishing is, without a doubt, the most popular method of fishing but requires the most patience.

It requires the very minimum amount of equipment—hook, line and sinker. This combination may be used as a hand line or tied to a cane pole or with any rod-and-reel combination.

• **Bait-Casting** is for the fisherman who likes to get out and work for his fish rather than throw his line over the side and relax. When bait casting, the angler normally gets his share of exercise by continually casting into places where he would expect fish most likely to be. You can use any type of bait but normally artificial lures are used when bait-casting. There are

thousands of them, which range from highly polished or painted metal spoons that flash as they wobble through the water, to feature jigs and wooden or plastic plugs made to resemble every imaginable type of fish or other form of bait.

When bait-casting you generally use a five-to-six foot, lightweight casting rod and a specially built, free-spool reel which holds as much as 200 yards of silk or nylon braided line.

Bait-casting takes a lot of practice (and patience, at first), as you must learn to coordinate the movement of your wrist, which aims your cast; the swing of your hand and arm, which causes your rod to bend and act as a bow and whip your lure to the chosen spot; and your thumb which controls the flow of line from the reel.

When bait-casting you cast your bait or lure to a selected spot and as soon as it hits the water, you begin to retrieve it by reeling in the line. Some plugs or spoons are designed for deep action while others wiggle or splash along the surface. A fish usually hooks itself when it strikes a moving lure, but it's always safe to set the hook by quickly jerking the rod upward when you feel the fish strike.

Once hooked, the fish is usually played (letting the fish run when it wants to and bringing him in only when he tires). When playing a fish you must be sure to keep your line taut at all times or else the fish will work himself free.

No doubt being around the salt water, you have heard about *surf-casting*. Surf-casting, depending upon the area, means nothing more than still fishing or bait-casting in the ocean's surf. The difference, however, is upon the equipment used. Usually longer and heavier rods (eight or nine feet in length) and special reels are used when surf-casting, but the techniques are the same as for still fishing or bait-casting.

• **Fly-Casting** is one of the most popular methods of fresh water fishing and in recent years has become a new fad among salt water anglers in pursuit of lady fish, snook, bonefish, barracuda and others.

In fly fishing a special rod, reel and line are used. The



rod is usually between seven and one-half to nine feet long. It is normally made in two or three sections and weighs but a few ounces. With the long, light pole, the fisherman casts the line—usually enameled or heavily waxed and weighing much more than a bait casting line—rather than the lure. The lures used in fly fishing are artificial "flies," made from feathers or hair to resemble the different types of insects which fish feed on. These flies very seldom weigh more than 1/64 of an ounce. The fly fishing reel usually has no gears and serves no purpose except as a convenient method of holding the line.

• **Spinning** is fast becoming one of the most popular methods of fishing. Although used extensively in Europe for a number of years, this technique was not intro-

duced in the U.S. on a large scale until after World War II.

Spinning is done with a specially constructed reel which permits the line—usually made of very light braided or mono-filament nylon—to unwind from the spool without any part of the reel moving. Even the most inexperienced fisherman can cast very light lures a great distance when using spinning tackle.

In addition to the oddly shaped and constructed reel, the rod used for spinning is somewhat different from bait-casting or fly rods. They are usually six or seven feet long and have a 12-to-15-inch cork handle. They



also have much larger guides enabling the line complete freedom of movement.

Lures used in spinning are similar to those used for bait-casting but are much smaller and lighter. The technique of spin-fishing—casting, retrieving, hooking and playing a fish—are similar to those used in bait-fishing.

- **Trolling** consists of towing your bait or lure behind a moving boat (and quite often ships too). Trolling has many advantages over all other methods of fishing since large areas of water can be covered in short periods of time. You can usually catch fish by trolling while all other methods fail.

Bait-casting outfits as well as spinning rods and reels can be used for trolling but all that is needed is a hand line dragged through the water behind a slow moving ship or boat. Special short, heavy and stiff trolling (boat) rods are recommended, however. Live bait or the same lures used for spinning or bait-casting can be used. Most marlin, tuna, swordfish and other deep sea game fish are caught by trolling.

- **Survival Fishing**—When it comes to fishing for survival you won't find available for your disposal the wide assortment of tackle needed for these five methods of sport fishing. Usually you are limited to the emergency fishing kits which contain adequate equipment for catching some sort of fish that will provide you with food or water. All fish are a source of fresh water, and when it comes to survival, water is much more important than food.

The Navy's standard emergency fishing kit, found in lifeboats and liferafts, is designed for deep-sea fishing but is equally useful along coastal waters. It comes in a waterproof can with key opener. Each kit contains a buoyant knife, a number of lines in different sizes, various types of feathered lures, jigs and spoons; pork rind for bait, an assortment of hooks, a dip net, harpoon, gloves, a bib with sufficient pockets to hold all this gear, and, of great importance, instructions on using this gear, that are printed on waterproof paper.

IF YOU EVER have to use an emergency fishing kit, use the small lines and hooks baited with pork rind first. When you catch a small fish, part of it can be used

to bait the larger hooks and lines for bigger fish. If you can't get live bait and the pork rind fails to do the trick, try one of the lures that come in the fishing kit. Try anything or everything. Be satisfied with small fish. Real big fish can break your lines and swim off with your hooks and bait, or else may capsize you.

Keep your bait moving continually to give it the appearance of being alive.

Never tie your fishing line to any part of your body or to any part of the life raft or boat. Instead, let one of the other members of the crew hold the spool end of the line while you do the actual fishing.

When you catch a fish, lift him carefully, as his fins may be poisonous. Put him in your hand net and then transfer him to your rubber bailing bucket where he can be grasped without touching him with your hands. The cotton gloves in your kit should be used for protection of hands.

Be particularly careful not to puncture the raft with hooks, knife, harpoon, or the sharp point of a fish's fin.

Take good care of your fishing kit. Before your trip is over it may be the only thing that stands between you and hunger. Dry hooks and line before stowing them.

RAW FISH is neither salty nor unpleasant to the taste. Clean your fish just as soon as you catch it. Wash the meat free of blood. Save the entrails, except the liver, for bait. If the liver is pink, it may be eaten. If it's dark, don't eat it.

At night, you can attract fish by shining a light on the water or by holding your signaling mirror so that it reflects the moonlight. If there are any small fish in the area, they will see the light and rise to the surface where they can be snagged or scooped up in your hand net. This method is particularly good for attracting flying fish. Skimming across the water, they will be attracted by the light and often hit against the side of the raft or boat and fall into the water where they will lie momentarily blinded and stunned and easy to catch.

No attempt has been made here to provide a complete or comprehensive guide on fish and other forms



of sea life, and how to catch them. This would take many, many volumes. However, by having a brief knowledge of fish—some of their habits, how to recognize the more popular types and the methods of catching them—you may some day be able to save your life as well as that of your shipmates.

Although it is hoped that such a day may never come, this information may be useful to you in other ways. By knowing a little something about fish and their habits, you too may get the fever and want to try your luck. It's a good sport and wonderful way to relax. At least 40 million people think so.

—H. George Baker, JOC, USN.

★ ★ ★ ★ TODAY'S NAVY ★ ★ ★ ★

Start on Atomic SSBs

Keels for two more atomic submarines were laid in May as the Navy's accelerated submarine construction program moved into high gear. The keels are for the first killer (ASW) sub, the future USS *Tullibee*, SS(N) 597, and the Navy's third Fleet Ballistic Missile Submarine, designated SSB(N) 599.

The keel plate for *Tullibee*, whose chief mission will be to track down and destroy enemy submarines, was set in place 26 May. The following day, construction began on the ballistic boat.

Construction of the first two FBM submarines began early this year. All three are designed to fire the *Polaris* solid-fueled missile from underwater and are scheduled for completion in 1960.

SSB(N) 598 and 599 are being built on the East Coast while SSB(N) 600 is on the ways at the Mare Island Naval Shipyard.

In Touch with Outer Space

The Navy is taking to the hills of West Virginia to set up a 60-million-dollar radio astronomy facility.

To be known as the Naval Radio Research Observatory, the 1500-acre facility, near Sugar Grove, will be the site of a giant radio telescope for receiving electronic emissions from outer space. And, besides contributing to man's basic knowledge of the complex physical processes that occur in outer space, it will be used in advanced scientific research on characteristics of the earth's atmosphere and the compilation of geodetic and geomagnetic data of the earth itself.

Work on the project began in August, culminating 11 years of in-



TWO-TIME WINNER — USS *Tulare* (AKA 112) gets a hashmark painted on by Lt. M. McNevin, for second award in handling of assault boats.

tensive study in the field of radio astronomy by the Naval Research Laboratory in Washington, D. C. The successful creation of a feasible design for the facility, which was coordinated by the Bureau of Yards and Docks, has been hailed as a notable accomplishment in construction engineering.

The observatory will be operated under Navy management as a common service to nation's scientific community and defense establishment.

New Look in Navy Barracks

Almost every new ship being commissioned, as well as many of the older ones being modernized, are emphasizing improved living conditions. Air conditioning, Pullman-type bunks with foam rubber mattresses and individual reading lamps are now taken for granted. The hammock days are over.

It's the same story ashore. A typical example is the newly constructed \$1,510,318-barracks and messhall at NAAS Kingsville, Tex., officially opened just a few weeks ago.

The two new three-story buff brick barracks, as well as the messhall located directly across the street, are air-conditioned throughout. Each deck has two wings which are divided by shower and washrooms, a recreation and reading room, plus baggage and storage facilities.

There are accommodations for 264 men in each barracks. About 44 are assigned to a wing. Two to four men share individual cubicles which feature single bunks, two lockers per man, reading lamps and a desk.

On the first deck of each barracks is a television room complete with a 24-inch TV set and 30 lounge chairs. These rooms have a sound-proof overhead to prevent the usual noise from drifting throughout the barracks.

Soft, modernistic color schemes are used throughout the elaborately decorated barracks. Bulkheads are covered with light blue tile and orange-colored paneling between aluminum framed windows. Blue-, green- and orange-colored panels and louvers give added privacy to the cubicles located on each side of a central corridor that runs the length of each wing. Decks are covered with spotted red, yellow and blue tile.

Another feature is the laundry rooms located on each deck of the two new barracks. Each is equipped with two automatic washing machines and dryers. There are four stalls with wall plugs for those who desire to do their own ironing.

The main dining area seats 600 at one time and includes partitioned areas for first class and chief petty

YESTERDAY'S NAVY



On 1 Sep 1942 the first Seabees to serve in a combat area arrived at Guadalcanal, Solomon Islands. On 9 Sep 1940 the Navy awarded contracts for 210 ships including 12 aircraft carriers and seven battleships. On 9 Sep 1943 the Western Naval Task Force landed the Allied Fifth Army on the Salerno beachheads in Italy. On 10 Sep 1813 an American squadron under Commodore Oliver Hazard Perry defeated a British force in the Battle of Lake Erie. On 11 Sep 1814, off Plattsburg, N. Y., an American naval force under Commodore Thomas Macdonough defeated the British in the Battle of Lake Champlain.

officers. Individual dishes, cups and saucers are used instead of the customary metal trays and standard hardware. The familiar garbage line is gone. A long conveyor belt carries the dirty dishes directly to the scullery.

NAAS Kingsville, however, isn't the only Navy shore installation getting new modern barracks and mess-halls. Many others have them planned or under construction.

At Great Lakes, an extensive modern building program is well underway. In 1957, an ultra-modern 2000-man barracks was built at the Service School Command to provide living and study quarters for Navy students.

The second part of the long-range program at Great Lakes calls for the construction of a modern 5000-man Recruit Training Command. Three new recruit barracks, mess-halls and classroom buildings are already nearing completion. Work recently began on a \$3,302,000 contract calling for three additional recruit barracks buildings.

Tracker for Talos

A contract to produce weapon direction equipment for *Talos*-armed Navy ships has been awarded by BuOrd. The equipment tracks targets, evaluates target threat, assigns targets to fire control radars, assures "target acquisition," and evaluates kills.

Talos, the Navy's supersonic surface-to-air, long-range guided missile, is now operational in the light cruiser *uss Galveston* (CLG 3), and will form the major armament of *Little Rock* (CLG 4) and *Oklahoma City* (CLG 5), which are currently being converted into guided missile cruisers.

Piggy Back Ride for Sub

Carrying the same name as the miniature European herring, the British midget submarine *HMS Sprat* arrived at Norfolk, Va., early this summer aboard *uss Alcor* (AK 259). One of Britain's four pint-sized subs in commission, the 53-foot, 35-ton submarine is under the control of the Navy's Harbor Defense Unit to test harbor defenses in the Hampton Roads area during the summer months. Upon completion of operations she will return to Portsmouth Naval Base in England in September.

Manned by two alternating crews, practically all of whom are qualified divers, *Sprat* carries no torpedoes but is equipped with limpet mines



FAMILY AFFAIR—Kenneth P. Finrock, AE1, operates electronic gear while his son, William R. Finrock, AEAN, watches. They work together at Moffett NAS.

which are magnetically attached to an enemy vessel by the divers.

The passage crew consists of an officer and three enlisted men who take the sub to the operational area, often in tow. This is quite strenuous on the men, so when the area of operations is reached, a fresh crew replaces the four men before the mission begins.

According to the captain, LT T. J. Andrews, RN, midget submarining is much more interesting than serving in standard-sized subs, and you get the "periscope eye" much faster.

As you no doubt would expect, the quarters on the submarine are rather cramped and there is only one place on board where you can stand up.

Destroyermen to the Rescue

Six destroyermen aboard *uss Lester* (DE 1022) have received letters of commendation from the Atlantic Fleet's Destroyer Force commander.

Receiving the awards while their ship was anchored off the Greek island of Corfu were F. A. Pierce, GM2; W. J. Thibeault, RD3; C. E. Brady, SN; L. J. Goldberg, SN; R. J. Morrison, SN, and C. A. Padalecki, SN.

These men were cited for their courageous performance of duty in connection with the recovery of the crew members of the Italian ship *Bonitas* which sank in heavy seas off the coast of North Carolina 19 Feb 1958.

The story of their efforts is best

told by the commendation from RADM E. B. Taylor (ComDesLant), which reads in part:

"... In spite of heavy seas and strong winds you volunteered to go over the side of *uss Lester* (DE 1022) in order to aid the survivors and attach retrieving lines to the bodies of the dead. You readily and cheerfully volunteered for this duty in spite of personal danger to yourself and the general hazardous nature of the undertaking.

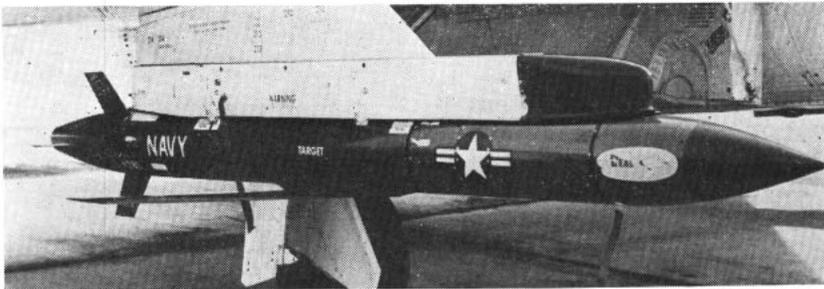
"Because of your splendid efforts, *uss Lester* was able to recover two survivors as well as six of the dead. Your performance was in the highest tradition of the naval service."

Commissioned via TV

Watching television paid off for Chief Petty Officer Adrian A. Tingle of Barnesville, Ga., when he was commissioned Ensign by Admiral Arleigh Burke, USN, Chief of Naval Operations, by means of closed circuit television.

Chief Tingle, who was assigned to the U.S. Navy Hydrographic Office, Suitland, Md., daily briefed Admiral Burke and his staff on weather conditions in the northern hemisphere via a closed circuit hookup with the Navy's chart room in the Pentagon. On this occasion, however, there was a change in the regular routine. After the morning briefing, Admiral Burke administered the oath.

Later in CNO's office, the Admiral administered the oath to three other chiefs, Claude E. Williams, Howard K. Rowan, and Robert White.



OH SHOOT—XKDT-1 target, used to train Navy pilots in air-to-air combat is shown on wing of F3H. It is powered by a long-duration rocket motor.

New Marine Corps Weapons

Marines will bid farewell to their trusted M-1 rifles and the M1919A4 machine guns in the not too distant future. Replacing these battle-tested .30 caliber weapons will be the M-14 rifle and the M-60 general purpose machine gun.

The new weapons, designed to fire the 7.62mm NATO cartridge, have undergone extensive tests at Marine Corps installations. The M-14 rifle weighs 8.7 pounds as compared to the M-1's 9.5 pounds.

The Marine Corps, in announcing that the Corps will adopt the new weapons, indicated that they will go into production during fiscal year 1960 and will be ready for distribution during fiscal year 1961.

Copter Rescue Seat Tested

Five successful rescues have been made from helicopters using a new rescue seat developed by Helicopter Utility Squadron Two at the Lakehurst, N.J., Naval Air Station. The seat went into Fleet service in January.

Taking part in the latest rescue was one of the men who assisted in the development of the new rescue seat, LCDR Frank J. Cronin, and his crewman, W. Dennis, AM3.

LCDR Cronin was flying plane guard for *uss Forrestal* (CVA 59) when LTJG Henry L. Hubbard of

Squadron VF-21 experienced a tail pipe fire in his F11F jet on take-off. LTJG Hubbard ejected at 2500 feet. LCDR Cronin flew by the pilot and received a "thumbs up" from him as he was descending in his parachute. The HUP-2 type helicopter was standing by when LTJG Hubbard hit the water.

Once the pilot was clear of his parachute the helicopter moved in, lowered the rescue seat and had LTJG Hubbard clear of the water in three seconds.

MAP Via MSTS

America's one-millionth ton of MAP (Military Assistance Program) cargo for Italy was off-loaded at the Angioino pier of Naples' famed Maritime Station recently with ceremonies marked by an international military flavor.

A jet fighter off-loaded from the MSTS transport aircraft carrier *uss Corregidor* (T-CVU 58) was the focal point of the event. Three other jet planes, already off-loaded from the ship and standing on the pier, were turned over to the Italian Air Force along with one representing the millionth ton.

Naval vessels in port, including the British cruiser *HMS Kenya*, had dressed ship. They were joined by several merchant ships in sounding off with sirens and whistles during the off-loading of the millionth ton.

To date, the total value of the MAP aid to Italy has been \$1.8 billion. First ship to bring MAP material to Italy was the *ss Exilona*, which arrived in April 1950. Since then 775 vessels carrying MAP material to Italy have arrived at Naples alone.

The million tons represent "ocean freight" military aid alone. The figure does not include ships that sailed to Italy under their own power or the very sizable number of military aircraft flown from the U. S. to Italy. If all this material were loaded on a freight train, 35,000 freight cars would be needed.

She Looks Good

uss Midway (CVA 41), which recently joined the Pacific Fleet, carries, as a result of her recent modernization, some of the latest types of plane-handling equipment to be found aboard any converted carrier.

During the conversion at the Bremerton Naval Shipyard—which saw an angled flight deck installed along with a hurricane bow—the attack carrier received a new type of jet-blast deflector. Also installed on the flight deck was a crane capable of lifting 50,000 pounds.

The new type of jet deflector consists of three separate deflector plates which may be individually or jointly raised behind the catapult depending upon the type of plane being launched. These aluminum plates, supported by steel beams and raised hydraulically, can deflect up to 90,000 pounds of thrust and are cooled by salt water.

The three-plate units are installed behind each of *Midway's* two forward steam catapults. A single-plate jet blast deflector is installed behind the waist catapult on this ship. The jet exhaust blast strikes the slanting plates and is deflected upward and



LIKE A DUCK—Navy's new amphibious helicopter, dubbed *Seacopter*, makes landing at Patuxent Naval Test Center.

away from flight deck personnel. Older types of deflectors only slowed down the horizontal passage of the blast.

This new system provides greater safety in the immediate vicinity of the catapults for both flight deck personnel and aircraft.

The flight deck crane, located on the starboard side, was replaced with a crane of increased capacity during the recently completed two-year conversion period. This crane is capable of hoisting the largest carrier-based planes from a dock to the flight deck of the ship. Operated by a three-man crew, the electric-hydraulic-powered crane supports two block hooks with a cable reach of about 62 feet.

Other carriers have their cranes on the sponson decks and cannot lift loads beyond hangar-deck levels.

The 979-foot long *Midway* was the first of three ships in her 45,000-ton class, but was the second of the sister ships to receive the \$50-million conversion. *uss Franklin D. Roosevelt* (CVA 42) has also been converted and has returned to service. *Coral Sea* (CVA 43) is now undergoing a similar conversion.

Included in the *Midway* conversion were extensive interior and superstructure changes. Also, more complete missile-handling facilities have been added.

Depending upon types assigned, *Midway* can carry up to 100 jets.

Into MSTs Reserve Fleet

Three MSTs transports will be retired from their runs this summer to join 19 other Military Sea Transportation Service Ready Reserve ships headed for the mothball fleet.

The USNS *General H. F. Hodges* (T-AP 144) will leave its Atlantic run for a Reserve assignment while the Pacific division's USNS *General M. M. Patrick* (T-AP 150) and *uss General A. E. Anderson* (AP 111) will make their final arrivals at West Coast ports. *Anderson* is the only commissioned ship in the group.

Five other ships slated for mothballing were of the dependent-carrying type while the remaining 14 are described as "austerity" type troopships. MSTs said that the ships would be in Reserve Fleets at Beaumont, Texas; James River, Va; Hudson River, N. Y.; Olympia, Wash; Astoria, Ore; and Suisun Bay, Calif.



SLEEK JOB—*USS Davis* (DD 937) makes a fine picture as she cuts through Atlantic waters. The destroyer operates out of her home port at Newport, R. I.

Fifi Kicks Up a Storm

Alma, Becky, Daisy, Ella, Fifi, Gerda these are not the names appearing on a roster of Waves or the alphabetical index to a sailor's little black book. They are, however, the list of officially approved names to be used for hurricanes this season, passed on to us by *Jax Air News*.

After Gerda, which will be the monicker for Storm G, the names continue: Helene, Ilsa, Janice, Katy, Lila, Milly, Nola, Orchid, Portia, Queeny, Rena and Sherry.

And if this isn't enough, there's Thora, Udele, Virgy, Wilna, Xrae, Yurith and Zorna.

No Rest for Salem

Earlier scheduled for deactivation upon her return from her two-year tour in the Mediterranean, *uss Salem* (CA 139) has been assured that she will remain on full active status. The large American combatant ship to be assigned a home base in the Norfolk, Va., area, *Salem* moved into berth displaying a 512-foot "home-ward bound" pennant.

This type of pennant is traditionally flown by Navy ships returning home from foreign waters after an absence of more than a year. The length is governed by the number of officers and men in the ship who have been on duty outside the United States in excess of one year. Each man rates a foot of pennant. Some

ships have returned to the States with pennants so long that they were supported by gas-filled balloons.

Salem, built and launched in Quincy, Mass., is a veteran of seven voyages to the Med; each time as flagship for Sixth Fleet commander.

During her most recent tour, she steamed more than 100,000 miles while visiting 26 cities and 7 islands in 10 different countries.

Her duties varied. She took part in numerous training operations, involving complex NATO exercises, and played a major role in evacuating 4000 Americans from Egypt and Israel during the Suez crisis of 1956. Aside from her great show of strength she played host to many celebrities and participated in many search and rescue operations for fishing boats and downed planes.

Steam Plant for Nuclear Sub

BuShips has awarded a new contract for the design and manufacture of the steam propulsion plant machinery for a nuclear-powered submarine. The work is scheduled for completion in May 1960.

The contract calls for collaboration with BuShips in designing the prototype engine room equipment including the propulsion turbines, reduction gear, and turbine generators. The contractor will furnish main condensers, line shaft bearings, propulsion clutch, propulsion electric motor, main thrust bearing, and air ejectors.

Brief news items about other branches of the armed services.

MORE THAN 13,000 non-tactical Air Force planes are being painted with a new daylight luminescent paint. The paint job consists of a blaze orange on the tail and nose sections and about one-fourth of the top and bottom wing areas from the wing tips. This is being done in an effort to make them easier to see while, at the same time, reducing the probability of mid-air accidents.

In Air Training Command testing, the new paint has been exceptionally effective in increasing aircraft daylight detection both air-to-air and ground-to-air under visual conditions. It has been most effective during conditions of reduced visibility resulting from such factors as smoke, haze and dust.

The testing program originated in a safety conference in February, 1957. Planes marked for discernibility evaluation were high-speed jets as well as propeller types. A series of marking patterns were employed to determine the best configuration.

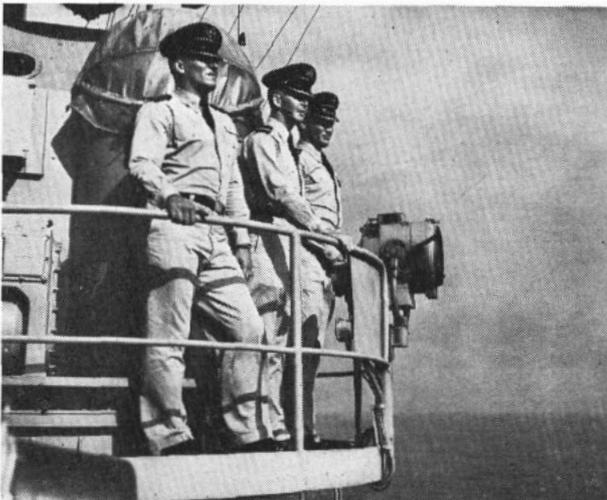
★ ★ ★

FORESTERS THROUGHOUT THE NATION are testing a new expendable, one-pound 10-ounce aluminized fire fighter's suit which has been developed by the Army Quartermaster Corps. If the tests prove successful, it could mean the adoption of the ensemble for protection of Forest Service fire fighters.

The suit is styled much like the arctic parka and sized to fit over a duty uniform, steel helmet and a breathing apparatus. It is made of flame-retardant, treated aluminized paper laminated with a flame-resistant adhesive to a reflective aluminum foil.

The outfit consists of a parka with attached hood, long sleeves and adjustable sleeve closures; leg sleeves, with adjustable straps suspended by belt loops from the uniform; and a face mask of the same material, overlapped by the parka hood and designed so that it is held away from the face.

Visibility is provided by a pattern of tiny holes in the mask. The insulated mittens are gauntlet type, with the palms slit so that the fingers may be moved more easily.



AT SEA—Cadets watch Navy routine on *USS Ranger* (CVA 61) during cruise for Midshipmen and AF Cadets.



ARCTIC HITCH HIKERS—Army tugs ride to Arctic in USNS *Lindenwald* (T-LSD 6). Tugs will help in resupply.

AN IMPROVED SUIT, to protect missile-servicing crews against the highly corrosive chemicals which they must handle, has been standardized by the Army.

Developed by the Army Quartermaster Corps, the new ensemble covers the crewman from head to foot with impermeable material and employs the recently standardized Army Chemical Corps M-15 mask. The mask is a breathing apparatus which feeds compressed air from a pair of small tanks carried on the man's back.

The suit consists of a coverall, hood, gloves and boots. The basic protective material is a coating over a cotton fabric base of resin-modified butyl rubber which is impervious to the liquid oxygen, hydrogen peroxide, red fuming nitric acid, and other chemicals employed as fuel in the missiles.

The hood is designed to cover the head and neck and to overlap the shoulders. The gloves form a seal with semi-rigid cuffs at the ends of the sleeves.

Since heat builds up rapidly within the suit, provision is made for cooling the crewman by donning, over the protective suit, a coverall garment made of knit cotton fabric. The outer coverall is doused with water which cools by the evaporation of the water.

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AN AIRMAN "Quality Control Program"—designed to spur continuous improvement in skills demanded by complex new weapons for defense—has been started by the Air Force.

With the modernized military pay structure becoming a big factor in retaining airmen who meet Air Force standards of efficiency, Air Force manpower management officials have taken another long step forward to assure that only the best and most promising enlisted men remain in career service.

The personnel control measures in grade levels of performance will be accomplished by constant screening processes through "stringent" selection of airmen for enlistment, training, reenlistment and retraining.

The Air Force is issuing new policy and guideline directives setting up proficiency measures and the means to weed out those who fail to make a substantial contribution to the military establishment.

DEVELOPMENT OF A PAPER SANDBAG which could replace the standard jute sandbag in time of emergency is underway by the Army's Engineers at Fort Belvoir, Va.

As part of this development program, 26,000 paper sandbags were troop-tested at various locations during the early part of 1958. The type of paper being used in the experiments could be easily procured and would meet requirements during an emergency when jute might not be available.

The knitted paper sandbag under development has all the physical qualities of its jute counterpart, both wet and dry, and also stacks and handles satisfactorily. The sandbag mesh does not lose any significant quantity of fill material, except when a very dry fine sand is used. The mesh, however, can be made as fine as desired and is treated to give it both wet strength and fungicidal protection.

Restricted field tests showed that the knitted paper sandbag can survive 60 days under the most severe weather conditions, and withstand normal weathering effects for more than six months. The knitted fabric does not ravel when punctured; resists the shock effects of a close blast at least as well as jute burlap, and has a service life in water comparable to that of the standard military jute sandbag.

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A SERIES OF COLD WEATHER trials, of Army guided missiles will be held at Fort Churchill, Canada, next winter.

Missile systems to be tested are the Army's *Nike Hercules* and the *Lacrosse*.

Selected Canadian and U. S. Army personnel trained at the Guided Missile Centers at Fort Bliss, Texas, and Fort Sill, Okla., will man the weapons and will carry out the trials on a joint basis. Trials will commence in the winter of 1958 with firings scheduled through the months of January, February and March 1959.

The tests will evaluate the effects of extreme low temperature on these weapons.

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THE ARMY IS BUILDING a giant radio antenna for maintaining communications with outer-space vehicles at its desert training area at Camp Irwin, Calif.

The multi-million dollar, 85-foot diameter antenna, authorized by the Advanced Research Projects Agency of the Department of Defense is expected to be in operation by the end of the year. It is designed to be used in missile "lunar probes" planned by the Army and Air Force in 1959.

The antenna—being constructed by the Army's Jet Propulsion Laboratory at Pasadena, Calif.—will be similar to the radio telescopes employed in locating and tracking signal-emitting "radio" stars.

The sprawling tank and artillery center at Camp Irwin was selected as the site for the space communication equipment because of relative freedom from interference caused by power lines and commercial radio and television transmission.

Located in the Mojave Desert, the Irwin tracking station will be the first step in a communications link with lunar vehicles at ranges up to 250,000 miles.

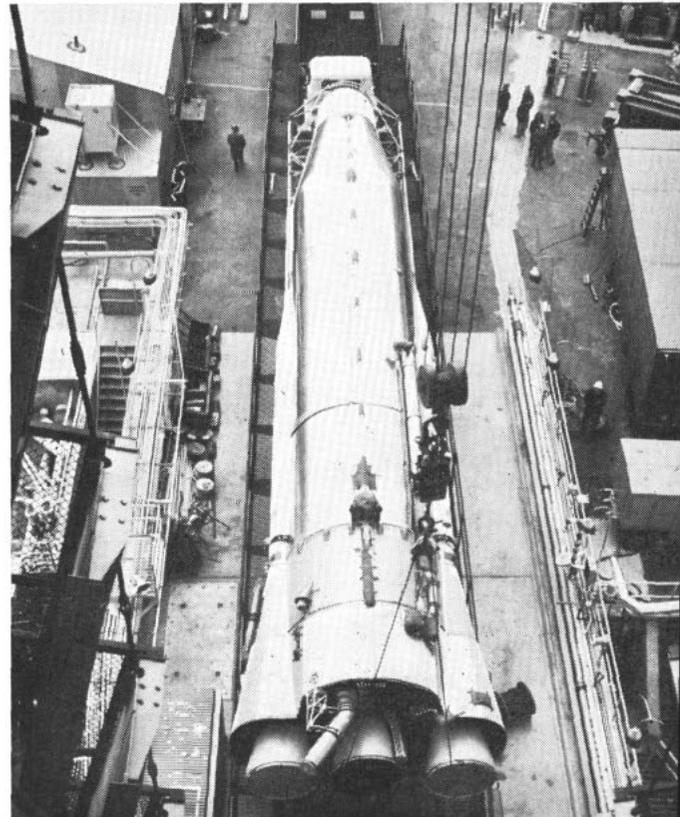


LITTLE JOHN, Army's infantry support rocket, is airlifted by helicopter during 82nd Airborne exercises.

THE U. S. ARMY'S Quartermaster Field Evaluation Agency at Ft. Lee, Va., has developed a new aerial delivery system designed to facilitate more efficient and economical delivery of heavy equipment to troops by parachute.

The system involves a new type "drop kit," including an expendable platform made out of plywood and honeycombed paperboard. The new kit costs about one-tenth as much as the present type kits and weighs about one-half as much. In addition, it can be fabricated quickly on the spot to fit the individual item of equipment.

THREE IN ONE—USAF has added a third engine (center) to *Atlas* missile to increase range to over 6000 miles.



THE WORD

Frank, Authentic Advance Information On Policy—Straight From Headquarters

• **SHIP FITTERS**—The general service ratings of Metalsmith (ME) and Pipe Fitter (FP) have been disestablished. Men in these ratings will become Ship Fitters between 1 Sep 1958 and 1 Nov 1958. Insignia for Ship Fitters will be identical to the disestablished ME rating.

Ratings of active duty personnel, including Naval Reservists and Fleet Reservists on active duty, will be changed as follows:

• E-6 and E-7 personnel in ME, MEG, MES, MEB, MEW, FP, FPG, FPP, FPB, or FPS will become SF (Ship Fitter).

• E-4 and E-5 personnel in ME, MEG, MES, MEB, or MEW will become SFM (Ship Fitter, Metalsmith).

• E-4 and E-5 personnel in FP, FPG, FPP, FPB, or FPS will become SFP (Ship Fitter, Pipe Fitter).

• Strikers with identifications of ME, MEG, MES, MEB or MEW will be redesignated SFM (Ship Fitter, Metalsmith) and those with FP, FPG, FPP, FPS or FPS will be designated SFP (Ship Fitter, Pipe Fitter.)

Those in the Ship Fitter general rating would advance to Warrant Ship Repair Technician or under the Limited Duty Officer Program, to the Hull group.

Although administratively MEs and FPs will become SFs no later than 1 Nov 1958, revised examinations appropriate to the new SF rating will not be given until August 1959. In February 1959, men will be given examinations corresponding to their old ratings, but advancement will be made under the new rating structure.

The currently available training material for Metalsmith and Pipe

Fitter ratings may be utilized in preparing for advancement in the new Ship Fitter rating. A bibliography giving guide lines for the use of this material will be published before the August 1959 examinations.

Qualifications for the new Ship Fitter rating will be published in February in Change 12 to the *Manual of Qualifications For Advancement in Rating* (NavPers 18068). Inactive Naval Reservists and Fleet Reservists on inactive duty will not be affected immediately. Separate instructions will be issued. Further information regarding changes to the ME and FP ratings can be found in BuPers Notice of 18 July 1958.

• **QM AND SM SCHOOLS**—Prospective quartermasters and signalmen no longer have to learn all the basic tricks of their trade through on-the-job training.

They now have schools of their own at the Fleet Training Centers, Newport, R. I., and San Diego, Calif., to take the place of the old QM and SM Class A schools which were disestablished several years ago.

The schools at Newport, designed to train QMs and SMs for the Atlantic Fleet, are practically brand new. They opened in July 1958 and turned out their first graduating classes last month. They were patterned after similar schools at San Diego, which have been in operation since January 1958 to train Pacific Fleet personnel.

The schools are open both to men from the Fleet and those fresh from boot camp. At Newport, where Atlantic Fleet personnel and those from recruit training centers attend classes together, there are quotas for 20 recruits to go into the QM school

and 20 into the SM school, plus five men from the Atlantic Fleet in each.

At San Diego, where men from recruit and Pacific Fleet sources are taught separately, about one-third of the enrollment is made up of Pacific Fleet personnel and two-thirds from recruit sources.

The classes at Newport convene every five weeks.

Those at San Diego convene every four weeks for QM and every six weeks for SM.

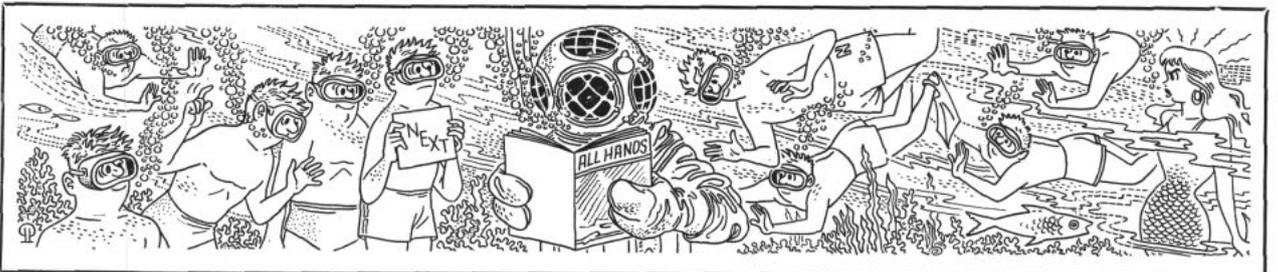
Recruits can request this training either through the high school recruit program or while they're in boot camp. Fleet personnel can request quotas through the Commander, Training Command, Atlantic Fleet, or the Commander, Training Command, Pacific Fleet.

• **OFFICER NUCLEAR TRAINING**—Want a career with unlimited opportunities? Here's your chance if you take advantage of the Navy's search for officers qualified to accept training in the Navy Nuclear Power Training Program (Surface Ship).

To provide trained men for nuclear-powered surface ships, a one-year course covering academic and practical training in nuclear propulsion is now in effect. Two nuclear-powered ships, USS *Enterprise*, CVA (N) 65, and *Long Beach*, CG (N) 9, are under construction and the third, a large frigate-type destroyer, DLG (N), is expected to be authorized in the 1959-shipbuilding program.

As described in BuPers Inst. 1520.68, the Navy is offering a good deal to those junior officers who go nuclear. Line officers who enter this program, for example, will retain their line designator; their sea-duty promotion requirement will be safeguarded and their command opportunities in the new and nuclear Navy will be improved.

If you are selected for this program, you will attend a six-month academic course covering basic reactor



YOU SHOULDN'T HAVE to go deep for good reading . . . Let your shipmates get in the swim too, pass this copy on.

• **ADVISORY PANEL**—The Navy wants ideas which will help it and the Marine Corps to use their capabilities more effectively in the present so-called "Cold War."

A Cold War Advisory Panel has been formed within OpNav to conceive and develop ideas by which the United States may gain an advantage. The Panel does not limit itself to self-generated ideas but will solicit assistance from the entire Navy and Marine Corps.

Ideas or courses of action considered to offer a reasonable chance for success will be referred to the Chief of Naval Operations and the Commandant of the Marine Corps for consideration. If approved, they will then be passed on to the cognizant office or agency for implementation.

The Panel functions under the existing authority given the Deputy Chief of Naval Operations (Plans and Policy) and the Assistant Chief of Staff, G-3, Headquarters, U. S. Marine Corps.

If you have any suggestions, submit them via your commanding officer to your respective Fleet Cold War Advisory Activity or to Navy-Marine Corps, Cold War Advisory Panel, Room 4D558, Pentagon, Washington 25, D. C.

theory and technology, mathematics, physics and specific components and systems of a nuclear propulsion plant. The academic work is offered at the U. S. Naval Nuclear Power Training Unit, Idaho Falls, Idaho. Upon completion of this course, you will receive approximately six months' more on-the-job training at the land-based prototype in Idaho or West Milton, N. Y.

To qualify, you must:

• Be a USN or USNR officer on active duty in the grade of lieutenant, lieutenant (jg), ensign (LDO only), or warrant officer (electrician or machinist only).

• Have included mathematics through calculus, and one year of college-level physics in your educational background.

• Have operational shipboard engineering experience. (Engineering experience and motivation are considered to be the most vital prerequisites for the program. It is important that, if you are interested, you receive practical engineering experience early in your career.)

• Certify that you understand

that successful completion of the one-year instruction will result in two years of obligated service in addition to your present obligation.

Time spent in training will not count as a part of obligated service.

• **EVALUATION SHEETS**—Hold on to those enlisted evaluation worksheets; the Chief of Naval Personnel may want to see them.

As part of a continuing program to study and evaluate the Enlisted Performance Evaluation System, Bureau officials suggest that the provision of paragraph (9) of Article C-7821 of *BuPers Manual* (directing that the evaluation worksheets (NavPers 792) be destroyed immediately) be held temporarily in abeyance. Instead, commanding officers have been asked to hold the worksheets until 30 days after the next two succeeding regular evaluations (16 Nov 1958 and 16 May 1959).

If the Bureau hasn't by then requested them for study, they may be destroyed.

A sampling of 125,000 performance factors reported for the August 1957 Fleet-wide examination has shown that 3.363 (on the 4.0 scale) and 30.90 (on the 50 scale) are the average grades being assigned men in pay grades E-3, E-4 and E-5. Commands marking extremely high or low have been notified. More information is available in BuPers Notice 1616 of 25 Jun 1958.

• **BEDDING REGULATIONS CHANGE**—Effective 1 Jul 1959 mattress covers and pillowcases will not be required in the minimum seabag. These items will then become the property of your permanent ship or station and will no longer have to be maintained or replaced by you out of your clothing maintenance allowance.

Next July all enlisted men below chief petty officer—CPOs are not required to carry these items—will turn in to their permanent duty station two mattress covers and two pillowcases.

If in a travel status, you will be required to turn in these items when you report to your next permanent duty station.

Cost of procurement, maintenance (includes laundering), and/or replacement, will be paid from maintenance and operating funds of the ship or station you are assigned.

Every Navyman should have a little knowledge about the sea and its inhabitants. Sometimes such information may mean the difference between life or death to the sailor. In an effort to keep you informed and possibly save your life, we also feature sea life recognition in this month's centerspread.



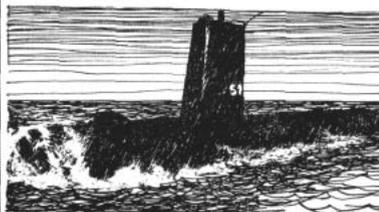
1. Practically all sailors are known for their tall tales. Seafarers of yesteryear and even old "sails" of today still relate weird stories of sea serpents. Most likely, you too would swear on a stack of Bibles that you saw one, if you saw (a) sturgeon, (b) tarpon, (c) ribbon or oarfish.

2. No serpent, but a true fish, it may grow as long as 25 or 30 feet and weigh as much as (a) 650 pounds, (b) 1000 pounds, (c) three tons.

3. The swift and sleek "Tigers of the Sea" are much sought after by big game fishermen as they put up a fight unequalled by any fish their size. They are (a) sturgeon, (b) barracuda, (c) marlin.

4. Considered to be among the most important food fish in the world is the (a) herring, (b) codfish, (c) mackerel.

5. As you already know, U.S. Navy submarines are named after fish and other forms of sea life. The mighty *Nautilus*, SS(N) 571, strangely enough is named after a rather slow-moving creature of the deep. Although commonly thought of as a shellfish, the nautilus is a member of the (a) turtle family, (b) eel family, (c) squid family.



6. The Navy's newest nuclear submarine, which is the largest ever built, is named after a shellfish. The SS(N)R 586, launched in August is (a) *Murex*, (b) *Pinna* (c) *Triton*.

Happy fishing! Check your catch on page 52.

THE BULLETIN BOARD

Striking for the Hard Hat? Yes, It's Harder in Some Rates

FROM THE TIME the annual E-7 examinations are given until the "chief's list" is released by the Chief of Naval Personnel—and then on through to the next exam again—scuttlebutt flows freely throughout the Navy. It's a continuous cycle, year in and year out, wherever chief and first class petty officers meet.

This can be expected since the majority of career men consider being promoted to chief petty officer as one of the more important steps in their lives. Therefore, there are plenty of reasons why most career Navymen always talk about "making chief."

Fantail forums on the matter, however, are not always favorable. You continually hear a certain amount of gripes or complaints about "not enough men making the hard hat." Such talk seldom comes from those "who made the list"—no matter how long they waited—as they won't have to sweat out the list again.

The complaints—some of which may be justified—usually are from those who don't get promoted even after passing the exam year after year. Frequently they are personnel in the BM, CS, SH, AD, HM, SD and QM ratings, which are often referred to—so far as promotion to E-7 goes—as the "stagnant rates."

This stagnation in certain pay grade E-7 ratings creates an unfortunate situation which the Chief of Naval Personnel recognizes as one of the Navy's most acute personnel



"You can have liberty now Perkins, but keep out of trouble"

problems. Every possible attempt is being made to correct it.

For this reason, the Chief of Naval Personnel personally reviews and authorizes CPO advancements after each E-7 examination. Every effort is made to achieve equality of advancement opportunities on a long-range basis. Changing requirements and variations in reenlistments make this a very complex problem. Reductions in one rating are often caused by increases in another rating, not because of decreasing needs for the former, but because of a greater priority in increasing needs for the latter.

It is realized by the Chief of Naval Personnel and other senior naval commanders that the stagnation in certain pay grade E-7 ratings has an adverse morale effect on many senior

petty officers first class, who are qualified, and in many cases filling, chief petty officer billets, yet cannot be advanced because of quota limitations.

There are many reasons for this. Before discussing them, it may be wise at this point, to let you know how the Chief of Naval Personnel determines the number of E-6s who will be promoted to Chief Petty Officer each year.

In establishing quotas for advancement, the Chief of Naval Personnel takes into consideration the long-range and current plans for each rate. This includes a continuous review of:

- Enlisted rating requirements (actual and planned allowances) for the current and next fiscal year.

- Budgetary limitations. (The number of petty officers, of all pay grades, is currently limited to 53.3 per cent of the Navy's total enlisted strength.)

- Gains and losses. This includes expiration of enlistments, reenlistments, transfers to the Fleet Reserve, deaths, and all other causes.

- The policy of maintaining the over-all pay grades of E-7 and E-6 at 100 per cent of planned allowances, with the remaining number of personnel in pay grades E-5 and E-4 adjusted so as to maintain the total number of petty officers at the authorized 53.3 per cent level.

The Navy's planned petty officer billets are established at 57 per cent of the total enlisted strength at the end of the fiscal year. However, present petty officer billets are written at 59.7 per cent of enlisted end-year strength.

As said earlier, budgetary limitations restrict the number of petty officers to 53.3 per cent of end-year strength. This in turn limits actual petty officer strength to 90 per cent of the total petty officer billets written. Because of this limitation, the only way that more E-7 advancements could be made would be at the expense of the lower pay grades. If this were done, the increased cost

Breakdown on CPO Advancements in Certain Ratings

Promotions to pay grade E-7 in certain ratings have been slow, but as the accompanying chart will prove, they have not been quite so stagnant as scuttlebutt would make you think.

Here's a breakdown of the CPO advancements authorized during the past five years:

RATING	1954	1955	1956	1957	1958	TOTAL
BM	37	7	51	28	51	174
QM	17	1	47	37	8	110
SD	15	4	15	25	100	159
CS	19	4	120	303	130	576
SH	10	40	82	111	132	375
AD	45	12	41	39	44	181
HM	26	5	27	26	29	113

of the additional E-7s could not be justified.

Although it is the Navy's policy to maintain the over-all pay grades of E-6 and E-7 at 100 per cent of the planned allowance, it doesn't always work that way for every rate. Consider the rating of boatswain's mate, for example. As of 30 Apr 1958, the Navy had an allowance for 2915 BMCs. It had 2447 BMCs or 89.9 per cent of its allowance.

According to these figures, it appears as if there were 568 vacancies for BMC. This is not true, however, as the planned allowance for the end of fiscal year 1958 (which ended 30 Jun 1958) called for only 2848 BMCs. This figure will be reduced by 871 more during the next two fiscal years, bringing the planned strength for BMCs at the end of FY 1960 down to 1977. As a result of this planned reduction only 51 BM1s, not 568, were authorized to be advanced to BMC this year.

Barring an upward revision in planned allowances, it would be impractical to rate any more BMCs at this time. If this were done, it would only result in a later unacceptable stagnation in this rate. It is planned to have the BMC rate at 90 per cent of allowance at the end of FY 1959 (30 June 1959) and over 100 per cent at the end of FY 1960.

Because of this anticipated drop in allowance, the BMC rate cannot be maintained at the 100 per cent level today and still provide an orderly strength reduction to the planned allowances.

Even with this reduction, current plans call for about an equal number of BM1s to be advanced to BMC during each of the next three years, instead of a large number this year and stagnation with only token advancements thereafter. This planning also includes replacements for per-personnel who will become eligible for transfer to the Fleet Reserve in Fiscal Years 1961 and 1962.

Although reduced allowance and budgetary limitations restricted the number of BMs, QMs, ADs and HMs from making the hard hat, the "log-jam" was broken somewhat for promotions to pay grade E-7 in the CS, SH and SR ratings. The increased number of advancements to chief authorized this year, compared with the past five years (see accompanying chart) in the CS, SH and SD

ratings was primarily the result of an increase in the planned allowances on the E-7 level to bring these ratings closer in line with the pay grade ratio of other rates.

This same change in ratio solution, however, could not be used to solve the advancement problem for BM, QM, AD and HM ratings, as they are already at their E-7 maximum strength, and the Chief of Naval Personnel does not believe it practicable to create an excess in the rates of BMC, QMC, ADC and HMC at this time.

Barring a few exceptions, the over-all promotion picture for making chief in 1958 was good. More than 3380 advancements were authorized. Although this was nowhere near the number of advancements authorized in 1957, more CPO promotions were issued in 1958 than during 1954, 55 or 56.

Other than budget limitations and planned allowances, the only reason a larger number of promotions was not authorized this year is simply because there were not many vacancies to be filled. This is why:

- First, the reductions in the size of the Navy during the past two fiscal years caused a slight reduction in the requirements for all pay grades, and

- Secondly, not as many CPOs transferred to the Fleet Reserve as originally expected. It seems that all the scuttlebutt about a recession and upcoming legislation granting higher pay scales, was enough to make many CPOs think twice about retiring.

As a result, many decided to stay around for another year or two and take advantage of the added benefits afforded career Navymen under new pay bill. (See July ALL HANDS.)

WAY BACK WHEN

Perry's Crewmen at Naha

There's a small plot of land surrounded by a low concrete wall within the city of Naha on the island of Okinawa, known as the International Cemetery. It dates back to 1853.

It all started when Commodore Matthew C. Perry, USN, sailed from the U.S. on his history-making expedition to open the doors to Japan to western civilization and trade. His thoughts turned to the necessity of adequate bases for use by his squadron while negotiating with Japan and other Far Eastern countries. Bases were also needed by American merchantmen, as well as naval vessels, for coaling, provisioning, and as a haven of refuge against storms and piracy.

Commodore Perry addressed the Secretary of the Navy suggesting Napha (Naha) harbor in the "Lou Chew" islands as the ideal location for such a base. This suggestion received the blessing of President Fillmore and on 26 May 1853, in his flagship U.S. Steam Frigate *Mississippi*, Commodore Perry dropped anchor in Naha harbor.

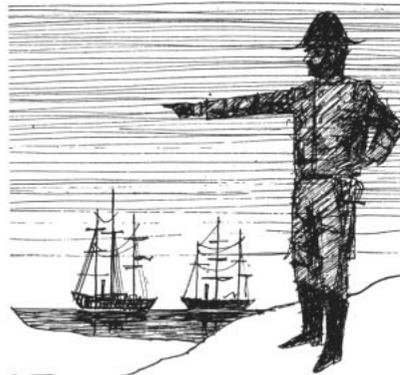
When he completed his mission to Japan, the Commodore returned to his base at Okinawa and negotiated a treaty with the Regents at Shuri Castle. Among Perry's demands incorporated into the treaty was that a suitable burial place be provided for American dead. The place was located at Tumai (Tomari) Port, overlooking Naha harbor, and little more than

a mile from the present Naval Air Facility at Naha.

The cemetery's incomplete muster list contains the names of John Williams, *uss Mississippi*, 24 Jul 1853 (Stone erected by his topmates as a fitting tribute of respect to his memory); Hugh Ellis, 1853, *uss Mississippi*; Jessie L. Carter, 1854; John Barnes, 1853; Eli Crosby, 1854; John Miller, 1854; and William Board, 1854. Four tombs of the same type, presumed to be Navy, have marker plates missing.

Through the turbulence of 100 years—countless typhoons and war, ending in the great battle of Okinawa in WW II—this same stilled and silent crew of Navymen remained undisturbed.

—LTJG R. K. Grep, USNR.



Report on the Annuity Plan for Families of Retired Navymen

COLD FACTS make a man stop and think—and here's something to think about: After a Navyman retires, if he should die before his wife or children, they will NOT receive six months' death gratuity and they will NOT continue to receive his retired pay. In other words, unless he takes steps now to protect them after his death, they may be in trouble, financially.

One way to help ease this problem is by taking advantage of the Uniformed Services Contingency Option Act (Public Law 239 83rd Congress).

Under this option plan you draw a little less retired pay during your lifetime, but your surviving dependents continue to receive a monthly check after your death. Depending upon the options you select, you can assure your wife a percentage of your retired pay for the remainder of her life or until she remarries, or a steady income for your children until they become 18, or marry.

The annuity plan, brought into effect in 1953, is non-profit, and in the average case the total amount collected by you and your survivors will be greater than the amount you



alone would have received if you had not elected to participate. Yet, the total cost to the government, worked on an "actuarial basis," is approximately the same.

Here's how the plan works. You will automatically be forwarded a copy of NavPers Form 591 some time after you have completed 17 years' service for pay purposes. On this form you may apply for the annuity, stating the options you desire; or, if you prefer, you may state that you do not wish to participate in the plan. In either case, you will then be told what to do to implement your choice.

If you do want the annuity, you must execute the required options

before you complete 18 years' service or you will be ineligible. Even though you have no dependents at that time, executing the option will do you no harm and would insure your dependents' being protected if you acquire one or more while still on active duty. Deductions are not made until you actually retire, and if you have not acquired dependents by that time, no deductions will be made from your retired pay. If, on the other hand, you do not take one of the options, even though you do acquire dependents, you will be ineligible to participate in the program. The plan also contains provisions for modifying or revoking your option while you are still on active duty.

The plan allows you to select one or a combination of four basic options and to designate whether your dependents will receive one-eighth, one-fourth or one-half of your reduced retired pay. Here are the basic options:

1. *Annuity for your widow*—payable to, or on behalf of, the widow, until her death or remarriage.

2. *Annuity for a child or children*—payable to, or on behalf of, surviving child or children, so long as there is at least one surviving child unmarried and under 18 years of age. Where there is a child unmarried and over 18 years who is incapable of self-support because of mental or physical defects, the annuity would end upon marriage of such a child, or upon his death or recovery.

3. *Annuity for both*—payable to, or in behalf of, your wife and children. Ends upon death or remarriage of your wife, or if later, when your children become married or become 18 years old. If there is a mentally defective or physically incapacitated child unmarried and over 18, the annuity would terminate upon his marriage, recovery or death.

4. *Option to cover the situation in which your beneficiary dies before you do*—this may include the terms of either Options 1, 2, or 3 (or the combination of Option 1 and 2) with the added provision that no further reduction will be made in your pay should your beneficiary (or beneficiaries) precede you in death.

Some Pointers to Remember about the Retirement Annuity

Here are some points to remember about the election of options under the Uniformed Services Contingency Option Act. By electing to participate, you in no way affect your active duty pay and you are not required to pay or contribute any money.

The election simply constitutes an agreement whereby, when you retire, you agree to accept a reduced amount of retirement pay in order to guarantee your dependents an income after your death.

Under the option plan, if you do not elect to participate before you have completed 18 years' service for pay purposes, it is lost to you. *But, on the other hand, if you do elect to participate and later, while still on active duty, change your mind, you can drop out.*

A serviceman retiring because of *physical disability* before completing 18 years' service for pay pur-

poses must submit an election no later than the date he selects the method for computation of retired pay.

A man without dependents may also elect to participate in the option plan. If he does elect to participate and later acquires dependents while still on active duty, they are covered. If they are acquired *after* retirement, however, they would not be eligible and the retired man would receive his full retirement pay. On the other hand, if the man without dependents turns "thumbs down" on the option plan and later acquires dependents after he has completed 18 years' service for pay purposes but is still on active duty, he is not eligible to participate.

It is important to you and your dependents to think twice before turning down the contingency option plan.

Another choice is also provided. You may elect any combination of the options providing benefits to your widow only, and one providing benefits to your children only, if the total amount of the benefits doesn't exceed one-half of your own reduced retired pay.

Here are two examples of how the option plan can work. Suppose that a 48-year-old commander has over 26 years' service for pay purposes and his wife is 43 years old. He has no disability and his youngest child is 10 years old. His gross retainer pay is \$503.75 a month. He selects Option 3 and 4, and wants his wife to get one-half of his reduced retainer pay. Reduction of the commander's regular retainer pay would be \$61.05, which guarantees his wife or surviving child \$221.35 a month in case of the commander's death. With this added protection for his family, the commander would still receive \$442.70 a month retainer pay.

The same thing is available to the retiring enlisted man. Let's take a non-disabled CPO for example. With over 22 years' service for pay purposes, this chief is 40 years old and his wife is 37. They have an eight-year-old child. He selects Options 3 and 4, with one-half of his reduced retainer going to the eligible survivor. His retainer pay is reduced by \$16.38—this still leaves him \$176.12 a month—and it guarantees the eligible survivor \$88.06 a month.

Since the life expectancy of a disabled man is usually less, he must contribute more per month to guarantee his survivors the above amounts.

Here is how the option plan affects Navy men in different categories:

- Regular and Reserve personnel on active duty must submit an election before 18 years' service for pay purposes has been completed.

- Reservists, active or inactive, who have not finished 18 years' service for pay purposes are under the same provisions as the Regular Navyman in the same circumstances.

There are only two administrative exceptions to the 18-year service rule:

1. The man who retires as the result of a physical disability before completing 18 years' service must

submit an election before the date he selects the method for computation of retired pay.

2. The man whose eligibility for making an election expires while he is missing or missing-in-action, has six months after his return to the jurisdiction of his service to decide what to do.

More detailed information can be found in BuPers Inst. 1750.1B.

Commands Now Distribute Navy Training Manuals

It should now be easier for enlisted men in certain ratings to obtain Navy Training Course books. Under a new system being tried, Navy text books for six ratings are being distributed directly to commands by the Chief of Naval Personnel.

Text books normally go from the printer to stocking supply points and are then requisitioned by commands as needed. Under the new scheme, the Bureau of Naval Personnel will send commands new and revised books according to allowance and on-board strength. Commands will only requisition extra copies as needed.

An advantage of the new plan is that the Correspondence Course Center will no longer have to furnish text books to enrollees taking any of the six courses when they are locally administered.

Courses being distributed under the trial system are: *Machinist's Mate 3* (NavPers 10522); *I.C. Electrician I and C* (NavPers 10557); *Quartermaster 3 and 2*, (NavPers 10149-B); *Lithographer I and C* (NavPers 10454); *Photographer's Mate 3* (NavPers 10373); and *Ship Fitter P 3 and 2* (NavPers 10592-B).



DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as a 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

(Covers two-month period)

No. 15—Advised that the act, providing for the free importation into the United States of personal and household goods under orders, has been extended until 1 Jul 1960.

No. 16—Announced the convening of line and staff selection boards to recommend officers in the grade of captain on active duty (except TARs) for promotion to the grade of rear admiral.

No. 17—Announced approval by the Secretary of the Navy of the report of the selection board which recommended USN warrant officers and chief warrant officers for promotion to grades W-4 and W-3.

No. 18—Requested prompt submission of annual ammunition report.

No. 19—Announced the convening of a selection board to recommend line officers on active duty (except TARs) for temporary promotion to the grade of captain.

No. 20—Advised that Public Law 85-472 made it possible to continue operations within authorized allotments for essential operating expenses.

No. 21—Urged extreme care while driving autos during summer holidays.

No. 22—Quoted letter from Secretary of Navy to president of line selection board on factors for consideration in promotion of captains to temporary rank of rear admiral.

No. 23—Directed that there be no official information or photographs released by Navy or Marine Corps personnel which relate to or reveal changes in state of readiness, alerts,

or prospective movements of any unit or personnel unless specifically authorized.

No. 24—Announced approval by the President of the report of a selection board which recommended line officers for temporary promotion to the grade of rear admiral.

No. 25—Extended congratulations to the naval establishment for the recent prompt and efficient deployment of forces.

No. 26—Announced approval by the President of the report of a selection board that recommended officers for temporary promotion to the grade of major general in the Regular Marine Corps.

Instructions

No. 1050.7 — Discusses specific guidelines which outline the circumstances under which emergency leave may be granted.

Amphib and Air Training For NROTC Midshipmen

More than 1400 juniors from 52 colleges and universities throughout the country took part in the 1958 amphibious and aviation training sessions for NROTC midshipmen at Little Creek, Va., and Corpus Christi, Tex.

During the summer, the midshipmen were divided into two regiments of more than 700 men each. On 9 July the first Regiment reported to the Naval Air Station at Corpus Christi for aviation indoctrination and the second reported to the Naval Amphibious Base, Little Creek, for its session with the amphibians.

At the end of July, after both groups had completed the first phase of their training, they changed places, via airlift, "to see how the other half lives."

Phase two ended late last month.

While all this was going on, other NROTC midshipmen got their 1958 training at sea on cruises with the Seventh Fleet in the Far East; in *uss Ranger* (CVA 61) on an around-the-Horn trip from Norfolk, Va., to Alameda, Calif.; with the Second Fleet in North European waters; with a HUK Group in the Atlantic and with the Pacific Fleet in the eastern and mid-Pacific.

ANSWERS TO QUIZ AWEIGH

This may sound fishy, but

1. (c) Ribbon or oarfish.
 2. (a) Only 650 pounds—the big one got away.
 3. (b) Barracuda. (Okay, let's start hearing your rebuttals on this one. We're not all in agreement either.)
 4. (b) Codfish.
 5. (c) Squid.
 6. (c) Triton.
- This month's quiz is on page 47.

No. 1120.12F—Outlines eligibility requirements and processing procedures whereby certain USN and USNR officers may be considered for appointment as permanently commissioned officers in the Regular Navy (Augmentation) program.

No. 1210.4B—Revises the billet and officer designator code system.

No. 1300.15B—Prescribes the length of overseas service for personnel permanently located ashore outside the United States.

No. 1306.21D—Refines and simplifies the Shorvey procedures, which report enlisted personnel completing prescribed periods of shore duty.

No. 1336.2C—Sets forth the procedure by which enlisted personnel may request enrollment in the U. S. Naval School of Music and describes the courses available.

No. 1430.11—Describes eligibility requirements for advancement to pay grades E-8 and E-9, and gives information concerning examinations, study materials and numbers to be advanced in fiscal year 1959.

No. 1500.25E—Announces dates for classes at training activities under the management of the Chief of Naval Personnel and certain schools of other services.

No. 1520.68—Makes information available concerning the assignment of officers to nuclear-powered surface ships.

No. 1910.16 (Sup. 1)—Authorizes two months' early separation of enlisted personnel serving on active duty during period 1 Aug 1958 through 31 Dec 1958.

No. 1630.2—Incorporates into the directives system the joint regulations concerning off-post military police activities.

No. 1755.13—Discusses the availability of certain types of scholarships for children of naval personnel.

No. 7312.5—Discusses procedures for the classification of costs of permanent change of station movements of naval personnel.

Notices

No. 1520 (30 May)—Described the eligibility requirements and procedures for officers to follow if they wish to request postgraduate work in fiscal year 1960.

No. 1910 (9 June)—Announced Secretary of Defense policy that entries regarding reason and authority not to be shown on Honorable Discharge Certificate.

No. 1430 (10 June)—Announced cancellation of the advancement in rating examinations for pay grades previously held in May and November.

No. 1750 (10 June)—Authorized Change No. 2 to BuPers Inst. 1750-1B, which reflects changes made necessary by the enactment of the new military pay legislation.

No. 1510 (11 June)—Announced the selection of enlisted personnel for the Navy Enlisted Advanced School Program and the Navy Enlisted Scientific Education Program.

No. 5101 (11 June)—Described the methods used in New London, Conn., area in reducing off-duty motor vehicle accidents.

No. 1430 (12 June)—Discussed advancements resulting from the February 1958 service-wide examinations, and the opportunities for advancement which it is estimated will result from the August examinations.

No. 1130 (19 June)—Brought up to date the list of open rates in which Naval Reserve personnel on active duty may enlist in the U. S. Navy.

No. 1616 (26 June)—Provided information regarding the reported performance factors for the August 1957 service-wide examination and modified instructions concerning disposition of worksheet.

No. 1552 (7 July)—Informed all ships and stations of changes of procedure in the distribution of certain Navy Training Courses.

No. 1220 (11 July)—Supplemented instructions in the *BuPers Manual* for the administration of the Navy Enlisted Classification Coding system.

No. 1120 (14 July)—Announced Change No. 1 to BuPers Inst. 1120-29, which is concerned with Officer Candidate School programs.

Standard Set of Tug Boat Signals Authorized by Navy After Testing in the Fleet

Sooner or later there comes a time when it is necessary for a skipper to use the services of one or more tugs in handling his ship without the help of a local pilot. Because of this, more than one good man has awakened in a cold sweat after dreaming of being jammed into a pier while he signals for full speed astern. He need sweat no more.

A standard set of hand and whistle signals has been devised for use in directing tugs within the U.S. Navy. This ruling has been promulgated in OpNav Inst. 3171.1.

In the past, there was no standard set of signals used to direct tug movements. They varied with the locality and the port. This fact indicated a need for a standard set of tug boat signals that would be simple, would not be subject to misinterpretation, and would conform in general with signals now used by pilots.

To do this, the Chief of Naval Operations circulated a proposed set of signals for comment. These went to commands who operate tugs and to operational commanders of naval ships who would use the services of tugs without the assistance of local pilots. Their concurrence was almost unanimous as to both the need of a standard set of signals and the signals proposed.

The instruction says that these signals shall be used throughout the naval service when hand or whistle signals are used to direct the movement of tugs. It further states that naval pilots, both service and civilian, shall use them as a basis for their hand and whistle signals to tugs.

There is a proviso that goes with this, however. Pilots are authorized to modify the signals as necessary to meet conditions peculiar to a particular port or condition.

While the signals are primarily for use within the U.S. Navy, it is hoped that civilian tug and pilot associations will eventually use them. (CNO has authorized the reprinting of these signals.)

If a commanding officer wants to use these signals with other than naval tugs, he should first determine that the tug master not only understands them but will respond to them.

TUG BOAT SIGNALS

HAND WHISTLE (Police Type)

FROM STOP TO HALF SPEED AHEAD....	1 BLAST
FROM HALF SPEED AHEAD TO STOP....	1 BLAST
FROM HALF SPEED AHEAD TO FULL SPEED AHEAD.....	4 SHORT BLASTS
FROM FULL SPEED AHEAD TO HALF SPEED AHEAD.....	1 BLAST
FROM STOP TO HALF SPEED ASTERN....	2 BLASTS
FROM HALF SPEED ASTERN TO FULL SPEED ASTERN.....	4 SHORT BLASTS
FROM HALF OR FULL SPEED ASTERN TO STOP.....	1 BLAST
CAST OFF, STAND CLEAR.....	1 PROLONGED 2 SHORT

NOTES:

1. A blast is 2 to 3 seconds' duration.
A prolonged blast is 4 to 5 seconds' duration.
A short blast is about one second duration.
2. In using whistle signals to direct more than one tug, care must be exercised to ensure that the signal is directed to and received by the desired tug. Whistles of a different distinct tone have been used successfully to handle more than one tug.
3. These signals may be transmitted to the tug by flashing light. However, flashing light signals should be restricted to use only when hand whistle or hand signals cannot be used.
4. Normally these whistle signals will be augmented by the hand signals given below.

HAND SIGNALS

HALF SPEED AHEAD OR ASTERN—Arm pointed in direction desired



TUG TO USE RIGHT RUDDER—Hand describing circle as if turning wheel to right (clockwise) facing in the same direction as tug



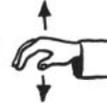
FULL SPEED (Either)—Fist describing arc (as in "bouncing" an engine telegraph)



TUG TO USE LEFT RUDDER—Hand describing circle as if turning wheel to left (counterclockwise) facing in same direction as tug



DEAD SLOW (Either)—Undulating movement of open hand (palm down)



TUG TO RUDDER AMIDSHIP—Arm at side of body with hand extended, swung back and forth



STOP (Either)—Open palm held aloft facing tug



CAST OFF, STAND CLEAR—Closed fist with thumb extended, swung up and down



NOTE: Tug shall acknowledge all of the above signals with one short toot (one second or less) from its whistle, with the exception of the backing signal which shall be acknowledged with two short toots and the cast-off signal which shall be acknowledged by one prolonged and two short toots.

Deadline for Applications to Postgrad School is 1 November

TO MEET CURRENT and future graduate training requirements, a large number of officers are needed in the Postgraduate Educational Program—particularly in the fields of new developments. The very nature of naval weapons systems requires that the major graduate training effort be in the combined fields of engineering and the physical sciences.

Policies have been changed to make the program more acceptable for officers who plan to request postgraduate work in Fiscal Year 1960:

- Line officers are no longer required to signify restricted line intent in order to undertake specialized technical postgraduate curricula, except for naval construction and engineering, and nuclear engineering (advanced).

- Officers are now eligible to commence certain postgraduate studies after three years of commissioned service instead of after their fifth year of service, as has been the policy in the past.

However, if you plan to submit an application, you'd better do it soon. *Applications for classes convening in Fiscal Year 1960 must be submitted by 1 Nov 1958.*

The program has a variety of curricula, many of which lead to a bachelor, master or doctorate degree. The Navy's prime graduate level educational facility is the U. S. Naval Postgraduate School, Monterey, Calif.

There are three component schools—the Engineering School, the Management School, and the General Line and Naval Science School.

- Engineering curricula are provided through the facilities of the Engineering School at Monterey and at civilian institutions known for their leadership in the fields involved.

- The Management School provides courses in the general field of management and is responsible for supervision of related curricula such as business administration and training conducted at selected civilian institutions.

- Detailed information on the General Line and Naval Science School can be found in BuPers Inst. 1520.43A of 7 Apr 1958.

Naval Intelligence School—A subcommand of the U. S. Naval Post-

graduate School is the Naval Intelligence School in Washington, D. C., where the Naval Intelligence postgraduate curriculum is conducted. This school conducts training in all phases of intelligence, including strategic, operational and counter-intelligence, and conducts intensive instruction in foreign languages. The Postgraduate naval intelligence curriculum consists of instruction in the basic principles and techniques of intelligence operations, supplemented by lectures, seminars and the solution of practical intelligence problems.

Consistent with language training requirements, qualified officers will have the opportunity to continue foreign language and area study, extending their training to 14-24 months, dependent on the foreign language studied.

ELIGIBILITY REQUIREMENTS:

Specific eligibility requirements as to code designator, grade, opera-

tional experience and academic prerequisites for the various curricula are given in detail in BuPers Notice 1520 of 31 May 1958. The following stipulations apply to the grade requirements:

For curricula under the areas of Aeronautical, Civil (except Civil Engineering, Qualification), Naval (except Naval Construction and Engineering), and Ordnance Engineering, officers must have an original date of first commission effective on or before 30 Jun 1956. However, in some instances, LCDRs with date of rank of 1 Jan 1958 or later are eligible.

Obligated service requirements call for each applicant to agree not to request resignation or inactive duty during the curriculum. He must also agree to serve on active duty in the naval service after completion of his studies one year for each half year or fraction thereof of postgraduate instruction received. This period of obligated service is in addition to that incurred upon commissioning.

A single selection board will review all applications for postgraduate instruction and select all candidates.

The length of time the student spends in the program will depend on the curriculum undertaken. Some may be completed in as little as five months, while others may take as long as three years. All line officers selected and ordered to Monterey for technical engineering curricula (Aeronautical, Electronics, Mechanical and Ordnance), will be assigned to the corresponding two-year general curriculum. Later specialized assignments, within quota allocations, will be upon the recommendation of the Superintendent, Naval Postgraduate School, and approval of the Chief of Naval Personnel.

Postgraduate schooling is planned to fit into the duty rotation cycle of all officers as a normal tour of shore duty. Line officers are not made available for selection for postgraduate education if assignment ashore at the time of request would be counter to the best career interests of the individual. Unrestricted line officers completing two- or three-year curricula normally will be assigned to sea duty upon graduation, unless they have already been selected for

NOW HERE'S THIS

Must Like Ohio

When it comes to plank-owning there aren't many Navy men around who could top Charles W. Fountain, RDC, USN, of USS Toledo (CA 133).

Enlisting in the Navy on 26 Jun 1946, Chief Fountain was fresh out of boot camp when he joined Toledo's crew in time for her commissioning in October of that year. Since then, he's risen from boot to chief, participated in the Korean conflict, made an around-the-world cruise and put in many cruises to the Far East—all, of course, in Toledo.

Next month he'll be celebrating the 12th anniversary of the date he reported on board the Pacific Fleet heavy cruiser.



transfer to a restricted line category.

After their postgraduate training, staff corps and restricted line officers will be assigned to billets which will provide a balanced program between specialization and broadening experience in their career fields.

All officers may expect a minimum of two tours of duty, afloat or ashore, associated with their field of study after completion of a postgraduate course of instruction.

Remember, the deadline for submission of applications is 1 Nov 1958. If you desire postgraduate education and meet the requirements laid down in BuPers Notice 1520 of 31 May 1958, you should submit your application via official channels to the Chief of Naval Personnel (Pers-B1136). An original and two copies of the application are required.

Latest List of Motion Pictures Scheduled for Distribution To Ships and Overseas Bases

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

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

Sayonara (1089) (C) (WS): Drama; Marlon Brando, Patricia Owens.

Bonjour Tristesse (1090) (C) (WS): Drama; Deborah Kerr, David Niven.

Crash Landing (1091): Drama; Gary Merrill, Nancy Davis.

Damn Citizen (1092): Drama; Keith Andes, Maggie Hayes.

Old Yeller (1093) (C): Melodrama; Dorothy McGuire, Fess Parker.

Legend of the Lost (1094) (C) (WS): Adventure Drama; John Wayne, Sophia Loren.

Merry Andrew (1095) (C) (WS): Comedy; Danny Kaye, Pier Angeli.

The Safecracker (1096): Melodrama; Ray Milland, Barry Jones.

Satchmo, The Great (1097): Documentary; Louis Armstrong, Leonard Bernstein.

Chase a Crooked Shadow (1098): Melodrama; Richard Todd.

Count 5 and Die (1099) (WS):



"You'd look good with a beard, Craxton."

Melodrama; Jeffrey Hunter, Nigel Patrick.

Saddle the Wind (1100) (C) (WS): Western; Robert Taylor, Julie London.

Cross Up (1101): Melodrama; Larry Parks, Constance Smith.

The Lost Lagoon (1102): Drama; Jeffrey Lynn, Lelia Barry.

Run Silent, Run Deep (1103): Drama; Clark Gable, Burt Lancaster.

Cattle Empire (1104) (WS): Western; Joel McCrea, Gloria Talbot.

Day of the Badman (1105) (WS): Western; Fred MacMurray, Joan Weldon.

Showdown at Boot Hill (1106) (WS): Western; Charles Bronson, Robert Hutton.

Teachers Pet (1107): Romantic Comedy; Clark Gable, Doris Day.

All Mine to Give (1108) (C): Drama; Glynis Johns, Cameron Mitchell.

Touch of Evil (1109): Drama; Charlton Heston, Janet Leigh.

The True Story of Lynn Stuart (1110): Drama; Betsy Palmer, Jack Ford.

Toughest Gun in Tombstone (1111): Western; George Montgomery, Jim Davis.

Return to Warbow (1112) (C): Western; Phil Carey, William Leslie.

No Time for Sergeants (1113): Comedy; Andy Griffith, Myron McCormick.

Sing Boy Sing (1114) (WS): Musical; Tommy Sands, Lili Gentle.

Underwater Warrior (1115) (WS): Drama; Dan Dailey, James Gregory.

Handle With Care (1116): Drama; Dean Jones, Joan O'Brien.

Curse of the Demon (1117): Science Fiction; Dana Andrews, Peggy Cummings.

Marjorie Morningstar (1118) (C): Drama; Gene Kelly, Natalie Wood.

The Young Lions (1119) (WS): Drama; Marlon Brando, Montgomery Clift.

Gang War (1120) (C): Melodrama; Charles Bronson, Kent Taylor.

Screaming Mimi (1121): Melodrama; Anita Ekberg, Phil Carey.

The Muggers (1122): Melodrama; Kent Smith, Nan Martin.

I Married a Woman (1123): Comedy; George Gobel, Diana Dors.

Oregon Passage (1124) (C) (WS): Western; John Ericson, Lola Albright.

The Brothers Karamazov (1125) (C): Drama; Yul Brynner, Maria Schell.

High Hell (1126): Melodrama; John Derek, Elaine Stewart.

Seven Guns to Mesa (1127); Western; Lola Albright, Charles Quinliven.

Cry Terror (1128); Melodrama; James Mason, Rod Steiger.

Peyton Place (1129) (C) (WS): Drama; Lana Turner, Lloyd Nolan.

The Gift of Love (1130) (C) (WS): Drama; Robert Stack, Lauren Bacall.

Violent Road (1131): Drama; Brian Keith, Dick Foran.

Country Music Holiday (1132): Musical; Zsa Zsa Gabor, Rocky Graziano.

St. Louis Blues (1133): Musical; Nat "King" Cole, Eartha Kitt.

Bullwhip (1134) (C) (WS): Western; Guy Madison, Rhonda Fleming.

Fort Massacre (1135) (C) (WS): Western; Joel McCrea, Forrest Tucker.

Hong Kong Affair (1136): Melodrama; Jack Kelly, May Wynn.

Cop Hater (1137): Drama; Robert Loggia, Gerald O'Loughlin.

Left-Handed Gun (1138): Western; Paul Newman, Lita Milan.

More Warrant Officers Head Up the Ladder

The names of 350 USN warrant officers who were selected for promotion by the Navy selection board have been announced.

These selections included 322 temporary promotions and 28 permanent. Recommendations for temporary promotion included 213 to W-2, 77 to W-3 and 32 to W-4. In its permanent selections, the board named 7 for promotion to W-2, 1 to W-3 and 20 to W-4.

Uniform Tours of Overseas Shore Duty Set for Armed Forces

UNIFORM TOURS of overseas shore duty—ranging from 12 to 36 months—are now in effect for members of the armed forces serving in more than one hundred overseas areas.

In favorable areas the standard pattern generally calls for 36-month tours for personnel accompanied by

their dependents and 24-month hitches for those without their families. In locations where living conditions are less favorable, owing to climate, isolation or other factors, shorter tours varying with local conditions have been established.

The military services reached agreement on desirable tour lengths

in conferences held during the past year. However, a Marine Corps request for an exception for Fleet Marines serving in the Far East is under study, with the final decision still pending.

For the other armed forces, including the Navy, here's what the standard tours will be:

Country or Area	Tour With Dependents (In months)	Tour Without Dependents (In months)
AFRICA AND MIDDLE EAST AREA		
Egypt	36	24
Ethiopia (except Eritrea)	24	18
Eritrea (Asmara)	30	18
Iran (except Teheran)	24	12
Teheran	24	18
Iraq	24	18
Liberia	36	24
Lybia (except Tripoli)	30	18
Tripoli	36	24
Morocco:		
Ben Guerrie area	24	12
Casablanca area including Nouasseur	36	24
Marrakech area	30	18
Port Lyautey area including Boul Haut, Rabat and Rabat Sale	30	18
Sidi Slimane area	24	12
Pakistan	24	18
Saudi Arabia (except Dhahran)	18	12
Dhahran	24	18
Turkey:		
Ankara, Istanbul and Izmir	30	18
Adana, Sile, Golcuk and Karamousal	24	18
UN Truce Supervisory Organization, Palestine	24	18
EUROPE		
Austria	36	24
Belgium	36	24
Crete	24	18
Denmark	36	24
France	36	24
Germany	36	24
Greece	30	18
Italy	36	24
Malta	24	12
Netherlands	36	24
Norway	36	24
Portugal	36	24
Spain	36	24
United Kingdom	36	24
Yugoslavia	24	18
FAR EAST AND PACIFIC AREA		
Australia	36	24
Cambodia	24	12
Eniwetok	*	12
Guam	24	18
Hawaiian Islands	36	24
Iwo Jima	*	12

Country or Area	Tour With Dependents (In months)	Tour Without Dependents (In months)
Johnston Island	*	12
Japan	36	24
Korea	24	13
Kwajalein	18	12
Midway Islands	18	12
Philippine Islands	24	18
Ryukyu Islands	30	18
Saipan	24	18
Taiwan	24	15
Thailand (excluding Bangkok)	*	12
Bangkok	24	18
Viet-Nam (excluding Saigon)	24	12
Saigon	24	14

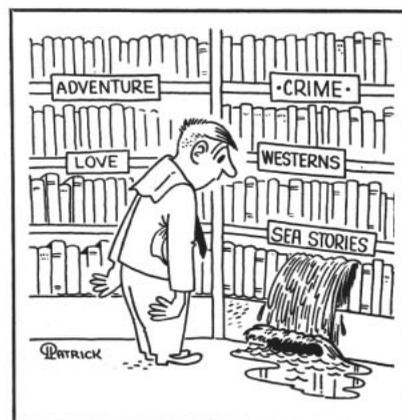
NORTH AMERICA AND NORTH ATLANTIC AREA

Country or Area	Tour With Dependents (In months)	Tour Without Dependents (In months)
Alaska:		
Aleutian Peninsula and islands west of 162nd Meridian, including Adak, Attu and Dutch Harbor	18	12
Anchorage area including Elmendorf AFB and Fort Richardson	36	24
Big Delta area including Fort Greely	24	18
Fairbanks area including Eielson and Ladd AFBs	30	18
Juneau area	24	18
Kenai-Whittier area including Wildwood Station	24	18
Nome	24	12
Fire Island	*	18
Kodiak Island	24	12
Point Barrow area	18	12
Azores	24	18

Country or Area	Tour With Dependents (In months)	Tour Without Dependents (In months)
Canada:		
Labrador (excluding Goose Bay)	24	12
Goose Bay	24	18
Metropolitan areas	36	24
Newfoundland:		
Argentina	24	18
St. Johns and Stephenville	36	24
Other areas	24	12
Greenland	24	12
Iceland	24	12
Mexico	36	24

SOUTH AMERICAN AND CARIBBEAN AREA

Antigua	24	18
Anguilla	24	18
Argentina	36	24
Aruba	24	18
Bermuda	36	24
Bolivia	24	18
Brazil	36	24
Chile	36	24
Colombia	36	24
Cuba:		
Guantanamo Bay	24	18
Havana	36	24
Dominican Republic	36	24
Ecuador	24	18
Eleuthera	24	18
El Salvador	36	24
Guatemala	36	24
Haiti	24	18
Honduras	24	18
Nicaragua	24	18
Panama including Canal Zone	36	24
Paraguay	24	18
Peru	36	24
Puerto Rico	36	24
St. Lucia	*	12
Trinidad	24	18
Uruguay	36	24
Venezuela	36	24



Pamphlets on Living Conditions at some of these locations are available. They may be obtained by writing to the Chief of Naval Personnel (Pers G221) Navy Department, Washington 25, D. C. The latest on Shervey-Seavey rotation is published in BuPers instructions and reported in ALL HANDS. Check with your personnel office.

* Locations indicated by asterisks are areas where dependents are not permitted.

Get Those Applications In Now for NESEP and NEASP

If you are planning to apply for the Navy Enlisted Advanced School Program (NEASP) or the Navy Enlisted Scientific Education Program (NESEP), you should submit your application immediately as it must be received by the Chief of Naval Personnel before 15 Oct 1958.

In submitting your application, be sure that you comply with all the provisions of BuPers Inst. 1510.69C.

To date, more than 50 per cent of the applications received by the Chief of Naval Personnel have been incomplete.

Applications must be submitted on the Enlisted Evaluation Report, NavPers 1339, (Rev 3-56). Be sure to complete all information requested on both the front and back of the form and submit transcripts concerning your educational background. High school transcripts are required for consideration before the selection board.

Accompanying each application must be completed BuMed Standard Forms 88 and 89.

A single application requesting consideration for both programs may be submitted if you desire dual consideration.

Detailed information on the NEASP and NESEP can be found in the August 1958 ALL HANDS.

Awards Go to Navy Activities For "Safety Achievement"

"Superior quality of leadership" has earned glowing letters of commendation for the commanding officers of 13 activities who earned the "Secretary of the Navy Award for Achievement in Safety" for 1957.

Vice Admiral H. P. Smith, USN, in commendation letters to the Bureau of Naval Personnel activities, said, "Safety Awards such as this may only be earned when a superior quality of leadership is demonstrated by the commanding officer, his officers and all other personnel within the command. It indicates an acceptance of moral responsibility on the part of all who have contributed directly to the safety program." Activities commended are:

- U.S. Naval Amphibious Base, Coronado, San Diego, Calif.
- U.S. Naval Academy, Annapolis.
- U.S. Naval Retraining Command, Naval Base, Portsmouth, N.H.
- U.S. Fleet Air Defense Training Center, Dam Neck, Virginia Beach, Va.
- U.S. Naval Postgraduate School, Monterey, Calif.
- U.S. Naval Amphibious Base, Little Creek, Norfolk, Va.
- U.S. Naval Training Center, Bainbridge, Md.
- U.S. Naval Training Center, San Diego, Calif.
- U.S. Naval Base—U.S. Fleet Training Center, Newport, R.I.
- U.S. Naval Schools, Construction—U.S. Naval Construction Battalion Center—U.S. Naval Advanced Base Depot, Port Hueneme, Calif.
- Armed Forces Staff College, Norfolk, Va.
- Navy Recruiting Station and Office of Naval Officer Procurement, Minneapolis, Minn.
- Navy Recruiting Station and Office of Naval Officer Procurement, Chicago, Ill.

Nearly 5000 Navymen Will Advance to Grade E-4 or Earn Striker Designations

As a result of the May 1958 service-wide examinations, almost 5000 Navymen will be either advanced to pay grade E-4 or designated as strikers on 16 Sep 1958. Here is a breakdown of the numbers by rate:

RATE	E-4	STRIKERS
AE13	90	17
AEM3	231	93
AG3	63	20
AQB3	26	12
AQF3	70	14
ATN3	222	66
ATR3	159	52
ATS3	5	1
CT3	279	96
EM3	505	99
ETN3	141	31
ETR3	180	44
ETS3	44	11
GF3	27	11
GS3	19	3
OM3	2	1
IC3	199	69
QM3	170	32
UT3	25	11
RD3	355	101
RM3	565	175
SM3	169	48
SO3	146	54
TM3	96	38
Total	3788	1099

USN Appointments Made for Reserves, Temporary Officers

The names of 307 Naval Reserve and temporary officers recommended for permanent appointment in the Regular Navy have been announced by the Augmentation Continuing Selection Board.

Those to receive appointments, provided they meet all administrative requirements are: Line, 68; Line Women, 24; Aviation Line, 135; Special Duty (Law), one; Limited Duty Officer-Aviation Electronics, one; Medical Service Corps, five; Nurse Corps, 28; Supply Corps, 25; Chaplain Corps, seven; Civil Engineer Corps, 13.

Feel Crowded? Want to Change to a Critical Rating?

If you are in one of the "over requirement ratings" with slow promotion opportunities, it may be to your advantage to check into the Navy's rating conversion program.

This program enables eligible personnel of the crowded ratings to convert to one of the more "critical" ratings through formal school or in service training.

Eligible for this program are a limited number of personnel in each of the following ratings: BM2, BM1, GM3, GM2, GM1, MN1, CS2, CS1, AD1, ADC, AO1, AOC, SD3, SD2, SD1, and SDC.

The open ratings which personnel of the above listed rates may convert to include:

- all pay grades (E-4 through E-7) of SM, RD, SO, RM and IC:

- pay grades E-4, E-5 and E-6 in CTR and AT

- pay grades E-5 and E-6 in the CTM rating

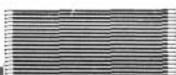
- pay grades E-4 and E-5 in the QM, ET, NW and UT ratings

- pay grade E-5 only in the AQ rating

- pay grade E-4 only in the TM, OM and TD ratings

These are the current "over" and "under" ratings. BuPers Inst. 1440.18A, which originally announced this conversion program, is in the process of being revised to include the above listed ratings.

DECORATIONS & CITATIONS



LEGION OF MERIT

"For exceptionally meritorious conduct in the performance of outstanding service to the Government of the United States . . ."

★ BOWERS, Richard A., LTJG, CEC, USN, as construction officer for the United States Naval Air Facility, McMurdo Sound, from December 1955 to October 1956, and as officer-in-charge of the United States South Pole Station from 20 Nov 1956 to 4 Jan 1957. In these capacities while serving with Deep Freeze I in the Antarctic, LTJG Bowers consistently carried out his responsibilities with professional skill and efficiency.

★ CANHAM, David W., Jr., LCDR, USNR, as officer-in-charge of the U.S. Naval Air Facility, McMurdo Sound, Antarctica and as Executive Officer, United States Naval Mobile Construction Battalion (Special) during Operation Deep Freeze I and II from 20 Dec 1955 to 22 Jan 1957. During a period of total darkness, Lieutenant Commander Canham was in charge of the successful construction of a sea-ice runway and associated facilities which were necessary for the establishment of the United States Scientific Station at the geographic South Pole in connection with the International Geophysical Year.

★ KENT, Donald F., CDR, USN, as Assistant Chief of Staff for Logistics, United States Naval Support Force, Antarctica, during Operation Deep Freeze I and II from 7 Feb 1955 to 22 Mar 1957. During this period, Commander Kent was responsible for the planning and implementation of all phases of the logistics program, the unloading of all supplies and equipment, and the establishment of supply depots to support the construction needed in the operation of seven Antarctic bases.

★ KETCHUM, Gerald L., CAPT, USN, as Deputy Commander, United States Naval Support Force, Antarctica, during Operation Deep Freeze I and II from 1 Feb 1955 to 22 Mar 1957. "An extremely competent and resourceful leader," Captain Ketchum was responsible for and directly supervised the preparation and implementation of plans for two Antarctic expeditions which involved the design, establishment and operation of seven widely

dispersed bases constructed to support the Antarctic program of the United States National Committee for the International Geophysical Year.

★ SHINN, Conrad S., LCDR, USN, as plane commander of the transport plane which successfully accomplished the first landing and take-off of an aircraft at the South Pole on 31 Oct 1956. Lieutenant Commander Shinn, who planned and executed this flight in a heavily loaded aircraft over extremely hazardous terrain, also succeeded in landing at the geographic South Pole on a dangerous snow surface approximately 10,000 feet above sea level where the air temperature was 58 degrees below zero.

★ WHITNEY, Herbert W., CDR, CEC, USNR, as Commanding Officer, Mobile Construction Battalion (Special) with the United States Naval Support Force, Antarctica, during Operation Deep Freeze I and II from 15 Feb 1955 to 25 Mar 1957. "Exercising a high degree of professional skill and resourcefulness," Commander Whitney was eminently successful in carrying out his responsibilities which included the development and implementation of all plans to place his battalion in operation as required to aid in executing two of the largest operations ever undertaken in the history of polar exploration.

★ YOUNG, Victor, CWO, CEC, USN, as Base Operations Officer at Little America Station during Operation Deep Freeze I, Antarctica, from 10 Jan 1956 to 28 Feb 1957 during which time he conducted reconnaissance of the base site, laid out a safe route of access over the hazardous sea ice and crevasses of Ross Ice Shelf, and directly supervised construction of the base in adverse weather and under pressure of ship off-loading.



NAVY AND MARINE CORPS MEDAL

"For heroic conduct not involving actual conflict with an enemy . . ."

★ HEISHMAN, Kenneth H., FN, USN, for heroic conduct while serving with Beach Jumper Unit TWO, U.S. Naval Amphibious Force, United States Atlantic Fleet, at Little Creek, Va., on 6 May 1957. When an explosion and fire occurred on board a 94-foot Beach Jumper craft moored at the pier, Heishman heard the screams of two shipmates trapped in the blazing galley,

made his way to a hole torn in the deck above the compartment and aided in removing both of the trapped men to safety moments before the compartment became totally enveloped in flames.

★ JOHNSON, Willie E., SH3, USN, for heroism in rescuing a shipmate from drowning in San Diego Bay, Calif. during the hours of darkness on 2 Apr 1957. Observing two men fall overboard from a water taxi into the swift-running current, Johnson immediately jumped into the frigid waters from an adjacent vessel and, after an unsuccessful attempt to reach one of the drowning men, swam to the aid of the other.

★ SAYRS, Larry L., HM3, USN, for heroic conduct in rescuing a fellow serviceman from a crashed and burning helicopter in a mountain area approximately 15 miles west of Bridgeport, Calif., on 26 Oct 1957. When the helicopter in which he was riding crashed and burst into flames, Sayrs, along with the pilot, co-pilot and a crewman, quickly escaped from the wreckage and started to flee from the scene. After hearing cries for help coming from the burning aircraft, he immediately returned with the crewman, climbed into the flaming wreckage and rescued another passenger who was trapped in the cabin of the plane.

★ SCHNURR, Herman J., CDR, CHC, USN, for heroic conduct while serving at the U.S. Naval Station, Treasure Island, Calif., on 28 May 1957. When an armed crewman on board *uss Uvalde* (AKA 88) shot and killed an officer, seriously wounded another, and took refuge on the flying bridge of the ship, threatening with a loaded .45 caliber pistol all who approached him, Chaplain Schnurr, who was notified of the situation, unhesitatingly walked toward the deranged man and talked to him in a calm and persuasive manner. After four and one-half hours, the man relinquished his gun to the chaplain.

★ SMITH, Donald E., LTJG, USNR, for heroic conduct while serving on board *uss Franklin D. Roosevelt* (CVA 42) on 19 Jun 1957 when he assisted in the rescue of three boiler room crew members from the boiler room access trunk after an explosion in the number one pump room. LTJG Smith displayed outstanding courage in his descent through the steam to the three totally exhausted men whom he helped up the highly heated ladder to the second deck where repair parties removed them to a safe area.



GALLANT VETERAN

In years to come the rise and fall of the battleship—to be discussed in a future issue of ALL HANDS—will undoubtedly be the source of more sea stories and reminiscing among members of the “Old” Navy (as well as many of the “New”) than any other subject. USS *Pennsylvania* (BB 38) will be among those prominently mentioned.

THE SECRETARY OF THE NAVY takes pleasure in commending the United States Ship *Pennsylvania* for service as follows:

*“For outstanding heroism in action against enemy Japanese forces in the Pacific War Area from 4 May 1943, to 10 Feb 1945. Operating under ten separate commands, USS *Pennsylvania* was the only battleship to take part in every combat amphibious operation during this period from Attu in the northern area to Lingayen in the Philippines. Imperiled by perpetual fog, she served as Flagship of the Task Force Commander during the Aleutians Campaign and navigated in poorly charted waters to deliver her accurate broadsides on predetermined but invisible targets; intensive fire from her batteries blazed the way for our assault waves in the Gilberts, the Marshalls and the Marianas, silencing the enemy’s heavy guns, locating and neutralizing camouflaged emplacements and rendering sturdy support for our land forces.*

*“A gallant and dependable veteran, *Pennsylvania*, completed nearly thirty years of unfailing service by her deadly close-in bombardment and gunfire supporting the recapture of the Philippines, fulfilling her prolonged and vital mission without casualty to herself or her personnel by Japanese fire.*

*“Handled superbly in the face of many obstacles throughout this period, *Pennsylvania* achieved an illustrious combat record, reflecting the courage, skill and brilliant teamwork of the officers who plotted her course, the pilots who spotted her gunfire and the operational force which aided in maintaining her fighting efficiency.*

*“All personnel attached to and serving on board USS *Pennsylvania* during the above mentioned period are authorized to wear the Navy Unit Commendation Ribbon.”*

IN THE FALL of 1917, when the Allied Naval Forces began to collect the forces that were to be known as the Allied-British Grand Fleet, USS *Pennsylvania* (BB 38), flagship of the U. S. Fleet, was told she could not operate with the forces seeking out the German Navy.

She was “too modern.” Only coal-burning battleships could be included in the Allied Force because no tankers were available.

She was modern. She had been commissioned only the year before and, at that time, was the largest and most efficient battleship built by the United States. *Pennsy* was authorized by Congress in August 1912; her keel was laid in October 1913; she was launched at Newport News in March 1915 and commissioned in June 1916. She was of 31,400 tons, had a trial speed of 21 knots, and carried 12 14-inch guns and 22 3-inch guns.

She was a ship to be reckoned with for the next 30 years. In the years between World War I and II she played an effective but quiet role, during an era in which the US emerged as the leading sea power of the world.

NEVERTHELESS, her fighting history really begins when she shoved off from Long Beach 23 Apr 1943. This is where our narrative picks her up, upon her arrival a week later at Cold Bay, Alaska. (*Pennsylvania* had been severely damaged during the raid on Pearl Harbor, had

USS *PENNSYLVANIA* (BB 38) was a big gun in Navy for over 30 years. Born in WW I, she lived through WW II.



been patched up and returned to the States for further repairs and alterations. Throughout the greater part of 1942 she had served with Task Force I, operating out of San Francisco.)

The battleship that arrived at Cold Bay was a vastly different creature from what she had been back in '16 when she was declared to be "too modern."

Now, the fight was against obsolescence. Her tripod mainmast was removed and replaced with a fire control tower and a pole mast. The conning tower was removed. The two cranes were removed, and two booms were added to take their place. The catapult on Turret 3 was removed. New radars were installed; two search and four fire control, bringing the total to six.

But the most extensive changes were made in the AA batteries. The 3-inch/51 broadside guns and the 5-inch/25 AA guns were replaced with eight 5-inch/38 dual-purpose twin mounts. The 1.1s were replaced with 10 40mm quads. Additional 20mm were installed. When *Pennsylvania* was ready for her Alaskan venture, she carried 12 14-inch/45s, 16 5-inch/38s, 40 40mms, 50 20mm, and eight .50 caliber guns. Her AA battery was regarded as being as formidable as any in the Fleet.

North Pacific Campaign

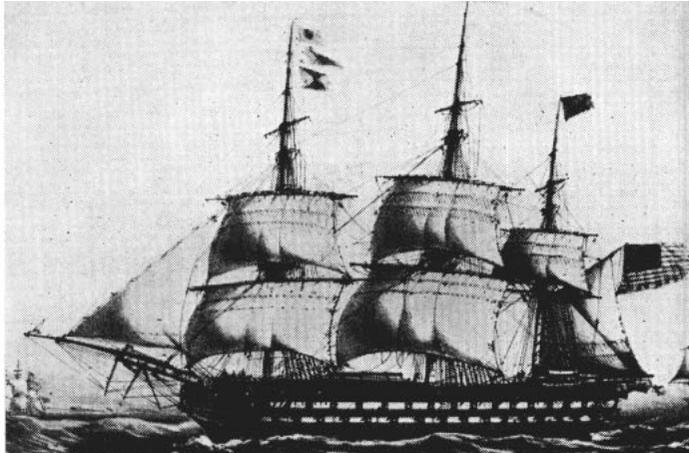
THE ALASKAN VENTURE was to be an amphibious operation. With *Pennsylvania* as flagship, *USS Idaho* (BB 42) and *Nevada* (BB 36), the escort carrier *Nassau* (CVHE 16) and numerous transports and destroyers were to attempt to oust Japanese forces which were known to have occupied two islands in the Aleutians—Attu and Kiska.

There is, it is said, only one kind of weather in the Aleutians—bad. It is cold, the fogs are thick and continuous, the seas are rough. It offers little encouragement for any type of military activity and less than none for amphibious operations.

Attu, the less strongly garrisoned of the two islands and the westernmost in the chain, was selected for the first attack. The first scheduled attack was cancelled because seas were too heavy to permit a landing.

Pennsylvania's first bombardment took place a couple of days later during a fog so heavy that land was never sighted. One important note: the entire mission was accomplished by radar at a range of some 9000 yards. This is what makes the action dramatic; the bare facts make the battle seem almost routine.

TOO MODERN—*USS Pennsylvania* (BB 38) was too modern to see much action in WW I because of lack of oilers.



KIN FOLK—Sailing ship *Pennsylvania* was receiving ship at Norfolk when yard was captured in Civil War.

THE BOMBARDMENT the following morning also took place in a dense fog, and the approach was made by radar. Both the main and the secondary batteries, were fired during part of the run. The fire was spotted by a shore fire control party and, after the fog had lifted, by surface spotters.

Pennsylvania bombarded a third time in support of the infantry attack on the west arm of Holtz Bay. This time there was sufficient visibility to make the approach and the first leg of the firing was run by visual bearings. Later, however, the fog set in; the visibility remained low for the remainder of the day.

The ship was maneuvered in a restricted area entirely by radar for more than two hours, during which the main and secondary batteries fired at targets without endangering our own infantry 500 yards to the right of the area and our scout troops 1500 yards beyond.

This bombardment materially weakened enemy resistance in the west arm of Holtz Bay. Our ground forces advanced into and occupied the area.

FROM 16-19 MAY *Pennsylvania* operated with *Nassau* in an area about 50 miles north and east of Attu, then headed for Adak. One afternoon, during an air alert, an explosion occurred in the gasoline stowage compartment.

There were no casualties, but there was some structural damage. *Pennsylvania* took time out for repairs, then returned to Adak in August where she was part of the Kiska Attack Force.

Again she was serving as flagship. She had not been assigned the duties of a fire support vessel in this operation since that would reduce the efficiency of the command ship, particularly by restricting her movement.

Pennsylvania's crew found the August weather in the Aleutians considerably milder than it had been in May, but it was still cold by ordinary standards and the area was, as always, covered by patches of dense fog.

On the morning of 15 August assault troops landed without opposition and pressed inland on the western beaches of Kiska. By the next evening it was evident that the island was completely uninhabited. The only living creatures found on the island were two ragged, lonely dogs. (As a memento of the operation, *Pennsylvania* ship fitters made and presented to the commanding admiral a miniature fire hydrant.)

The Gilberts and Marshalls

AFTER NUMEROUS PRACTICE SHOTS, including a bombardment of Kahoolawe, and then rehearsal assault landings on Maui, *Pennsylvania* left Pearl Harbor

on 10 November for the Gilbert Islands Campaign, our first assault on Japanese positions in the Central Pacific.

She carried the 5th Amphibious Force Commander and was part of the Northern Attack Group whose objective was Makin Atoll. This atoll lies slightly north of the equator, but the route of the task force, in an attempt to confuse the enemy, led to the south of the equator, and then north-westward from the vicinity of the Phoenix Islands.

The task force, composed of four battleships, four cruisers, three escort carriers, transports and destroyers, approached Makin Atoll from the southeast on 20 November.

Here, *Pennsylvania* joined in the bombardment for about one and one-half hours, when it had to be broken off abruptly for an air strike. During this brief shoot the main battery expended 403 rounds of ammunition and the secondary battery 246 rounds.

This time, heat was the problem. Temperatures in the after magazines mounted to as high as 115 degrees. During the bombardment seven men in the magazines passed out from heat exhaustion. Several others were victims of the combined effect of the heat, exertion and the fumes from the powder bags.

Pennsylvania, as flagship of the 5th Amphibious Force, carried 24 radio transmitters and 41 receivers. The communications on "Dog Day," and thereafter until retirement from the area, required the manning of all this equipment plus about 25 remote operating positions. Item: at no time during the entire operation were communications disrupted.

Pennsylvania excelled in making the difficult and the hazardous look routine.

HER NEXT MAJOR operation was Kwajalein. The assault force was divided into two parts, one to strike at Roi and Namur islands at the northern end, and one at Kwajalein Island at the southern end. *Pennsylvania* was assigned to the southern group.

At 0618 on 31 January the main battery of *Pennsylvania* opened fire on Kwajalein Island.

It was still dark at the time. As the first salvo thundered out, a sailor standing topside yelled in the direction of the island, "Reveille."

The secondary and 40mm batteries joined in and the bombardment continued throughout the day. Enemy guns, blockhouses, pillboxes and blockading sea walls were demolished. Ammunition dumps and fuel stowages were seen to blow up and burn.

The next day *Pennsylvania* carried out her scheduled bombardment before, during and after the landing on the island by Marine and Army troops. Although Kwajalein was heavily fortified, all troops made the landing unopposed.

On the evening of 3 February *Pennsylvania* entered the lagoon and anchored near Kwajalein Island. Heavy fighting was still in progress on the northern end of the island, where the Japanese were slowly being driven back.

TEN DAYS after the initial attack, *Pennsylvania* was able to push on to Majuro Atoll to replenish ammunition, her Kwajalein mission accomplished. At Majuro, after two small fires below deck and some 80 hours of almost continuous labor, she was ready for her next job.

Because of rapid victory at Kwajalein, the operations against Eniwetok Atoll, westernmost of the Marshalls,

was undertaken earlier than originally planned. Nevertheless, on 17 February, *Pennsylvania* found herself steaming through Deep Entrance into Eniwetok Lagoon, blazing away at Engebi Island.

Pennsylvania and *Tennessee* (BB 43) were assigned the duty of protecting the reconnaissance boat teams, and when they made their approach to the landing beaches at 1700 *Pennsylvania* covered them with main and second battery fire. The mission was completed without interference.

The next morning *Pennsylvania* again bombarded Engebi before and during the approach of the assault waves to the beach. With Engebi secured, she moved southward to the vicinity of Parry Island. On 20 and 21 February she delivered preparation fire on this island which is slightly more than a mile long and less than 600 yards wide.

Item: this island was subjected to a naval bombardment that for volume of fire per square yard has never been equalled anywhere.

AFTER THE CONCLUSION of the Eniwetok Operation there was a lull of almost four months before the next amphibious operation in the Central Pacific. *Pennsylvania* steamed to Majuro and then southward to Havannah Harbor, Efate, in the New Hebrides. There she lay through most of March and April.

There was little activity. Life aboard *Pennsylvania* settled into a relaxed routine. Recreation parties were sent to "Pennsylvania Beach," where each of the men was given two cans of beer, where they could go swimming and hunt for cat-eyes, or barter with the natives for coconuts and grass skirts.

Efate had afforded all hands a well earned rest. Then, to make life complete, the four months' "vacation" wound up with a week in Sydney, Australia. Sydney

LUCKY LADY—Attack on Pearl Harbor damaged USS *Pennsylvania* but she soon returned to seek her revenge.





DC TEAM of 'Pennsy' relaxes after stopping flooding caused by hit received only 59 hours before war's end.

turned out to be just about what Paris was to our troops in France during World War I.

The men had some difficulty in dealing in pounds and shillings and in understanding certain Aussie expressions but they made out. *Pennsylvania* gave two dances, one for each watch, at the Sydney town hall during her stay there.

After this brief vacation, the ship returned to Efate for a short while and then continued northward into the Solomons.

The Marianas Campaign

ON 10 JUN 1944 *Pennsylvania* was one of a force of battleships, cruisers, escort carriers and destroyers which put to sea, bound for Saipan—the first of our objectives in the Marianas.

For some six weeks—from 14 June until 3 August—with only brief interludes for replenishment of ammunition, the battleship cruised up and down the coast, providing fire support wherever necessary.

The day before the assault landing, the targets were installations in the Nafutan Point-Magicienne Bay area. Although the bombardment had to be conducted at long range, enemy guns on Nafutan Point were knocked out.

Tinian followed, and then Guam. By now, the fire support missions were following a pattern. Three days of bombardment in preparation for assault and landing. Then a two-day round trip to the rear for replenishment of ammunition, then three more days.

By 3 August, *Pennsylvania* had expended in the Guam Operations almost 1800 rounds of 14-inch; 10,000 rounds of 5-inch; 14,000 rounds of 40mm and 1600 rounds of 20mm ammunition. It was done without any personnel or material casualties.

What were the results? Air spotters reported that the ship put out of action 15 planes, six large guns, eight medium guns, three 5-inchers, 12 3-inchers, 19 dual purpose guns, two coast defense guns, eight large AAs, four twin mounts, nine heavy AA's, uncounted machine-guns, mortars and field artillery. There were more odds and ends, but that gives the general idea.

So far, she had received no serious damage since Pearl Harbor, nearly three years earlier, although during her next fire support assignment in the Palau campaign a number of large- and medium-caliber shells landed uncomfortably close and, for a while, she was splashed by ricochets from friendly tanks on the island.

On 25 September she left Kossol Passage and proceeded southward to the Admiralty Islands where she entered a floating drydock for repairs.

The Philippine Campaign

SOME TWO WEEKS later she was again underway, this time bound for the Philippines. It was here that her bombardment, while not so prolonged as the Guam engagement, was heavy—and it was here that she participated in a major (and her only) surface scrimmage. Although she was subjected to incessant air attacks, she remained in the area longer than during any other operation.

Protected by a minesweeping group, *Pennsylvania* and three cruisers provided fire support for beach reconnaissance groups, underwater demolition teams and mine-sweeping units in preparation for the Leyte landing and, during the actual invasion, delivered more fire support.

However, fire support for amphibious landings was beginning to be old stuff for *Pennsy*. A more interesting situation—particularly for a BB—was shaping up.

On the morning of 24 October it became apparent that a major naval engagement was developing.

Our carrier search planes had located two Japanese forces, each composed of battleships, cruisers and destroyers. One, the Central Force, was in the Sibuyan Sea headed for San Bernardino Strait, from which it could strike southward for the eastern entrance to Leyte Gulf. The other, the Southern Force, was in the Sulu Sea, headed for Surigao Strait, the southern entrance to Leyte Gulf. That afternoon, carrier searches revealed still another enemy force composed of carriers, battleships, cruisers and destroyers.

The Japanese Navy was sailing in full force.

Throughout the afternoon PT boats carrying full loads of torpedoes streaked past *Pennsylvania*, headed southward through Leyte Gulf for Surigao Strait. At 1826 the six battleships, three cruisers, three light cruisers and destroyers in the U.S. force formed battle disposition and steamed southward for Surigao Strait.

Throughout the night the six battleships (*West Virginia*, *Maryland*, *Mississippi*, *Tennessee*, *California* and *Pennsylvania*) steamed slowly back and forth across the northern end of the straight—just waiting.

At 0130 the next day PT boats stationed well down in Surigao Strait encountered the oncoming enemy force and attacked with torpedoes. Next, our destroyers, on either flank of our enemy's line of approach, attacked with torpedoes and guns. The enemy force steamed on. At 0325, *West Virginia* opened fire, followed shortly by the other battleships and cruisers. The Japanese had run head on into a perfect trap.

Rear Admiral Jesse B. Oldendorf, Commander of the Bombardment and Fire Control Group, executed the naval tactician's dream. He placed the enemy units in a position where they would be subjected to the concentrated fire of our force while able to reply least effectively.

Almost before the enemy could train his guns, he lost two battleships and three destroyers.

That night *Pennsylvania* didn't open fire.

The ship sounded General Quarters at 0130 when the first contact report came through and battle stations were manned in record time. Gun crews stood by for two hours impatiently waiting for the word to commence firing.

It didn't come and there was good reason.

Shortly after daybreak, the Central Force of the Japanese Fleet engaged a group of CVEs operating east of Samar to screen the upper end of Leyte Gulf.

The enemy force had been attacked heavily by carrier planes the day before and had suffered severe losses and damage; it had, nevertheless, continued through San Bernardino Strait.

Our CVEs and their destroyer escort screen began the attack against the invaders.

Vice Admiral Kinkaid, Commander of the Seventh Fleet, at once ordered Admiral Oldendorf to dispatch one division of battleships, one division of cruisers and half the destroyers in his group to assist the escort carriers.

Pennsylvania was one of the battleships to go.

Before the battle force had left Leyte Gulf, the Japanese had begun to retire toward San Bernardino Strait.

Leyte was the first operation in which *Pennsylvania* encountered heavy enemy air attacks.

Because Leyte Gulf was almost completely land-locked, enemy planes were extremely difficult to pick up by radar. Sky lookouts played a major role in this operation.

Crews of the AA batteries of *Pennsylvania* stood watch-and-watch for a period of 24 days and nights, followed by 14 nights. In addition, Air Defense or GQ for air defense purposes was sounded 113 times (not including routine morning and evening GQ).

Item: *Pennsylvania* shot down, either alone or with assistance from other ships, 10 enemy planes, with several other "possibles."

For the next six months or so, *Pennsylvania's* itinerary provides a record of the course of the war:

To Surigao Strait to intercept a mythical Japanese force; thence to Manus to prepare for another amphibious invasion; to Kossol Passage for more ammunition.

South, then west through the Mindanao Sea, the Sulu Sea and out to the China Sea to Lingayen Gulf, Luzon.

With Luzon taken, a period of relatively quiet patrol duty; then with more than 17 months' duty behind her, a lovely, wild month's leave for all hands at San Francisco while *Pennsy* was given a thorough overhaul.

Okinawa

AUGUST SAW HER BACK in Buckner Bay, Okinawa, as flagship for VADM Oldendorf and his staff. Within a few hours after he came aboard as she lay at anchor, a Japanese torpedo plane slipped in over Buckner Bay without any warning and launched its torpedo at the silhouette of *Pennsylvania*.

Later, one of the crew wrote home: "We didn't get the Jap plane, but we sure busted the hell out of his torpedo!"

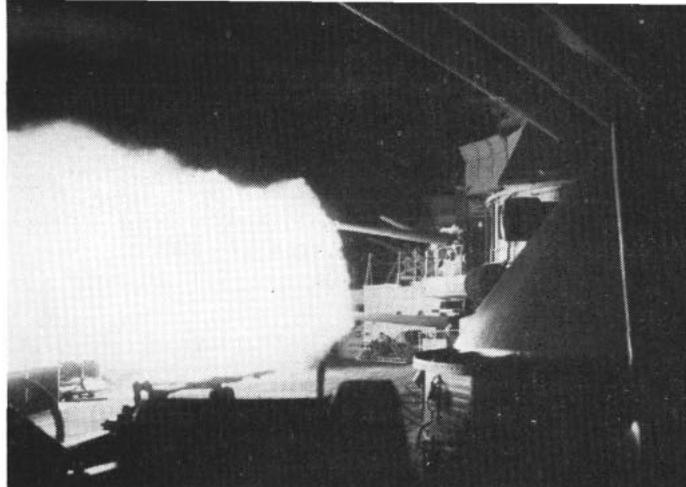
The torpedo hit well aft on *Pennsylvania's* starboard side and did extensive damage. Many compartments were flooded and the ship settled heavily by the stern. The ship's repair parties and two salvage tugs brought the flooding under control.

The blast caused the death of 20 men and injured 10 others.

The following day *Pennsylvania* was towed into shallower water where salvage operations were continued.

ON THE NIGHT of 13 Aug 1945 she saw her last action of the war. An enemy suicide plane made a run on the ships in the harbor and crashed in flames on the deck of a cargo ship about 1000 yards off the starboard beam of *Pennsylvania*. The secondary battery of *Pennsy* tracked the plane by radar and fired 13 rounds.

SEPTEMBER 1958



ROUND-THE-CLOCK—The big guns of *Pennsylvania* pounded enemy from the Aleutians to the Philippines.

Japan's acceptance of the Allied surrender terms was announced to the crew the morning of 15 August. Two weeks later, after salvage operations were completed, *Pennsylvania* departed from Okinawa. She was towed by two tugs in tandem, with another standing by to assist if necessary. The group made as little as two knots and never more than seven on its way to Guam.

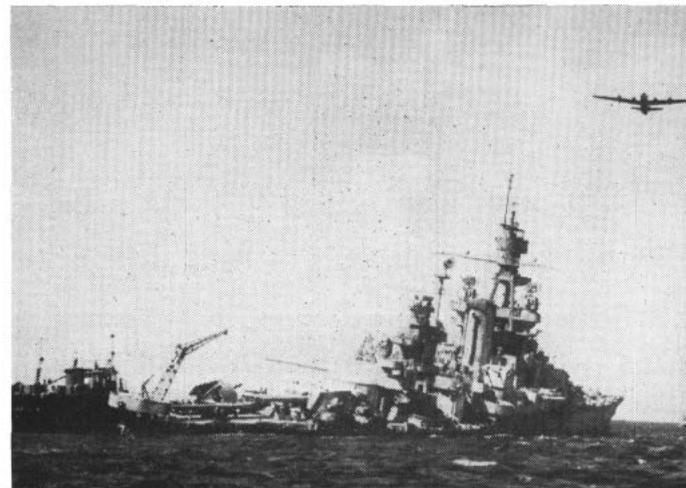
She arrived in Apra Harbor, Guam, on 6 September. The next day she entered ANSD3. While in drydock a large sheet metal patch was welded over the torpedo hole. This and other repairs enabled her to return to the U.S. under her own power. *Pennsy* left drydock on 2 October, moored in the harbor to take on 100 Navy and Marine passengers for transportation to the States and shoved off on the morning of the fourth.

Pennsylvania proceeded toward Puget Sound in company with the cruiser USS *Atlanta* (CL 104) and USS *Walke* (DD 723). En route, she stopped while divers went over the side to inspect the patch. Marine sentries armed with rifles stood by on deck to ward off sharks. They scored one "probable" that day; two days later in a similar episode, the sentries made one "sure" kill while protecting divers.

Survivor of Pearl Harbor, 12 amphibious landings, and the Surigao Straits action, *Pennsylvania* did not come to her end until some time after she served as one of the target ships in the Bikini atom bomb tests in October 1946.

She was finally sunk in deep water off Kwajalein 10 Feb 1948 after extensive radiological and structural studies had been made to determine the extent of the damage. She was busy right up to the end.

FINAL HOURS—After surviving Bikini tests, out-dated BB 38 is towed to sea for 'burial' under Pacific waters.



TAFFRAIL TALK

DEVOTED READERS of this column may recall that we earlier expressed a comfortable confusion over some of the "scientific" pronouncements of the USL *Echo*. You will be happy to know that the field of sports also lends itself to an equal profusion of unclarity. We quote the following translation from "L'Echo du Maroc" sent by our unofficial and unpaid Kenitra (Morocco) correspondent:

Baseball is a game which is placed between two teams of nine players each. There is a ball and an engine to play with which is called "bat." The ground on which the play is going on is square and in the middle there is a round place called "diamond" where the pitcher is staying. He is charged to send the ball to the catcher, this man is placed in the home-plate from where the ball has been sent and has to return to. The other players are outside the ground. These men will get in the field when the players will throw the ball three times outside the lines and will be disqualified. The man who sends the ball back to home-plate is supposed to be the winner. The baseball game is a very tiring sport. It is very popular in England but especially in America.

All right now, team. Break clean and come out fighting.



We never know who's watching and what they make of our behavior. But we do know that it's more noticeable when someone gets into trouble than when he behaves himself.

Nevertheless, two American tourists happened to be in Bergen, Norway, at the same time ComDesRon 12 and ComDesDiv 122 and eight U. S. Navy ships made a call. They were so impressed by the good manners of the Navymen that they wrote a letter to the Assistant Secretary of the Navy:

"My husband and I have been in Bergen, visiting at the same time that 3000 of our Navymen have been in port. It is with real pride that we have watched them—always immaculately attired—courteous—and friendly.

"They show American enthusiasm for seeing all the sights, much picture taking and exploring, and so far as we could see, with the good manners that are a credit to our country.

"The town people really seem to like them and report to us that they are always well behaved and in order.

"I am listing the ships involved—uss *Yosemite* (AD 19), *Gainard* (DD 706), *Hyman* (DD 732), *Compton* (DD 705), *Davis* (DD 937), *Bristol* (DD 857), *Purdy* (DD 734) and *Harlan R. Dickson* (DD 708)—as I am certain they would appreciate some expression of commendation."

That, gentlemen, is international diplomacy of the highest order. And thank you, Dr. and Mrs. deVries, for your kind words. You're pretty good diplomats yourselves.

The All Hands Staff

The United States Navy Guardian of Our Country

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

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

We Serve with Honor

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

Service to God and Country is our special privilege. We serve with honor.

The Future of the Navy

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

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

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• **AT RIGHT: BIG SPLASH**—Sixth Fleet Marines splash through the surf as they charge from Navy landing craft during amphibious exercise in Med.





VOTE

wherever you are

..... see your voting officer