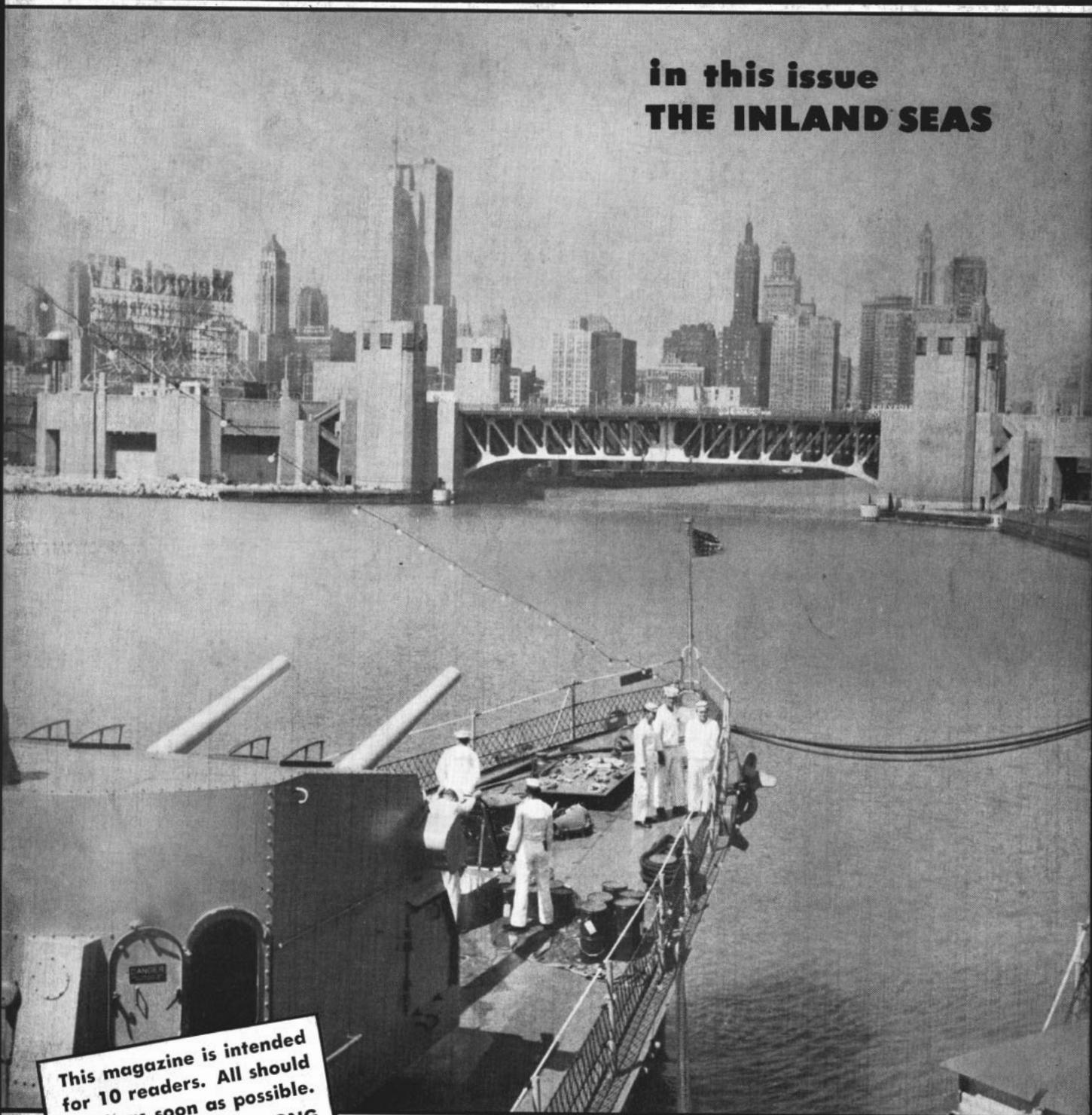


ALL HANDS

THE BUREAU OF

in this issue
THE INLAND SEAS



This magazine is intended
for 10 readers. All should
see it as soon as possible.
PASS THIS COPY ALONG

SEPTEMBER 1959



ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

SEPTEMBER 1959 Nav-Pers-O NUMBER 512

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● FRONT COVER: CHICAGO, HERE WE COME — USS Putnam (DD 757) is seen with Chicago skyline as a background, during visit of Task Force 47—with 10,000 Navymen and Marines embarked—to Great Lakes ports in Operation Inland Seas.

● AT LEFT: TO SEE THE SEA—The heavy cruiser USS Macon (CA 132) is shown entering the St. Lawrence Seaway's first lock. The largest U.S. Navy ship to participate in "Operation Inland Seas," in connection with the formal opening of the Seaway, the heavy cruiser, with a beam of 73 feet and length of 675 feet, found the locks a close fit.

● CREDITS: All photographs published in ALL HANDS are official Department of Defense Photos unless otherwise designated. Line drawings appearing on pp. 8, 9 and 15 adapted from material supplied by St. Lawrence Seaway Development Corporation.





AMERICAN AND CANADIAN destroyers flank the Royal Yacht *Britannia* as she passes *USS Macon* in Lake St. Louis.

The Fleet Sails

THE CROWD standing along the locks on the Seaway canal watched the battle gray warship heading toward them, and moved closer for a better look.

With a beam of 73 feet plus a few inches—and those inches were important—the heavy cruiser carefully maneuvered into position before the first lock.

"She'll never make it," said a voice in the crowd.

But *USS Macon* (CA 132), moving steadily up the St. Lawrence Seaway, through channels and canals and lock after lock, sometimes with just inches to spare, finally emerged into the open waters of the Great Lakes. At the last lock, the watching crowds clapped their hands and cheered.

And as each of the 28 Navy ships passed through the Seaway—LSDs,

a DL, destroyer and amphibious vessels—the crowds gave each ship the same kind of reception. Cars lined up along the banks and turned their headlights on at night to light the way. Drivers honked their horns, sent their hometown bands to serenade the ships, chatted with the busy sailors during the rare lulls, and supplied coffee and sandwiches at stops en route.

THIS WAS Operation Inland Seas. The ships of Task Force 47 were making the exciting voyage to commemorate the opening of the magnificent and historic St. Lawrence Seaway.

Task Force 47, under the command of RADM Edmund B. Taylor, USN, Commander Destroyer Force, U. S. Atlantic Fleet, included the cruiser *USS Macon*, the destroyer

leader *Willis A. Lee* (DL 4), 15 destroyers, four submarines, and an amphibious group of seven ships. In the amphib force were an attack transport, two dock landing ships, two LSTs and an attack cargo ship.

Operation Inland Seas got underway when the first of the 28-ship contingent arrived off Montreal on 24 June, and it ended as the last ships of Task Force 47 left the "drowned" estuary of the St. Lawrence and steamed across the Gulf back into the North Atlantic. The last ships were just completing the transit as this issue went to press, early in August.

Some five million Americans who never had seen a Navy ship except in the movies or on TV had a chance to get a close-up look when the Fleet of sleek gray combatant ships sailed into the heartland of the U. S.



THREE SHIPS — USS *Willis A. Lee* (DL 4), *Warrington* (DD 843) and *Macon* (CA 132) line up at St. Lambert Lock.

the Inland Seas

TEN THOUSAND NAVYMEN, including 1500 Marines of the Second Battalion, Sixth Marines, and over a thousand midshipmen from the Naval Academy and NROTC colleges, made up the crews of TF 47. This was the first time an armed Fleet had entered the Great Lakes in 142 years.

The presence of Canadian, British and U. S. warships in the inland waters of the Seaway and the Great Lakes this summer is a historic event made possible by a special arrangement worked out between the U. S. and Canadian governments. The arrangement, limited to this operation, waived the conditions of the Rush-Bagot Agreement of 1817, which provided for demilitarization of the Great Lakes.

The 1817 agreement has been strictly observed by both govern-

ments as a realistic safeguard to neighborly relations.

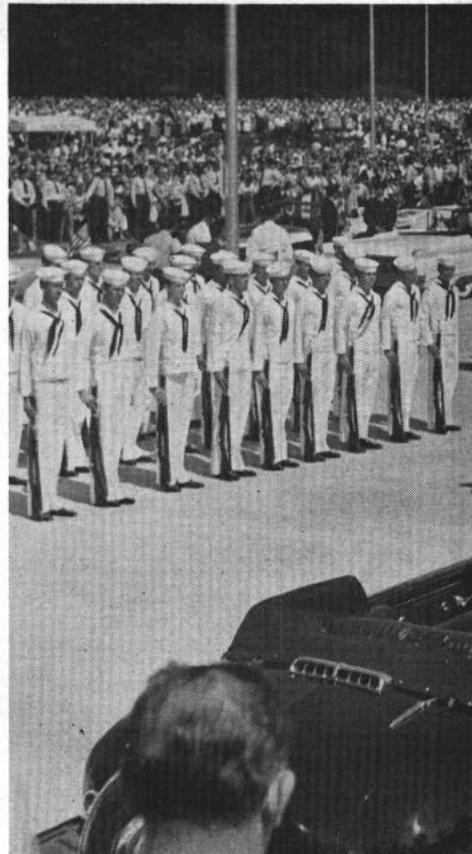
First of the Navy ships to go through the Seaway—on an “orientation transit”—was *uss Kleinsmith* (APD 134), which served as a vanguard for the operation. Representative officers from the other 27 ships of TF 47 boarded *Kleinsmith* for an opportunity to familiarize themselves with the navigation problems involved in the Navy’s first major cruise of the Great Lakes since the War of 1812. *Kleinsmith*, the smallest member of the task force, is no stranger to the Great Lakes. She was built and commissioned at Bay City, Michigan, in 1945, and her shallow draft at that time made it possible for her to navigate the river systems.

THE PRESIDENT of the U.S. and Elizabeth II, as Queen of Canada,

formally opened the St. Lawrence Seaway on the morning of 26 June, near St. Lambert’s Lock. Two 65-foot masts, dressed with flags and pennants, towered over the ceremonial area, and two huge pieces of earth-moving equipment, flanked by the flags of New York States and the provinces of Quebec and Ontario, marked the entrance of a park that was created to celebrate the event.

The passage of the royal yacht *HMS Britannia*, with the Queen and the President aboard, through the ceremonial gate located in the Seaway channel, marked the formal opening.

As they headed through the canal, U.S. Navy ships and warships of Canada were moored in a single line along the north side of the seaway channel in Lake St. Louis, with Canadian and USN ships alternat-



IMPORTANT EVENTS — *Left:* Awed boys view warships. *Right:* Queen Elizabeth is honored by a U. S. military guard.

ing. Dressed with flags, each vessel “cheered ship” as the Queen and the President passed along the Seaway.

A coordinated 21-gun salute—with all ships firing simultaneously—

was fired as the royal yacht approached the first ship in line.

This marked the beginning of the history-making cruise that would bring the ships of Task Force 47 some 2347 miles into the heartland

of America—as far as Duluth, Minn., on the western tip of Lake Superior.

A NAVYMAN from Menominee, Wis., or Ashtabula, Ohio, or Muskegon, Mich., would probably never have expected the folks back home to see his ship steaming by the front door—but that is what happened.

In addition to stops at these Great Lakes cities, the Fleet visited Milwaukee, Green Bay, Marinette and Sheboygan, in Wisconsin; Marquette, Sault Ste. Marie, Muskegon, Mackinaw City, St. Ignace, Cheyboygan, Bay City, Port Huron and Detroit, in Michigan; Toledo, Lorain and Cleveland, in Ohio; Dunkirk, Buffalo, Rochester and Oswego, in New York State; Erie, Pennsylvania, and Chicago, Illinois.

The opening of the St. Lawrence Seaway (see page 9) to large ocean-going vessels, introduced the Navy ships to an entirely new coast line on the vast Inland Sea. The Great Lakes cover an area of some 95,000 square miles, bordering the shores of Canada and eight of our states.

To give you an idea of their size, these five Great Lakes—Ontario, Erie, Huron, Michigan and Superior—and their connecting channels and the St. Lawrence River—add up to a coast line of 8300 miles. That is

Meet the Members of Task Force 47

These are the ships of Task Force 47, which sailed up the St. Lawrence Seaway, and then traveled from one end of the Great Lakes to the other, sometimes in rough water and fog, but usually in sunshine and on smooth, fresh-water seas.

The 28 ships, which participated in five amphibious landings, chalked up a combined total of close to 100,000 miles.

TF 47 included the 17,000-ton, missile-carrying heavy cruiser, *uss Macon* (CA 132), the biggest ship ever to transit the Seaway, and the frigate *uss Willis A. Lee* (DL 4), flagship of the task force.

Four snorkel submarines represented the underseas Navy: *uss Sablefish* (SS 303), *uss Corsair* (SS 435), and two veterans of WW II service, *uss Torsk* (SS 423) and *uss Quillback* (SS 424).

In the amphibious group were two dock landing ships, *uss Donner* (LSD 20) and *uss San Marcos*

(LSD 25). Also represented were the attack transport *uss Cambria* (APA 36), the attack cargo ship *uss Oglethorpe* (AKA 100), and the high speed transport *uss Kleinsmith* (APD 134), plus two tank landing ships: *uss Terrebonne Parish* (LST 1156) and *uss Suffolk County* (LST 1173).

The destroyer force was represented by ships of DESRON 10 and DESRON 22, including their flagships *uss Forrest Sherman* (DD 931) and *uss DuPont* (DD 941). The thirteen other destroyers were *uss Haynsworth* (DD 700), *uss Henley* (DD 762), *uss Ault* (DD 698), *uss Joseph P. Kennedy, Jr.*, (DD 850), *uss Willard Keith* (DD 775), *uss Putnam* (DD 757), *uss Charles H. Roan* (DD 853), *uss Samuel H. Roberts* (DD 823), *uss Forrest Royal* (DD 872), *uss Waldron* (DD 699), *uss Charles R. Ware* (DD 865), *uss Warrington* (DD 843), and *uss John W. Weeks* (DD 701).



SEAWAY TRIP gave Navymen (above) a chance to see new country. Civilians (below) got to visit ships and subs.

greater than the 4840 miles of coast line on the Atlantic, Gulf and the Pacific from Maine to Seattle, Wash. It is greater than the coast line of the huge new state of Alaska.

This is a real Inland Sea.

One incident, perhaps as well as any other, points up the interest all over the U. S. in the opening of the St. Lawrence Seaway. *uss Quillback* (SS 424) carried a little vial with her on the trip, intended to make the cities of Key West and Chicago blood-brothers. A small bottle of Key West sea water, presented to the submarine's skipper by the mayor of that city, made its way up the Atlantic to Montreal, then through the St. Lawrence's canals and locks on into the Great Lakes.

In Chicago, the skipper was commissioned to mix the green Atlantic water with the blue waters of Lake Michigan, as a token of good will toward the citizens of the Inland Sea. Then he presented it to local dignitaries as a symbol of mutual support and common bond between the communities of the fresh-water Great Lakes and the cities overlooking the salt-water oceans.

For more on St. Lawrence Seaway as an engineering feat, its significance to the Navy, and its meaning from the standpoint of national security, see the following pages.





SHARP SHIP—USS *DuPont* neatly cuts through the waters of Lake St. Louis.

The St. Lawrence Seaway—

How To Build a Fourth

WHAT IS THE ST. LAWRENCE SEAWAY?

Despite the fact that this great engineering feat has been completed, and the seaway itself has been in operation for some months, the average Navyman, as well as the man in the street, does not yet realize its significance.

Here are some facts, statistics, and a few items of history to get you better acquainted with the United States' and Canada's mutual "Fourth Sea Coast."

The St. Lawrence, one of the strategic rivers of the world—about 740

USS Joseph P. Kennedy, Jr., moors besides Chicago's Merchandise Mart.



miles long—connects the Atlantic Ocean with the Great Lakes, thus providing a 2600-mile waterway from the Atlantic Ocean to the eastern shore of Minnesota, right in the heart of America.

For a good distance of its length, it has always been navigable by ocean vessels. Discovered by Jacques Cartier in 1534, it provided a route for early settlers heading for the interior of the U.S. and Canada.

The trouble with the St. Lawrence has been that—in two areas particularly—a series of rapids made navigation difficult. In other areas the river was shallow, dotted with shoals and island obstructions. Thirdly, from its mouth to its source at Lake Ontario, there is a rise of some 246 feet. Finally, between the first and second of the Great Lakes connecting with the St. Lawrence, there is an even greater difference in the water levels—326 feet.

In other words, to get from the Atlantic Ocean on to Lake Erie, a ship has to be lifted 572 feet.

TO MAKE IT a true seaway, navigable to large ocean-going vessels, the St. Lawrence required widening and deepening of its shallow channels. It needed a system of canals that would bypass the rapids, and it needed a system of locks that would raise the ships along the route.

The interest in improving navigation on the St. Lawrence goes back to early colonial days. For example, the first canal (connecting Lake St. Francis, adjoining the river, with Montreal) was built by Canada in 1783. And the Welland Canal, which connects Lake Ontario and Lake Erie by bypassing Niagara Falls, was first built in 1829. It was repeatedly improved, the last time in 1932, before the Seaway project got underway.

After the turn of the 20th Century, more and more people began to see the potentialities of the water system, and urged construction of a true ocean seaway. A complicated and time-consuming systems of locks and canals did make it possible for

small vessels, "lakers" and "canalers" with a maximum draft of 14 feet, to negotiate the St. Lawrence into the Great Lakes, but that is as far as it went.

Then, in 1951, Canada decided to go ahead with the long-dreamed-of project, created the *St. Lawrence Seaway Authority* and invited the U.S. to make it a joint effort. Three years later, in the United States, with the backing of the National Security Council, the Chairman of the Joint Chiefs of Staff and the President, Congress passed the Wiley-Dondero Act.

It became Public Law 358 on 13 May 1954, and established the *St. Lawrence Seaway Development Corporation*.

UNDER THE JOINT SUPERVISION of these two organizations, one Canadian and the other U.S., the ocean seaway finally got to a start. Work was divided into four general sections.

- Near Montreal, four new locks were built by Canada, two on the Beauharnois Canal and two more on the Laprairie Basin Canal, bypassing the Lachine Rapids.

- In the International Rapids Section, to bypass the rapids, the U. S. built the long Wiley-Dondero Ship Channel south of the river, with two locks. A seventh new lock,

near Iroquois, was constructed by Canada.

- In the Thousand Islands section, necessary dredging of the river bottom, removal of shoals and whole islands, was carried out by the United States.

- At the Welland Canal, Canada undertook to deepen the lock system and approaching channels.

This, very briefly, gives a picture of the work that had to be done on the Seaway project. Much of the work overlapped, calling for the closest kind of teamwork and co-ordination between the two countries. In addition, the over-all program included the development of hydro-electric power projects. These were carried out by agencies under the supervision of the province of Ontario and the state of New York.

The total cost ran to slightly more

Sea Coast

than a billion dollars. The Seaway program cost an estimated \$465,000,000, while the cost of the hydro-electric power projects ran even higher, about \$600,000,000.

THE ABOVE FACTS give only a bare idea of the tremendous job performed. All this involved a great amount of planning, engineering know-how, and plain hard work:

- It meant excavating about 200,000,000 cubic yards of earth and rock. Twenty miles of dikes had to be built, some 50 feet high, and 10,000,000 cubic yards of earth were piled up and packed solidly to build them. The concrete used in the project totaled more than 6,000,000 cubic yards.

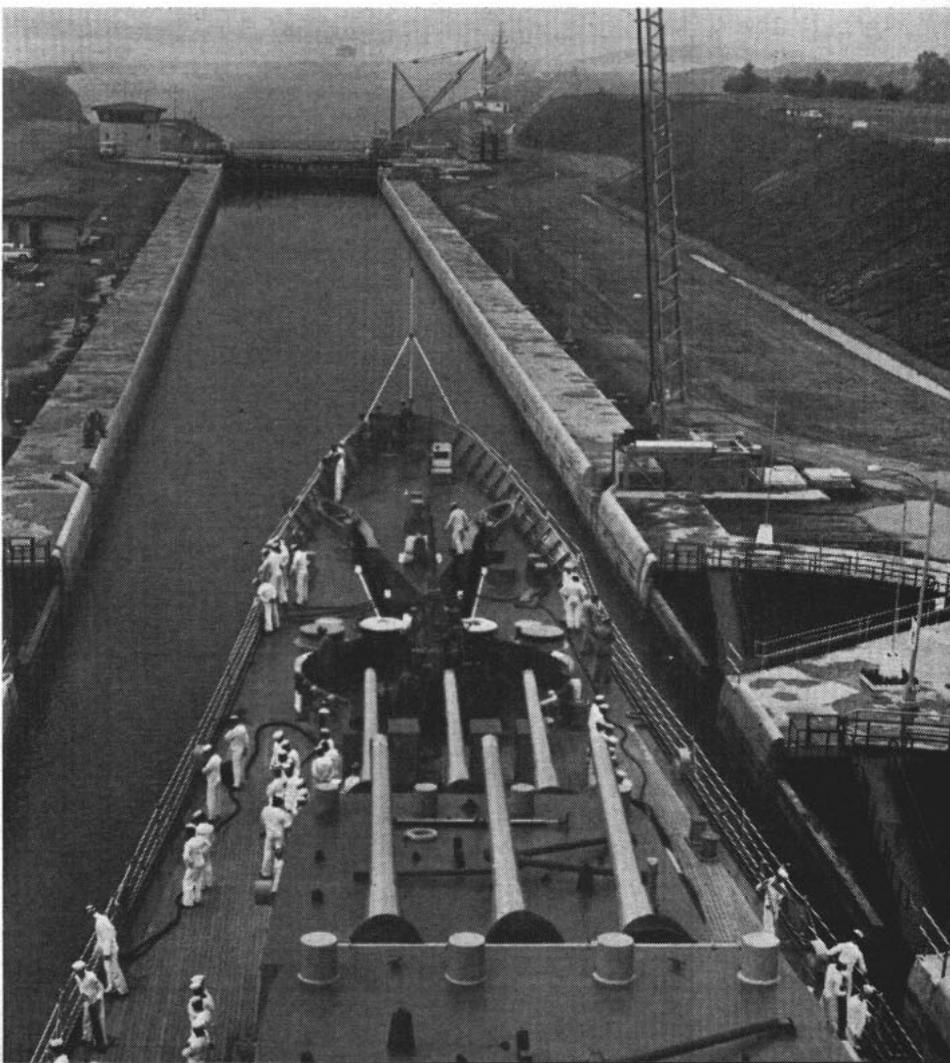
- Fifteen thousand men performed the labor of dredging, digging, hauling and building the great Seaway. When the work was at its peak, in 1957, the total number employed was 22,000.

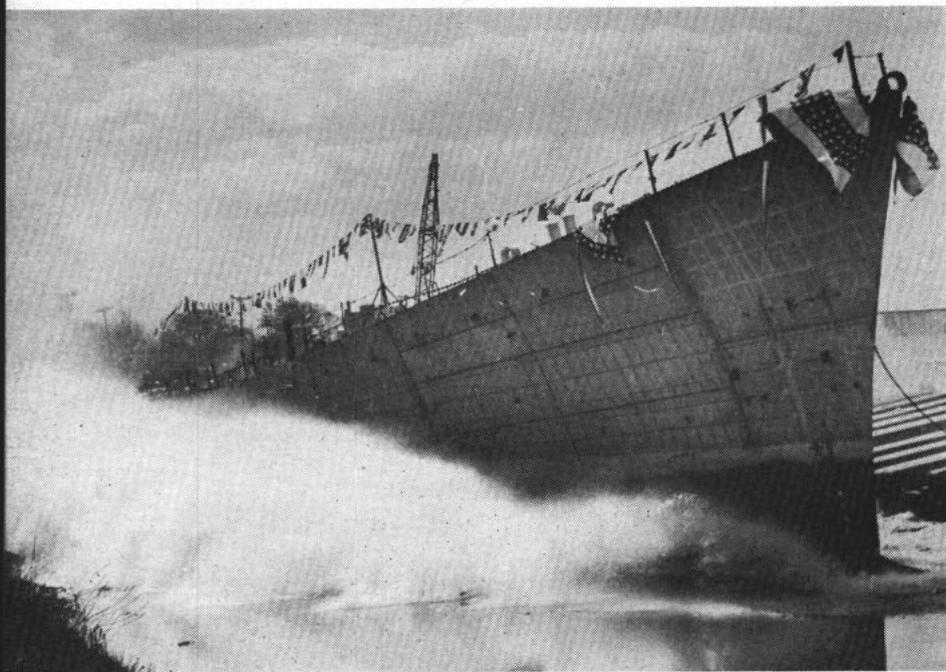
- They removed whole islands, cut channels, filled in access areas, constructed roads, built bridges, shifted highways and some 40 miles of railway track.

- Dams that were built for the development of electric power created a brand-new Lake St. Lawrence, which is four and one-half miles wide and 28 miles long, covering 38,000 acres. The lake made it



DETROIT RIVER (above) gave some Navymen making St. Lawrence trip a chance to relax. Passing through Welland Canal (below) was not so easy.





SPLASH—USS *Henry B. Wilson* (DDG 7), largest warship ever built on the Great Lakes, is launched in Bay City, Mich. She'll go to sea via St. Lawrence.

necessary to move towns and villages to higher ground.

- In N.Y. the town of Waddington was partly relocated, while Ontario saw the whole town of Iroquois shifted. The Canadians set up three completely new communities, providing new utilities systems, sewage, electricity and shopping centers. To move the towns, houses were lifted and placed on floats, then carried to their new sites.

- The equipment alone was evaluated at \$60,000,000. It included 500 heavy trucks, 250 bulldozers, 150 big shovels and draglines, and 15 dredges.

AS A RESULT of all this work, what does the Seaway offer?

It opens the St. Lawrence River, and the Great Lakes as well, to ocean-going ships—ships 710 feet

long, with a 75-foot beam and 25-foot draft, and with a bulk cargo capacity of 25,000 tons. (Before this, it was limited to ships of 250-foot length, 43-foot beam, a draft of 14 feet and a 2500-ton cargo capacity.)

There are seven new locks on the upper St. Lawrence, each of which can be filled in only eight minutes—as fast as or faster than any other locks in the world. (They replace 18 antiquated and time-consuming locks of drastically limited size.

With the seven locks on the St. Lawrence and the eight enlarged locks on the Welland Canal, the Seaway is expected to increase its tonnage by 500 per cent, from 10,000,000 tons to more than 50,000,000 tons in 1960—carried by ships sailing to and from all the oceans from anywhere in the world.

WHAT IS the significance of the St. Lawrence Seaway from the standpoint of national security? Is the Navy affected?

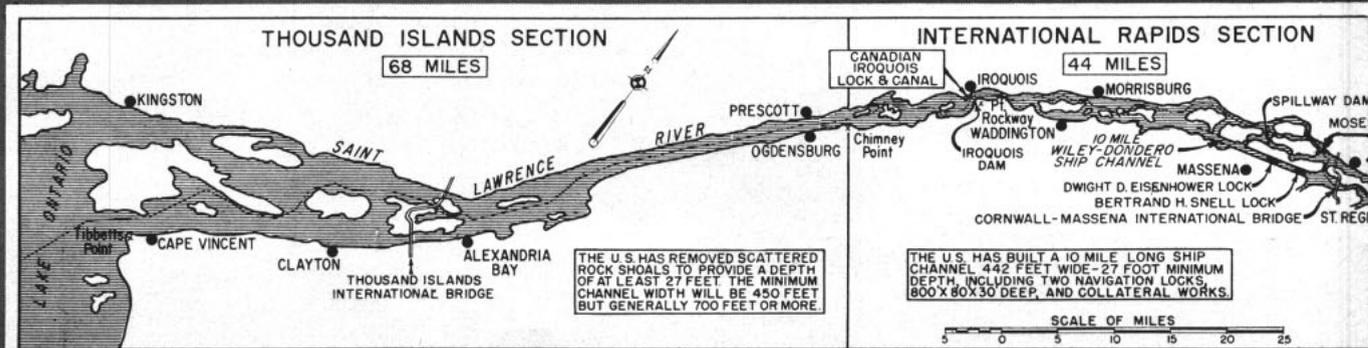
What the Seaway has created for the United States and Canada is a Fourth Sea Coast—and this sea coast is one which will not have to be protected by Navy ships or military installations, except from a mutual enemy. The U.S.-Canadian border is the longest one in the world unguarded by armed forces.

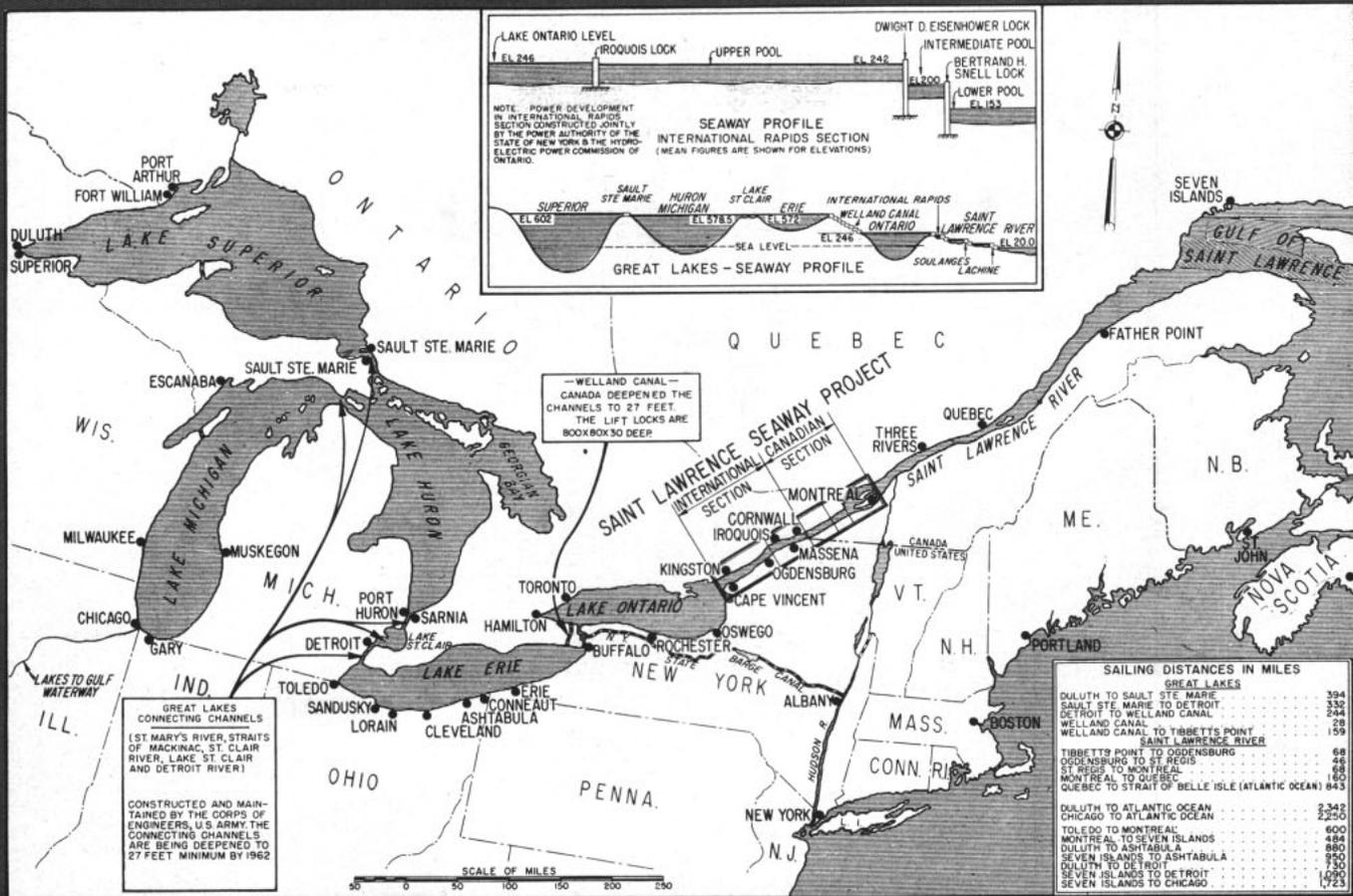
At the same time, this fourth sea coast opens up a large area for Navy shipbuilding. Great Lakes shipyards, of course, have long been famous for the sturdy “lakers” which they build, and during World War II they also built smaller naval warships which had to be able to negotiate the rivers to reach the high seas. Anything larger would have been trapped inland.

- Now ships as large as a heavy cruiser, or a landing ship dock, or a destroyer leader can make it to and from the Great Lakes. Earlier this year the Navy's first guided missile destroyer, *uss Henry B. Wilson* (DDG 7), hit the fresh water of the Great Lakes at her launching in Bay City, Mich. She will use the St. Lawrence Seaway to join the Fleet.

- Soon after launching *Wilson*, the Navy started conducting preliminary sea trails in Lake Erie on its new 442-foot-long, 8600-ton ship, *uss Wood County* (LST 1178). Aboard the ship was Captain A. B. Jones, USN, Supervisor of Navy Shipbuilding on the Great Lakes.

- Other major contracts awarded to Great Lakes shipbuilders by the Navy include three guided missile destroyers and ocean-going minesweepers, and a variety of small craft. Great Lakes shipbuilders currently hold Navy contracts which total over a hundred million dollars.





In the event of mobilization, it would make sense to diversify and use inland facilities for additional shipbuilding, especially since coastal facilities with their shipbuilding potentialities would be a prime target of the enemy.

The Seaway, of course, would also be open to attack in the event of such mobilization. But under such conditions it would be strongly defended, like the Panama Canal, the coastal cities, the manufacturing industries and other vital installations. The Seaway is of significance to

the Navy in another way—from the standpoint of convoy duty in the event of war. This inland route, via the Seaway from the Great Lakes and their heavy industries, shortens the high seas portion of the voyage to Europe by over a thousand miles.

Ships on-loading at Great Lakes ports would not require naval assistance until they reach the Atlantic, and once in the Atlantic they would be right on the shortest route to Europe. They would require fewer Navy ships for convoy protection, thus freeing Navy ships for convoy

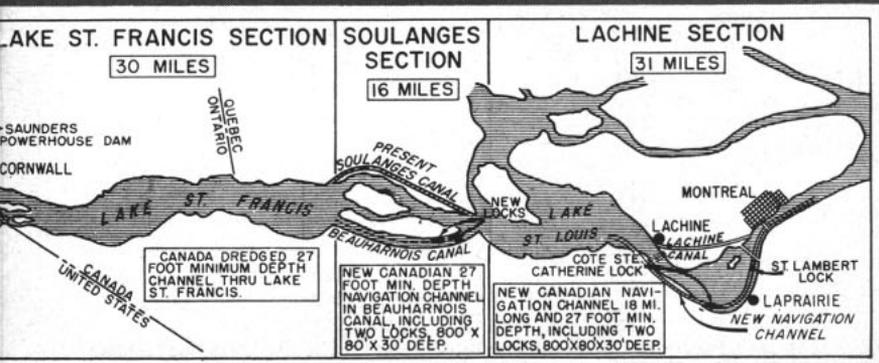
duties from other ports on the Atlantic, Gulf and the Pacific.

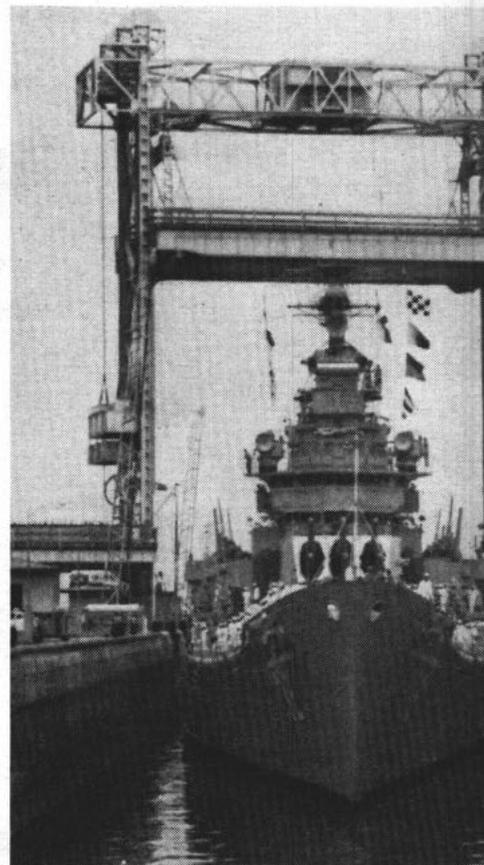
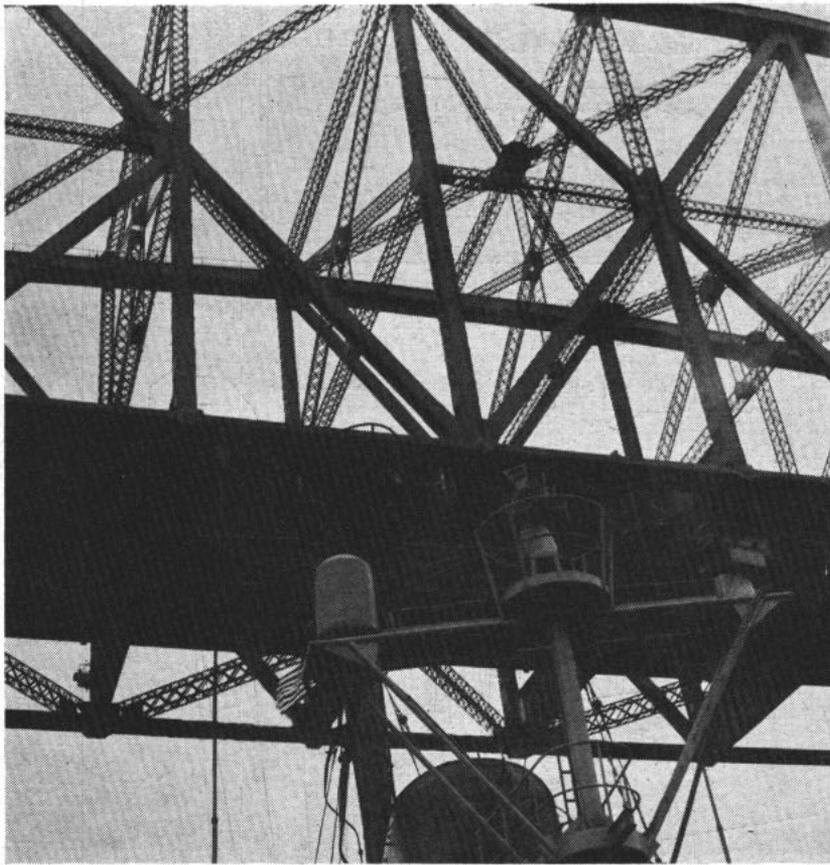
Here's a good example. Ships carrying iron ore from Labrador—an excellent source of good quality iron ore—travel only a distance of 650 miles before they reach the borders of New York on the St. Lawrence River. A little further on are the steel mills of Pennsylvania, and the Great Lakes plants. For only a very short distance of that voyage would they require a naval convoy in time of war.

The same ships, traveling from Labrador over the Atlantic, say to Philadelphia, would have to travel in the face of threatening enemy submarines for a distance of 1389 miles. They'd need a convoy all the way.

The St. Lawrence Seaway is a source of tremendous hydro-electric power, and on its route is an unending stream of raw and finished products.

And the nice thing about it is that this new Fourth Sea Coast leaves the U. S. and Canadian Navies free to devote their attention to guarding their other three coasts.





TIGHT SQUEEZE—Teamwork took Navy's large ships through tight spots. Below: Shipfitters fix screw guard.



It's Tops

"I'VE BEEN THROUGH the Panama Canal and the Suez too—but this is a real test of shipboard teamwork and seamanship."

This was Commander Joe (Joseph C.) Spitler speaking, skipper of the destroyer *USS DuPont* (DD 941), flagship of DESRON 22. In addition to being one of the first Navy ships to negotiate the new St. Lawrence Seaway, *DuPont* had an added assignment—that of escorting the royal yacht *Britannia*, with the Queen aboard, during a large part of the journey up the canal and lock system of the St. Lawrence.

"It was our second day on the Seaway. A heavy fog set in. Through narrow channels—confined water—we were buoy-hopping.

"At times we couldn't see the fo'c's'le and some buoys weren't visible until they were already past the bridge.

"Serving as an escort to the Queen's ship," the *DuPont* CO said, "we were going as fast as we could in the restricted waters of the chan-

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HEAD COACH — CDR J. C. Spittler, skipper of *USS DuPont* (DD 941) passes the word as crew sails ship through.

—Navy 'Seawaymanship'

nel. The royal yacht was beautifully handled. And we had to be right there with her.

"Every man in our crew was on his toes. They were a real credit to the ship and to the Navy."

The transit of the St. Lawrence Seaway was an all-hands operation from the skipper and the navigators down to the ship's cooks. It was all new—and there were cross currents, sharp turns, and the locks.

"Every spare hand was assigned to the sea detail," said *DuPont's* exec, LCDR William St. George, USN. "We needed more than the usual number of line handlers—and on both sides of the ship. Going through the locks, sailors had to handle fenders on both sides to be sure we wouldn't scratch or tear the hull.

"We had to be especially careful with those fenders. Manila fenders are not used since, if dropped, they might sink and jam the flood gates. Instead, wooden or rubber pneumatic fenders are prescribed."

WHY DID THE St. Lawrence Seaway represent itself as a challenge to Navy seamanship? First of all, the Seaway is new, more complicated than the Panama or Suez Canals, and these were the first Navy ships to make the transit. Secondly, included in Task Force 47 were the largest ships ever to make the transit—fighting ships built with sloping hulls for high-speed ocean traffic, not cargo vessels especially adapted to cope with canal lock systems.

If you can envisage a Navy ship like the lumbering LSD *Donner* sailing into an elevator and ascending to a height greater than the Washington Monument (and more than three times as high as the Niagara Falls)—and then sailing off into a 95,000-square-mile fresh-water ocean, you can understand both the accomplishment of the St. Lawrence Seaway and the Navy seamanship involved.

The 28 ships of TF 47 used a series of 15 locks, the water equivalent of elevators, to make their ascent, and they climbed a total of

572 feet above sea level, some 17 feet higher than the top of the Washington Monument.

RADM Edmund B. Taylor's Task Force put its ships, and their crews and the great new canal and lock system of the Seaway to a rigid test, and all three came through with flying colors.

If a modern naval armada, with hulls geared for 32-knot speed rather than the squat sides of cargo vessels, could make the transit, it would point up the fact that the St. Lawrence was really able to cope with the problem of ocean-going ships making the trip to the Great Lakes.

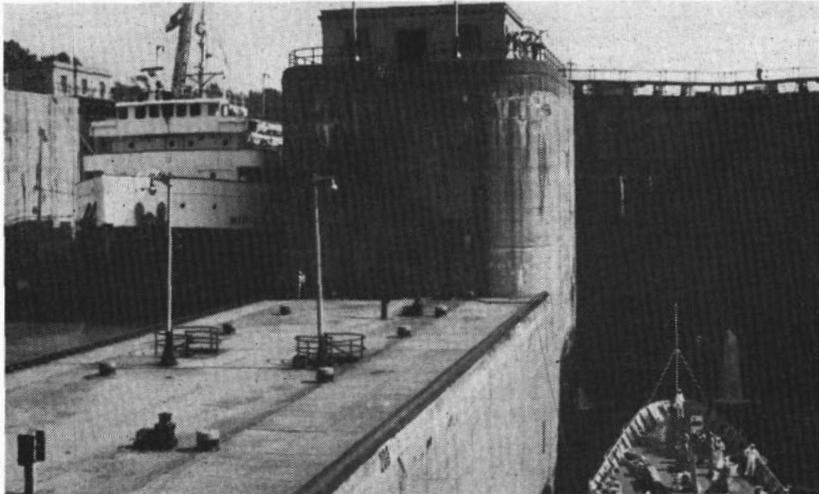
THE ST. LAWRENCE is a wide, easily navigable river—as far as Montreal. At its mouth it is almost 90 miles wide, and the salt water of the Atlantic moves many miles up its route.

Five hundred miles upstream, just west of Montreal, is the start of the first series of canals and locks. This is where Seawaymanship begins.

• Skirting the Lachine Rapids,



LOCK UP — First lock on Welland Canal looks small as heavy cruiser *USS Macon* approaches. Below: Good seamanship brings *Macon* through the lock.



INSIDE JOB — In locks, main job was to keep ship in position at all times.



the ships of TF 47 made their way through St. Lambert Lock and Cote Ste. Catherine Lock, into Lake St. Louis. The first rise brought them to an elevation of 46 feet.

- Then, steaming across Lake St. Louis, they entered the Lower and Upper Beauharnois Locks, which raised them another 84 feet. From there they entered and crossed Lake St. Francis.

- They bypassed the International Rapids through the Wile-Dondero Ship Channel with its two locks, Bertrand H. Snell Lock and the Eisenhower Lock, also known as Ike's Dike. The rise here was 89 feet.

- This brought them into the man-made Lake St. Lawrence. Last of the locks to be negotiated was the Iroquois Lock, where the rise at times is barely perceptible. When *USS DuPont* went through, she rose a mere three and one-half inches.

- Then they came into view of one of the most beautiful sights in the world—the Thousand Islands of the St. Lawrence. There are a few less than the original “1000 islands” now, since the dredgers and blasters have cleared the channel for the Seaway, but the view is just as beautiful as ever. And a lot less tricky. Gone are the shoals, the blind alleys, the wildly meandering route.

- Beyond the Thousand Islands, the ships of the Fleet entered the blue waters of Lake Ontario. Steaming across the first of the Great Lakes they headed for the next hurdle, and this was a real one—the Welland Canal with its seven lift locks and one guard lock. This detour around the Niagara Falls took them 326 feet higher—and into Great Lake No. 2, Lake Erie.

Only one more set of locks was on the list—for those ships heading for the most westerly point on the Great Lakes—Duluth, on Lake Superior. The lock system is at Sault Ste. Marie, connecting Superior with Lake Huron.

HERE'S AN EXAMPLE for those Navymen who are not steersmen, navigators or deck specialists.

Have you ever tried parking a car, five feet wide, in a concrete-walled stall barely seven inches wider? That leaves you just three and a half inches leeway on either side.

It sounds tough, but just imagine this additional situation: a sudden onrush of tons of water bursts out from the wall, pushing against one

ALL HANDS

side of your parked vehicle, shooting under, then hitting the concrete and putting its full force on the other side of you.

Try this a dozen times—fifteen times.

Now, imagine a warship in the same situation, say a warship the size of *uss Macon*. The biggest ship ever to go through the St. Lawrence, she has a length of 675 feet. According to the statistics, ships of her class have a beam of 72 feet, but *Macon* must have put on weight. Measurement showed there were 73 feet plus a few inches of ship that required clearance.

Next, take the governing measurements for ships on the St. Lawrence's lock system. Maximum length: 710 feet. Beam: 75 feet (the locks are 80 feet wide. Controlling channel depth: 27 feet).

Macon had to unload 2000 tons of ammunition and fuel so as not to ride too low in the water on the Seaway. In addition, the height of her mast was reduced by 26 feet to insure clearance under the bridges.

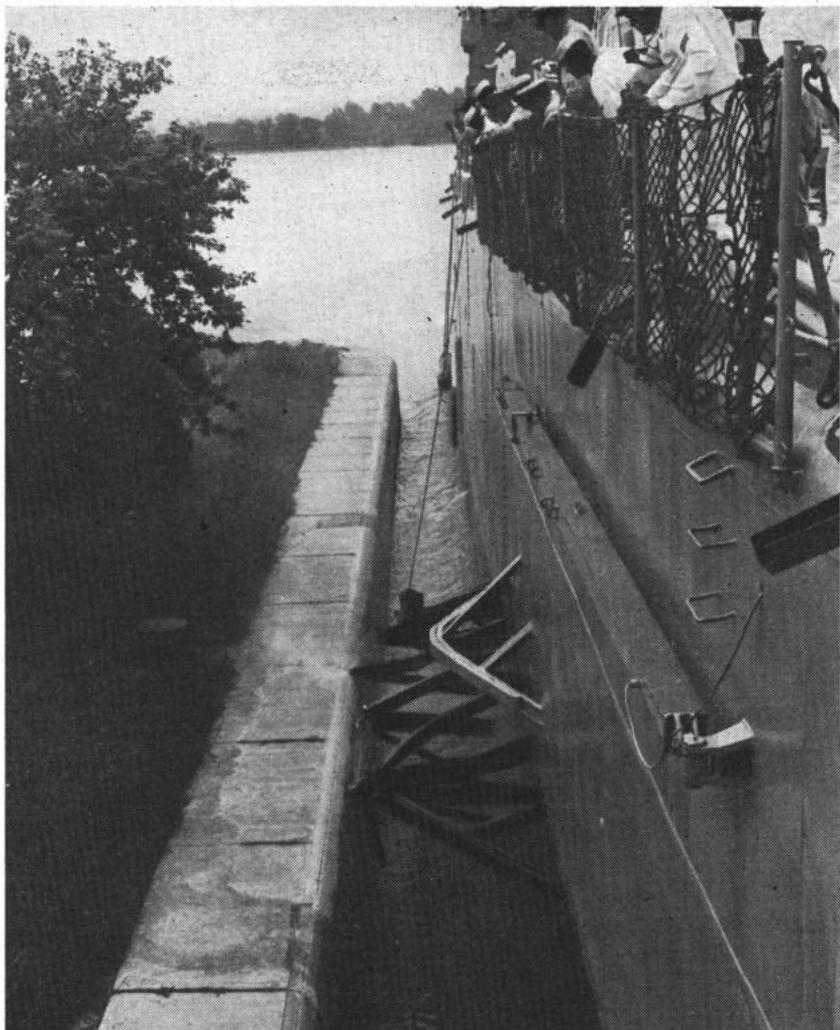
The other ships of TF 47 met with similar problems. The two LSDs, *uss San Marcos* and *uss Donner*, both have beams about as great as *Macon*—72 feet. The attack transport *uss Cambria* has a beam of 70 feet, and a draft of 26½ feet, six inches short of the maximum 27-foot allowable draft. The LSTs, with beams of 62 feet, and a draft of 18 feet, were somewhat better geared to cope with the problems of lock size, but they did not have the same maneuverability.

The attack cargo ship *uss Oglethorpe* could not make the transit fully loaded. If she had, her 11,000-plus tons would have made her draft 28 feet, one foot deeper than the allowable maximum.

Uss *Forrest Sherman* and *DuPont* and their fellow destroyers were, of course, smaller than most of the other Fleet ships to negotiate the Seaway, but they had special problems. For example:

"On the destroyers," said CDR Spittler of DD 941, "there is the possibility of the propeller guards riding up over the sea walls. This entails the necessity of installing a large wooden camel or fender to give us a lower screw guard.

"But it has to be portable. You can't leave it rigged all the time, at least not on the DDs, since it would



ON GUARD — Screw guards took beating as the big Navy ships moved slowly through canals. Below: Great Lakes pilot shares experience with Navy.

hinder their movements on the open seaway."

Guy T. Costa, QM1, USN, assistant navigator of *DuPont* and a veteran of numerous Panama Canal transits, mentioned some of the problems of shiphandling.

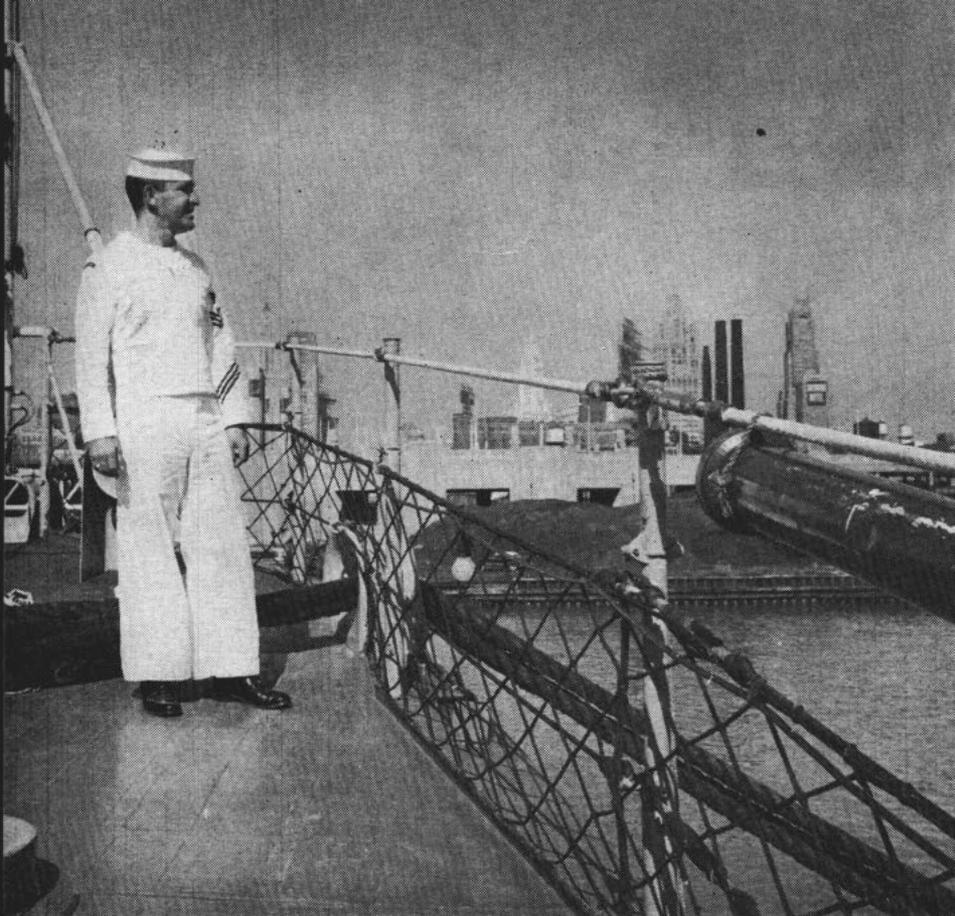
"This transit is more exciting, tougher, more of a test of seamanship, than Panama. Here the ship has to depend a great deal more on the crew.

"We had a 238-man complement, and practically every guy who wasn't assigned to duty below decks with the engine gang had a job to do on deck.

"On the Panama Canal, you have those mechanical mules to do a lot of the dirty work. Here it's seamanship, and we don't have a canal pilot all the way, as you do at Panama."

As assistant navigator, Costa twice did stretches of 20 hours at a time,





INLAND SAILOR — G. T. Costa, QM1, USN, assistant navigator of *DuPont*, admires view of Chicago skyline after completing history-making voyage.

the first time when the destroyer was starting through the locks, and then on its way through to the Detroit River.

DuPont's CO, like the skipper of the 27 other Task Force ships, aver-

aged less than two hours of sleep a day, snatching a few winks at a time.

"But it's not just a matter of the skipper's conning the ship—it was an all-hands operation.

SEAWAY DDS—Ships like *USS Warrington* (DD 843) showed skill in Seaway.



"You have to depend on the engineers for that fine touch on the throttles, that delicate touch on the screws," Spittle said.

BOATSWAIN'S MATES, acting as look-outs on either side of the big Navy ships, used hand signals to let the officers on the bridge know how close they were to scraping the lock walls. On occasion, crew members could reach out and touch both walls of the lock at the same time.

And regardless of the ship, as they went through the Seaway, the situation provided the same kind of tension. There were endless hours on the bridge. The men at the wheel, the best in their ships, steered them without actually seeing where the ship was heading. Their eyes followed every quiver of the compass needle as they reacted to the order from the captain on the bridge.

"The toughest maneuvering job was in the locks," said destroyer skipper Spittle. "On the Seaway proper and in the Welland Canal, you have to maneuver the ship all the way into the lock, then bring it to one side, where the ship handlers secure it with the ship's own lines—all the time thinking of those exposed propellers and flared bows.

"Once you're secured, the flooding process begins. As the lock gates open, water rushes in, tending to push the ship away from the side to which it is tied, then as it hits the other side of the ship, there is pressure to push the ship back against the concrete wall.

"Getting out of the locks is tricky, too. Normally you'd back out. Here you 'work' the ship out, spring out the bow, come out fast, always fighting that suction that would pull you back in if you're moving too slowly.

"Then it's ahead slow, say 10 turns of the screw."

ONE SECTION of the Seaway, he said, a channel some 16 miles long, had an appearance similar to the Suez Canal. But here ships traveling in opposite direction in the narrow channel appear to be steaming head on for each until they're about 500 yards apart. At this point each gives way to starboard, then veers toward the other as they get ready to pass.

Pretty to watch, not so easy to do.

But Task Force 47 came through the Seaway with colors flying. There were only a few minor mishaps. The LST *Suffolk County* damaged its

ALL HANDS

anchor windlass on the Lake-bound journey. Damage occurred to the starboard propeller of *uss Terribonne Parish* (LST 1156), when the prop struck a submerged object in the Seaway channel just below the Iroquois Lock.

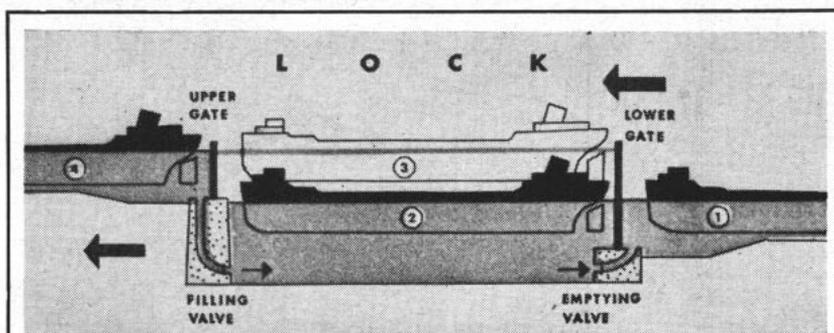
Replacement parts were flown in from Norfolk Navy Shipyard to Erie and then trucked to Ashtabula, Ohio, for a rush job.

The destroyer *Putnam*, scheduled to escort Queen Elizabeth's yacht to Chicago, damaged a propeller while scraping bottom near St. Ignace, Mich., and put into Milwaukee for repairs. She made it to Chicago in time for the big events.

In the Welland Canal, *Macon* ran into trouble, partly owing to tricky winds and currents. Shortly after entering the canal, the cruiser ripped off her protective propeller guard in a stairwell of Lock No. 1. Again in Lock No. 2, two steel cables were snapped off, and the difficulties continued in Lock No. 3, where quick work had to be done with shore winches to avert damage to the ship's side plates.

She came through without a scratch to her hull, thanks to the top seamanship of her skipper, Captain J. C. Wylie, USN, and his crew.

FIRST TO COMPLETE the transit of the Seaway from the mouth of the St. Lawrence to the waters of Lake Erie was *uss Cambria*, the amphibious force flagship. As she came



1. Ship entering lock chamber going up stream. Lower gate open, emptying valves open, upper gate closed, filling valve closed. Water in lock at lower level.
2. Ship in lock chamber. Lower gate closed, emptying valves closed, upper gate closed, filling valves open, water level in lock rising.
3. Ship in lock chamber. Lower gate closed, emptying valves closed, upper gate open, filling valves open, water in lock at upper level.
4. Ship now at upper water level sails out of lock.

through the last lock a few minutes after midnight, despite heavy rain and the late hour, the last 15 miles of the Welland Canal was lined with autos and cheering crowds. She then steamed in the vicinity of Ashtabula to stand by until the rest of the flotilla transited the locks.

How did the 10,000 Navymen and Marines enjoy the historic voyage up the Seaway? The general consensus: tough, exciting and enjoyable.

The following incident illustrates the general attitude that the crews displayed:

It was just a few minutes before 0600, the second day of transit

through the canals and locks. Every man in the destroyer *DuPont* had been up for hours—engineers, navigators, deck hands, line handlers, cooks and bakers either to work, or just to watch.

The Bosun's Mate of the Watch reported to the bridge to ask the skipper a question.

He asked permission to pass Reveille as usual, at 0600—just for kicks.

Permission granted, reveille was passed, amid hoots and hollers from everyone on deck, and ships close at hand.

The crew then went on working as before, in high spirits.

Navy Puts In at Put-In-Bay Once Again, After 146 Years

IN A SPECIAL memorial ceremony at Put-in-Bay, Ohio, during Operation Inland Sea, a Navy rear admiral paid homage to one of the service's most illustrious heroes, Commodore Oliver Hazard Perry. At the age of 28 Perry led an American squadron of ships to a hard-fought victory over a British force in the Battle of Lake Erie, 10 Sep 1813.

Thus, 146 years after U. S. Navy warships last sailed on the Great Lakes, the destroyer leader *uss Willis A. Lee*, with Rear Admiral E. B. Taylor, USN, Commander of Task Force 47, embarked, put in at Put-in-Bay, the harbor of South Bass Island.

Commodore Perry used the bay as headquarters for his American Fleet of nine ships just before sallying forth on Lake Erie to do battle with the British, in the War of 1812.

The ceremony honoring the naval victory and its dead was held at the Perry Memorial. This is one of the Nation's most imposing monuments, a beautiful Doric column of Milford granite rising 352 feet above the crescent-shaped bay. Erected in 1913 at a cost of \$500,000 after a nationwide architectural contest, the Perry Memorial stands in a National Park in Put-in-Bay, approximately 25 miles east of Toledo.

It was on 10 Sep 1813 that the daring naval tactician, Commodore Perry, had to leave his flagship, *Lawrence*, riddled by British shot and shell, to go aboard the ship *Niagara* and sail it between the British ships, raking them with broadsides and forcing surrender of the entire enemy fleet.

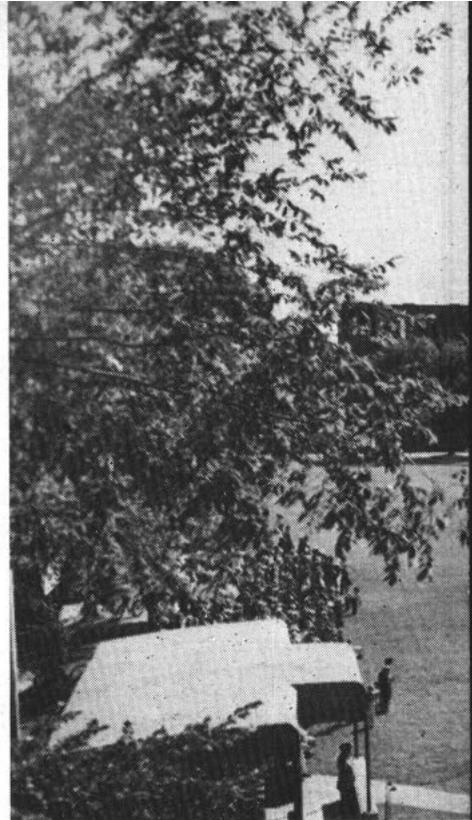
He then sent his famous message to American General Harrison, wait-

ing anxiously on shore: "We have met the enemy and they are ours," listing two ships, two brigs, one schooner and one sloop.

American control of Lake Erie enabled GEN Harrison to invade Canada and successfully conclude the War of 1812 in the northwest.

Commodore Perry died 23 Aug 1819 on the island of Trinidad, Port of Spain, 34 years to the day from date of his birth 23 Aug 1785, at South Kingston, R. I. His remains were brought home in honor in 1826 aboard the U. S. sloop of war *Lexington* and reinterred with the final rites of a military hero, at Newport, R. I., 4 Dec 1826.

Perry's memorial at Put-in-Bay rises close by the common grave of three American naval officers and three British officers who died in the Lake Erie naval engagement.



This Is

With Task Force 47 visiting numerous Great Lakes ports this summer, the midwest and the nation were reminded that—while armed warships are something of a rarity on the fresh waters of the Inland Seas—the Navy itself is no stranger to these parts. In fact, right on the shore of Lake Michigan is a vital naval installation known as NTC Great Lakes.

LARGER THAN THE principality of Monaco, the Great Lakes Naval Training Center is the biggest naval installation in the midwest. Currently it has just about the same permanent population as Monaco, plus transients too, and although there are no casinos, there is a beautiful view overlooking the water.

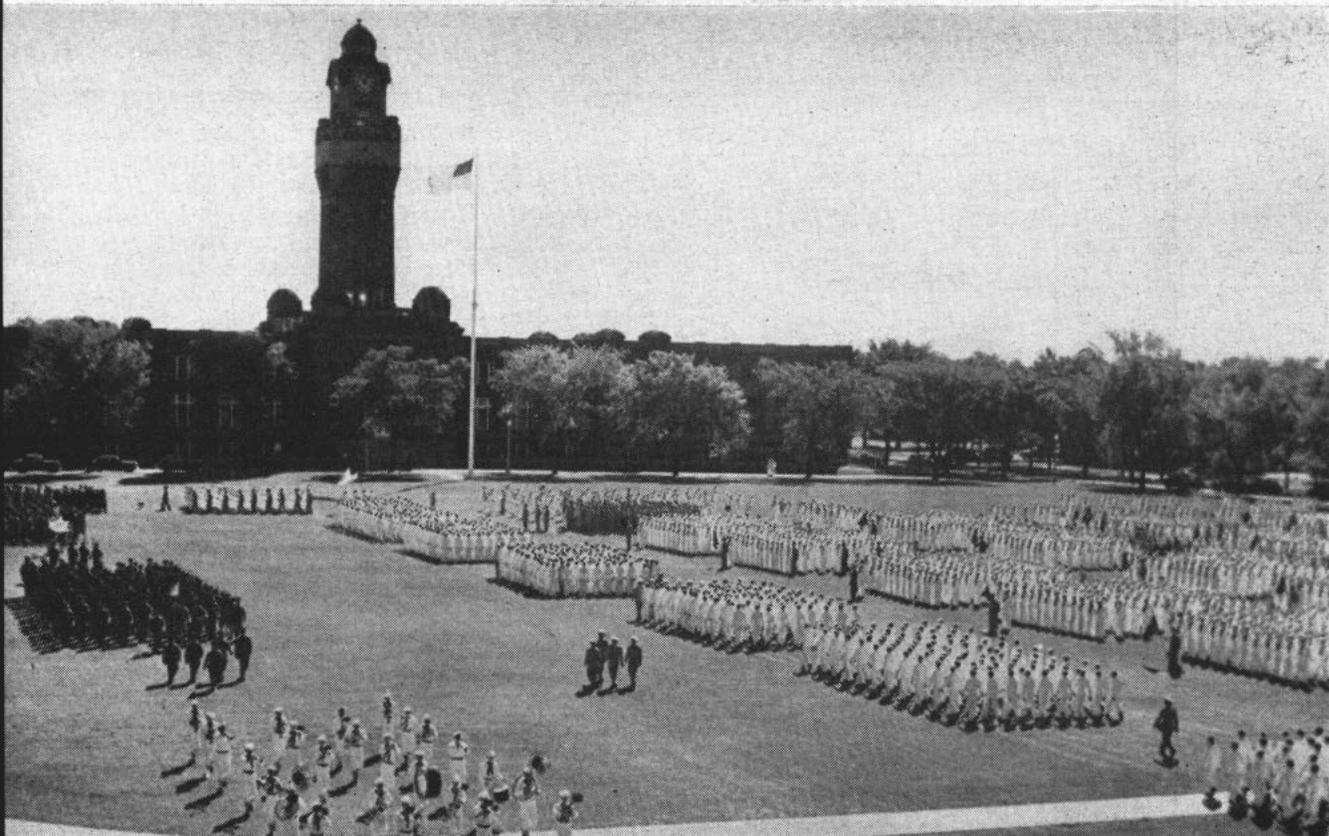
This is where the comparison ends. For Training—not Tourists—is the big business at NTC Great Lakes.

Situated just outside of Chicago, within short distances of many other Great Lakes cities and within the reach of a vast farm population, this location appeared to early planners to be the logical spot for the Navy to establish a training center for recruits from the midwest states.

One third of the sailors joining

ALL HANDS





NTC Great Lakes

the salt water Fleet—particularly in wartime—have come from the midwest. NTC Great Lakes, a veteran of World Wars I and II and the Korean conflict, has served primarily as a recruit training establishment, introducing these new Navymen to seamanship, customs and traditions, rocks and shoals.

During World War II, Great Lakes trained one million sailors, one out of every three in the wartime Fleet. Chalking up another record, NTC trained and processed twice as many as any other Navy installation in the country.

But recruit training, while it is the major function, is not the only one at this center which covers approximately 1400 acres of crowded naval facilities. Here also you'll find the following:

- NTC Great Lakes is the headquarters of the *Ninth Naval District*—the largest in the nation, naturally—covering 13 midwestern states. The job of the Commandant 9th ND in what used to be a landlocked naval district, is to direct its surprising number of naval activities. For example, one of the Commandant's most important functions is to administer the Naval Reserve program in the 13 states, with Naval

Reservists drilling at 72 training centers.

- Great Lakes also provides advanced training in various *technical schools* for the different kinds of specialists needed in today's supersonic-electronic-nucleonic Navy. These schools provide instructions for machinists, gunners mates, electronics technicians, enginemen, electricians mates, dental technicians, boilermen, hospitalmen, opticalmen, fire control technicians and others—

Canadian, British Warships Traveled the Seaway Too

Canadian ships participating in the opening of the St. Lawrence Seaway were the destroyer escorts HMCS *St. Croix*, HMCS *Athabaskan*, HMCS *Cayuga*, HMCS *Micmac*, HMCS *Crescent*, HMCS *Restigouche*, and the frigates HMCS *Fort Erie* and HMCS *Swansea*—all units of the Royal Canadian Navy's Atlantic Fleet.

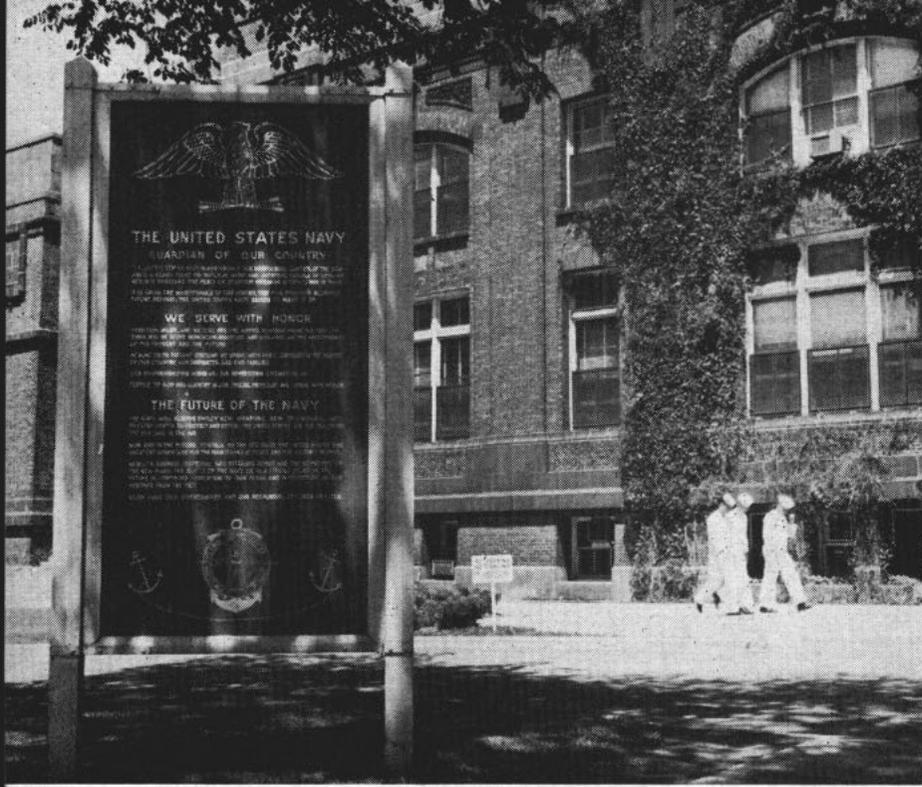
Serving as escorts to the royal yacht *Britannia*, along with the U. S. Navy ships USS *Forrest Sherman* and USS *DuPont*, were HMCS *Gatineau* and HMCS *Kootenay*, and the British warship HMS *Ulster* rounds out the roster.

at last count there were 21 schools in the training command located there.

- The *Naval Hospital* at Great Lakes, besides being one of the major Navy facilities for the care of sick and injured personnel, is also a huge training center, providing indoctrination for corpsmen, nurses and interns. At one time during the fighting in Korea, USNH Great Lakes was treating 700 battle casualties.

- Two large Naval Supply activities have been set up in recent years at Great Lakes, adding to its functions. The *Naval Supply Depot* not only serves other naval centers throughout the midwest but also provides certain equipment for ships of the Fleet. A huge *Electronic Supply Office* controls the procurement and distribution of repair parts required for the maintenance of electronic equipment on shore stations and Navy ships.

- Important to every man in the Navy is the *Naval Examining Center* at the Lakes. Here are prepared and processed all the exams which you'll take, going up the ladder to chief. And CPOs who are specialists in each rating play a key role in what goes into those exams, to insure that



the questions are fair, and up-to-the-minute in your rate and rating.

- Then there's the *Fleet Home Town News Center*. Navy journalists—many of them previously trained right here at the Great Lakes Journalist School—collect and route news stories and photos of bluejackets and Waves from all parts of the country, and send them to their home town newspapers.

- Another sample of the all-Navy functions of the Great Lakes installation is the *Navy Medical Research Unit No. 4*. This unit has carried out research into the cause, cure and control of respiratory diseases—as part of the program to keep Navy-men and their families as healthy as possible.

THE STORY OF Great Lakes goes back almost to the turn of the century. In 1904 a board was appointed by President Theodore Roosevelt to select a site for what was to be a centrally located training center. The present site was chosen from among 37 locations along the Great Lakes.

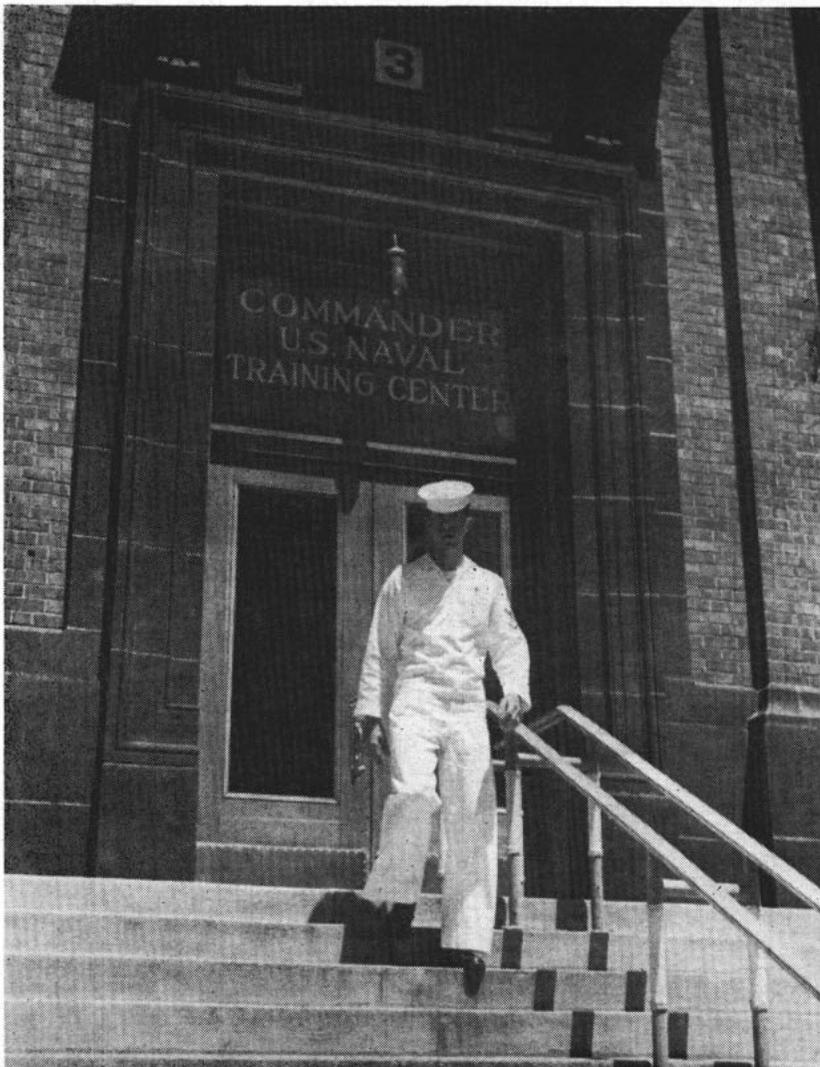
Even then the citizens of the mid-west, although a thousand or more miles from the ocean, had a strong interest in the Fleet. The funds to purchase the property were raised by the Merchants' Club of Chicago and the land was presented to the government as a gift from the people of Chicago.

Great Lakes was commissioned on 1 Jul 1911, six years after construction had begun. At that time it consisted of 39 buildings and had a capacity of 1500 men.

During World War I, Great Lakes almost burst its seams to keep ahead of the training program. Its expansion gave it 775 buildings, with a capacity of almost 50,000 trainees. More than 125,000 Navy-men received their first training in Great Lakes during the first World War.

But this was peanuts to what was to come. Between the war years Great Lakes business and population dropped off, then began to pick up after the national emergency proclaimed when Germany invaded Poland in 1939. With the attack on Pearl Harbor, overnight the expansion program got underway.

Working in shifts seven days a week, 13,000 civilian workers established records building new barracks, mess halls and training schools. In 1944 NTC Great Lakes' population reached its peak—more than



100,000. By the end of the war there were over 1000 buildings.

Things have tapered off at Great Lakes since then, but the capacity to put forth in a big push is still there. Today a visitor entering at the Main Gate of Great Lakes gets the first impression that he's on the campus of a large university. There are huge, red brick buildings, many of them covered with ivy, tree-lined streets, and smooth grass lawns. There's a tremendous square—actually a parade ground—and not far off are attractive living quarters.

Other sections of the base lose the college atmosphere, and you feel as though you're back at some wartime overseas base—with huge utilitarian buildings, and barren grounds.

And in still other areas there's the look of a boom town. Old structures are being torn down, to be replaced by rows of attractive modern buildings—this is future housing for Navyman's families.

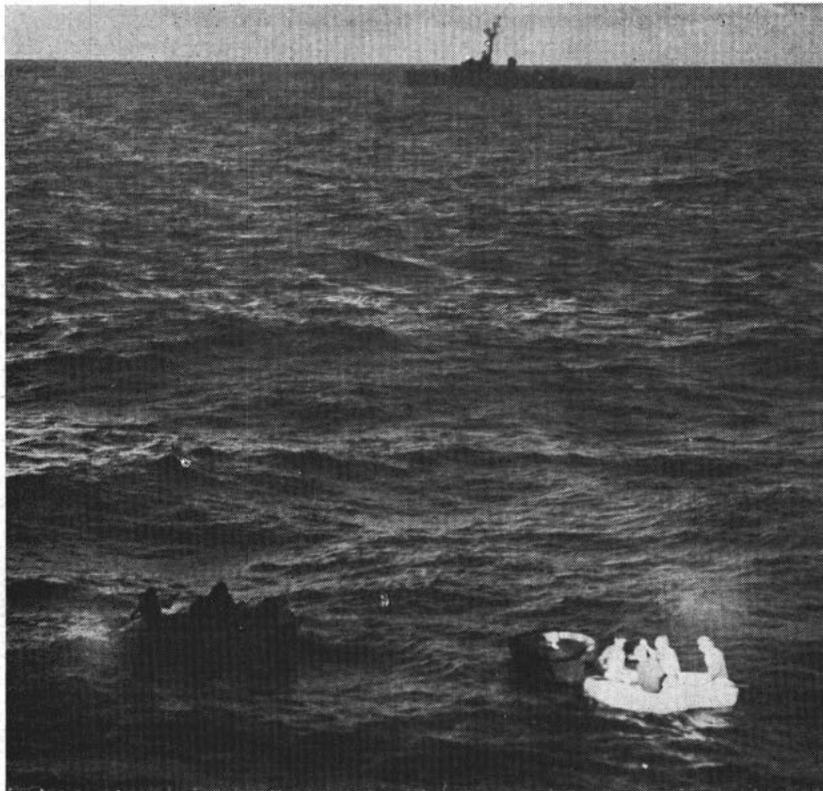
Great Lakes doesn't stand still. It keeps moving with the Navy and with the times—and the general opinion of the Navyman who's stationed there is—

"This is good duty."

THE map below covers only a small part of huge station at Great Lakes. Here are a few of the places it shows: 1—HQ Ninth Naval District; 2-B—IC School; 2-C—Commissary store; 3—NTC Administration; 4—Drill Hall; 5—Main Galley; 11—Power Plant; 12—Water Filter Plant;

13—Boathouse; 25-28—Barracks; 62—BOQ; 110—Ross Auditorium; 111—Navy Exchange; 150—RTC Administration; 161—RTC Receiving Unit; 169—Drill Hall; 209—EM Club; 210-A—Outgoing Unit; 211—Recreation; 214—BT School; 215—MM School, 217—Rifle Range; 300—Service School Administration; 309—EN School; 310-311—ET School; 312—JO and EM Schools; 413—EM School; 512—Electronic Maintenance School; 520—ET School; 521—GM School; 610—Separations and Reenlistments; 616—FT, OM and IM Schools; 617—Gunners Officers Ordnance School; 1-H—USNH Adm.; 82-H—Recreation, Theater; 100-H—Hospital Corps School; 108-H—Fire House.





GOOD CATCH—Frogmen converge on Jupiter nose cone (left), which was later hoisted aboard USS Kiowa (ATF 72).

Monkey Business Is Job of

IN THE SHIP'S LOG of the Fleet tug USS *Kiowa* (ATF-72) for 29 May 1959 are five entries.

They read:

"0330—Commenced maneuvering on various courses and using various speeds. Set the special project recovery detail."

"0418—Launched rubber boat with four swimmers."

"0503—Launched second rubber boat with four swimmers."

"0553—Nose cone on board."

"0556—Both rubber boats and swimmers on board."

That's the story of *Kiowa's* starring role in a history-making project—the recovery of the monkeys "Able" and "Baker" after their 1500-mile flight through space in the nose-cone of a Jupiter missile.

For *Kiowa* it was the high point in a 16-year record. Her history since her commissioning in June 1943 parallels the story of most of the Navy's small auxiliaries—no headlines, just a long list of solid contributions to the Navy's mission.

The first of those contributions from *Kiowa* came soon after completion of her shakedown cruise. Off

Argentia, Newfoundland, she towed the targets which aided in making the brand-new battleship USS *Iowa* (BB 61) gunners highly proficient.

Summer of 1944 brought D-Day to the beaches of Normandy, and *Kiowa* was there, escorting a convoy of LSTs in to a beachhead. Later she went through heavily-mined waters to rescue the crew of the destroyer USS *Glennon* (DD 840), which had been damaged and run aground just off the invasion beach.

Returned to England, she then took on one of her more difficult towing jobs. *Kiowa* weighs only 1240 tons, but she latched on to the 16,000-ton SS *Sea Porpoise*. To complicate matters, *Sea Porpoise's* screw was locked in its shaft. *Kiowa* joined the slowest moving U. S.-bound convoy she could find, and literally dragged her big charge inch by inch through 28 days of tedium and boredom across the Atlantic.

Spring of 1945 saw *Kiowa* operating off Bermuda. Another tough towing operation popped up there. A short distance off Bermuda she took SS *Lone Jack* in tow.

Lone Jack's rudder had been

jammed hard right, and instead of following a tow-line she rode mostly on *Kiowa's* starboard beam. The commanding officer got the bronze star for his seamanship.

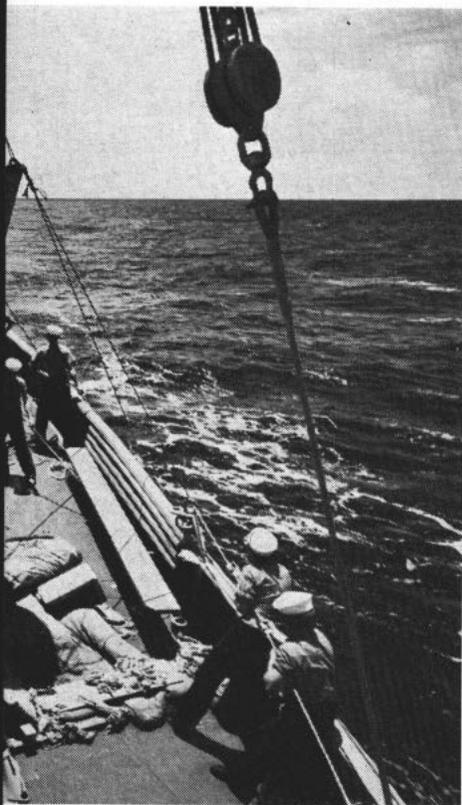
The frozen north was the scene of another *Kiowa* adventure. In January 1946 she plowed nearly 1100 miles northeast of Argentia after a broken-down Danish merchantman. This was one time, though, when the tough little Fleet tug almost needed rescuing herself.

While still short of her goal, a ruptured boiler left her without heat next door to the Arctic Circle.

On top of that, an electrical fire in the main switchboard stopped all main engines. As a result, *Kiowa* was busied the next two days making sufficient repairs to return to port.

So it's gone in the years since. Thousands of jobs up and down the east coast—some exciting and exacting, most humdrum and routine—none calculated to make the history books. More of the same was about what *Kiowa's* crew expected when they arrived in the Caribbean the past April.

Early in May she received special



ABLE AND BAKER are back safe.

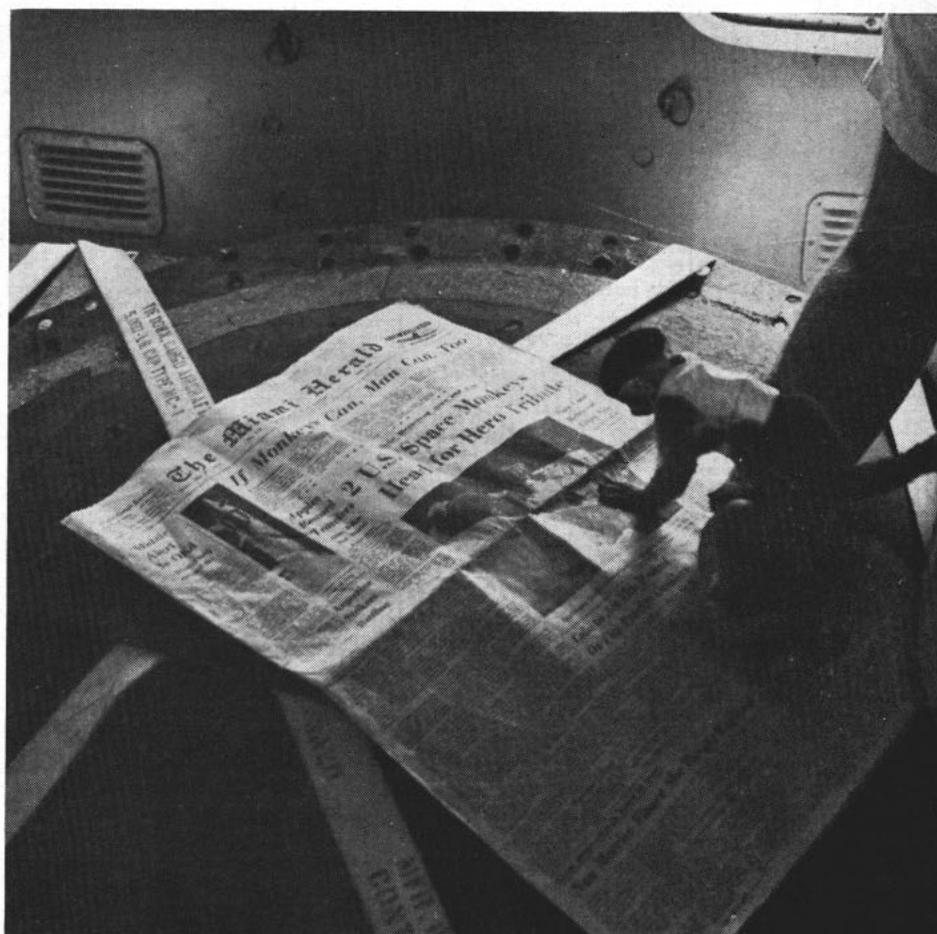
USS Kiowa

orders, however. At San Juan, Puerto Rico, she took aboard a very special group of passengers—four civilian scientists, four Army men and four Navy frogmen. On 28 May she made her rendezvous with two escort vessels, *uss Brough* (DE-148) and *Snowden* (DE-246).

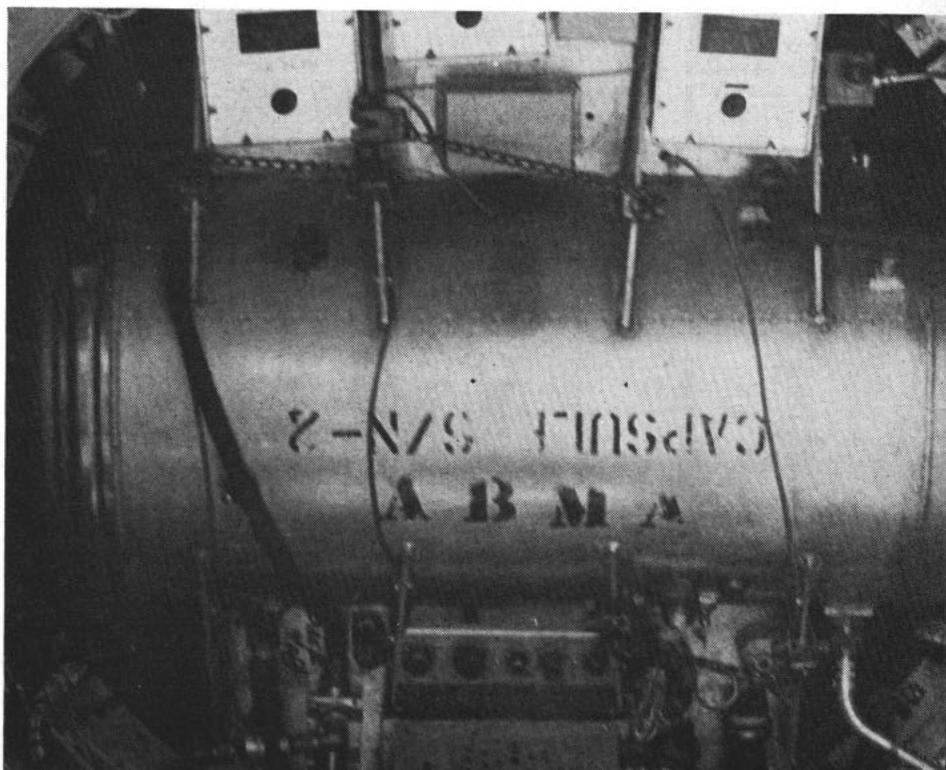
The task group was patrolling off Antigua, West Indies, when lookouts spotted the nose cone falling toward its appointed destination. Guided by two Navy patrol planes, *Kiowa* maneuvered toward the bobbing nose cone, launching her frogmen just 25 minutes after the cone hit the water.

Lines were secured to the nose cone, it was slowly brought alongside, and gently lifted aboard. Minutes later the U. S. got a message—"Able, Baker perfect. No injuries or other difficulties." (Able's career was later cut short during an operation, but Baker is living out a full life as the Navy's first space monkey.)

Kiowa delivered her world-famous cargo at San Juan the following day, and a short time later headed quietly back to Norfolk and more towing jobs. —Jerry McConnell, JO1, USN.



SPACE TRAVELER Baker (above) "reads" one of the many news stories about his exploit. He made the historic trip in life support capsule (below).



LETTERS TO THE EDITOR

Another Dislocation Allowance

SIR: In August 1958 I was transferred from NAS Glynco, Brunswick, Ga., to duty under instruction at Radioman, Class B School, at Bainbridge, Md. At that time I received a dislocation allowance of \$96.90.

In the spring of 1959 I was transferred to a ship based at Mare Island, Calif., so I moved my family to the West Coast.

Am I eligible to collect another dislocation allowance, even though this would be the second one within a single fiscal year?—L. J. G., RM2, USN.

• *Definitely.*

When you were ordered to Bainbridge the course of instruction was scheduled for 30 weeks. Thus, in accordance with Para. 1150-10b of Joint Travel Regulations, Bainbridge became your permanent duty station and you were paid the allowance.

Since that transfer was for a course of instruction, it does not fall within the one-in-a-fiscal-year limitation. Such situations are covered by Paragraph 9003, Item 9, of Joint Travel Regula-

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.

tions, which provides, in part, that a dislocation allowance is not payable for more than one permanent change of station during a fiscal year—except that this limitation does not apply to members ordered to, from or between courses of instruction conducted at military installations.—Ed.

Chief of Staff

SIR: Will you please tell me the difference between Chief of Staff and Chief Staff Officer? It is my understanding that a flag officer has a Chief of Staff and a unit commander below flag rank has a Chief Staff Officer. I have never seen it in black and white, however.

And another thing, is an absentee pennant flown when the Chief Staff Officer is away from his ship? According to DNC 27 and various other books, it specifically states Chief of Staff in regards to the second substitute. Can you clear this up?

When I was in destroyers, we did fly the second substitute, and I always thought it was right. Now I have been told that it is not. My common sense tells me it should be flown for the Chief Staff Officer, but I can't depend on that.—W. B. C., SMC, USN.

• *First of all, you're right in your differentiation of Chief of Staff and Chief Staff Officer. A flag officer does have a Chief of Staff, and a unit commander below flag rank has a Chief Staff Officer. The rank of the second in command has no bearing on the title.*

Here is how the system works. COMDESLANT, for example, is a rear admiral, and has a Chief of Staff who is second in command. COMDESRON 10 is a captain (referred to as commodore); he has a Chief Staff Officer.

As for the absentee pennant, there is no authority to fly one for the Chief Staff Officer. Just as it states in DNC 27 and Navy Regulations, it's the Chief of Staff (to an admiral) for whom you fly an absence indicator.

If you want to look it up, check Articles 2162 and 2176 in Navy Regulations, and Article 151 of DNC 27. These will give you the facts.—Ed.

Pending Detachment

SIR: I've been in on a rather heated discussion about the miscellaneous change entry "Change duty status to pending detachment" as required by Article D-102, NavPers 15, 642 (Rev. 1957).

I contend that the miscellaneous change should be made immediately upon the receipt of detachment orders for an officer on board in a duty status. Others say that the entry is not made until the relief reports on board.

In addition, it is their contention that an officer reporting on board as relief for an officer with detachment orders must be shown as Prospective-Billet. I believe that if the pending detachment entry is made the prospective relief can be gained with the primary duty listed even though the officer being relieved has not been detached on that day's diary.—M. V. K., PNC, USN.

• *Well, Chief, you win half your argument, anyway.*

In answer to the first part of your query—your contention is not correct. The miscellaneous change entry is re-

Quarterdecks Ashore

SIR: I am attached to a Naval and Marine Corps Reserve Training Center. It is the policy at this training center to treat the building as if it were a ship in regard to rendering a salute to the colors coming aboard and leaving. I have never seen this at other training centers or Marine Corps posts and naval stations. Is this correct procedure?

Section 7 paragraph 2160 of *Navy Regulations* says, "The Commanding Officer of a ship shall establish the limits of the Quarterdeck and the restrictions as to its use. The Quarterdeck shall embrace so much of the main or other appropriate deck as may be necessary for the proper conduct of official and ceremonial functions."

I contend that this is no ship and there should therefore be no Quarterdeck.—R. E. S., AMSGT, USMC.

• *Our "cognizant sources" could locate no authoritative source on "Quarterdecks" on shore stations.*

While the procedure described in your letter is not generally used at shore stations, it does not appear to conflict with any regulations, and is presumed to be within the prerogative of the Commanding Officer of the Center.—Ed.

CO's Recommendation

SIR: The page 13 service record entry concerning recommendation for advancement previously specified the month and year in which a man was to compete in the service-wide exam.

Now, the page 13 entry reads, "(Date) recommended for advancement. Eligible to participate in the servicewide competitive examinations for (rate)."

Does this mean that an individual no longer has to be recommended each time he competes for the same rate? In other words, is the initial recommendation sufficient unless withdrawn by the commanding officer?—J. W. F., YN2, USN.

• *There's been no change. The recommendation for advancement applies to one examining period only. The CO's recommendation is still the first and most important factor in determining eligibility for advancement, and must be submitted each time.*

The service record entry need not necessarily be repeated since the NavPers 624, signed by the CO or his authorized representative, certifies that the individual is recommended for advancement.—Ed.

quired for an officer being relieved when the relieving officer has reported on board.

As for the second part of your argument, you're right as rain. The pending detachment entry is made in the personal accounting system to avoid reflecting more than one officer in a duty status against one billet in an allowance.—ED.

Four 'E' Tender

SIR: From the tone of the story about *uss Dixie* (AD 14), on page 35 of your April issue, it sounds as if *Dixie* is the only tender servicing CRUESPAC ships in the Western Pacific.

uss Bryce Canyon (AD 36)—a four (4) "E" tender—has been in WESTPAC since February 1959, and we think she does a fine job, equaling or surpassing most other ADs.

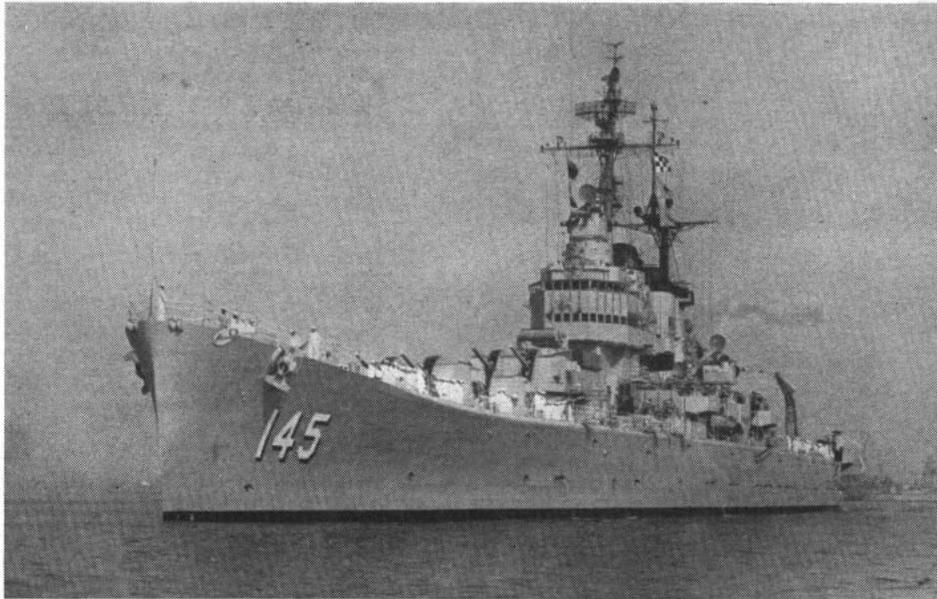
This is not a rash statement, for her record backs it up. Over the past four years she has won the Battle Efficiency Award four times in a row as top ship of her class. In October 1958, when *Dixie* did a five-day rudder job on a DDR, we performed one on *uss Brush* (DD 745) in just five days. However, we don't have to go back that far to come up with "tough jobs tackled."

Not so long ago our Hull Repair divers changed propellers on *uss James E. Kyes* (DD 787) to save her the time and expense that going into dry-dock would have meant. So far as we know this was the first time a destroyer tender had undertaken such a job on the West Coast. In January 1959 we accomplished what we think was the first destroyer-helicopter conversion job on the West Coast. This job was mostly "played by ear" by our ingenious ship-fitters, and many of their methods have since been adopted by other ADs for converting other destroyers to receive 'copters.

Bryce Canyon is much smaller than *Dixie*. We have only 33 shops, but in one typical 10-day availability period with DesDiv 31 we satisfactorily completed 600 job orders. This can be compared with *Dixie's* 100 job orders for 75 shops, during a two-week availability.

We offer all the services mentioned in the story about *Dixie*. In addition, our radiomen and signalmen provide radio and visual guard services to ease the load for sea-weary destroyer communications personnel. Our Engineering Department contributes steam and electrical power. During the first nine years *Bryce Canyon* was in commission she supplied over 15 million kilowatt-hours of electricity to ships alongside. That's enough power to supply an average home for 5000 years.

To date *Bryce Canyon* has handled over 40,000 job orders, accomplishing repairs on more than 2500 ships.



CRACK SHIP—Light cruiser *USS Roanoke* (CL 145) has earned her share of E's and then some while serving with ComCruDiv Five out of Long Beach.

Although the ships we've serviced are spreading the good word about us, we still thought you should know that *Dixie* isn't the only floating service station in CRUESPAC.—J.S.L., LTJG.

• *Spreading the word by mouth takes time. It's much faster, and more complete, when someone takes the time to sit down and write up an account. So thanks, and three cheers for Bryce Canyon.*—ED.

Which Way to the Sick Bay?

SIR: I greatly enjoyed your fine article on DEs and DERs in the April edition. However, I must take issue with the statement that the drawing in your centerspread showed a typical DE.

Where is the sickbay?

I will not accept the answer that it was in the portion of the ship that was cut off (which is what you told someone else when the sickbay turned up

missing in a drawing of a cruiser in your July 1958 issue).

On the other hand, I suppose your DE is typical in that the sickbay is so small it cannot be seen with the naked eye.—C. F. Daniel, HMC, USN.

• *As you've served in a DE, you're probably aware that the ship in our centerspread is a composite of several different classes. In such a drawing it is impossible to indicate all spaces, and the sickbay isn't the only area that was left out.*

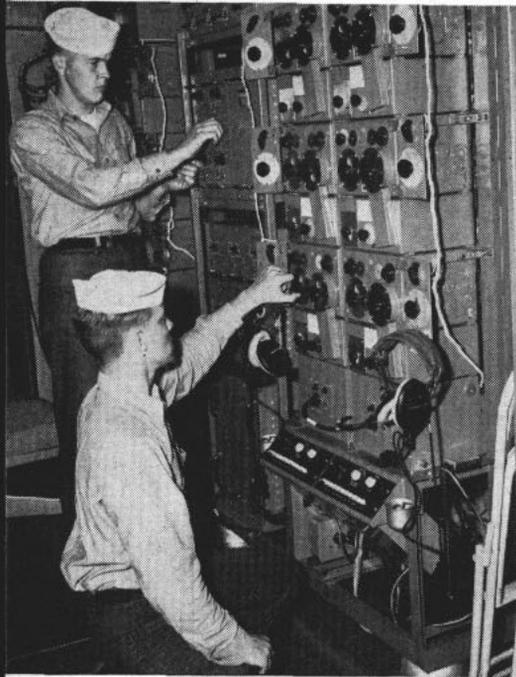
The pharmacy or hospital space on most DEs is on the starboard side of the ship, so regardless of whether or not you'll accept our answer, the truth is that the portion of the ship containing the sickbay has been cut off.

We know this sounds like the same answer we gave the last time we were accused of losing a sickbay (November 1958 issue, p. 31). But, as we said at that time—no matter how you slice it, that's the way the ball bounces.—ED.



THREE OF A KIND—Oilers *USS Hassayampa* (AO 145), *USS Kawishiwi* (AO 146) and *USS Taluga* (AO 62) all operate in Pacific, rarely get together.

LETTERS TO THE EDITOR (Cont.)



LIKE REAL—Tradesmen work device that relays problem to Air Early Warning Combat Information Center.

SIR: In past issues of ALL HANDS I have seen quite a bit about USS *Nautilus*, SS(N) 571; *Skate*, SS(N) 578; and *Seawolf*, SS(N) 575—but you haven't once mentioned their tender, USS *Fulton* (AS 11).

Indirectly, the men of *Fulton* have played an important part in the exploits of these record-breaking subs, so how about a word for our tender? —Richard R. Gonzales, RMSN, USN.

• One well-deserved plug coming up.

USS *Fulton* (AS 11) is the second submarine tender named for the world-famous inventor, Robert Fulton.

The first—AS 1—was completed in December 1914. During World War I she handled the reconditioning and outfitting of Submarine Division Six. She remained a sub tender until 1930, when she put into the Philadelphia Navy Yard for conversion, after which she served as a gunboat (PG 49) and survey ship until May 1934, when she was decommissioned. She was sold for scrap a year later.

The present *Fulton* (AS 11) was authorized by an Act of Congress dated 30 Jul 1937. She was built at the Navy Yard, Mare Island, Calif., and launched on 27 Dec 1940. Her sponsor was Mrs. Alice Cray Sutcliffe (a great-granddaughter of Robert Fulton), who had also been the sponsor of AS 1 back in 1914. The new *Fulton* was commissioned on 12 Sep 1941.

After her trial runs, *Fulton* headed for the Destroyer Base, San Diego, Calif., arriving there on 25 November. She started her shakedown cruise on 1 December, and was on her way to Panama when Pearl Harbor was attacked.

From 9 to 17 December, *Fulton* remained in Panama. Then, she stood out for the Gulf of Fonseca, on the Pacific coast of Nicaragua, where she established a seaplane base in just 23 days, in spite of having to build and improvise much of the equipment. Returning to Panama on 14 Jan 1942, she was dispatched to the Galapagos Islands to help set up another seaplane base. This one was completed in five days, and the tender returned to San Diego on 9 February.

On 8 March the ship departed for Pearl Harbor. She arrived at the Submarine Base there on 15 March, and soon set to work on her first submarine refit—on USS *Drum* (SS 228). Her work at Pearl was interrupted on 3 June, when she set out to rescue survivors

of USS *Yorktown* (CV 10). The carrier had been lost in the Battle of Midway, which was still in progress. The tender returned to Pearl on 8 June, and worked there until 12 July, when she left for Midway to establish a submarine base there. She stayed on to refit subs at Midway until 17 October, when she got underway for a drydock period back at Pearl.

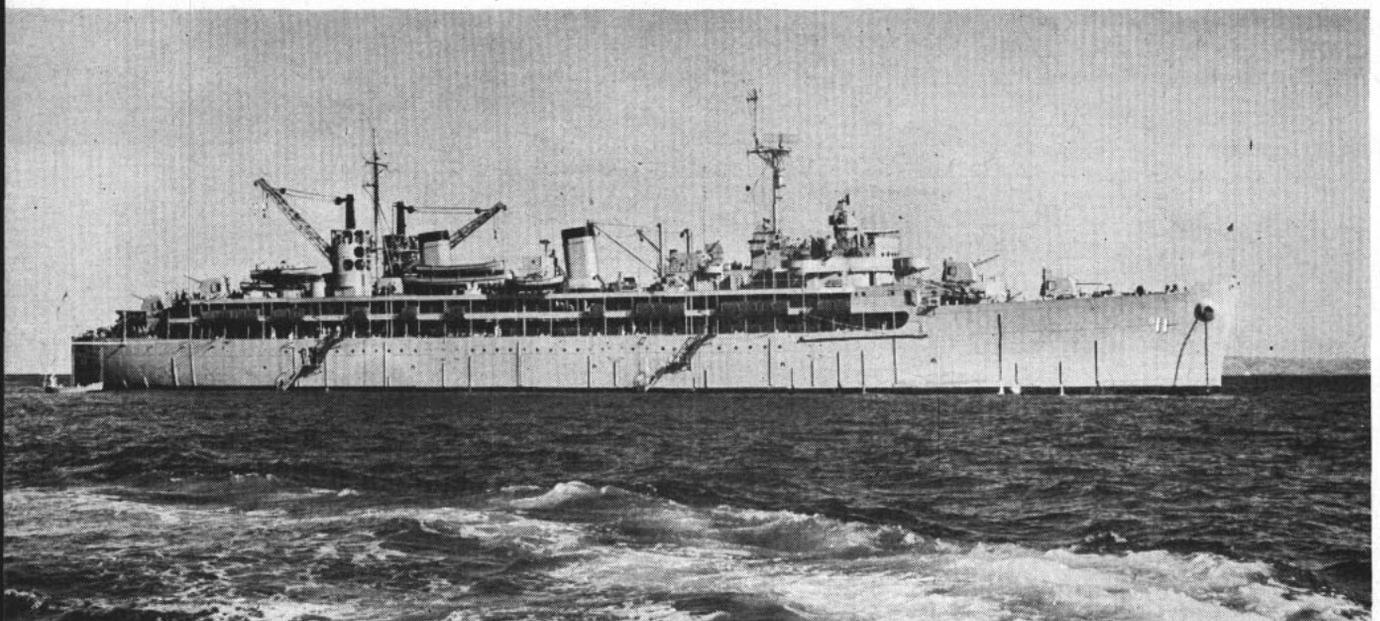
Fulton didn't get much of a rest. She reached Pearl Harbor on 21 October, and on the 26th departed for Brisbane, Australia. Arriving on 11 November, she became the flagship of Commander Task Force 72 (COMO J. Fife) the same day. At Brisbane, *Fulton* established another sub base and a submarine rest camp. She also took care of 67 submarine refits and 13 voyage repairs, and did repair and refit work on many other types of ships before leaving Brisbane on 24 Oct 1943 for Milne Bay, New Guinea.

The tender worked at Milne Bay from 29 Oct 1943 until 17 Mar 1944. During that time, repairs on ships other than submarines often made up as much as 80 per cent of her work load. She also built a complete rest camp for submariners, even installing a water system and manufacturing much of the camp equipment.

From Milne Bay, *Fulton* returned to Pearl Harbor on 27 Mar 1944. She left on 18 April, and on the 24th, pulled into Mare Island for overhaul. When that was completed, she sailed for Pearl again, arriving there on 13 June. After about a month's work at Pearl, she departed for Midway, where she worked from 18 July to 8 September.

On 17 September, *Fulton* pulled into Saipan, where she took care of both submarines and surface craft for the next seven months. She left on 23 Apr 1945, and on 7 May, pulled into Pearl, following a trip which had included a brief stopover at Guam. After about a

TENDER—USS *Fulton* (AS 11) has power house in USS *Nautilus*, SS(N) 571, *Skate*, SS(N) 578, *Seawolf*, SS(N) 575.



Das Iss Oberice Boaten, Mitt Uppenjumpen Whirlenburden Yet

STN: The icebreaker *uss Staten Island* (AGB 5) is currently operating as part of Task Force 43 in Operation Deep Freeze IV. At this writing, we are about midway in the operation, having visited McMurdo Sound, Little America V and Hallett Station.

Staten Island has several memorable accomplishments to her credit and during this operation she has lived by her motto, "If it can be done, we can do it." She single-handedly broke and cleared the ice from a 10-mile long channel in McMurdo Sound, a feat not considered possible for a *Wind-Class* breaker. She has served as a cargo ship, oiler, transport and aircraft carrier as well as an icebreaker during this operation. We who serve in her are proud of her accomplishments.

Even while adding to an enviable record, we have our small troubles. Sometimes, when they are over, they become very amusing.

Among the civilian scientists and news correspondents we have with us a prominent Swiss photographer, Mr. Emil Schulthess. Mr. Schulthess, impressed with the ship, desired to record an interview discussing icebreaking—in German—with some member of the crew. Alas, checking everyone with German names or of German descent, we found that no one could speak German.

The best we could muster up is the following story, "*uss Staten Island—Ice Busten Boaten*," written by LTJG J. L. Reifschneider, USN.

Der iss unterseaboaten like U-boaten, oberseaboaten like *Bismarck* or

Scharnhorst but *Staten Island* ist obericeboaten. Nein, *Nautilus* ist unterice boaten.

Vas ist oberice boaten?

Oberice boaten ist icebusten boaten. Mit der soot hausen black smoke belchen, Herr Machinest shouten "Der engine oberloaden," das *Staten Island* runnen like blitzten at das ice. Kaptain armswingen und upshouten, "Screw-busten in der ice ist verboten" as upskooten on der iceflowen mit noise gebangen like donner ist der *Staten Island!* Mit bowbammen und ice gesplitten ist goen 20 feet. Ja.

Ach, dumpkopf, gestuck! Shipleanen mit der heelen tanks den! Comes Herr Elektriker snorten und fumen, "Nein, Nein! Oberloaden das kilowatt machine."

Das trimmen tanks flooden mit oil on poopen deck vile der Grosvater Bos'n field day holden! "Vas iss sloes?" Cryen Grosvater Bos'n! "Oil on der deck planken! Schweinhund schnipes!"

Herr OOD ben maken 130 backwards turns mit screw, und unstuck der boaten. Vas ist? "Ja, busten der blowen air to der engine" screamen Herr Machinest und stompen to GSK to see oberlieutenant storekeeper mit bum numbers.

Mit stack blowen und book looken und grunten und groanen der spare part don't vork! Full mit saltwater from geflooden.

Meanvile, Herr Oceanographer ist oceanstation droppen vile der Navigaten Offizier ben taken sight on star vile maken station droppen und ist losten posit.

To finden posit, go icehunen in ear gesplitten, winderblowen, uppenjumpen whirlenburden so smoken ist verboten aft of frame 105 vile fuelen der luft-waffe. Ach, uppenjumpen whirlenburden ven not seal chasen und penguin hunten, ben always finden ice to gesplitten. Very goot. Ja, und sleepen by der plane cox'ns.

Das ist oberice boaten *Staten Island*. —P. Lewis, Jr., CDR, USNR.

• *Faith, now. And there must be a bit o' truth in what you're sayin'.*

By the way of explanation, CDR Lewis tells us that AGBs are equipped with large heeling tanks, high in the hull, connected athwartships with high volume pumps, and trim tanks fore and aft also connected with high volume pumps. The purpose of these tanks and pumps is to free the ship from ice by heeling or trimming or both as required. However, use of these pumps demands large amounts of electricity and sometimes results in overloaded generators. When not actually in ice, these tanks are used to carry diesel oil and a small quantity always remains in the tanks after they are discharged. Use of the tanks for heeling or trimming requires that they overflow on the plank decks, much to the consternation of the deck force. The spare part discussed was a spare main engine supercharger blower that was completely out of balance. After again removing it from the engine (no small task) it was found that the lobes were partially full of saltwater.

Now, try reading the translation again.—Ed.

month at Pearl, she was off for Guam again on 9 June. Arriving on the 20th, she remained at Guam until 1 September, when she headed stateside, via Pearl Harbor. She reached Seattle, Wash., on 22 September.

In December 1945 Fulton was assigned to Joint Task Force One for the Bikini atom bomb tests. She departed San Diego in January 1946, put in at Pearl Harbor to service subs there for several months, then moved on to Bikini in April to work on assorted submarines and surface craft assigned to Joint Task Force One. Leaving Bikini in September, she steamed for Vallejo, Calif., via Pearl Harbor, to join the Pacific Reserve Fleet. She reached Vallejo in October and was decommissioned 3 Apr 1947.

After almost five years on the sidelines, Fulton was recommissioned on 10 Apr 1951. She left the West Coast on 3 May and—after stops at Balboa, C. Z., and Mayaguez, Puerto Rico,—she reached New London, Conn., on 26 June. The same day, Commander Submarine Squadron Ten and Staff

came aboard. The squadron was reactivated on 2 Jul 1951, and except for two months as a relief tender at Norfolk, Va., Fulton took care of SUBRON 10 for the rest of the year.

In fact, for most of the time since 1951, Fulton has been tending SUBRON 10 at New London. However, she's also managed to do some traveling.

In the spring of 1952 she was overhauled at the Philadelphia Naval Shipyard and she paid a brief visit to Norfolk. That fall, she put in 12 days as communication ship at Argentia, Newfoundland, and visited Halifax, Nova Scotia. The next year participation in Operation Springboard 1953 took her to St. Thomas, Virgin Islands; and San Juan, Puerto Rico, in February-March. And, that September and October, she served as Headquarters Unit for Submarine Squadron Eight during Atlantic Fleet exercises, an assignment which included a trip to Reykjavik, Iceland.

Fulton's activities in 1954 included a visit to New York City in February, service as a relief tender at Norfolk from July to September and an over-

haul at the Boston Naval Shipyard which lasted from October to December. The year 1955 was another busy one. In January and February the ship underwent refresher training which took her to Newport, R. I.; Puerto Rico; and the Dominican Republic. That fall, she paid another brief visit to Halifax.

The following year, in connection with Operation Springboard 1956, Fulton made a Caribbean trip in January and February which again included stops in Puerto Rico and the Virgin Islands. In April and May she held independent ship exercises in Narragansett Bay and off-loaded ammunition at Newport. June saw her heading for Bermuda, where she assumed duties as Flagship Unit for Blue and Purple Forces of Operation Hourglass, in which NATO submarine, surface and air units participated. She got back to New London early in July, and later the same month, during Operation Hideout, took part in exercises testing the Atlantic Fleet Evacuation Plan. In October, she again held independent

LETTERS TO THE EDITOR (Cont.)

ship exercises in Narragansett Bay and put into Newport.

In the first half of 1957, the Narragansett Bay operating area and Newport were about the extent of Fulton's travels, but in the last half of the year she racked up considerable mileage. On 1 September, as a unit of Task Force 23, the tender left New London for the Firth of Clyde, Scotland, to participate in NATOFLEX. She stayed at Rothesay, Scotland, from 12 to 23 September, and during that time a USS Fulton plaque was placed at Mill O'Beith, Ayrshire, Scotland—Robert Fulton's birthplace. From 25 September to 23 October the ship was moored off Portland, England, where she rendered extensive logistic support to 23 submarines which had participated in NATO exercises. (In both Rothesay and Portland she entertained visitors as part of the President's people-to-people program.) She returned to New London in October and moved to Boston the following month for overhaul.

After her overhaul and one day of sea trials, Fulton loaded ammunition at Hingham, Mass., and returned to New London in March 1958. Later the same month she ran the degaussing range at Newport and made another trip to the Virgin Islands.

Fulton had a real red-letter day on 1 Apr 1958, for that was when USS Nautilus, Skate and Seawolf were assigned to SUBRON 10 and Fulton became the first ship assigned the mission and responsibility of supporting nuclear-powered ships. As if to celebrate, Fulton went on to win the "E" for Fiscal Year 1959.

In June, Fulton was underway for more independent ship exercises in Narragansett Bay. In August, she visited New York City to participate in the homecoming celebration for Nautilus after her under-the-Pole voyage, and in November, she made an operational visit to Bermuda.

This year, as usual, Fulton will be keeping mighty busy at New London or anywhere else she is needed.—Ed.

Extension of Retirement Date

SIR: I am a CWO-4 who enlisted in the Navy in November 1931. Before that I was in the Army for a year, with which I am now credited for pay purposes.

My questions are:

Does that year in the Army count toward the 30 years of service after which I will be retired?

Is there any way I can elect to retire on 1 July of the year following my completion of 30 years' service?—L.I.P., CWO-4, USN.

• As you probably know, there is no statutory provision for the involuntary retirement of a temporary warrant officer on completion of 30 years' ser-



MORE FUN—B. Southwood, CN, has good time riding one-wheeled cycle he built with a friend on Midway.

ice. However, administrative procedures which parallel the law pertaining to permanent warrants have been established for temporary WOs.

The law concerning permanent WOs (Title 10, U. S. Code, Section 1305) states that permanent warrant officers shall be retired 60 days after the completion of 30 years of active service. Since that "active service" includes active duty and active duty for training in all military services, and field training in the National Guard, your year in the Army is counted.

Therefore, you will complete your 30 years of active service in November 1960. When the time comes, you will



NO HANDS—H. Hockett, CN, wheels his home-made unicycle down street on Midway. Solid wheels are strong.

be notified that you may retire voluntarily on 1 Jan 1961, or revert to your permanent enlisted status on 31 Dec 1960.

Unfortunately, your chances on the extension until 1 July don't look too good. Although you may request an extension of retirement date, such extensions are not normally granted.—Ed.

Choice Duty—500 Miles Away

SIR: Could you please explain to me how this Seavey-Shorvey works? I have been trying to figure it out for myself but can't. I have just received my orders to shore duty. After all the promises made in the pamphlet on Seavey-Shorvey, I just wonder if the only way to get what you ask for is to know someone in the Bureau.

Your booklet also says that men with 17 years would be given special consideration. When my card went in I had over 16 years, and when I received my orders I had over 17 years. It took a year for me to get orders, and then I end up in my present location.

I was assigned to COMSERVLANT for assignments to Fleet shore duty, so there was no possible way for me to get what I asked for. However, I guess I was lucky to get within 500 miles of the area that I requested. There are billets for 132 EN1s in the Fifth Naval District. Maybe I should have asked for duty at this exact spot and then I would have gotten somewhere else. It seems they give you just the opposite of what you ask for.

I have never had shore duty in my 17 years and I wind up in a location I didn't want. I believe I would have been just as well off if I had left the card blank, because the way it looks to me, there was no consideration given to any of my choices.—R. C. L., EN1, USN.

• Let's see if we can set you straight on your Seavey assignment to shore duty.

In the first place, be assured that "knowing someone in the Bureau" would help you not at all. When your data card was received at the Bureau, listed thereon were your choices of shore duty. You had indicated the Fifth Naval District as your first area preference. Within 5ND you listed 3 choices of duty stations, as follows: (1) Lexington, Ky.; (2) Louisville, Ky.; (3) Huntington, W. Va. You also listed Memphis, Tenn., in 6ND.

Individual local preferences within a naval district are for the information of the Naval District Commandant or Fleet Commander. The Bureau's goal is to assign a man to the naval district of his choice. In some instances it does happen that there is a vacancy at the exact location which is requested, but this is a rarity.

Your first choice was the Fifth Naval

District, to which you were assigned. Most of the local preferences which you indicated were so far from large naval activities that the chances of your being assigned to one of them were not very probable. You ended up assigned to the Reserve Fleet, Norfolk.

There did not happen to be a vacancy existing in your rate at any of your duty choices within the Fifth Naval District at the time you became available to ComFive for assignment, but at least you are stationed in the general area you preferred. If you had left your card blank the Bureau would have had to assume that you had no preference, and you then could have been assigned anywhere—in any district.

As for special consideration for more than 17 years' service—an opening for your rate must exist at a particular activity before such consideration can be given. For example, if an EN1 billet was open at a naval activity in or near Lexington, Ky., and both you and another EN1 with only 12 years had indicated that activity as your first choice, you, with 17 years' service, would get the assignment. It must certainly be plain to you, however, that ComFive cannot assign you to a station in excess of allowance, or to one where no billet in your rate exists, based solely on the fact that you have in excess of 17 years' service. Hope this has cleared up a few points for you.—Ed.

Constructive Service

SIR: What little information I have been able to obtain about constructive service must have confused me.

I have just received my date from the Bureau for transfer to the Fleet Reserve: service for transfer, 19 years, six months and 10 days; service for pay 18 years, six months and 13 days.

Ships Reunions

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

uss *Santa Fe* (CL 60)—The thirteenth annual reunion will be held at the Hotel Piccadilly, New York, N. Y., on 10 October. For more details, write to Frederick C. Jaissle, 18 Cedar St., Hudson, Mass.

Naval Reserve Association—The annual meeting is scheduled for 8, 9 and 10 October at the Biltmore Hotel, Atlanta, Ga. You may obtain additional information from CDR M. E. Cambrell, Jr., USNR, 703 Densley Dr., Decatur, Ga.

uss *Blue* (DD 744)—A reunion for shipmates who served from 1950 through 1955 is tentatively scheduled for August 1960 in St. Louis or Denver. For details, write F. D. Collins, 430 South 6th East, Missoula, Mont.

uss *PE 48* (Eagle-type)—All who served in this ship during World War II and who are interested in holding a reunion in the New York City area are invited to write to Burt Jones, 27 Walker St., Staten Island 2, N. Y.

uss *Kaskaskia* (AO 27)—All who served on board during World War II and who are interested in holding a reunion in the San Diego or Los Angeles area may write to Joe Williams, Route 3, Box 732, Escondido, Calif.

VR-2 *Alameda*, Calif.—All enlisted men who served with VR-2 at NAS Alameda and Treasure Island, Calif., in 1945 and who are interested in holding a reunion with time and place to be decided may write to Paul Portelli, 1046 W. Hillsdale Blvd., San Mateo, Calif.

Naval Security, N. Y.-N. J. Area—Former Naval Security men of the New York-New Jersey area who are interested in a reunion may write to LTJG Joseph J. Trachta, 83 Crowell Ave., Staten Island 14, N. Y.

It appears that I have been misinformed and that constructive time counts only for service for transfer and not for pay purposes.

What retainer pay will I receive as an E-7?—R.J.A., ADC, USN.

• Constructive service does count ONLY for time in service, not for pay purposes. Here is the way constructive service will be used in figuring your retainer pay:

Multiply $2\frac{1}{2}$ times 20 (service for transfer, including constructive time), times basic pay for over 18 (day-for-day service) years. With a basic pay of \$340, this works out to \$170 a month for you.—Ed.

Early Reenlistment

SIR: Is it possible to cancel an extension for the purpose of reenlisting more than three months early?

I began a one-year extension on 2 Jul 1959, with expiration of enlistment 1 Jul 1960. Could I reenlist early, say in September 1959.—J.W.H., EN3, USN.

• Yes. Par. 3 of BuPers Instr. 1133-4A says, in part: "Commanding officers are authorized to discharge up to one year in advance of normal expiration of enlistment date, or normal expiration of enlistment date as extended, those Regular Navy personnel who desire early discharge for the purpose of immediate reenlistment."—Ed.

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Navy Gun Slingers Shoot It Out

ALL IS QUIET on the Western Front. That is, at Camp Elliott—the San Diego “battlefield”—where the Navy’s top marksmen shot it out during the annual four-day U.S. Navy Rifle and Pistol Championship Matches.

When the smoke had cleared, PacFlt’s crack-shot pistoleers and riflemen had captured the Navy’s top individual and team pistol and rifle laurels.

Donald J. Weldon, FT3, USN, of the radar picket destroyer *uss Frank Knox* (DDR-742), emerged as the Navy’s new individual pistol champ. He fired a 566 out of a possible 600, topping a field of 86 shooters who compiled the highest over-all scores in the history of the U.S. Navy championship matches.

For the second consecutive year, David E. Myrick, HM1, USN, from the San Diego-based submarine tender *uss Sperry* (AS-12), won the U.S. Navy’s individual Rifle and Pistol Aggregate Championship. He fired a 930 out of a possible 1000 to win over 39 competitors. In the individual pistol meet Myrick placed second only to Weldon, with a score of 562.

Art LeTourneau, BMC, USN, as-

PacFlt Pistol Record

Gasper P. DeFino, TM1, USN, of the Navy’s Small Arms Training Unit at NTC San Diego, riddled his target for a 569 out of a possible 600 to establish a new all-time individual pistol mark for the Pacific Fleet



Rifle and Pistol Matches.

DeFino’s record-breaking score was three points higher than that fired by the winner of this year’s All-Navy meet. If anyone can match this, let us know.

signed to the Headquarters of the Eleventh Naval District, finished first in the individual rifle match with a score of 380 out of a possible 400. He was runner-up to Myrick in the rifle/pistol aggregate match with a 924.

These three Navy Rifle and Pistol Champs were awarded plaques from the Chief of Naval Personnel in

recognition of their outstanding accomplishments.

In the team matches, COMCRUDES-PAC’s foursome of distinguished aces fired their way to the U.S. Navy Pistol Championship with a high of 1084 x 1200, while a six-man team from SUBFLOT ONE, representing COMSUBPAC, captured the U.S. Navy Rifle Team Match. Not satisfied with this distinction, the SUBPAC squad added two additional PACFLT sharpshooters to its roster and then went on to win the U.S. Navy Combat Rifle Team Match.

COMCRUDES-PAC’s championship pistol team consisted of the All-Navy Champ—FT3 Weldon—who was high scorer with 285; G. D. Casey, GMC, USN, 276; A. G. Dean, RMC, USN, 266; and H. C. Haller, MMC, USN, with a 257. LT J. H. McAuliffe, USN, from the heavy cruiser *uss Rochester* (CA 124), was team captain.

Trailing the champs by 21 points to finish second in the pistol matches was the Com 11 Gold Squad with 1063. The Basic Air Training Command from Pensacola placed third with 1035, while Com 9 placed fourth with 1005.

Finalists in the individual pistol

TEAM WORK—Top Navy rifle team was from SubPac: *Left to rt:* (Standing) D. E. Myrick, HM1; R. N. Turnipseed, SH1; C. C. Kozlowski, TMC; LT C. E. Tate; and LT R. J. Anderson. (Kneeling) J. L. Foster, DC3; WO W. Geil; and CDR Geismann. Number one Navy Pistol team came from CruDesPac: LT J. H. MacAuliffe, A. G. Dean, RMC; H. C. Haller, MMC; G. D. Casey, GMC; (Front) D. G. Weldon, FT3, and F. R. Steputis, SOG 2.



matches, other than Weldon and runner-up Myrick, included: B. S. Adams, ADC, USN, of VF-101, who placed third with 556 out of a possible 600; I. N. McKee, GMC, USN, from Com 15, and G. D. Casey, GMC, USN, from the radar picket destroyer *Knox*, tied for fourth place with 551; and J. E. Barcus, AKC, USN, from NAS Miramar, was fifth with 550.

In the rifle matches, the SUBPAC squad topped the two Atlantic Fleet entries and the defending champs from Com 11 to win the U.S. Navy Rifle Team Match with an aggregate score of 1389 out of a possible 1500. Of this score, 490 points were registered by hitting 98 bull's-eyes.

Members of the victorious SUBPAC team included: Team captain, WO W. Geil, USN, (*uss Sperry* AS-12), 224; LT C. E. Tate, USN, (Staff, COMSUBDIV 51), 226; LT R. J. Anderson, USN, (XO, *uss Segundo* SS-398), 234; C. C. Kozlowski, TMC, USN, (*Sperry*), 233; D. E. Myrick, HM1, USN, (*Sperry*), 234; and R. N. Turnipseed, SH1, USN, (*Sperry*), 237.

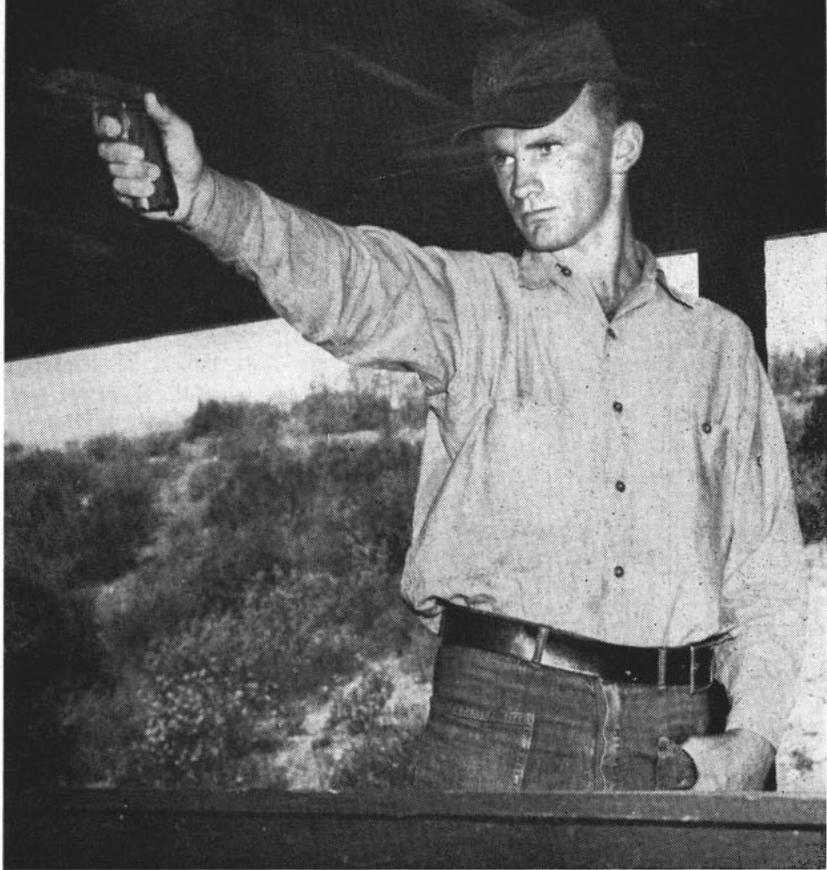
Runners-up to SUBPAC were the CNAVANTRA team from Corpus Christi, with 1353; PRNC was third with 1338, and the Com 11 Gold Team finished fourth with 1326.

After winning the All-Navy Crown, the SUBPAC marksmen added A. Sasules, AD2, USN, from VA-23, and T. R. Moody, MMC, USN, from SATU, NTC San Diego, to their roster and went on to conquer the U.S. Navy Combat Rifle Team Match by trouncing the Atlantic Fleet team by a score of 790 to 653.

Prize for this competition was the Chief of Naval Operations Infantry Trophy. Referred to as "Burke's Bonnet," this prized trophy consists of a bronzed four-starred helmet that was actually used by CNO, ADM Arleigh A. Burke, USN, during World War II. This trophy was donated by the admiral last year as an indication of his interests in small-arms training.

The U.S. Navy Infantry Match Course is the same course of fire used at the infantry trophy competition in the National Trophy Matches at Camp Perry, Ohio. Last year the Navy entered a team in the infantry trophy matches at Camp Perry for the first time since the early 1930s, and they placed in the top 10 per cent of 100 teams entered.

The U.S. Navy Combat Rifle



EYES HAVE IT—Top pistol champ D. J. Weldon, takes aim. Below: D. E. Myrick shows trophy for top individual rifle and pistol aggregate score.



Wave Sharpshooter Makes Quite a Hit

During the Atlantic Fleet Rifle and Pistol Championships at the Fleet Air Defense Training Center, Dam Neck, Va., LT Nancy J. Ellifrit, (w) USN, had the distinction of being the only woman among the 170 competitors. (And from all reports, she made a hit—on the target, of course.)

Although this was the first time that she had competed in the Atlantic tournament, she is by no means a novice to rifle and pistol matches.

She has competed in the Nationals at Camp Perry for the past five years.

LT Ellifrit became interested in shooting small-arms at OCS.

Among the titles that the Navy's "Annie Oakley" has won are the New Hampshire State Gallery Championships earlier this year, the Women's Championship for the state of Virginia, and the Women's Regional title at Harrisburg, Pa.

LT Ellifrit is assigned to the Naval Shipyard, Portsmouth, N.H.

Team Match was fired in four stages—at 600, 500, 300 and 200 yards. The target is a man-size silhouette at the 500 and 600 yard stages and it is increased to approximately the size of a man's upper chest at the 200 and 300 yard stages. Only hits on the target are scored.

The PACFLT sharpshooters led all the way during this "rattle-gun" match and the dust really flew as they fired away in each of the four stages. The rattlesnakes, which are abundant in the vicinity of the Camp Elliott Ranges, didn't dare show their

heads. (You can be assured of this as many of the competing marksmen were looking for them almost as keenly as they were eyeing the bulls-eye.)

In spite of the dust and rattlesnakes, the over-all scores in this year's All-Navy meet were higher than those of last year.

In the individual rifle competition, the top finalists not mentioned earlier included: LT D. N. Strasheim, USN, (NAAS Kingsville, Tex.), who placed second with 379; D. D. Dyck, TE/RM3, USN, (COMSERVPAC) was third

with 378; and C. C. Kozlowski, TMC, USN, (Sperry) and LTJG C. E. Quesnoy Jr., USN, (NAVSUPCEN Oakland) were tied for fourth place with a score of 376.

The top five finalists in both the rifle and pistol competition were presented with individual trophies. In addition, Model M-70 rifles were presented to the first place individual winners of the U.S. Pacific Fleet, U.S. Atlantic Fleet, U.S. Navy Rifle and Pistol Matches, and the U.S. Navy Rifle and Pistol aggregate winner.

The SUBPAC Rifle Champs and the CRUESPAC Pistol Champs were presented perpetual team trophies for their efforts while the SUBPAC team was also presented the CNO Combat Rifle Team Trophy (Burke's Bonnet) mentioned earlier.

All competitors in the U.S. Navy Rifle and Pistol Match were issued specially designed cuff links and brassards.

CDR B. L. Parke, USN, Assistant to the Chief of Naval Personnel for Small Arms Competition, selected the top finalists in the All-Navy Meet to represent the U.S. Navy at the National Rifle and Pistol Matches at Camp Perry, Ohio, last month.

Ranking of Navymen Winning Gold, Silver and Bronze Badges in All-Navy Meet

In accordance with article 13-130 of the *Landing Party Manual*, the Chief of Naval Personnel awards suitably engraved medals to the leading individuals for places in each individual rifle and pistol match fired in the U.S. Navy Competition.

Awards presented during the All-Navy Competition were:

GOLD BADGES

For Pistol—

B. S. Adams, ADC, USN, VF-101, NAS Key West 556 x 600

For Rifle—

A. A. LeTourneau, BMC, Headquarters Com 11 380 x 440

SILVER BADGES

For Pistol—

G. D. Casey, GMC, USN, USS Frank Knox (DDR-742) 551 x 600

LTJG K. W. Collier, USN, BMU-1, NAB Coronado 548 x 600

L. F. Becker, CMH3, USN, NAU Coronado 547 x 600

For Rifle—

LT D. N. Strasheim, USN, NAAS Kingsville 379 x 400

D. D. Dyck, TE/RM3, USN, COMSERVPAC 378 x 400

LTJG C. E. Quesnoy, USN, NAVSUPCEN Oakland 376 x 400

D. Clay, RDC, USN, RTC, NTC San Diego 372 x 400

LT R. J. Anderson, USN, USS Segundo (SS 398) 372 x 400

J. D. Meloy, CT1, USN, NAVSECRU C.Z. 372 x 400

BRONZE BADGES

For Pistol—

W. J. Dorrity, ACC, USN, ASR 2, NAS North Island 543 x 600

M. C. Schoonerwoerd, ADC, USN, NAS Corpus Christi 543 x 600

F. F. Steputis, SOG2, USN, USS Marshall (DD 667) 542 x 600

P. L. Beatty, AD1, USN, VF-101, NAS Key West 537 x 600

D. D. Dyck, TE/RM3, USN, COMSERVPAC 537 x 600

For Rifle—

ENS J. S. Sexton, USN, NAS Patuxent River 371 x 400

M. B. Branch, PMC, USN, NTC Great Lakes 370 x 400

CDR G. Geisman, USN, USS Sperry (AS 12) 368 x 400

H. C. Haller, MMLC, USN, DESLOT 3 367 x 400

M. L. Golden, BM2, USN, USS Vermilion (AKA 107) 367 x 400

LT D. E. Gay, USN, NAS Corpus Christi 367 x 400

G. R. Maves, MA2, USN, NTC San Diego 366 x 400

C. E. Jirel, BMC, USN, NTC San Diego 366 x 400

Winning team members receiving place badges included:

GOLD BADGES FOR RIFLE

WO William Geil, USN, USS SPERR (AS 12) 224 x 250

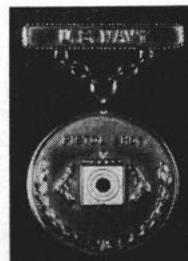
LT C. E. Tate, USN, Staff, COMSUBDIV 51 226 x 250

SILVER BADGE FOR PISTOL

D. Clay, RDC, USN, NTC San Diego 264 x 300

W. C. Powell, GM1, USN, NTC Great Lakes 272 x 300

J. C. Martin, PN2, USN, PACRESLT San Diego 266 x 300



Pistol Medal



Rifle Medal

LST Means Large, Steady, Terrific

ON 7 AUG 1942 the first large-scale amphibious invasion by the modern Navy took place on Guadalcanal in the Solomons. This invasion was an up-to-date concept of an age-old technique for landing troops on an enemy's beaches.

The Greeks used this method of warfare when they attacked the city of Troy in Asia Minor. They crossed the Aegean Sea and stormed the beach near Troy in one of the earliest known amphibious landings.

Many years later in 1776, Commodore Esek Hopkins landed Continental sailors and Marines at New Providence, in the Bahamas, for the U. S. Navy's first amphibious landing. During the Civil War, there were Union landings in both North and South Carolina.

During those early battles, ships were not built specially for amphibious landings. But at Guadalcanal and throughout World War II, landing ships of various size and description landed on hostile beaches with men and equipment sufficient to fight a war. Never before had such heavy fighting equipment been put ashore on the very doorstep of the enemy, and never before did we have ships capable of doing this.

The heavy equipment was embarked in the LST (Landing Ship, Tank), the largest of the landing ships. This rather large, slow, cumbersome-looking ship—sometimes referred to in the Force as Large, Slow, Target—is the mainstay of an amphibious operation. It carries heavy loads which include not only men, but tanks, trucks and guns.

During the war years, the LST together with other landing ships and boats of the Amphibious Force made up a powerful "alphabet fleet." Those ships, known only by number and letters, became famous throughout the Pacific area. (In 1955, however, LSTs were named for counties and parishes in the United States. Other landing ships and craft are still known only by number and letters.)

BEFORE THE INVASION of North Africa early in WW II, General George S. Patton, commenting on the difference between plans, schedules, and how they were carried out in the past, had some reservations about the Navy's ability to land the Army at the planned time and place. "If you land us anywhere within 50 miles of our objective and within a week of D-day, I'll go ahead and win . . ."

The General underestimated the newly formed Amphibious Force. The Navy *did* land his troops and equipment on time and in most cases at the appointed spots, and, as Patton stated he would, he did go on to win the battles.

Throughout the Atlantic and the Pacific, LSTs and their smaller sisters took part in one successful invasion after the other. Well known and hard fought battles such as Tarawa, Iwo Jima, Okinawa, Salerno, and Sicily tell not only the story of World War II, but also that of the Amphibious Force.

And any story of the Amphibious Force also tells the story of the LST. You might say that ships of the Amphibious Force are like a family. The transports and other support ships act as the parents, and the big brother LST goes forth into battle with the smaller children. They are a tough, hard-fighting family.

LSTs were versatile then, as they are today. During the invasion of Normandy, for example, LSTs were equipped for casualty evacuation, with facilities for about 200 patients. The job of these ships was to hit the beach with war equipment and to be ready to leave with wounded men. Those ships were huge targets sitting on the beach while wounded men were being embarked.

THE LSTs of those earlier days of World War II were smaller than today's. Their full-load displacement was 4080 tons, over-all length was 328 feet, and the extreme beam was 50 feet. The trial speed was 11.6 knots, and they had a troop capacity of 175 and a complement of 120 men. The tank deck was 260 feet along.

Postwar LSTs grew. Full load displacement jumped to 6000 tons, over-all length to 382 feet, beam to 54 feet, speed to 14 knots, troop capacity to 197 and complement to 190 men. The additional 54 feet in length permits roomier accommodations for both crew and troops and more space for tanks, trucks and cargo.

LSTs have undertaken some varied and unusual jobs during their existence. One of the most unusual finally brought about a change in designation for *uss Alameda County* (former LST 32). Now known as the AVB 1, she is the only Advanced Base Ship in the Navy.

Alameda County was originally converted and modified for evaluation as an amphibious aircraft tender.

As such, *Alameda County* challenged any ship that claimed fame for being unusual. To add to its unusual situation, the commanding officer's billet called for an aviator with the rank of commander.

The versatile *Alameda County* still operates with the U. S. Sixth Fleet in the Mediterranean. Not only is she capable of handling or servicing seaplanes, but she is also capable of setting up a seadrome and building an airport as well.

To set up an advance aviation base, *Alameda County* hits the beach, lowers her bow ramp and starts unloading equipment. Bulldozers and other construction equipment roll out and begin the groundwork for the air field.

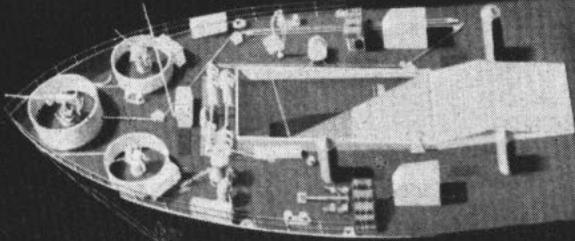
LSTs HAVE NOT ONLY TENDED seaplanes but they have also operated with helicopters aboard. An example of this was during the Korean campaign. A helicopter operated from the deck of LST 799 (now *uss Greer County*). The job of the whirlybird was to help the minesweepers spot enemy mines. But the copter also served another purpose. While it was hunting mines, it also hunted and rescued downed American fliers.

One morning it picked up seven airmen. On the first trip of the day, five men were plucked from the sea. Later the same morning, the helicopter went out again and rescued two more men—one on the way out, and another on the return trip.

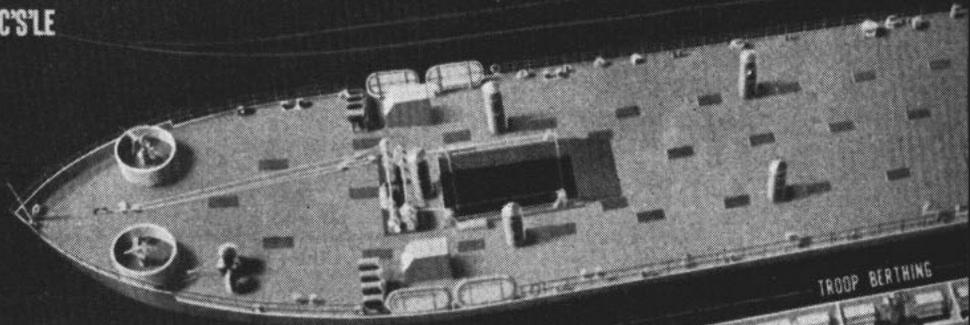
Helicopters aboard LSTs are now more commonplace. In fact, throughout the Amphibious Force, helicopters are becoming increasingly popular.

Today there are approximately 50 LSTs on active duty in the Navy. About 35 of these are in the Pacific Fleet and more than 10 are in the Atlantic. These ships are commanded by either a lieutenant or LCDR.

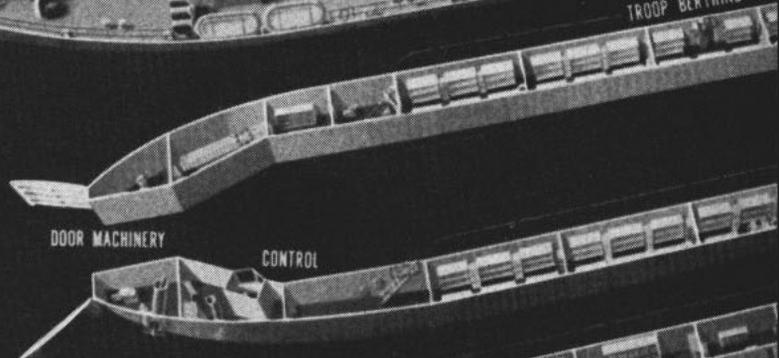
LST LANDING SHIP, TA



RAMP AND REVISED FORECASTLE

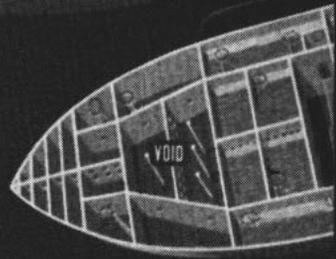
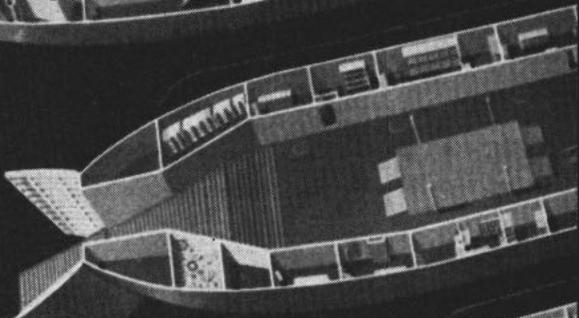
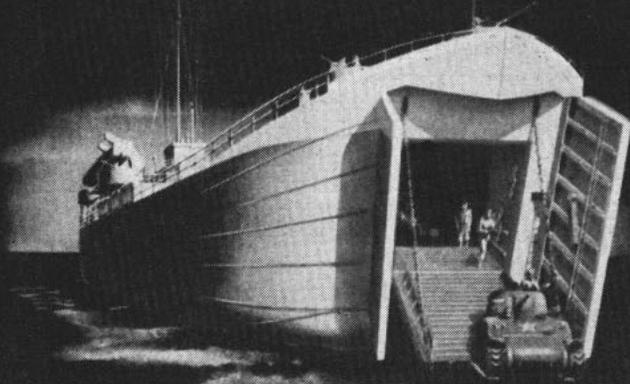


TROOP BERTHING



DOOR MACHINERY

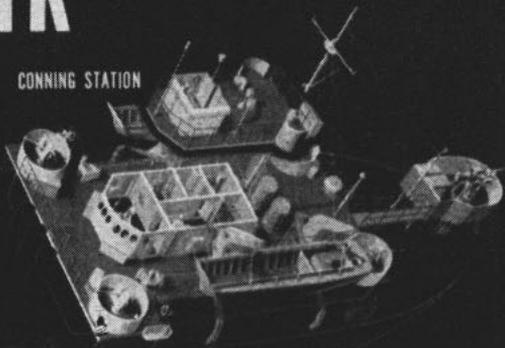
CONTROL



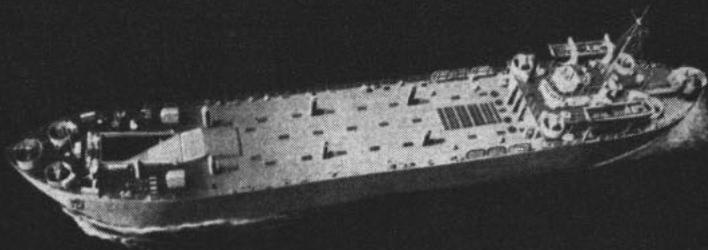
VOID

NK

CONNING STATION



DECK HOUSE AND BRIDGE



MAIN DECK

OFFICERS' QUARTERS

GALLEY



SECOND DECK

MESSING

SICK BAY

CREWS' QUARTERS



THIRD DECK

TROOP BERTHING

STORAGE

STEERING ENGINE ROOM



HOLD

STORE ROOMS

BALLAST

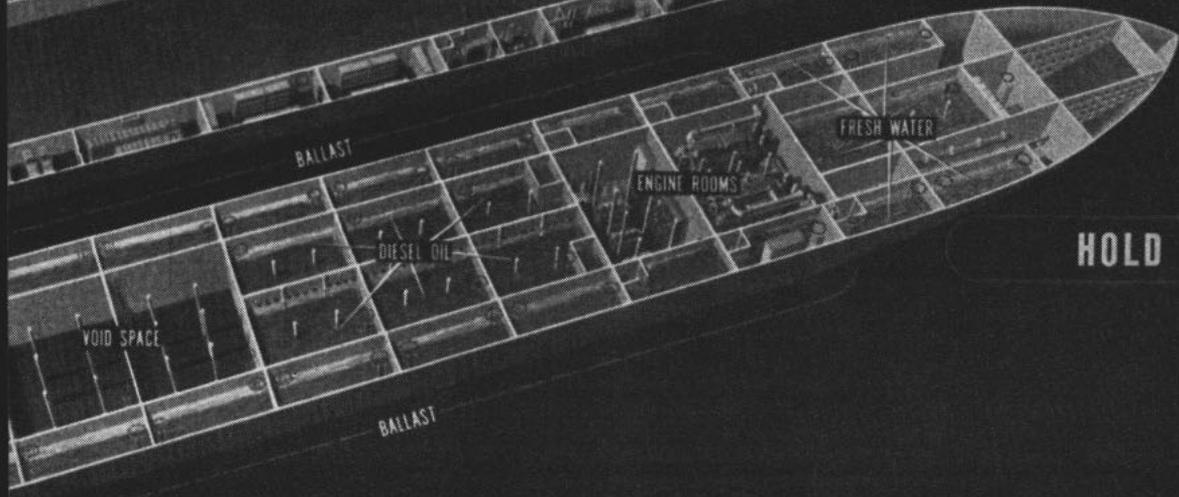
FRESH WATER

ENGINE ROOMS

VOID SPACE

DIESEL OIL

BALLAST



★ ★ ★ ★ TODAY'S NAVY ★ ★ ★ ★



OUT TO SEA—USS *Newell* (DER 322) heads to sea where she will take part in our early warning system. She makes her home port in Charleston, S. C.

Bainbridge to Sail Again

The Navy's first nuclear-powered guided missile frigate has been named for one of the heroes of the sailing ship era—an era when such items as atomic power and guided missiles were undreamed of.

Commodore William Bainbridge, who battled the Barbary pirates in the War of Tripoli, and commanded the frigate *Constitution* during the War of 1812, is the Navy hero in question.

Now under construction at Quincy, Mass., and officially designated DLG (N) 25, *Bainbridge* is slated for delivery early in 1962.

In operation she'll boast twin sea-to-air *Terrier* guided missile mounts fore and aft, and will also carry anti-

submarine weapons. Nuclear propulsion will equip her with a far greater cruising range at high speed than conventional frigates.

Bainbridge will become the third atom-powered surface ship to step up the Navy's striking power. The guided missile cruiser *Long Beach* and the attack aircraft carrier *Enterprise* are scheduled to be launched in late 1959 and 1960, respectively.

The present *Bainbridge* will be the fourth Navy ship to bear that name. The preceding three were a 12-gun brig which captured a rebel steamer in the Civil War; the DD 1, of World War I vintage, and DD 246, which served as an escort in the Atlantic and Caribbean during the Second World War.

New Jet Trainer

The Navy has issued a contract for the T2J-1 jet trainer. This new plane will provide the Naval Air Training Command with a versatile aircraft in which it can teach students instrument work, gunnery, formation and tactics, aircraft carrier pilot qualifications and other diversified operations.

The T2J-1 has a top speed of about 420 knots (500 miles per hour) and a landing speed of only 71 knots.

Powered by a J34 jet engine which develops 3400 pounds of thrust, the tandem-seat trainer has a service ceiling of more than 40,000 feet and a range of 780 nautical miles. It is about 38 feet long and has a wingspan of 36 feet.

The T2J-1 is equipped with a rocket-propelled emergency escape system by which a pilot can safely eject himself either at ground level or in the air.

Six T2J-1s have already been delivered to the Navy and are undergoing extensive tests at the Naval Air Test Center, Patuxent River, Md. The Naval Air Basic Training Command, Pensacola, Fla., should receive several of these new planes about mid-summer. They will eventually replace the T2V "Seastar" jet trainer at both Pensacola and Memphis.

All-Weather Fighters Ordered

The Navy has contracted for production of more F8U-2N jet fighters.

The plane—a carrier-based, all-weather jet—can fly at almost twice the speed of sound. It is basically a development of the F8U-2 *Crusader*, and some F8U-2Ns have already been ordered under previous *Crusader* contracts.

The new aircraft has increased capability for detecting and destroying targets in darkness and inclement weather. It is equipped with improved radar, push-button controls which relieve the pilot of many routine tasks, revised interior and exterior lighting systems and better instrumentation. It can carry heat-seeking *Sidewinder* missiles and will also be able to handle other missiles now under development. Fleet delivery is expected in 1960.

YESTERDAY'S NAVY



On 4 Sep 1923 the dirigible USS *Shenandoah* made her first flight. (She was commissioned a month later.) On 5 Sep 1776 the Marine Committee of the Continental Congress decided upon the uniform to be worn by officers of the Navy and Marine Corps. On 6 Sep 1918, when the transport *Persia* was torpedoed while carrying 2800 American troops, U. S. destroyer rescued everyone on board. On 12 Sep 1942 Brazil placed its World War II fleet under the operational control of the U. S. Navy. On 20 Sep 1942 a U. S. Naval Operating Base was established at Auckland, New Zealand.

Frogmen Ride Colorado River

A fleet of seven IBS's (Inflatable Boats, Small), manned by 35 Navy frogmen, has completed a 250-mile trip down the Colorado River.

The 35—members of the Pacific Fleet Amphibious Force's Underwater Demolition Team TWELVE—accomplished the feat in five days as a survival problem. They paddled the river from Needles, Calif. to Yuma, Ariz.

Each man was provided with a pack containing two survival rations, one individual "C" ration, a fishhook and line, a poncho, half of a parachute and a first-aid kit. Survival for the five days depended on this small parcel, plus whatever "natural" food the frogmen could obtain.

The trip was not without obstacles. As the river approaches the Parker Dam it widens into Havasu Lake, which was encountered the second day out. Here, unfavorable wind and a slight current caused the loss of valuable time. To make up for the delay the crews had to man their paddles on some stretches for more than 16 hours.

Temperatures above 100 degrees also helped to harass the men and slow their progress—but frequent swim calls brought some relief.

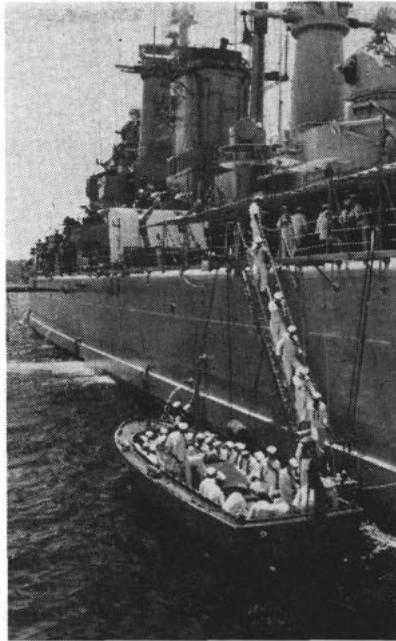
Five portages were required to bypass dams. The longest, around Parker Dam, called for packing the 250-pound boats and approximately 300 pounds of gear nearly a mile overland.

The fourth night found the seven boats and crews at Imperial Dam, just 20 miles from their objective. There, since only a slight flow of water is allowed through the dam, the rubber boats ran aground on one sand bar after another. Clearing obstacles nearly drained the last reserve of strength from the already tired frogmen—to whom Yuma was a welcome sight.

Cool, Man, Cool

The Navy will soon get a new type of rubber and asbestos insulation material which is expected to extend the burning time of solid propellant rocket motors to three or four times the present burning period of one minute or less.

Developed for the Bureau of Ordnance by a civilian corporation, the new material is lighter, less costly and provides improved high-temperature insulation in comparison with the high-cost reinforced insula-



LIBERTY TIME—Sixth Fleet sailors leave their ship, *USS Des Moines* (CA 134), and head for good times.

tion currently used in some rocket motors.

During recent successful test firings, solid fuel motors using the new insulating material produced significant thrust levels for more than three and a half minutes. Although the high performance propellant generated a flame temperature of more than 5500 degrees Fahrenheit, the exterior of the rocket motor case registered only 200 degrees at the end of three and a half minutes.

This new development is expected to make solid propellant rocket motor propulsion systems more versatile, and to increase their missile and space applications.

FOLLOW ME—*USS Dealey* (DE 1006), name ship for one of the Navy's newest DE classes, leads a destroyer task force in Pacific waters off South America.



Farewell to Gallant Leyte

USS Leyte (CVS 32), who has steamed about half a million miles and recovered some 70,000 planes during 13 years of very active duty, has been retired.

Named for the Battle of Leyte Gulf, one of the biggest naval engagements in history, the *Essex*-class carrier was launched 23 Aug 1945 at Newport News, Va. She was commissioned on 11 Apr 1946 as an attack carrier.

Leyte's maiden voyage took her through the Panama Canal and along the west coast of South America for a goodwill tour. She flew the flag of ADM Marc Mitscher, usn, the task group commander.

The years from 1946 to 1949 were highlighted by three Mediterranean cruises and numerous Fleet exercises. During that period, *Leyte* was flagship for ComCarDiv Four, flying the two stars of the Division Commander.

In the spring of 1950 the ship again stood out of her home port, Quonset Point, R. I., for a "Med" cruise, but this one was to prove far different from the others. The outbreak of the Korean conflict found her at Beirut, Lebanon, and under urgent orders she immediately steamed for the Far East. Her average speed was 23 knots during the 18,500 miles she covered to report to Commander Seventh Fleet for duty. Her first night in Korean waters was spent in refueling. The following day she began launching her jets against the advancing North Korean army.

For 108 days *Leyte* operated in the Korean area, spending 92 of those days at sea. Her 52 days in a row at sea set a record among the

flat-tops that fought in Korea.

From *Leyte's* decks, 3933 sorties were flown, for a total of 11,000 hours in the air. Her planes were credited with one of the first kills of a MIG 15, and one of her pilots, LTJG Thomas J. Hudner, was awarded the Medal of Honor.

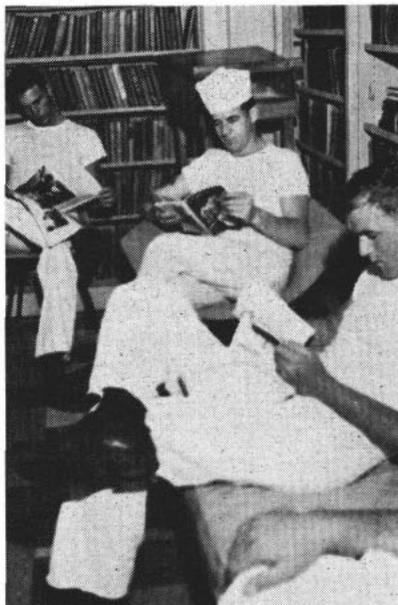
The ship came home in late January 1951, proudly wearing the Navy Unit Commendation and the Korean Presidential Unit Citation Badge. She was given a yard overhaul at Norfolk, Va., following which she left for her fifth Med cruise.

In the spring of 1953 *Leyte* entered the Boston Naval Shipyard for extensive overhaul and repair designed to ready her for a new role. She was to become the Navy's first CVS (ASW Support Aircraft Carrier).

During this yard period, disaster struck. At 1515, 16 Oct 1953, there was an explosion in the port catapult machinery room which killed 37 and injured 39 more. *Leyte's* crew immediately went to work to repair the torn and crippled ship, and three months later she stood out of Boston Harbor on her way to a new career.

After a shakedown cruise to Guantanamo Bay, Cuba, the ship was loaded with the then brand-new S2F aircraft. She spent the rest of 1954 learning the techniques of anti-submarine warfare.

In 1955 *Leyte* engaged in three



POPULAR SPOT—Cruisemen aboard USS *Macon* (CA 132) get a lot of joy and knowledge from ship's library.

Fleet exercises and made her sixth voyage to the Mediterranean. She was also made the flagship of ComCarDiv 18, a position retained for the remainder of her active service in the Navy.

Leyte spent her last few years in continuous ASW work. As a CVS, she was the nucleus of a hunter-killer force whose job was to detect, hunt and kill enemy submarines. She

helped evolve tactics to be used in operations against nuclear submarines, and in 1958 her diligence and ability brought her the Battle Efficiency Pennant as the outstanding ship of her class.

However, her age was beginning to show. In January 1959 she entered the Brooklyn Naval Shipyard for decommissioning. By then, she was the oldest carrier in continuous active service.

When she retired on 15 May, she left behind a reputation as "a fighter and a steamer."

Amphib Assaults on Two Coasts

Two Navy-Marine amphibious assault maneuvers were staged recently at opposite ends of the United States.

Exercise *Twin Peaks*, at Camp Pendleton, Calif., by far the larger, was the biggest amphibious exercise held on the West Coast in more than two years. More than 60 Navy ships and some 25,000 Marines of the 1st Marine Division and 3rd Marine Aircraft Wing, were involved.

Meanwhile, at Onslow Beach, N.C., units of the Atlantic Fleet and students from Marine Corps Schools, Quantico, Va., conducted *Packard X*. The tenth in a series of amphibious exercises begun in 1947, the operation was part of annual graduation exercises for more than 300 officers.

Both exercises involved extensive use of "vertical envelopment," the Marine Corps technique of lifting combat troops from ships and landing them behind enemy lines by helicopter.

The ex-aircraft carrier *Princeton*, recently redesignated as LPH 5, received her baptism in her new role during the *Twin Peaks* exercise.

Marines in full battle gear boarded ships at San Diego, Oceanside and Long Beach. After a rendezvous at sea, the entire armada conducted a rehearsal landing at Coronado's Silver Strand.

Following the rehearsal the task force put out to sea again, and shore bombardment and replenishment exercises were held before the assault on the Camp Pendleton beaches began.

Packard X was designed as an exercise in "limited war" according to the NATO concept. Assuming that a mythical country had been overrun by unfriendly forces, the amphibious task force—using both

Grand Order of Muskies Joins Blue-Nose Shellbacks

Move over, all ye Whale Bangers, Blue Noses, and Snorklers. Make space for the Grand Order of Muskies.

It will do you no good to make application. The rolls are closed. Only those crew members of *uss Corsair* (SS 435) who participated in Operation Inland Seas are eligible.

They had the privilege of submerging in each of the five Great Lakes and, just to round out the record, it might be noted that their craft was completely submerged in Lake Ontario 29 June; Lake Erie, 3 July; Lake Huron, 4 July; Lake Michigan, 8 July; and Lake Superior, 10 July.

During the cruise, *Corsair* also visited the ports of Alexandria Bay, N. Y., Milwaukee, Wis., Duluth, Minn., Bay City, Mich., Cleveland, Ohio, and St. Catharines, Ont., Canada.

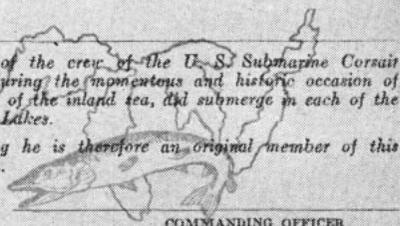
Corsair also claims to be the only sub ever to have dived in all five Lakes.

Grand Order of Muskies

Be it known to all sailors of the eight seas that:

a member of the crew of the U. S. Submarine *Corsair* (SS 435), during the momentous and historic occasion of the opening of the inland sea, did submerge in each of the Five Great Lakes.

By so doing he is therefore an original member of this organization.



COMMANDING OFFICER

vertical envelopment and conventional amphibious techniques—was charged with seizing a beachhead on the eastern seaboard of said mythical country, and capturing the capital city.

The officer students, of the rank of captain through colonel, from the Junior and Senior Schools at Quantico, were completing nine months of schooling. They filled command and staff billets for the exercise, coordinating land, sea and air forces in solving combat problems and successfully carrying out the campaign.

In addition to seven Navy ships and some 1500 sailors, 1000 support troops from the Second Marine Division and Force Troops, Fleet Marine Force, Atlantic, aircraft from the Second Marine Air Wing, Cherry Point, N.C., and 250 Marines from MarCorps Schools, Quantico, assisted in the operation.

Twenty Ships for OpTEvFor

The Navy has established an Operational Test and Evaluation Force (OpTEvFor) to centralize and strengthen the Navy's research and development program. Rear Admiral William D. Irwin, USN, former commander of Operational Development Force, Atlantic, has been named to head the new organization.

To carry out the mission of coordinating responsibility for all test and evaluation projects, OpTEvFor will have operational control of more than 20 experimental ships—among

them *uss Norton Sound* (AVM 1), *uss Sarsfield* (EDD 837) and *uss Baya* (AGSS 318).

Four air development squadrons of the Atlantic and Pacific Fleets are also part of OpTEvFor. Additional aircraft and ships may be assigned at various times to help carry out certain projects.

ASW Research for NATO

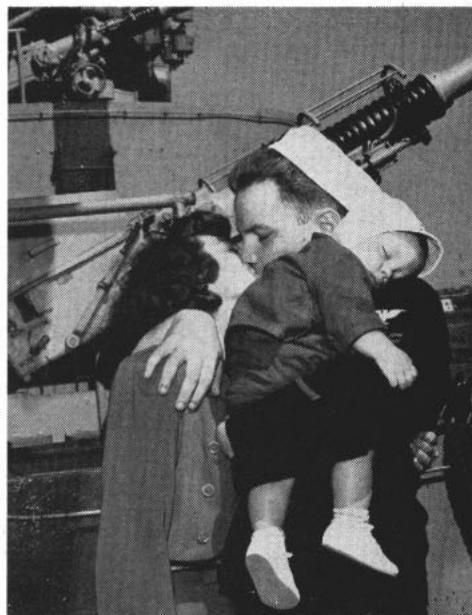
If the increased emphasis and combined efforts of the NATO nations are any indication of what to expect in the future, many of the antisubmarine problems encountered today may be solved.

A new international research laboratory—known as the SAACLANT ASW Research Center—has been established at the Italian Naval Base at La Spezia. As the name implies, this naval laboratory will study and help solve problems in antisubmarine warfare.

The NATO nations coordinating their talent and efforts at the research center include Canada, Denmark, France, Germany, Italy, the Netherlands, Norway, the United Kingdom and the U.S.

The laboratory will operate under the policy direction of SAACLANT in coordination with pertinent NATO agencies. SAACLANT's guidance will be provided by a staff of six military officers chosen from the participating nations.

Scientific knowledge of the member nations will be pooled in the



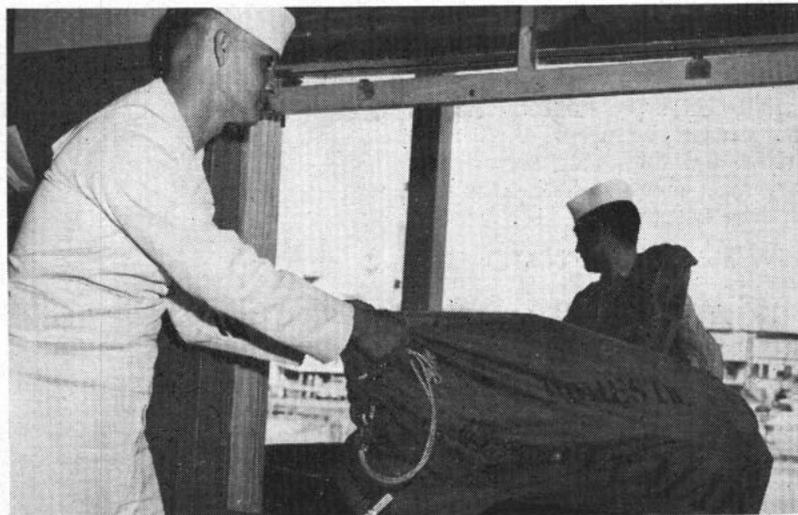
HELLO OR GOODBY—It doesn't make much difference to this toddler. The main thing is that it's about nap time.

center, and findings of new studies funneled back to participants. All NATO nations with ASW potentialities will have free access to the findings.

The research center will monitor and analyze oceanographic measurements in selected waters. Among other chief functions will be operational research and analysis plus limited developments in various phases of antisubmarine warfare.

TIRED OF SALTY SCENES?—Just to show you the Navy's not all sea duty, here's how a day begins for many men ashore.





IN THE BAG—Mail for Navymen based at Yokosuka nears end of journey.

Neither Rain, Nor Sleet, Nor Snow Halts Yokosuka PO

The more distance there is between a Navyman and home, the more his mail means to him. Since there are a great many miles between Japan and the United States, the mail handled by the Navy Post Office at U. S. Fleet Activities, Yokosuka, therefore assumes considerable importance to the Navymen who send and receive it.

Every day some three tons of letters and packages arrive there—either coming to or going from Navymen stationed in Yokosuka or in Seventh Fleet ships in the Yokosuka area.

According to Navy Postal Clerk Frederick J. Kelley, YNC, USN, the unit is "one of the largest Navy Post Offices in the world, financially, with a fixed credit of \$50,000."

It is staffed by 16 men, whose job is to sort the letters and packages and get them to their intended receivers as efficiently and promptly as possible. This they do in typical Navy style.

The office provides the usual services from selling money orders and stamps to handling parcel post and registered mail. Money order sales average about \$75,000 a month and stamp sales come to a grand total of about \$25,000 per month.

The office also provides a special service to ships which make Yokosuka their first port of call after crossing the Pacific. When such a ship is sighted by the Operations Control Tower, the Station Boat

Pool is immediately notified to have a boat ready so that a postal worker can meet the ship with the mail. Usually, the incoming ship has its mail within 10 minutes after she's dropped the hook. This service is performed on a round-the-clock basis.

Located on the station at Yokosuka are 16 mail boxes which are emptied twice a day, seven days a week. This mail is taken to the post office and, with mail from the ships in port, is sorted and delivered to Yokohama.

The Yokohama Navy Post Office, which is the terminal office in the Far East, then combines this mail with letters and packages from other bases in the area and delivers airmail to either Tachikawa Air Base or Tokyo International Airport for the flight to the United States. Within an hour after the mail is delivered to Yokohama it is on its way to one of the two airfields, where within a few hours it is loaded aboard a plane. Parcel Post is promptly dispatched by ship to the United States.

According to the Yokohama Postal Officer, Wave LTJG Betty Bingham, USN, the unit's biggest problem is caused by the failure of personnel to fill out change-of-address cards when they enter or leave the area.

"They're the ones who register most of the complaints about lost or delayed mail," she says.

—Robert Hanson, JO3, USN.

Ammo Control System

The Navy is using a new electronic "data processing system" to help keep count of its missiles and ammunition throughout the world.

Devised by the Bureau of Ordnance, the new method uses an all-transistor, high-speed data processing system. Named RCA 501, it should provide fast inventory control of missiles, mines, torpedoes, bombs and bullets from the time they start through the production line until they have been expended.

The first phase of the logistics program will be to place BuOrd's world-wide inventory setup on a daily basis. Eventually, the system will be employed for over-all logistics control of non-expendable items—such as guns, gun mounts and missile launchers—as well as for financial management, quality evaluation and research project management.

Tanker Fights Rust

Navy tankers in the future may not need to replace wasted steel in cargo tanks as often as is now required. The inside of the tanks will probably be protected from corrosion by some sort of inorganic, plastic or rubber coating.

Recently USNS *Yukon* (T-AO 152) finished a one-year test of different types of these protective coatings in 10 cargo tanks. These tanks were still smooth and scale free after the one-year period. The remaining cargo tanks had been left completely unprotected, as they are aboard most tankers. They were rusty when the test year ended.

In the past, rust may have caused different kinds of trouble. In some cases, jet flameouts have been blamed on the powdery rust that might have come from a corroded tank. (A civilian tanker company has predicted that within a year all ships that carry jet fuels will be required to have a protective coating in their tanks.)

According to *Yukon's* master, Captain David M. Rawlins, a satisfactory coating could protect the tanks indefinitely. Unprotected tanks last only about 10 to 12 years. To replace them costs from one to one and one-half million dollars in a ship the size of *Yukon* (25,000 tons). It is estimated that if a special coating were put on the tanks when a ship is built, it would add about \$600,000 to the original cost.



It's All for Navy Relief

PRETTY GIRLS, air shows, pretty girls, fireworks and pretty girls attracted about 100,000 people to a three-day Navy Relief Festival at the Naval Air Station, Corpus Christi, Tex.

One of the highlights of the occasion was a 3000-dollar fireworks display which brought the usual "oohs" and "ahs" from the audience. Another was a display of precision marching by an all-girl drill team. On both Saturday and Sunday of the festival weekend, air shows were held with local Navy aircraft participating.

A variety show ran continuously throughout the festivities, with over 80 different acts providing enter-

tainment for audiences of all ages.

During the final activities on Sunday a beauty pageant was held, with 10 girls competing for selection as 1959's "Miss Corpus Christi" and "Miss Navy Relief." The first title went to the candidate of Advanced Training Unit 601. The second was won by the representative of the NAS Marines.

Top: Some of the thousands of visitors look over the aircraft on display during the festival. *Top right:* Miss Noelle Jane Engler—"Miss Corpus Christi of 1959." *Right:* Miss Shirley Perkins—"Miss Navy Relief of 1959." *Bottom:* Local beauties line up to compete for "Miss Corpus Christi" title.



Brief news items about other branches of the armed services.

A NEW IDEA about coping with the annual North Atlantic iceberg threat has been tried out. It only proved that ice patrols are still necessary.

The latest venture, conducted by the U.S. Coast Guard, consisted of bombing a 300-foot iceberg with 985-pound incendiary bombs. The iceberg was grounded in 300 feet of water. It was as tall as an 18-story building and believed to weigh a million tons.

The Coast Guard had hoped that the gigantic berg would split in half under the stresses set up by the heat of the incendiary bomb and would, as a result, melt faster. However, like previous attempts with gunfire, torpedoes and demolition mines suspended below the water, the incendiary bombs proved unsuccessful.

During the past summer, the iceberg threat in the North Atlantic was one of the three most severe since *Titanic* sideswiped one and sank in 1912.

The *Titanic* sinking, which took 1500 lives, occurred about 300 miles from the scene of the Coast Guard's bombing experiments.

Because the threat was so great this year, the Coast Guard dispatched the 255-foot cutter USCGC *Androscoggin* (WPG 68), normally assigned to search and rescue duty out of Miami, Fla., to the North Atlantic to augment the efforts of other ships and aircraft on the ice patrol.

This year icebergs were present even in Track "A," the most southerly ocean route to Europe. One iceberg—1000 miles off shore—floated as far south as New Jersey before it melted.

★ ★ ★

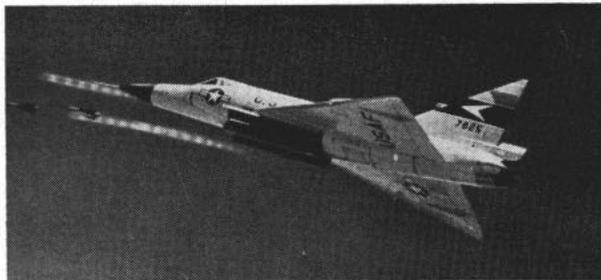
THE ARMY SIGNAL CORPS has successfully tested a miniature flying *Snooper* drone which is designed to observe activities behind enemy lines.

A remote-controlled aircraft drone designated SD-3, the *Snooper* has made four successful flights at the Army's test facility in Yuma, Arizona. Each flight requires successful rocket launch, transition to flight, actual flight, and recovery, all controlled either by pre-programming the drone or by controlling it from a ground or air station.

The longest of the four test missions lasted more than



DIG THIS—Mechanical ditch-digger being tested by the Army will provide rapid protection for troops.



TRIPLE THREAT—The Air Force's F-102 Delta Dagger, an all-weather interceptor, launches deadly trio of Falcons.

30 minutes. During the flight the SD-3 swooped in on eight different simulated targets, obtained necessary data for the ground troops, and was successfully recovered.

The SD-3 weighs less than 1000 pounds, is 15 feet long, and has a wing span of 11 feet. It is packed with devices for guidance control and observation of enemy troop movements, fortifications and battlefield installations.

Interchangeable units in the nose of the drone enable rapid changes from one surveillance technique, such as photography, to a different type, such as infrared detection, radar or television.

In a typical mission the drone is launched from a mobile trailer by two rocket motors. Once in the air a 140-hp reciprocating engine takes over.

Recovery of *Snooper* is accomplished by an automatic parachute device which floats the drone back to earth. Special inflatable rubber mats contained within the drone cushion the fall.

Although the SD-3 can operate at varying altitudes, most missions are accomplished at low level where the drone's size and speed aid in dodging enemy radar and gunfire.

★ ★ ★

SPACE AGE men may some day stroll through the earth light in their gardens on the moon, if studies now being conducted indicate it is feasible to raise vegetables in green cheese.

Except for the part about the green cheese, that possibility is not so remote as it may seem, since lunar gardens could be very useful in the space age as a source of food at bases on the moon. Right now, under a research program being conducted for the Air Force's Ballistic Missiles Division by a civilian corporation, scientists are trying to determine the practicality of establishing such bases. Part of the program involves the investigation of problems to be overcome in supplying food to the people at those bases.

Such "delicacies" as algae, lichens and Iceland moss have already been mentioned as possible items in a space diet. However, since life at a lunar base would be more pleasant if the food were more down to earth, the scientists are trying to see how ordinary plants or vegetables might fare under the atmospheric conditions and accelerated growing cycles to be encountered in a lunar garden.

Such a garden would probably be grown inside a special greenhouse. An ideal moon vegetable would: Have a seed that is light per pound of vegetable pro-

duced; germinate readily and not be sensitive to light, gravity, X-radiation or cosmic rays; not require oxygen; be edible, raw or cooked—roots, leaves and all; provide a balanced diet of proteins, fats, carbohydrates and vitamins; and have a short growing period in full sunlight, at low pressures under a wide range of temperature conditions. At present, all this cannot be attained in any one vegetable. However, the diet requirements could be covered by just four vegetables—corn, roasted peanuts, soybean sprouts and lettuce.

In a preliminary laboratory setup the people doing the research for the Air Force have already tried raising turnips, carrots and beets at simulated pressure altitudes of 8000, 16,000 and 27,000 feet. They've also conducted similar experiments with beans—snap beans—that is—not moon beans.

★ ★ ★

THE ARMY WILL SOON GET a new general purpose machinegun which will eventually replace the three different types of 30-caliber machinegun now in use.

Called the 7.62mm M-60, it uses the standard 7.62mm NATO cartridge, and can be fired from the shoulder, from the hip, from a bipod, and from a newly developed aluminum tripod.

★ ★ ★

A RADICALLY NEW 35-MM. MOTION PICTURE CAMERA—that takes a picture four times wider than conventional 35-mm. cameras—has been developed for the Air Force.

This high-speed camera shoots about five feet of film a second. It is being used to photograph targets and flight paths of missiles fired from Air Force F-106 *Delta Dart* all-weather Mach 2 jet interceptors.

The new cameras—10 inches wide, 2½ feet long, 7 inches high and weighing about 50 pounds—were designed and built to fit into the wing leading edges on each side of the F-106's fuselage.

They have a fixed six-inch focal length lens which gives unusually high resolution in a wide frame. The image size of the new cameras is three inches wide and one inch deep. It takes the equivalent of four standard 35-mm. motion picture frames in one three inch segment of film. The image size of a conventional



JEEP BOAT RIDE—Army vehicle rolls aboard equipment assault boat for transport during field maneuvers.



HIGH-FLYER—USAF X-15 rocket aircraft is designed to carry man up close to the fringes of outer space.

35-mm. camera is about an inch wide and three-quarters of an inch deep.

The new cameras can do the work of at least five standard 35-mm. cameras. They are pre-set and bore-sighted before the aircraft leaves the ground. The aircraft's electrical system provides power for the camera's motor. The pilot actuates the cameras from a control in the cockpit.

The new instruments can cover a 54-degree horizontal sector, photographing 15-foot objects nearly six miles ahead of the aircraft. Either color or black and white film may be used. Illuminated reference marks permit data analysis of film taken during night missions.

★ ★ ★

THE ARMY'S IRBM JUPITER is now ready for tactical missions.

This announcement was made after the Army had fired the 19th 1500-mile missile over the Atlantic test range. Of the 19 *Jupiters* launched to date—17 in tests and two in space research—only one was considered unsuccessful.

Later this year the *Jupiter* will be deployed overseas by the Air Force. It will be based at strategic sites throughout Europe.

The Army announcement said that the intermediate-range ballistic missile "has attained an unusual degree of accuracy, and is now ready for operational use."

Air Force personnel participated in the last four *Jupiter* launchings. They are members of the 864th Tactical Training Squadron, which was trained at the Army's *Redstone* Arsenal in Alabama where the *Jupiter* was developed.

★ ★ ★

A CONTRACT has been awarded for production of a new quarter-ton utility truck that will succeed the jeep as the Army's tactical, commercial and reconnaissance vehicle.

It is lighter than the jeep and rugged enough to be dropped from an airplane. Among its other features are cross-country mobility, low-fuel consumption and economy in maintenance.

The vehicle was developed under contract with the Army Ordnance Corps and pilot models have been under test since July 1954.

Deliveries are scheduled to begin in April 1960.

THE WORD

Frank, Authentic Advance Information On Policy—Straight From Headquarters

• **GOT ANY QUESTIONS ABOUT TRANSFERS**—your own or someone else's?

If you have, run, don't walk to your ship or station personnel office. They've got the answers for you in one neat package—the new *Enlisted Transfer Manual*.

Known as NavPers 15909, the new manual is designed to provide an official "bible" concerning the transfer and distribution of enlisted personnel. It consolidates all existing information and directives on the subject into one handy reference work.

Effective date of the new manual was 1 August, and distribution began at that time. If your ship or state office doesn't have a copy, it can be obtained through local Forms and Publications Supply Offices.

BuPers Instructions incorporated in the new book were cancelled as of 1 August. A list of these is contained in BuPers Notice 1300. Portions of the *BuPers Manual* superseded by the *Enlisted Transfer Manual* will be deleted.

• **CHANGING RATES**—If you're stymied in your climb up the promotion ladder because you're in an over requirement rating with slow advancement opportunities, it may pay you to consider attempting to change to a field affording faster promotion through 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: BM1, BM2, MN1, YN1, CS1, CS2, SH2, DC1, CM1, AD1, AO1, SD1, SD2, SD3.

The open rates to which personnel may convert include: SOC, SO1, SO2, SO3, RD1, RD2, RD3, RM1, RM2, RM3, AT1, AT2, AT3, SMC, SM2, IC1, IC2, QM2, QM3, TM2, TM3, NW2, NW3, OM2, OM3, ET2 and ET3.

These are the current "over" and "under" ratings announced in Change Two to BuPers Inst. 1440.18B.

• **SAN ANTONIO HOPS**—San Antonio, Tex., which *used to be* a good place for traveling Navymen to catch free plane rides to other points, is now a likely spot for you to get yourself stranded if you go there seeking a "hop."

Because San Antonio is a well known center of Air Force activity, armed forces travelers sometimes get themselves stranded by going there in anticipation of getting somewhere else easily, quickly and cheaply. Unfortunately, the nature of aircraft operations from that area has changed, so that transients rarely—if ever—obtain hops from there nowadays.

When people do get stranded, the burden of getting them on their way (endorsements, TRs and such), falls on the Navy and Marine Corps Reserve Training Center, San Antonio. In the interest of reducing problems, confusion and disappointments all around, the Center is calling Navy-wide attention to the total lack of transient hop facilities in the area.

Now that you've read this, you

certainly can't claim you didn't get the Training Center's message.

• **KOREA GI BILL BENEFITS FOR CAREER MEN**—If you're a career man completing your 20 in the next few years, and you're thinking of going to college, here's good news.

The Conditional/Unconditional Discharge question for Navymen reenlisting in the Navy has been resolved. This makes many career men eligible for Korean GI Bill benefits they thought were lost to them forever when they shipped over.

Career personnel have been concerned because discharges which were effected three months or less prior to the expiration of their enlistments were being ruled "Unconditional," even though they were for the express purpose of immediate reenlistment.

The Veterans Administration criterion for a "Conditional" discharge is that it be one which does not relieve a man from further active service.

A discharge three months or less prior to expiration of enlistment entitles a person to all of the rights, benefits and privileges of a completed enlistment, and relieves him of the obligation of further active service unless early discharge is for the purpose of immediate reenlistment. Such discharges were formerly ruled to be "Unconditional," and required the individual to commence his GI education or training within three years of the discharge date.

Obviously, if you had 14 years' service as of 1954, for example, and you were discharged three months or less before your expiration of enlistment for the purpose of immediately reenlisting for six years to complete your 20, you were not able to commence your education or training by 1957.

On the other hand, discharges more than three months early for the specific purpose of immediate



DON'T JUST SIT THERE—Play the game with your shipmates and pass this copy of ALL HANDS on to nine others.

reenlistment were considered to be "Conditional" discharges which did not require commencement of education within three years of the date of that particular discharge.

In effect, therefore, two categories of men were being discharged early for the purpose of immediate reenlistment. The three-year period for commencement of schooling applied to one group and not to the other.

Now, all persons discharged prior to expiration of enlistment for the purpose of immediate reenlistment will be considered to have received a conditional discharge.

So if you want to keep your eligibility for Korean GI Bill education alive, be sure to get an early discharge for the purpose of immediate reenlistment on board next time you ship over—in other words, get a "Conditional" rather than an "Unconditional" discharge. A word of caution—the deadline for completion of education or training under the Korean GI Bill is still 31 Jan 1965.

• **NROTC COLLEGE TRAINING PROGRAM**—If you'd like to start studying at one of 52 colleges or universities throughout the country under the NROTC program a year from now, and have done nothing about it, you'd better get a move on—a nomination from your CO must be in the Bureau of Naval Personnel by 19 October.

Provided your nomination reaches the Bureau on time, and 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 in December.

This test and your physical examination are the controlling factors which determine whether your application will be given further consideration.

The names of those who pass the college aptitude test will be published next spring, and next summer, if you're still interested in the program, you'll be ordered to the Naval Preparatory School at Bainbridge, Md. If you negotiate the Prep School successfully you'll be appointed midshipman in the Reserve and sent to an NROTC Unit at the school of your choice to begin your studies.

While studying for a baccalaureate in a field you select yourself, the Navy will provide you with:

- All tuition, books and fees.

David J. Majchrzak, DN, USN



"Let's go in—the second feature is a real good western."

- 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 you'll receive practical training and firsthand experience. Two of these cruises will be to choice liberty areas such as Europe and South America. The third normally takes you to Little Creek, Va., and Corpus Christi, Tex., for amphibious and aviation training.

- Upon graduation a commission as ensign in the Regular Navy or second lieutenant in the Regular Marine Corps.

So, if you're interested get your application in to your CO. All the information you need is contained in BuPers Inst. 1111.4C.

- **HOW TO WIN FRIENDS**—There's a lot more to the President's People-to-People Program than just suggesting that everyone go out and become a goodwill ambassador. To help you make the Navy's part in the program effective, a variety of useful materials for promoting international understanding is available to your ship or station.

The semi-annual catalog issues of the "I & E Newsletter" (NavPers 15801) list the materials available and spell out the procedures for procuring them. In addition, new materials are announced from time to time in the regular quarterly issues of that publication.

Materials produced or procured by the Office of Armed Forces Information and Education include pamphlets, films, pocket guides, posters, maps, reprints of various articles, and also language courses consisting of records with texts in 22 languages. In addition, there are available two-

record language sets in 41 languages with accompanying phrase books; recordings of national anthems; and brochures on living conditions in overseas locations.

These materials may be procured separately, or overseas information kits of pre-selected materials may be requisitioned. These have been made up for seven different areas—Western Pacific, Southwest Pacific, Central Pacific, North Pacific, Caribbean, Mediterranean and North Atlantic Europe. They may be obtained from the Navy Supply Centers at Norfolk, Va., or Oakland, Calif. The kits are made up of suitable materials, less films, and are gauged to the size of the requisitioning command so that only one kit for a given area need be ordered.

Obtaining the kits is a simple matter. For instance, take a destroyer leaving the West Coast for the Far East. Before the ship departs, the skipper puts in a request to NSD Oakland, for a "WESTPAC Kit, DD Size." In return, the ship gets a selection of materials that include one set each of Japanese, Korean and Chinese language records, 30 language guides, 30 phrase books, pocket guides to the various countries of the Western Pacific, an assortment of maps, and posters designed to encourage individuals to participate in the People-to-People Program.

Films can be used to supplement the kits. They are available on loan from district training aids sections, training aids libraries and aviation film libraries. They are listed in the catalog issues, of the "I & E Newsletter" and in the Navy Film Catalog (NavPers 10000-A).

A ship or station which is really on its toes can also obtain useful material and helpful information from various other sources. Among these are Fleet, force and area commanders; State Department public affairs officers; United States Information Service officers abroad; naval and military attaches; American business representatives abroad; the tourist and travel bureaus of different countries; religious, civic and fraternal organizations; ship, station or public libraries; foreign port officials; and liaison officers.

The role of ships and stations in carrying out the People-to-People effort in consonance with SecNav Inst. 5710.12 is outlined for ships and bases in BuPers Inst. 1560.2A.

THE BULLETIN BOARD

Here's NESEP: Two Ways to Four Years of College via Navy

The Navy Enlisted Advanced School Program (NEASP) has dropped its name and has merged with the Navy Enlisted Scientific Education Program (NESEP).

Both will remain in effect, with the old NEASP becoming course "A" under NESEP and the old NESEP becoming course "B" under the combined program.

Both the Navy Enlisted Advanced School Program, established in 1956, and the Navy Enlisted Scientific Education Program, established in 1958, were started because of the increasing demand for qualified personnel in the scientific and engineering fields in the Navy.

Individuals who finish the program and receive their baccalaureate will be ordered to Officer Candidate School, Newport, R. I., where they will take part in the curriculum there. If otherwise qualified, when they finish that course, they will be commissioned ensign in a category commensurate with their education, special qualifications, and the needs of the service.

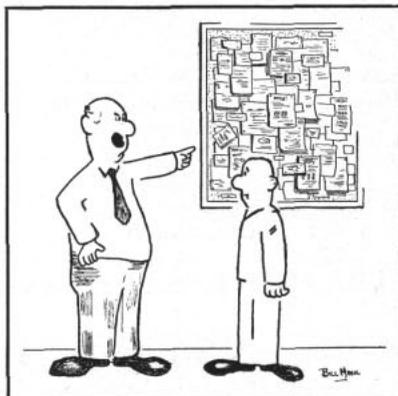
This single program offers an uninterrupted four-year college education program—including summer sessions—in designated colleges and universities, leading to a baccalaureate. Normally, the period of education will not extend beyond the baccalaureate level even though less than four years may be required to obtain a degree.

Course "A" under the new NESEP is the Systems Engineering Curriculum, and Course "B" is the Science/Engineering curriculum. Course "A" is given only at Purdue University and at the University of Washington, while Course "B" is offered at 20 colleges and universities throughout the United States.

Both men and women (married or unmarried) enlisted members of the Navy may apply. To be eligible, you must:

- Be enlisted in the Regular Navy, or Naval Reserve on active duty (This includes the TAR program).
- Be in pay grade E-2 or above.

All Navy Cartoon Contest
William Roger Maul, CT1



"Wha'da you mean you didn't get the word?! It's right there on the bulletin board!"

• Have at least six years' obligated service as of 1 July of the year selected if in the Regular Navy. If in the Navy Reserve, you must agree to join the Regular Navy for six years in the pay grade you hold on 1 July of the year selected for the NESEP program. All students must agree to extend their enlistment two additional years after completing the first two years of college.

• Not have reached 25 years of age by 1 July of the year selected.

• Be a high school graduate or the equivalent (as per GED test).

• Have a GCT plus ARI of 118.

• Be physically qualified in accordance with the *Manual of the Medical Department*. Candidates must have a minimum vision of 20/100 in each eye correctable to 20/20 if a waiver for this defect is recommended by BuMed. Those with defective color perception will only be considered for a program which leads to a commission in a restricted line or staff corps. A waiver is still necessary, however, for eventual appointment in the restricted line. All required dental treatment must be completed and minor non-disqualifying correctable ailments must be corrected before reporting to the Naval Preparatory School.

- Have a final Secret clearance before entering college.
- Have a clear record for the last

two years of active naval service.

- Be a United States citizen.
- Be recommended by your commanding officer.

Men and women selected for this program will be ordered to the Naval Preparatory School, U.S. Naval Training Center, Bainbridge, Md., or to the Service School Command, U.S. Naval Training Center, San Diego, Calif., in the summer before entering college, for approximately nine weeks' temporary duty under instruction. During this period, selectees will receive refresher instruction in mathematics, physics, English usage, and orientation in college academic requirements.

While attending prep school, each selectee will be interviewed; a major field of study will be approved, and a college or university will be designated. After successfully completing the summer preparatory training, students will be ordered to a college or university to begin the fall semester. Leave will be granted during academic holidays, and the four-year course will be considered a normal tour of shore duty.

Trainees will be required to maintain their enlisted status while enrolled as students in a university or college, and will be eligible for advancement in rating the same as other enlisted personnel. Since students will eventually be considered for OCS, they will not be eligible for any officer in-service procurement program.

You may still have a chance to apply this year for training. Commanding officers have only until 15 September to order an examination for you. In BuPers Inst. 1510.69D, 1 August was set as a deadline for application by an individual to his commanding officer. It is emphasized, however, that this is only a guide line. Commanding officers have until 15 September to order examinations, and may set any deadline they desire prior to 15 September. Interested persons should contact their personnel office immediately—time is almost run out.

Ordering your examination does

not comprise a formal application. This formal application must be made on the Enlisted Evaluation Report, NavPers 1339 (Rev. 3-56) before 1 October.

The original NavPers 1339, completed Standard Forms 88 and 89 (results of physical examination), and all transcripts reporting the formal educational background of the individual applicant must reach the Chief of Naval Personnel before 1 October of the year preceding selection.

The written examination will be sent to your command by the Naval Examining Center, Great Lakes. These will be administered on the second Monday in November—this year, 9 November.

Selection of applicants for this program will be made during March of the year of college entrance, and will be based on the individual's service record, prior educational endeavor, commanding officer's recommendation, and screening examination scores.

There are several USAFI courses that should be helpful in obtaining a better score on the November screening examination. It may be too late to use them this year, but you can be ready for the examination and schooling next time. Here are the recommended courses:

- MB/CB 151 and 152, General Mathematics I and II. (Skim through this to determine in what areas you need further work.)

- MC/CC 164 and 165, Beginning Algebra I and II; MC/CC, Advanced Algebra (high school), or MD/CD 425, College Algebra.

- MC/CC 176 and 177, Plane Geometry I and II; MC/CC 178, Solid Geometry, or MB/CB 430, Analytic Geometry (college).

- MB/CB 188, Trigonometry (high school) or MC/CC 435, Plane Trigonometry (college).

- MC/CC 290 and 291, Physics I and II (high school) or MA 517, college Physics.

- MB/CB 781, Fundamentals of Electricity.

Other courses will be helpful if you have time to get them. They are:

- MB/CB 436, Spherical Trigonometry.

- MB/CB 858, The Slide Rule.

- MB/CB 440 and 441, Calculus I and II.

Both high school and college

courses are listed so that prospective applicants may study the courses best suited to their educational background. The more courses completed, the better chance you will have—both to get a good qualifying score and, if selected, to do well in college.

For more complete details about NESEP see BuPers Inst. 1510-69D.

Three Titles Added To List Of Correspondence Courses

Three new Enlisted Correspondence Courses are now available. Three others have been discontinued.

Enlisted Correspondence Courses for active duty personnel will be administered (with certain exceptions) by your local command instead of by the Correspondence Course

Center. Your division officer will advise you whether the course for which you have applied is suitable to your rate and to the training program you are following.

Personnel on inactive duty will have courses administered by the Center.

New courses are:

Title	NavPers No.
*Radioman 1 and C	91405-2
Aviation Machinist's Mate 2	91598
Dental Technician General 1 and C	91682
* May be retaken for repeat Naval Reserve credit	
Discontinued Courses	NavPers No.
Radioman 1	91404-1A
Radioman C	91405-1A
Handbook for General Dental Technician	91684-A

WHAT'S IN A NAME

Antiaircraft Cargo Boom

A veteran general stores issue ship, holder of distinction unequalled by any other ship in the U. S. Navy (we think), has joined the Reserve Fleet.

She's USS *Mercury* (AKS 20)—and the highlight of an illustrious, hard-working and generally unsung 20-year career devoted to replenishment of the Fleet occurred during the Marianas campaign in World War II.

It was there, just south of Saipan, on 26 Jun 1944, that *Mercury* became the only U. S. ship to knock down a Japanese plane with a cargo boom.

The enemy torpedo bomber came a cropper while attempting to deal a death blow to *Mercury*, a project which came uncomfortably close to succeeding.

During a series of small air raids on the U. S. Fleet, which was protected by a heavy smoke screen, the Japanese bomber, flying at 90 feet, hurtled through the screen and loosed an aerial torpedo at

Mercury only 200 yards away. Attempting to gain altitude, the plane avoided *Mercury's* stack but smashed head-on into the starboard cargo boom, spun off, and crashed into the water some 1,000 yards away.

The aerial torpedo, meanwhile, never entered the water, but struck *Mercury* unarmed. It passed through compartments on the port side of the deck house, tearing open the warhead and air flask, and scattering TNT over the bridge and after section of the ship. The after body of the torpedo smashed into the deck house, killing a chief commissary steward. Many of the crew were covered with the explosive compound, and some were injured by the falling boom.

Mercury earned battle stars in five major Pacific operations, from the Marshalls to Okinawa.

Launched in 1939 as the cargo ship *ss Lightning*, she was commissioned USS *Mercury* and began her Navy career in 1942 as an AK (cargo ship). She was converted to a general stores issue ship late in 1945, and, since 1946, has operated with the Service Force, Atlantic Fleet, shuttling between the U. S. and Europe in support of ashore and afloat units of CinCNELM.

It seems especially fitting that *Mercury's* well earned rest will be as a member of the Texas Group, Atlantic Reserve Fleet, at Orange, Tex. Texans, everyone knows, are fond of bragging about their "firsts" and "onlys." When a boasting session gets underway, here's one ship which most certainly will be able to hold her own.



Just a Lot of Words—But They All Add Up to the New Navy

WORDS CAN BE DECEIVING. And now that new words from the innermost realms of advanced science are coming into everyday usage in connection with the new technical fields of importance to the Navy, it is increasingly important that the seagoing Navyman in a position of responsibility develop an understanding not only of the words, but their significance in the sea service.

Hydrodynamics, for example, is now a familiar word. It is the study of the behavior of fluids in motion. But **magnetohydrodynamics** is a new field and has nothing to do, as the name might imply, with water-driven ignition systems. It is the study of the behavior of ionized gases (fluids) in the presence of magnetic fields. It is of great practical importance to the understanding of what is happening in the rarefied regions of the earth's upper atmosphere where rockets and space vehicles are now penetrating.

Of even greater importance, the key to harnessing the fusion energy of the hydrogen bomb lies buried, awaiting development of a full understanding of magnetohydrodynamic processes. The theory of **plasma jets**, an outgrowth of magnetohydrodynamics, has been put to practical use in metal spray devices and may find further application in space propulsion.

Entropy, another new word to most of us, is recognized by every steam engineer as a term from **thermodynamics** that relates to "a measure of the available energy in a thermal system." A new use for the concept of entropy has been found by the communications engineer.

As unlikely as it seems, entropy is now used as a measure of information in communication system design. The parallel use of the term results from the almost identical mathematical form of the equations in thermodynamics and in the growing study called "**information theory**."

In analyzing information the development of a mathematical treatment is of great practical importance in developing automatic control systems, data reduction and storage, and communications. Information theory indicates, for instance, that all the information now stored in

All Navy Cartoon Contest
Billups E. Lodge, LT, USN



"Did you hear that SOS, Sir?"

the Library of Congress could be reduced—by proper coding—to occupy a storage space of less than one cubic yard.

Furthermore, all the information so stored on any subject could be made instantly available by access through data processing systems. You can see that the potentialities of information theory are of great interest to the Navy. It would have use in the rapid handling of the great quantities of information and data that develop in naval operations, where large numbers of ships and aircraft are involved, and in employing guided missiles. There is great interest in this field.

Numerous examples could be given of the increasing practical importance of the naval officer keeping abreast of the latest advances in the theoretical sciences. Further examples would merely strengthen the realization that every new development in the pure sciences, from "**solid state physics**" to the mathematics of "**non-linear partial differential equations**," has a practical application to naval warfare.

David J. Majchrzak, DN, USN



"I'm using psychology."

So overwhelming is the impact of the modern technical revolution, it is no longer adequate that only a small number of officers destined for restricted duty pursue advanced study.

As recent statements by SecNav, CNO, the Chief of Naval Personnel and a number of commanders in the Fleet indicate, there is great need that more officers on duty in the Fleet have a thorough grasp and understanding of the basic principles involved in the new technological developments.

And not only at the officer level is this necessary. In recognition of the importance of advanced formal education, the Chief of Naval Personnel has instituted, at the direction of SecNav, a program to send a substantial number of enlisted men through college to enable them to meet the increasingly complex technical demands of a naval career.

The Engineering School, as a component of the Postgraduate School, is the direct lineal descendent of the old Postgraduate School which had its beginning in Annapolis in 1909. In this component, the eight departments of aerology, aeronautics, electrical engineering, engineering electronics, mathematics, physics, metallurgy and chemistry, and mechanical engineering teach courses in 32 curricula ranging from basic aerology to special mathematics.

These 32 curricula are grouped generally into five areas, each under the charge of a senior officer who is well experienced in that field. The curricula are precisely tailored to provide the kind of education needed by the Navy for the officers who man the Fleet. This ability to meet an exact educational requirement has led to the expansion of the Engineering School to more than 600 students with a faculty of more than 100 professors in every engineering field.

Under the impetus of the "Space Age," and with the growing realization that the key to technological supremacy lies in having a solid core of naval officers well educated in the engineering sciences, the Engineering School is destined to expand further to a full capacity of 800 student officers, to meet new needs.

WAY BACK WHEN

PGS—And How It Grew

The U. S. Naval Postgraduate School Catalogue (for Academic Year 1959-1960) which is widely distributed to major units and commands ashore and afloat, contains a detailed description of the curricula and the courses which constitute them. No matter what your individual professional interests may be, there is a curriculum especially designed to give you a thorough engineering foundation to a naval career in that area.

To further the trend away from education exclusively for the engineering or special duty specialist toward a new orientation of an engineering education for the seagoing line officer, several curricula have been revamped in accordance with directives of the Chief of Naval Operations and Chief of Naval Personnel.

With few exceptions, study is designed for utmost utility to the operating officer, and previous requirements for transfer to engineering duty assignment have been removed.

Applications are being received by the Chief of Naval Personnel in larger numbers than ever before. The word is out that a postgraduate education is the order of the day for those officers who are carefully studying their career futures. The deadline is 1 Nov 1959 for applications to be considered by the selection boards. Don't miss out, but study the prospects carefully. Then send in your application for the postgraduate curriculum that interests you most.

The foregoing information was sent to us by RADM E. E. Yeomans, USN, Superintendent of the U. S. Naval Postgraduate School at Monterey, California. We present it not only as information for career officers and career senior petty officers, but as an indication that this Navy of yours is moving—and moving fast—in the technical fields.—ED.

Nuclear Submarine Crew Is In Deep Water, But Going Far

USS *Sargo*, SS (N) 583, has been operating less than a year, but in that short time both she and her crew have been busy.

First nuclear submarine built on the west coast, *Sargo* was commissioned in October 1958. Since then 118 officers and men have served in her at one time or another. More

This year the U. S. Naval Postgraduate School, which started out as a School of Marine Engineering at Annapolis with an enrollment of only 10 officers, is celebrating its 50th anniversary.

Today this institution has some 1100 officer students enrolled in about 40 different curricula in engineering and related subjects in the Engineering, General Line and Naval Science and Management Schools. And, facilities are being planned to accommodate a total of 1475 officer students—775 in the Engineering School, 50 in the Navy Management School and 650 in the General Line and Naval Science School. At its commencement exercises this May the school conferred for the first time, the degree of Doctor of Philosophy.

The idea of a naval graduate school began with the establishment of a course of instruction in Marine Engineering by the Bureau of Engineering in 1904. The results of this move were so encouraging that in 1909 the Secretary of the Navy established a School of Marine Engineering at the Naval Academy.

In 1912 the School of Marine Engineering became the USNA Postgraduate Department, and its academic program was broadened to include Ordnance, Naval Construction and Civil Engineering. During World War I the Department suspended operations, but classes were resumed in 1919 in converted Marine barracks on the Naval Academy grounds. Two years later the facility was officially designated the "United States Naval Postgraduate School."

In the 1920s and '30s the school continued to grow, both in enrollment and in the number of courses offered. In 1927 the General Line Course was initiated to acquaint junior line officers with the latest developments taking place in the Navy, and to broaden their professional knowledge through integrated programs of study in naval science.

World War II caused an increase in enrollment in the engineering curriculum from about 125 to more than 600 students. In contrast to the complete suspension of operations that took place in the first World War, there was a great expansion of activity. The school outgrew its quarters, and

an annex was built to house additional classrooms and laboratories. Even so, there was still a serious shortage of space.

After the war ended a program was begun to relocate the PG School and improve its professional status. Between 1945 and 1948 legislation was passed to establish the school as a separate activity under its own superintendent; create the office of Academic Dean; grant the superintendent the right to award bachelor's, master's and doctor's degrees; and locate the school at Monterey, Calif.

The move to Monterey was started in 1948 and completed in 1951.

In 1956 the Navy Management School was established as a component of the PG School. Its mission is to educate officers in the application of sound scientific management practices to the complex organizational structure and operations of the Navy. In 1958 the General Line School was redesignated the General Line and Naval Science School, and a bachelor of science curriculum was offered to meet the educational and career requirements of selected officers who do not have baccalaureates.

These are just a few of the changes the PG School has seen in its first half-century. However, despite the passage of many years, the school has still kept its original objective in view—that of providing the Navy with officers who have the advanced technical education it takes to administer and direct a modern Navy.



than 85 per cent have been promoted, advanced in rate, accepted in the OCS, NROTC or NESEP/NEASP programs, or have received proficiency pay.

A run down shows two officers promoted to commander and three to lieutenant commander. Eleven enlisted men were appointed ensign,

and four to warrant grade. Two were accepted for OCS, four for NESEP/NEASP and one for NROTC.

Two CPOs were advanced to E-9, and two to E-8. Thirteen first class POs made chief, and 18 second class, seven third class and eight seamen and firemen all moved up one rate. A total of 24 men received propay.

PGS Offers a Full Line of Courses for the Naval Officer

ADVANCED EDUCATION is available to qualified naval officers on active duty through the Navy's Postgraduate Educational Program. This schooling is provided at the Engineering and Navy Management Schools of the Naval Postgraduate School, Monterey, Calif.; at the Naval Intelligence School, Washington, D.C.; and at certain civilian educational institutions.

Each year commissioned officers are invited to apply for this special training. Deadline for submission of this year's applications is 1 Nov 1959. The selection board should meet in January 1960 with classes to begin during fiscal year 1961.

Eligible officers may apply in any one of seven postgraduate educational areas. These are aeronautical engineering; civil engineering; management; administration; naval engineering; operations; ordnance engineering; and a "Special" category. Within the chosen areas, officers are asked to list all curricula in which they are interested and qualified.

Postgraduate courses last from 10 months to three years. All line officers selected and ordered to the technical engineering curricula at Monterey — specifically, Aeronautical, Electronics, Naval and Ordnance Engineering — will be initially assigned to a two-year general curriculum.

Advanced studies after the two years are available within quotas authorized by CNP if the candidate is recommended by the Superintendent of the Naval Postgraduate School, and approved by the Chief of Naval Personnel. Generally, Reserve officers (unless they are in the process of, or have completed action toward augmentation as USN) are limited to the two-year course.

Before any officer is selected for postgraduate education he must agree to remain on active duty during the curriculum, and to serve on active duty in the Navy for at least one year after he completes his studies. This obligation is in addition to any other service obligation he may have already incurred.

This schooling is considered shore duty, and should fit into the normal rotation of an officer. A line officer is not made available for selection if

assignment ashore at the time of his request would be against his best career interests.

After completing postgraduate education, line officers can expect to be assigned to sea duty—unless they have been selected for transfer to a restricted line category. Staff corps officers will be assigned to billets which should broaden their experience in their career field. Generally speaking, all officers can expect two tours of duty associated with their studies—one ashore and one afloat.

Certain eligibility criteria and prerequisites have been established. Here are some general ones:

- For curricula under the areas of aeronautical engineering, naval engineering (except naval construction and engineering), operations and ordnance engineering, officers must have been first commissioned on or before 30 Jun 1957 (subject to the below-stated operational experience), and may be up to, and in some instances, in the grade of LCDR with a date of rank as LCDR of 1 Jan 1959 or later.

- For curricula under the areas of Management, Administration and "Special," officers must have been commissioned on or before 31 Jun 1955, and may be up to, and in some instances, in the grade of CDR (once again with the below-stated experience).

Before a surface line officer is eligible for any postgraduate curriculum, he must be ready to begin

All Navy Cartoon Contest
P. H. Kalua, AA, USN



"Where have you been?! Your plane crashed an hour ago!!!"

a normal tour of shore duty, or be able to continue a shore tour which will not exceed three years at the end of the requested course.

Submarine officers must have at least three years' operational experience in submarines as of 1 Jul 1960 to be eligible this year. For the Naval Construction and Engineering curriculum, however, submarine officers need to be qualified only in submarines before commencing the course. They must also be eligible for a normal tour of shore duty, or to continue a shore tour which will not exceed three years.

For any curriculum requested by a naval aviator, he must have at least three years' flight operational experience with Fleet squadrons, as of 1 Jul 1960. He also must be eligible for a normal tour of shore duty, or be able to continue a shore tour which will not exceed four years upon completion of his course.

Officers who have already completed some previous postgraduate work may be eligible for additional study. Courses that may be taken by these officers (with the exception of Code 3100 officers) include: civil engineering (advanced), comptrollership, management and industrial engineering, metallurgy (special), naval architecture, (advanced hydrographics), Navy management and nuclear engineering (advanced).

Officers may have completed the General Line and Naval Science School curriculum and still be eligible for additional postgraduate work. Those officers who have completed the naval intelligence curriculum may apply for the social science curriculum.

Any previous postgraduate course completed by a code 3100 officer, automatically disqualifies him from further postgraduate education.

Code 5100 officers may apply for the nuclear engineering (effects) curriculum even though they have completed the civil engineering (Qualifications) curriculum. Any other postgraduate courses disqualify these officers for further postgraduate work.

Any line officer who applies for training in nuclear engineering (advanced), must request that his designation be changed to Engineering Duty (1400). Without further ap-

plication, his designator will be automatically changed when the curriculum is successfully completed.

The entrance standards for the Postgraduate School at Monterey are about the same as those for leading civilian colleges which offer advanced graduate degrees in an engineering major. However, for the technical curricula at Monterey, except general meteorology, you need not actually have a bachelor of science degree if equivalent formal education has been received and if you have completed differential and integral calculus and one year of college-level physics. A course in engineering mechanics is desirable.

If selected officers want refresher courses, the Postgraduate School staff has developed one in mathematics that should take about 150 hours of work to complete. This is not mandatory, but is advisable not only as a refresher in math, but to reestablish study habits. Other refresher courses in mechanics and physics are also obtainable from the school. If one or more of these courses are desired, they should be requested as part of your postgraduate application, or by a separate request to the Superintendent.

With one or two exceptions, civilian institutions that offer postgraduate work under the Navy's postgraduate program require a bachelor's degree for admission.

LDOs may apply for postgraduate work if the curriculum requested is appropriate to the officer's specialty, and if he has the necessary formal educational background. In all cases, however, LDOs must compete with line officers for postgraduate quotas.

Women officers (USN and USNR on active duty) who were commissioned during calendar years 1942-1955, inclusive, may apply for:

Business administration—USN; communications engineering—USN and USNR; comptroller—USN; personnel administration and training—USN; meteorology (advanced and general)—USN and USNR; naval intelligence—USN and USNR; Navy management—USN.

Medical Service Corps officers are eligible for some postgraduate work. BuMed Instructions in the 1520.12 series give complete information.

Details about particular courses are listed in enclosure one to BuPers Notice 1520 of 22 May 1959.

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 1, N. Y., is published here for the convenience of ships and overseas bases. The title of each picture is followed by the program number.

Those in color are designated by (C) and those in wide-screen processes by (WS). Distribution began in July 1959.

Gidget (1335) (C) (WS): Comedy; Sandra Dee, James Darren.

Never Steal Anything Small

NOW HERE'S THIS

Neon Detectors

Legend has it that the fall of an apple from a tree led Sir Isaac Newton to discover the law of universal gravitation. A more recent accident has led LT Walter Johnson of the Navy's Medical Corps to another important discovery.

One day, while using elaborate detectors to measure microwave radiation aboard USS *Galveston* (CLG 3), Dr. Johnson felt something burning him. The seat of his trouble turned out to be a couple of flash-bulb-size neon lamps he happened to be carrying in his hip pocket. Without any visible connections the lamps had glowed and heated up when the doctor got in the way of radar waves.

As a result the Navy now has a cheap and effective way to protect its men from overexposure to high-energy radar beams.

On board *Galveston* and other ships with similar electronic gear, each crew member now wears a little neon lamp on his uniform. When the lamp lights up the wearer knows he is in a radar beam, so he can avoid exposure simply by moving aside until the lamp goes out.

The bulbs are just the right size to light up well before the danger point is reached.



(1336) (C) (WS): Comedy; James Cagney, Shirley Jones.

Alaska Passage (1337) (WS): Melodrama; Bill Williams, Nora Hayden.

The Black Orchid (1338): Drama; Sophia Loren, Anthony Quinn.

Count Your Blessings (1339) (C) (WS): Comedy Drama; Deborah Kerr, Rossano Brazzi.

The Angry Hills (1340) (WS): Drama; Robert Mitchum, Stanley Baker.

The Shaggy Dog (1341): Comedy; Fred MacMurray, Jean Hagen.

The Trap (1342) (C): Melodrama; Richard Widmark, Tina Louise.

The Naked Maja (1343) (C) (WS); Drama; Ava Gardner, Anthony Franciosa.

The Little Savage (1344) (WS): Melodrama; Pedro Armendariz, Christine Martel.

The Buccaneer (1345) (C); Drama; Yul Brynner, Claire Bloom.

Alias Jesse James (1346) (C): Comedy; Bob Hope, Rhonda Fleming.

The Ten Commandments (1347) (C): Drama-Biblical; Charlton Heston, Anne Baxter.

The Beat Generation (1348) (WS): Drama; Steve Cochran, Mamie Van Doran.

Battle Flame (1349): Melodrama; Scott Brady, Elaine Edwards.

Imitation of Life (1350) (C): Drama; Lana Turner, John Gavin.

Technicolor Extinguisher

A new chemical agent, which puts out gasoline and oil fires in half the time required with other substances, has been developed by the Naval Research Laboratory.

Called "Purple K Powder" after the cool lavender color it gives off while putting out a fire, it consists of finely powdered potassium bicarbonate. In aircraft crashes, where speed is essential in rescue operations and the control of gasoline blazes, it should prove especially useful.

The new agent can be used in conventional fire extinguishers and in the Navy's forthcoming "Air Lift" fire extinguisher, which can be carried by helicopter and let down quickly at the scene of a fire.

The development of Purple K Powder is part of a 20-year program of fire research at NRL.

Roundup on Courses for the Navyman Who Thinks Nucleonic

IF YOU'RE NOW WORKING in nuclear weapons or interested in entering that field, you may be able to qualify for one of nine different training courses currently being conducted by the Field Command, Defense Atomic Support Agency.

Information on all courses, including detailed descriptions and convening and reporting dates, is contained in BuPers Notice 1540.

Courses being offered are:

• **Nuclear Weaponsman, Class "A," Phase II**—A 12-week course aimed at training enlisted men and selected civilians to assemble, disassemble, package, store, inspect, test and maintain nuclear weapons.

Applicants must have a minimum MECH/ARI of 105 and must have completed the eight-week NW, Class "A," Phase I course at NTC Great Lakes or have an equivalent background.

Normal military input to the course is from recruits who have completed Phase I at NTC Great Lakes. A limited number of quotas is available to the field for both phases or for Phase II only.

Requests from military personnel for Phase II must certify a background in electricity comparable to that provided by Phase I. A SECRET security clearance is required.

• **Nuclear Weapons Officers Course**—Of five weeks' duration, and requiring a TOP SECRET security clearance, this course is designed to familiarize selected officers and civilians with the technical administration and operations of Navy nuclear weapons activities.

• **Nuclear Weapons Assembly Supervisor Course**—Eight weeks in length, this course has been set up to train selected officers, warrant officers and civilians in the supervision of assembly and maintenance of nuclear weapons, and in the technical administration of Navy nuclear weapons activities. A TOP SECRET security clearance is required.

• **Nuclear Weapons Indoctrination Course**—This is a two-week course, requiring SECRET clearance, which indoctrinates selected officers, enlisted men and civilians, in the basic types, principles of operation and major components of nuclear weapons, plus associated safety hazards.

• **Nuclear Components Course**—A four-week period of instruction designed to train selected officers and enlisted men in the handling, inspection, storage, packaging and transportation of the nuclear components of nuclear weapons. This includes becoming familiar with the hazards involved, necessary safety measures and the use of associated radiac equipment.

TOP SECRET clearance is required. Officers must have completed the NWO or NWSAS course or have had equivalent formal training. Enlisted men must have completed the NW course or have had equivalent formal training, and have a minimum GCT/ARI of 110. ETs and ATs may be enrolled upon completion of the WI course.

• **Nuclear Components Refresher Course**—A four-day course aimed at bringing nuclear personnel up-to-date on the latest developments in nuclear components, and re-orientating them on procedures in the handling, inspection and maintenance of nuclear components.

Applicants must be graduates of the NU course, and have TOP SECRET clearance.

• **Nuclear Weapons Electronics Repair**—13 weeks of training for selected enlisted men and civilians in circuitry of nuclear weapons, testing, maintenance, repair and calibration of radars, radiac and test equipment, and the use of calibration equipment.

Applicants must have completed the WI, NW, ATN or NWSAS course. SECRET clearance and GCT/ARI of at least 110 are required. Applicants other than ETs or ATs must have a background in electronics including formal training.

• **Nuclear Weapons Employment Familiarization Course**—A two-week course set up to familiarize senior officers with the effects of nuclear weapons and the problems associated with their employment.

It is designed for senior officers in command or staff billets who have a need for general knowledge of the technical and logistic factors affecting the use of atomic weapons.

TOP SECRET clearance is a requirement.

• **Nuclear Weapons Orientation**

Advanced Course—A five-day course designed to acquaint senior officers and selected key DOD civilians with the nuclear weapons program.

It is aimed at senior officers and carefully selected civilians of equivalent grade (GS-13 or above) who by virtue of their assignments actually occupy positions requiring a tri-service approach to the nuclear weapons program. Students will be selected for this training on a need-to-know basis.

Clearance requirement is TOP SECRET.

Persons selected for instruction in these courses will be ordered to the Defense Atomic Support Agency, Sandia Base, Albuquerque, N. M.

Nuclear Power Training Programs Want Volunteers

The Navy wants volunteers in certain ratings and pay grades for three different nuclear-power training programs.

They are the nuclear-powered submarine program, nuclear-powered ship program and the Army package-power reactor program.

Submarine personnel of HM ratings in pay grades E-6 and E-7 and the ratings of MM, EN, ET, EM and IC in pay grades E-3 through E-7, plus surface ship personnel of the HM rating in pay grades E-6 and E-7, and the ratings MM, BT, SF, MR, ET, IC, EM and EN in pay grades E-3 through E-7 are all eligible for any one of the programs.

Construction group UT and CE ratings may also apply, and will be picked for training according to the needs of the Navy.

Both Navy courses are conducted in parts at New London, Conn.; Mare Island Naval Shipyard, Vallejo, Calif.; Idaho Falls, Idaho; Schenectady, N. Y., and Windsor, Conn.

If you volunteer and are accepted for the Army package-power reactor program, you'll study at Fort Belvoir, Va., where the Army conducts the course under the auspices of the Atomic Energy Commission. The Navy participates in this program by invitation.

BuPers Inst. 1540.33B outlines requirements for volunteers, and emphasizes the advantages of entering this new and expanding field.

DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs and NavActs as well as current BuPers Instructions, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult Alnavs, NavActs, Instructions and Notices for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; NavActs apply to all Navy commands; BuPers Instructions and Notices apply to all ships and stations.

The directives listed here cover a two-month period.

BuPers Instructions

No. 1120.12G—Outlines eligibility requirements and processing procedures for the Regular Navy Augmentation Program.

No. 1306.62A Ch-2—Distributes an extensive revision of BuPers Inst. 1306.62A, concerning Sea/Shore rotation of enlisted personnel.

No. 1430.11A—Provides information on advancement to pay grades E-8 and E-9.

No. 1500.25E, Sup 1—Gives convening dates for classes in calendar year 1960 at training activities under the management of the Chief of Naval Personnel and certain schools of other services for which the Chief of Naval Personnel fills quotas.

No. 1500.39A—Contains instructions on the use of the *Catalog of U. S. Naval Training Activities and Courses* (NavPers 91769-D).

No. 1510.69D—Outlines eligibility requirements and application procedures for the Navy Enlisted Scientific Education Program (NESEP).

No. 1540.33B—Covers the Nuclear-Power Training Program and application for it.

No. 1560.2A—Concerns the Navy's part in the President's People-to-People Program.

No. 1640.5A—Designates places of confinement for naval court-martial prisoners.

No. 5521.2C—Revises and clarifies administrative requirements and procedures concerning eligibility for security clearance.

No. 5601.1A—Revises publica-

Cartoon by Barringer



"Maybe it was just a drill!"

tions allowance list for individual ship classes, aircraft squadrons and staffs.

No. 1120.18F—Outlines the eligibility requirements and processing procedures whereby USN personnel may seek appointment to commissioned status in either the Integration or Limited Duty Officer programs.

No. 1321.2C—Discusses policies and procedures for the issuance of temporary additional duty orders which involve travel of officers and midshipmen.

No. 1520.27A—Announces the program of language instruction at the U. S. Naval Intelligence School, Washington, D. C.

No. 1520.70A—Provides information concerning courses in communications conducted by the U. S. Naval School, Communications, Newport, R. I.

No. 1760.16—Provides supplemental information concerning re-employment rights of benefit to all naval personnel being separated or released to inactive duty.

SecNav Instructions

No. 5430.1B—Defines the term, "Executive Office of the Secretary (EXOS)."

No. 5710.12—Reemphasizes the importance of the President's People-to-People Program.

SecNav Notes

No. 1421 (22 July)—Announced approval by the President of the report of a selection board that recommended line officers for temporary promotion to the grade of rear admiral.

No. 1421 (24 July)—Announced approval by the President of the report of a selection board that recommended Marine Corps officers for temporary promotion to the grade of brigadier general.

No. 1421 (27 July)—Announced approval by the President of reports

of selection boards that recommended USN staff officers for temporary promotion to the grade of rear admiral in the Medical Corps, Supply Corps and Civil Engineer Corps.

BuPers Notices

No. 1520 (22 May)—Announced eligibility requirements and application procedures for officers to enter the Postgraduate Educational Program in Fiscal Year 1961.

No. 1520 (29 May)—Covered a program of professional seminars for active-duty chaplains.

No. 1540 (29 May)—Requested volunteers for enlisted basic submarine school to fulfill the personnel requirements of the Nuclear-Power Training and Fleet Ballistic Missile Programs.

No. 4600 (4 June)—Called for a concentrated and continuing effort to reduce the expenditure of funds for permanent change of station travel.

No. 1540 (9 June)—Provided information on nuclear weapons training courses conducted by the Special Weapons Training Group, Field Command, Defense Atomic Support Agency (formerly the Armed Forces Special Weapons Project).

No. 1440 (1 July)—Established procedures for effecting changes in the Engineman (EN) and Torpedoman's Mate (TM) rating structures.

No. 1300 (7 July)—Announced the effective date of the *Enlisted Transfer Manual* and cancelled certain relevant instructions.

No. 1223 (14 July)—Discussed a revision in the Navy enlisted rating structure concept.

No. 1120 (15 July)—Announced the selection of personnel recommended for appointment to the permanent grade of ensign, Medical Service Corps, USN.

No. 1120 (17 July)—Invited applications for appointment to commissioned status under the Integration and LDO programs.

No. 1020 (21 July)—Implemented a revised edition of *U. S. Navy Uniform Regulations* and certain additional changes in uniforms and insignia.

No. 7220 (21 July)—Brought to the attention of commanding officers the need to justify advances in pay to enlisted personnel being detached on permanent change of station.

Speaking of Canals, This Brings Us Up to Date on Panama C. Z.

Tropical living with practically all the Stateside conveniences—that's what you can look forward to during a tour of duty in the Panama Canal Zone.

The Canal Zone is a tiny strip of land about in the middle of the Republic of Panama. It stretches from the Atlantic to the Pacific Ocean, a distance of about 50 miles, and is only 10 miles wide—five miles on either side of the Canal. It runs almost north-south, since the Atlantic entrance to the Canal is north and slightly west of the Pacific entrance. At the Atlantic entrance are the two cities of Cristobal, in the Canal Zone, and Colon, in the Republic of Panama. At the Pacific entrance are Balboa, in the Canal Zone, and Panama City, which is the capital of the Republic of Panama.

The Canal Zone is an area granted in perpetuity by the Republic of Panama to the United States for the construction, operation, maintenance and protection of the Canal. By terms of the Treaty between the United States and Panama, the United States has complete and exclusive sovereignty in the Canal Zone.

The population of the zone is composed mainly of personnel of the Panama Canal Company, the Canal Zone Government, the Army, Navy, Marines and Air Force, and their families.

The climate of the Isthmus of Panama is typically tropical, with high humidity and relatively high, but even, temperatures throughout the year. There are two seasons—dry from January to April and rainy from May to the end of December. The dry season is tempered with trade winds which blow almost constantly throughout the four-month period. Temperatures vary little throughout the year, the means ranging from 73 to 87 degrees on the Pacific side and from 73 to 85 degrees on the Atlantic side. Extreme temperatures on the Pacific side are 63 degrees in January or February and 97 degrees in April. The Atlantic extremes are 66 and 95 degrees, occurring in the same months as the Pacific extremes. The rainfall varies greatly between the two sides of the Isthmus. The average annual precipitation on the

Atlantic side is 130 inches while on the Pacific side the annual rainfall is only 68 inches. On the whole, the climate is pleasant with cool evenings throughout the year.

Entry into the Canal Zone—All personnel of the Naval Establishment are required to have permission for their dependents to enter the Canal Zone (Fifteenth Naval District) whether entry is for establishing residence or to visit. Dependents should not begin to travel to the area until this permission has been granted. Upon receipt of orders to duty in the Canal Zone, Navymen who want their dependents to accompany them should submit a request to Com 15. Permission for entry of dependents will normally be approved if quarters are available.

Immunization—These immunizations must be completed by dependents before the commencement of travel to the Canal Zone:

- Smallpox, Typhoid, Combined Triple—For everyone over one year of age: within the past 12 months.
- Diphtheria—For children between 6 months and 10 years: within the past 3 years.
- Tetanus—For everyone, one year of age or older: within the past 12 months.
- Yellow Fever—For everyone over 6 months of age: within the past 6 years.

Travel—Navy Department policy prohibits the travel by MSTs of women who are pregnant beyond

the sixth month, or travel by MATS beyond the seventh month. A signed statement of a Navy medical officer or a reputable civilian physician attesting to the duration of pregnancy must be forwarded to the officer processing the original travel application. The traveler should carry a signed duplicate copy of this statement.

Commercial transportation is available to and from the Canal Zone by major airlines, via Tocumen Airport in the Republic of Panama.

Housing—Naval housing in the Canal Zone is adequate.

Since well ventilated houses are essential for comfortable living in the tropics, most quarters somewhat resemble "summer type" dwellings in the United States. All open areas are screened, but most are without window glass. Although this type of construction is well suited to this locality, the new arrival will find that his privacy has been somewhat reduced.

Household Effects—Most government quarters are adequately furnished with the prescribed allowance of furniture, including stoves and refrigerators. Since many types of wood deteriorate in the tropics, and free circulation of air is essential to proper heat control, specially designed furniture is used to meet these two problems. It is not advisable to ship to the Canal Zone such items as overstuffed chairs, studio couches or large expensive musical instruments. Books are prey to mildew, and since good libraries are available, only those books felt necessary should be brought. You will enjoy throw rugs for bedrooms or a small cocktail rug for the living room if you have them, and your own pet pictures and wall decorations will make your quarters look like home. But, remember that mildew and termites are problems in the tropics before you decide to bring any expensive items—including good pictures and hangings. (Extra lamps may be enjoyed but are not necessary.)

Excellent silverware, chinaware and table linens are available in Panama and the Canal Zone at prices lower than those in the United States, in case you don't have your

All Navy Cartoon Contest
David J. Majchrzak, DN



"No little ensign is telling me how to run my deck crew . . ."

own. A kit consisting of the bare essentials of bed linens, towels, dishes, silverware and cooking utensils will be placed in your quarters by your sponsor. (See below.) The kit may be retained by you until your household effects arrive.

Electricity—Conversion to 60 cycles is being completed, so bring along the appliances you used in the United States.

The local Armed Forces Radio and Television Service is in operation, so bring your television set to the Canal Zone.

Sponsors—There is a sponsorship program in effect throughout the Fifteenth Naval District. Under the program, your sponsor is assigned by your new Commanding Officer and will write you giving any additional information that you may need. Your sponsor will also ready your quarters for your occupancy, including the purchase of immediate food needs, and meet you upon arrival in the Canal Zone.

Automobiles—An automobile is almost a necessity, since public transportation is inadequate. The climate is hard on cars, so it is best not to buy a new car to bring to the Isthmus. Instead, be sure the car you have is in good operating condition (and undercoated) before you leave the States. At the present time tires, batteries and accessories can be bought reasonably at Panama Canal commissaries and also at Army, Navy and Air Force exchange garages. Mechanical repairs are slow and expensive. New automobiles can be purchased from dealers in Panama City at a cost approximately the same as in New York City. Gasoline costs about 20 cents per gallon in the Canal Zone. It is recommended that you start making arrangements with the Naval Supply Depot, Bayonne, N. J., for transportation of your car as soon as practicable. You may be able to arrange to have your car aboard the same transport in which you and your dependents will travel. Canal Zone license plates cost \$5.00 per year with half rates available after 1 July.

A Canal Zone driver's license is required in the Zone, and you'll need one from the Republic of Panama for driving in or through the Republic. In most cases, where a driver has a permit to drive from the state of his last residence, only

a written examination is required for the Canal Zone license. The Republic of Panama permit is issued contingent upon this test.

It is advisable before leaving the States to make certain your auto-

mobile insurance will cover you while driving in the Republic of Panama. If your present policy does not cover you, your company may write an additional clause into the policy. This coverage is necessary

HOW DID IT START

North Atlantic Guardian

The U. S. Naval Station at Argentia, Newfoundland, calls itself the "Guardian of the North Atlantic"—and rightly so.

As a continental terminus of the Atlantic Airborne Early Warning Barrier, it is a key outpost in our defenses against surprise attack. Located about one-third of the way across the ocean, along the main great circle routes from North America to Europe, it gives the Free World a strategic sweep of the North Atlantic and the busy shipping lanes that span it.

Argentia grew up the hard way, for it came into being in a tense period when there was little time for advanced planning. Rights were extended to the U. S. to establish a base in an agreement made in 1940 and formally signed in March 1941. A detachment of Marines had been in the area since 25 January of '41, and the United States flag was raised there the following month. In July, a Naval Operating Base and Naval Air Station were officially established. They were in full operation by the end of the year.

From Argentia, Navy aircraft flew round-the-clock missions to seek out and destroy German U-boats. The pilot of one of these planes radioed the famous message, "Sighted sub—sank same." Argentia was also a center of activity for American and Allied warships on convoy and escort duty. Here, at the western "turn-around" point, the men-o'-war refueled, took on supplies, were briefed on tactics and operations and formed their groups to take over the convoys from the United States. Thousands of tons of shipping were safely shepherded through sub-infested waters by ships from Newfoundland ports.

Planes from an Argentia-based patrol squadron in March 1942 sank the first two U-boats sunk by U. S. forces in World War II.

In addition, the naval base was important to the U. S. Army forces stationed in Newfoundland. Since Argentia is the only deep-water harbor on the island to remain ice-free throughout the year, it became the point of discharge for cargo vessels and tankers carrying fuel and provisions to the Army. Throughout the war hundreds of railroad tank cars, box cars and refrigerator cars moved from Argentia to the large Army and Army Air Forces installations in Newfoundland.

After V-E Day there was an immense re-deployment of American forces, and air

traffic returning from the European theater was very heavy. The most traveled airplanes across the North Atlantic came via Newfoundland, and ships based at Argentia fanned out in air-sea rescue task groups to guard the seas and save lives when planes were forced down at sea.

In the post-war period patrol squadrons continued to operate from Argentia. So did Coast Guard air surveillance planes and aircraft of the International Ice Patrol. At the same time, Argentia remained a primary transient stop for military air transport traffic across the North Atlantic.

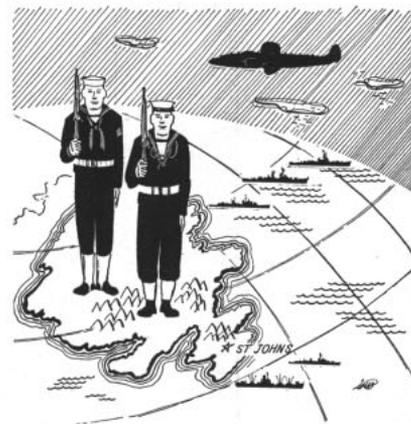
In late 1952, when the Joint Chiefs of Staff directed the establishment of the Mid-Canadian Early Warning Line, Argentia took on its present role as part of the Atlantic Airborne Early Warning Barrier. This major change in the station's mission led to considerable expansion.

In July 1955 the Navy was given control of McAndrew Air Force base, near the naval station. This additional area about doubled the size of the naval installation, which now covers almost 9000 acres of leased territory.

New hangars are being constructed, runways are being lengthened, a modern school for dependents is springing up and new housing facilities are being built. Plans for other construction projects have already been approved.

Argentia is near the site of Plaisance, a French fortress and settlement built in the 17th century.

Way back in the reign of Charles II (1660-85) the Privy Council of England remarked, "that place will allways belong to him that is superior at sea."



when applying for a military base car identification sticker.

Clothing—Clothes suitable for mid-summer in the United States are right for Panama. In general, dress is informal but women may wear gloves, hats and stockings to luncheons, such as teas. Washable clothing is the most practical for everyday wear, since dry cleaning is rather costly and not always of the best quality. Women leading an active social life (senior officers' wives in particular) will need cocktail dresses and an evening gown. Woolens and furs should be left in the States, except for a few things in case one has the opportunity to visit neighboring high-altitude places. The humidity encourages mildew, especially on woolens, silks and leathers, which should be kept in specially heated closets in the quarters.

The Canal Zone commissaries and the Service Exchanges have clothing for the family at reasonable cost. Wider selections are available in the cities of Panama and Colon, but at higher prices than in the States. If your feet are hard to fit, it is wise to bring a supply of shoes with you.

For men, suits of tropical worsted, Palm Beach, linen, seersucker and especially the new wash-and-wear fabrics are popular for off-duty hours.

School children generally dress about like this:

- Grade School Girls—Cotton

dresses (short sleeves or no sleeves).

- Grade School Boys—Jeans and open-collar shirts or T-shirts. Some boys do wear shorts.

- High School Students—Clothing as in the United States. Skirts and blouses for the girls—jeans for the boys.

Ladies—Please bring a long-sleeve shirt and long slacks for participation in DISTAFF. (See below.)

The Uniform of the Day for officers and chief petty officers is Tropical White, or Tropical White, long. One uniform of Service Dress Blue, one of Service Dress Khaki, and all of your Whites should be brought along. In addition, you should bring any working Khaki you may have, along with all items of the Tropical Working Uniform that are in your possession. All the items of Working Uniforms are available locally. Officers occasionally need the Dinner Dress White Uniform, which may be purchased locally in case you do not have one.

The Uniform of the Day for white-hats is Whites without jumpers or White or Khaki shorts. Slacks, shorts and sports shirt are worn more than any other items of civilian wear.

Disaster Control Organization—In the Panama area all of the armed forces cooperate in a unique and excellent system of disaster control. Service wives are expected to participate actively in it through their

organization called DISTAFF. All wives are automatically members of DISTAFF upon their arrival. First Aid Training is basic, so it's a good idea to take your First Aid course as soon as you arrive—even before your household effects come—when you will have more time. In addition to training you for mass disaster, it is a wonderful opportunity for training for ordinary home emergencies. Mothers especially will appreciate it.

Food—Panama Canal Company Commissaries, located in the various Canal Zone communities, are comparable to department stores and are operated under government control. Supplies of all kinds for personnel and home use may be bought. These Commissaries carry the usual foodstuffs, including cold storage products, meats, fruits, vegetables, cheese, butter, eggs and quick-frozen items. The food supply is plentiful, but lacking in variety, particularly fresh vegetables and fruits. Pasteurized milk is available. Canned foods are plentiful, including baby foods.

In addition to food, Panama Canal Company Commissaries stock clothing for men, women and children; hardware and household furnishings. The Commissaries and Exchanges also offer an excellent opportunity to purchase Irish linens and English China of well-known makes in limited supply. Special orders may be placed at the Exchanges.

The Commissaries have family laundry and dry cleaning service.

Army, Navy and Air Force Commissaries and Exchanges at the various installations offer services similar to those of the Panama Canal Company Commissaries and have lunch and fountain service. They carry an interesting stock of goods from Central and South America and foreign countries elsewhere. Navy Exchanges operate a laundry and have pick-up and delivery service.

Servants—Domestic servants are available at wages averaging from \$20.00 to \$50.00 per month. They may also be engaged on a daily basis for approximately \$2.00 to \$2.50 per day. There is a maid agency service available at the Army Post of Fort Clayton and a maid agency in Panama City. Otherwise, maids may be employed through newspaper advertisements and recommendations from residents. The supply is plentiful, although many are unskilled.

All Navy Cartoon Contest

Alfred B. Castro, SA, USN



EPDOPAC, A Hard-to-Beat Combo of Mechanical and Human Brainpower

The Enlisted Personnel Distribution Office, Pacific Fleet—better known as EPDOPAC—has set up a special presentation team to show the personnel people from PACFLT ships and stations how the Navy's distribution system operates.

Part of the team's job will be to dispel the notion that spark-spitting electronic personnel experts now push Navymen around as if they were coffee cups in an automat.

Actually, as the team points out, the "electronic monsters" are just very expensive, complex and efficient machines which supply information at a phenomenal rate to the good old-fashioned, human, distribution officer who still makes the decisions.

These fast-thinking machines, as team-mates of the human distributor, have promoted the individual Navyman from merely "a boat-swain's mate who is to be transferred" to a personality with a career history, a family, a certain amount of sea duty, a certain amount of shore duty, certain desires for his next duty station,

special qualifications and—in some cases—special problems which warrant consideration.

The very fact that EPDOPAC is manned by human beings—not cold and perfect machines—has made it subject to human error. The distributors at EPDOPAC do their best to consider the individual in each transfer that is directed. However, information is submitted to the distribution office in enormous quantities, so there are bound to be instances of failure to submit correct and complete data. This may cause a man to miss out on a duty assignment he wants.

Besides helping to clear up such situations, the presentation team explains new ideas and procedures which have been incorporated in the distribution system since EPDOPAC was established back on 1 Nov 1956. Without knowing about these changes it is sometimes difficult for commands and individuals to get the most out of the benefits which electronic data processing methods have made available to the Fleet.

The team made up of three leading CPOs, presents the EPDOPAC story in a one-day class which starts at 0830 each Wednesday.

The presentation includes lectures on distribution procedures, a question-and-answer period and a tour of EPDOPAC and PAMPAC. The lectures cover such subjects as the origin and purpose of EPDOPAC, the objectives of centralized distribution and the background and workings of Seavey-Shorvey and the Overseas Pacific Rotation Program.

To spread the presentation team's message as widely as possible, EPDOPAC invites and encourages PACFLT commanding officers to have their administrative and clerical personnel attend these sessions while in the San Diego area. The presentations are conducted at EPDOPAC, Building 252, NAS North Island.

Owing to a limited amount of space, reservations are required. They may be obtained by telephone in the San Diego area, or by writing Commanding Officer, EPDOPAC, San Diego 60, Calif.

Most servants are English-speaking or Spanish-speaking. Jamaican or Panamanian seamstresses can be located, some of whom will come to your home to do sewing if you have a machine. Laundresses are available at reasonable rates.

Medical Facilities — Dependent medical requirements are provided for by the Panama Canal Company. For those stationed at Atlantic-side activities, the Coco Solo Hospital is available. Hospital services on the Pacific side of the Isthmus are available at Gorgas Hospital.

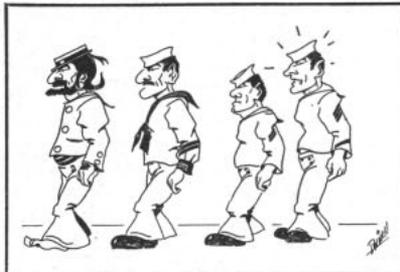
Limited dental service for dependents is available. Treatment will normally consist of those procedures necessary for the maintenance of an already healthy mouth. It is therefore suggested that you have all necessary dental work done on your dependents' teeth before their (the dependents' not the teeth's) departure from the United States.

As a result of the constant vigilance of United States health authorities, the Canal Zone is singularly free from disease, and health conditions are excellent. The water in both

Panama and the Canal Zone is pure.

Education—The Canal Zone school system compares favorably with modern school systems in most cities of the United States. Excellent educational facilities are provided from kindergarten through junior college. Graduates of the two high schools have college entrance qualifications. The curriculum of the junior college is comparable to that of junior colleges in the United States. Tuition in the Canal Zone is free to dependent children of United States military personnel from kindergarten

All Navy Cartoon Contest
Cartoon by Dwinell



"I've stood in some slow chow lines in my life, but, this one . . ."

through the 12th grade. The school term commences the first week in September and ends the first week in June.

Night extension courses at the junior college at Balboa and at some Army posts are available. Courses include a variety of subjects. Excellent opportunities exist for study of the Spanish language. The YMCA and JWB also offer interesting courses in a variety of subjects.

Religion—Facilities for religious activities are plentiful. Service personnel and dependents may attend services at Army, Navy and Air Force installations, or at churches of the various denominations in the Canal Zone or Republic of Panama.

Money and Banking—The Panamanian unit of currency is the silver balboa, equivalent in value to the United States dollar. United States and Panamanian silver is interchangeable and is used in either the Canal Zone or the Republic of Panama. Since Panama prints no paper money, the dollar is legal tender throughout the Isthmus. There are no currency regulations, and the

United States dollar may be imported and exported freely.

The Chase-Manhattan Bank and National City Bank of New York have branches in Balboa and Cristobal which handle all normal banking business. For cashing checks, drafts and the like payable in the United States, a charge of one-fourth of one per cent is made up to \$500.00, with a minimum charge of 15 cents. For checks over \$500.00 an exchange charge of one-eighth of one per cent is made, with a minimum charge of \$1.25. Checks on Canal Zone banks are charged a similar exchange fee when cashed in the States. In order to avoid these charges some families prefer to keep a current checking account in a United States bank. The aforementioned banks do not credit interest on savings accounts.

Recreation—Swimming, golf, tennis and fishing are year-round sports, with the Bay of Panama providing some of the best game fishing in the world. Baseball, softball, bowling, track and range shooting are popular, as are riding and hunting. There is a full program of youth activities—Boy and Girl Scouts, Little League baseball and so forth.

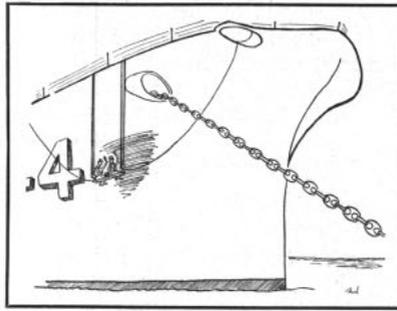
Trips to neighboring regions can be taken by car, plane or boat. You can travel at small cost and with little effort to the ruins of the old Spanish fort at San Lorenzo by the mouth of the Chagres River; to the San Blas Islands inhabited by the friendly Cuna Indians; to Taboga Island in the Pacific; and to picturesque villages in the interior.

Officers' Clubs are located at most Army, Navy and Air Force installations, and clubs for enlisted personnel and their families are available at the larger naval activities. Motion picture theaters are conveniently located at service installations, as well as in all Canal Zone townsites.

Societies—There is a branch of the Navy Relief Society at Balboa, and many well know fraternal organizations and benevolent societies have chapters or lodges in the Zone.

Beauty Shops—Good beauty shops are available. Commissaries and Exchanges carry cosmetics, but it is best to bring along a supply of your favorite brand, as there is only a small variety carried in the Canal Zone. A wider selection is available in Panama City.

All Navy Cartoon Contest CDR Peter M. Lindsay, SC, USN



"With all the scientific breakthroughs nowadays, you'd think they could stop these buckets from rusting!"

Pets—Every dog or cat brought into the Canal Zone is held in quarantine for a period of four months. During the stay in quarantine the pet will be kept at the kennels in Corozal, Canal Zone, about 15 minutes driving time from Headquarters, Fifteenth Naval District, at a cost of fifty cents per day. Your pet should be inoculated for rabies before departure, and it will be necessary for you to obtain a statement from a veterinarian that your pets are healthy and free from disease before the pet will be taken aboard the transport. Remember, you must provide a crate for shipment of the animal to the Canal Zone.

Birth Documents—Naval dependents should have in their possession at all times a birth certificate (or affidavit in lieu thereof when birth records are non-existent) or some other documentary proof of citizenship. Such documents must be presented if application is made at a United States Embassy or Consulate for passports to visit Central or South American countries other than the Republic of Panama. Birth documents and marriage certificates must be presented when registering the birth of children born in the Canal Zone.

Passports—As stated above, passports are required for entering Central and South American countries other than the Republic of Panama, but they are not required for naval personnel or their dependents for entry into the Canal Zone or Panama.

Communications—Unlimited postal and cable facilities are available. Air mail to the United States takes about two days, and ordinary mail eight to 10 days. Cable, radio and tele-

phone service is available at moderate rates, and service is comparable to that in the United States.

United States postage stamps cannot be used in the Canal Zone. Canal Zone stamps must be purchased for all outgoing mail. Postage rates are the same as in the United States.

Language—Spanish is the national language of Panama, but English is spoken and understood by most of the people in the terminal ports of Panama City and Colon. Learning the Spanish language, however, will pay many dividends to you individually—and to United States community relations with the Republic of Panama. While many Panamanians speak English, they will still feel complimented by your efforts to learn their language—which can give you many hours of pleasure.

More Info Requested on Evaluation Work Sheets Of Top Enlisted Grades

The Navy wants more meaningful and up-to-date information on its top five enlisted pay-graders readily available both in the Bureau of Naval Personnel and in the service record.

It intends to get this added data through a revision of NavPers 792, the Enlisted Performance Evaluation Worksheet.

Beginning 16 November, NavPers 792 worksheets submitted on pay grades E-5 through E-9 will contain new entries concerning a chronological history of billets assigned since first enlistment, performance in those billets, and any special qualifications.

This additional information will aid selection boards reviewing service records for selection of personnel for advancement, appointment to commissioned status, and special educational programs. It will also help commanding officers who must make recommendations for advancement, special duty assignments or special schooling.

Completed forms will be submitted semiannually to the Chief of Naval Personnel, with a duplicate retained in the man's service record. Particular emphasis will be placed on each petty officer's leadership ability and potential.

BuPers Inst. 1616.5 contains full particulars on preparation and submission of this report.

DECORATIONS & CITATIONS



LEGION OF MERIT

"For exceptionally meritorious conduct in the performance of outstanding service to the Government of the United States . . ."

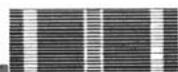
★ CALVERT, James F., CDR, USN, as Commanding Officer of *uss Skate*, SS(N) 578, from 9 to 21 Aug 1958. Exercising superb seamanship and unusual planning ability, Commander Calvert took his ship approximately 2400 miles under the ice into the unknown reaches of the Arctic Ocean, obtaining invaluable scientific and operational information. In surfacing on nine separate occasions through openings in the ice, *Skate* provided the first essential quantitative information on techniques necessary for the utilization of the Arctic Ocean's great strategic values. After reaching the North Pole and surfacing nearby, Commander Calvert took his ship some 300 miles beyond the pole and succeeded in locating, from beneath the surface, the United States IGY Ice Drift Station. Surfacing his ship at the Drift Station, he demonstrated that activities in the most inaccessible part of the Arctic Ocean could be supported by submarine.

★ LEEPER, Lawrence E., ADC, USN, "for exceptionally meritorious conduct while serving with Heavy Attack Units in the Naval Air Force from August 1950 to March 1959. Leeper achieved signal success in the vital field of radar prediction and analysis. He developed the Leeper Radar Prediction System which, with slight modifications, was adopted for use by all Heavy Attack Squadrons in the Navy. In addition, he contributed essentially to the development of terrain models for the 15-Z-5 Radar Simulator Trainer, and devised a system, using a computer and graphs, whereby the recently produced Air Force Area Radar Prediction Analysis can be converted to naval use."

★ MUSTIN, Lloyd M., RADM, USN, as Commander Task Force Eighty-Eight, during the period 22 May 1958 through 1 Oct 1958 in which Task Force Eighty-Eight conducted a particularly complex and difficult special test program of great importance to the Navy. Rear Admiral Mustin planned, organized, and personally directed a major task force in carrying out extended operations at sea without external logistic support for approximately 60 days.

Gold Star in lieu of third award:

★ STRAUSS, Lewis L., RADM, USNR, as Chairman of the Atomic Energy Commission and as Special Assistant to the President of the United States. "Exercising intelligent leadership, sound organizational ability, and a keen understanding of naval problems," Rear Admiral Strauss played an important role in the scientific development and application of nuclear energy for ship propulsion and power plant use.



DISTINGUISHED FLYING CROSS

"For heroism or extraordinary achievement in aerial flight . . ."

★ RAMEY, Robert Winford, LCDR, USN, (posthumously) for heroism, when his aircraft developed mechanical trouble and went into a steep, high-speed, uncontrollable dive from 42,000 feet. While he and his crewmen were preparing to leave the plane, Lieutenant Commander Ramey noticed one of his crewmen experiencing difficulty in making an exit through the aircraft escape chute. Electing to remain in the plane in order to aid the man in escaping, he sacrificed his own life in the subsequent crash after freeing his crewman.



NAVY AND MARINE CORPS MEDAL

"For heroic conduct not involving actual conflict with an enemy . . ."

★ BIRT, Floyd C., AMM1, USN, while serving as Plane Captain and Flight Engineer of an R5D aircraft on a flight from Albuquerque, New Mexico, to Detroit, Mich., on 22 Jan 1957. Birt sustained a broken leg and other injuries when his plane crashed and started to burn after making an instrument approach to the Willow Run Airport at Detroit, Mich., during a heavy snowstorm. In spite of his own injuries, he released the safety belt and shoulder straps from the copilot, who was fatally injured, and aided in removing him from the burning plane. Despite the heavy smoke, intense heat, and the imminent danger of further fuel tank explosions, he twice returned to the wreckage and succeeded in removing two critically injured passengers.

★ CONKEY, James V. A., LTJG, USNR, for heroic conduct while serving with

the U.S. Naval Ordnance Facility, Port Lyautey, Kenitra, Morocco, on 31 Jan 1958. As Officer-in-Charge of Special Weapons Explosive Ordnance Disposal Team Number One, LTJG (then Ensign) Conkey displayed exceptional courage and initiative while participating in an operation of a classified nature involving great risk of injury to both himself and the members of his team.

★ KELLY, Leslie D. Jr., LCDR, USN, for heroic conduct while serving on board *uss Triton*, SSR (N) 586, then under construction at the Electric Boat Division, Groton, Conn., on 2 Oct 1958. When a valve failed in the main, high-pressure steam line, filling the reactor compartment with extremely hot and blinding steam, LCDR Kelly, after giving the order to secure the pumps and clear the compartment, followed his men through the watertight door into the safety of the next compartment. Upon learning that one of his men was missing, he immediately reentered the area, and succeeded in locating and assisting the missing man to safety.

★ LIPCHINSKY, Joseph M., CWO, USN, for heroic conduct in attempting to rescue from drowning a 13-year-old boy who had fallen through the ice on Nonquit Pond, Tiverton, R. I., on the afternoon of 25 Jan 1959. Hearing a cry for help coming from the direction of the pond, CWO Lipchinsky made his way past thickets to the pond. He attempted to throw a line to the boy. Thrown into the water when the ice gave way, CWO Lipchinsky gave word of encouragement to the youth. While awaiting other help the boy soon lost his strength and slipped beneath the water. CWO Lipchinsky was later rescued by the local fire department.

★ PATTERSON, John E., BM2, USN, for heroic conduct while serving on board *uss Hollister* (DD 788) on 3 Jan 1959 as petty officer in charge of the amidships capstan station. When the target sled wire tow cable came free of the capstan and started whipping through the amidships passageway, Patterson immediately pulled two of his shipmates clear of the cable and observed three other men who were still in the passageway and in extreme danger of being killed or seriously injured by the free-running wire cable. Entering the passageway, he succeeded in helping two of the men to safety. While he was assisting the third man to safety, his foot was caught in wire cable and he was severely injured.

BOOKS

VARIETY TO BE FOUND IN THIS MONTH'S SELECTION

DON'T THINK for a moment, because we select for discussion a relatively few books each month, that these are the only new ones you can find at your ship or station library. There are enough to suit every taste. Drop around and see what's available.

There is most certainly a wide range among the books selected for review this month. One offers a variation of the Kon-Tiki theme; nostalgic yarns about sailing ships contrast with tense thrillers about space ships, sunken submarines and spies.

Tahiti Nui by Eric deBisschop is also the name of a replica of an ancient Polynesian raft which the author sailed across the Pacific from Tahiti to Chile in a challenge to the Kon-Tiki theory. In *Tahiti Nui*, he explains why his raft went in the opposite direction from Kon-Tiki; why it was able to beat against the wind and to steer an accurate course without a rudder by the Tahitian method of a series of centerboards adjusted to various depths.

DeBisschop made the six-month voyage to prove that the Polynesians were the greatest—and earliest—mariners, who, two thousand years before Magellan, were conquering uncharted oceans. His log is not a dry record but a live and interesting account of his trip. Apparently DeBisschop could have taught the Polynesians a few tricks of the trade. Before his Tahitian voyage at the age of 65, he had sailed from Hawaii to the south coast of France via the Indian Ocean and the Cape of Good Hope in a double canoe. He died last year on the return voyage of *Tahiti Nui* when the raft foundered on a reef in the Cook Islands. Quite a man, it would seem.

Real, live sailing ships may be found in *Give Me a Ship to Sail*, by Alan Villiers. Here, he tells of his more recent experiences in searching for such ships when they have just about disappeared from the face of the sea. It was Villiers, of course, who sailed the replica of *Mayflower* to the United States from England during the summer of 1957 and this voyage forms a substantial part of the book. He tells also of the race by the "tall ships" from Tor Bay to Lisbon and of his somewhat unhappy experiences with Hollywood.

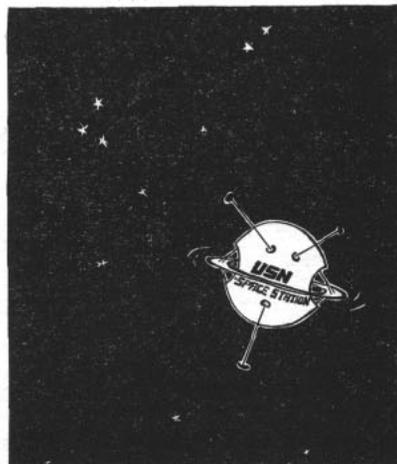
Only Four Escaped (published in England as *The Admiralty Regrets*) by C. E. T. Warren and James Benson, reminds us that much is still to be learned about the sea. The story of the sinking of the British submarine *Thetis* is a detailed account of the circumstances which preceded the voyage, the sinking, the efforts to escape, the attempts at rescue, and the subsequent investigation. Badly overcrowded (there were technicians, civilian observers and others besides the crew on board), *Thetis* lost 99 men. Only four escaped.

Two other books—*The Clock with Four Hands* by James Leasor and *Kōgun* by Saburo Hayashi in collaboration with Alvin D. Coox—are concerned with World War II.

Clock is the story of the underground nerve center from which the war was conducted in London. One hundred and fifty feet below Whitehall, covering six acres of ground, were the hidden chambers for the War Cabinet and Staff officials. Here also was the secret room where Winston Churchill had a direct line to the White House and on the wall was the clock with four hands, which showed the time in Washington as well as in London.

The book tells in part the story of General Sir Leslie Hollis who was for six years Secretary of the Joint Planning Committee of the Chiefs of Staff and who sat in on all the important meetings of the War Cab-

Tommie L. Bridges, SN, USNR



"... Now commence liberty for the starboard section!"

net and attended all the international conferences during the entire war.

Volumes have been written about World War II in the Pacific but, up to the present, little has been said about the Japanese side from the viewpoint of high-level command plans and policies. *Kōgun* does and, in doing so, presents facts and figures never before available in the United States. The author describes a remarkably clear picture of high command errors in making estimates of the situation; mismanagement in the conduct of operations; and internal disagreement on basic policy.

The Soviet Air and Rocket Forces, edited by Asher Lee, and *Flattop*, with text and photographs by Barrett Gallagher, also provide an interesting contrast.

In *Soviet Air and Rocket*—which is a companion volume to *The Soviet Navy*—American, British, German and Russian experts pool their knowledge to provide the first comprehensive evaluation of Russian strength in the air today. Every aspect of the Soviet air and rocket forces is examined in this book, ranging from the daily life and training of the Soviet airman to the political control of the Soviet Air Force; from the past history of Soviet air arms to a projection of their future. Several chapters are devoted to Soviet rockets and guided missiles.

Flattop is, of course, concerned solely with aircraft carriers. However, it does show every major change and development in carrier design and operation from the last year of World War II to the construction of the first atomic carrier. The Korean conflict, the *Midway* and *Forrestal* class, the Sixth Fleet and ASW are discussed by men who know what they're talking about. A major part of the book is devoted to the Pacific carriers in World War II and describes the important changes which have been made in building new ships and in adapting the old ones. Gallagher was a member of the Steichen group.

Two end-of-summer fiction numbers are also included. *The Big X*, by Hank Searls, is the yarn about a test pilot who flies the hottest job to get off the ground and is complete with girl, villain and crucial decision. *Taos*, by Irwin R. Blacker, is a historical number concerned with Spaniards and Indians in the Southwest. Time, 1680. It's good reading.

ARCTIC RAIDERS OF THE CIVIL WAR



When at war, the nation with the weaker Navy can often make best use of its resources by attacking the shipping of its opponent. This was the practice followed by the Confederate States during the Civil war. One of a series, this month's issue tells of *Shenandoah*, who continued her operations until the end of the war. It was written by Confederate Midshipman John T. Mason.

WITH THE EXCEPTION of *Stonewall*, an ironclad built in France and sent to sea too late to be of any service, *Shenandoah* was the last of the Confederate cruisers to elude the vigilance of the neutral governments of Europe—a much more difficult feat to accomplish than it had been when *Alabama* and *Florida* had escaped from England some two years earlier.

On 1 Oct 1864, a number of Confederate naval officers who had been for some time waiting orders in England and France, received instructions to proceed at once to Liverpool and report for duty there. I was fortunate enough to be one of them.

Upon our arrival, we were instructed to buy an outfit for a two years' cruise as quickly as possible, to have our trunks packed in wooden cases so that they might have the appearance of ordinary merchandise, and to send them on board the steamer *Laurel*. Nothing was said about *Laurel's* destination, but if we were questioned, we were to say that we were going home.

These orders were issued on Monday morning, and by the following Friday the baggage had all been shipped, and the officers were instructed to remain at their quarters all day Saturday, ready to move at a moment's notice. Not one of these 20 or so officers knew what was to be our destination, nor did we ask.

AT SIX O'CLOCK on Saturday evening, after a day of suspense, orders were received to be on Prince's Pier at nine o'clock and to go on board the tug *Black Hawk*.

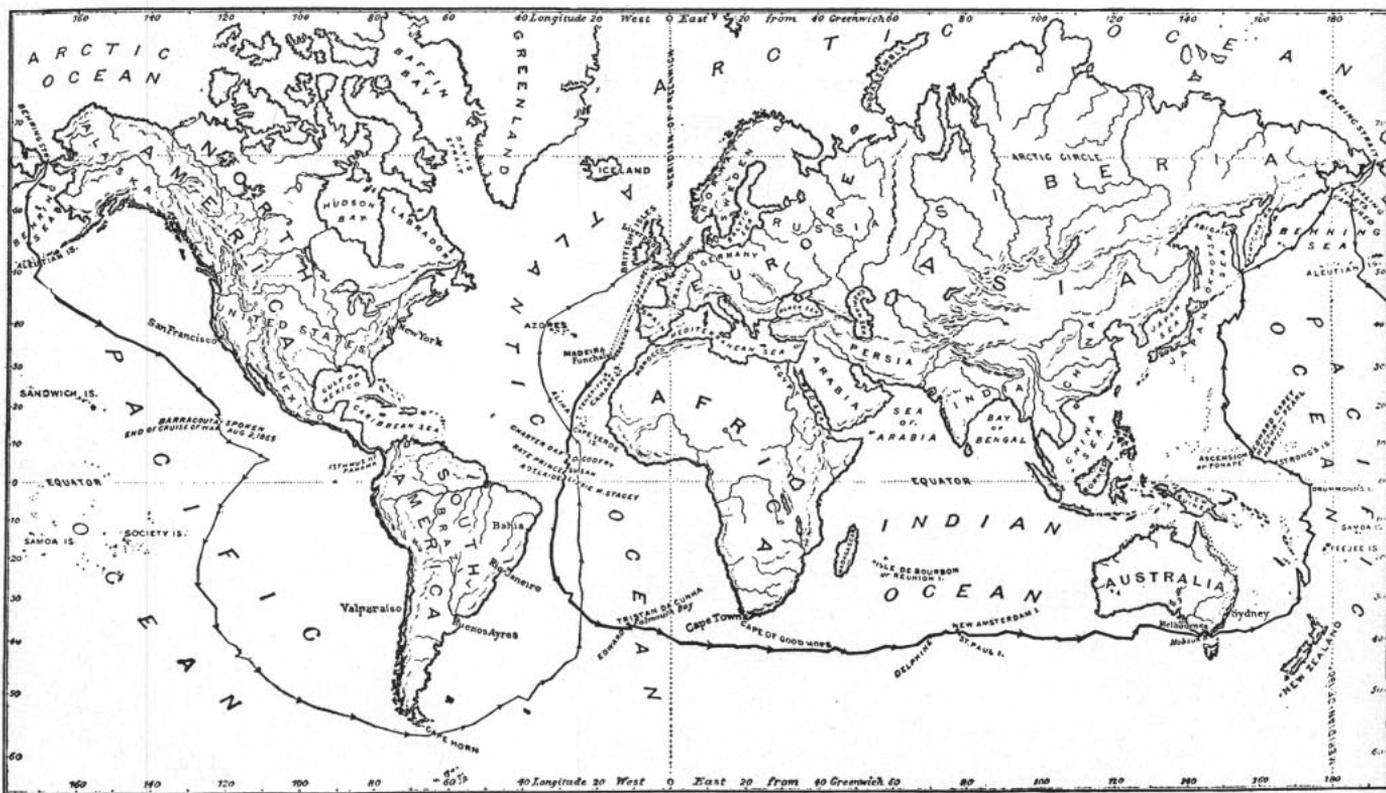
Twenty-three officers and about a dozen picked men, the latter the remnant of the crew of *Alabama*, which had been kept together for such an occasion, met at the rendezvous and were soon carried on board *Laurel*, then lying in the river. Before daylight, *Laurel* was at sea.

The unsuspecting pilot who took us out complimented Captain Ramsey of *Laurel* on the good behaviour of his passengers, who all seemed to know their places at once, gave no trouble, and asked no useless questions.

Laurel was a small steamer owned by the Confederate government and used afterward as a blockade runner. Her present destination was the Madeira Islands, where she was to rendezvous with *Sea King*, afterward *Shenandoah*, who had sailed from London the same day we departed Liverpool. In addition to the "passengers" *Laurel* also had on board the guns, gun-carriages, ammunition, and all the other equipment and stores intended for *Shenandoah*.

Sea King had been purchased in London by an English merchant. She was loaded with coal and assorted merchandise—provisions and stores of a non-warlike character intended for the cruise. She was supplied with a crew and officers from the English merchant service and cleared for Bombay and other ports in the East Indies on a cruise not to exceed two years. Just an ordinary merchant vessel. None of her officers or crew, with the

From "The Last of the Confederate Cruisers" by Midshipman John Thomson Mason R, pp. 600-610, *Century Magazine*, August 1898.



DRAWN BY JACOB WELLS, AFTER ONE PLANNED BY CAPTAIN WADDELL.

LONG CRUISE of CSS *Shenandoah* took Confederate Navymen around world, and from Arctic Ocean to Cape Horn.

exception of the captain, who had received hints, suspected the ship was bound anywhere but the East Indies.

AT THE MOMENT OF STARTING, however, Lieutenant William C. Whittle, who was to be executive officer of *Shenandoah*, was put on board as a passenger, under an assumed name. As soon as the ship was outside English jurisdiction, he made himself known to Captain Corbet of the *Sea King*, showed his authority from the owner to purchase the vessel, took charge of her, and shaped her course for the Madeira Islands, where she arrived a few days after *Laurel*.

Sea King did not come into the harbor, but signaled *Laurel* from the offing, and we went out and joined her. The two vessels were run under the lee of Desertas Island, where they were anchored alongside, and the guns, ammunition and stores were transferred.

Captain Corbet had with him a crew of 40 or more and we had hoped that most, if not all, would be only too glad to join us, but we were disappointed. Upon being informed of the true state of affairs, they became very indignant at the deception which had been practiced upon them and, when asked if they would like to join *Shenandoah*, they stubbornly declined our offers of generous wages and liberal bounty. If it were not for our presence, it is highly likely that they would have given poor Captain Corbet a ducking.

In the end we paid them three months' wages as a forfeit for the violation of the shipping articles—to which they were entitled under English law—and turned them over to Captain Ramsey of *Laurel*, to be landed at Teneriffe. Only a few firemen and coal-heavers remained with us and, when ready for sea, instead of a crew of 150 men, we could muster only 19 all told.

SHENANDOAH was a full-rigged ship of excellent sailing qualities. She carried a cloud of canvas, having cross-jack, royal studding sails, jib-topsail, and all the high fliers. She had rolling topsail-yards, which were of great assistance in the early days of the cruise, when sailors were so scarce.

She was a wooden ship with iron knees and frame, iron masts and bowsprit, and steel yards, and all her standing rigging was of wire.

She was of the class of vessels known as "auxiliary screws," with a propeller that could be hoisted out of the water when not in use, and a funnel that shut down, like a telescope, flush with the ship's rail. Her engines were small, intended for use only in calm weather, and could not steam much more than eight knots under the most favorable conditions. However, she was a fast sailor and on more than one occasion her log was to show 17 knots.

Our armament, which was mounted under many difficulties during the first few days after leaving Madeira, consisted of six guns—two rifled 32-pounders forward, and four 8-inch shell-guns amidships. There were also two little brass pop-guns on the poop-deck which *Sea King* had carried as a merchantman.

It would be difficult to describe the condition of *Shenandoah's* decks and of the ship generally at the start. Stores from *Laurel* had been simply thrown on board, and lay about in hopeless confusion. The heavy guns and gun-carriages, in huge boxes, so lumbered up the deck it was almost impossible to move, much less work the ship. The vessel was new and strange to us all, and the stores put on board her at London were stowed without any expectation that they would be used during the voyage. Everything had to be overhauled.

THE OFFICERS AND MEN were divided into gangs and went to work. Fortunately, the weather continued fine and within 10 days we had things in pretty good shape—portholes cut and guns mounted and secured, magazines built and ammunition safely stored, the fore and after holds carefully restowed, and everything snug for the voyage.

Meantime, the ship was heading to the southward, as the object of the cruise was to destroy the American whaling fleet in the North Pacific Ocean and the Arctic Sea.

On 29 October, 10 days after the cruise began, when about 15 degrees north of the equator, we captured our first prize, the bark *Alina* of Searsport, Me., bound from England to Buenos Ayres, and loaded with railroad iron.

As all neutral ports were closed to us and our own were closely blockaded, we had no alternative but to destroy her.

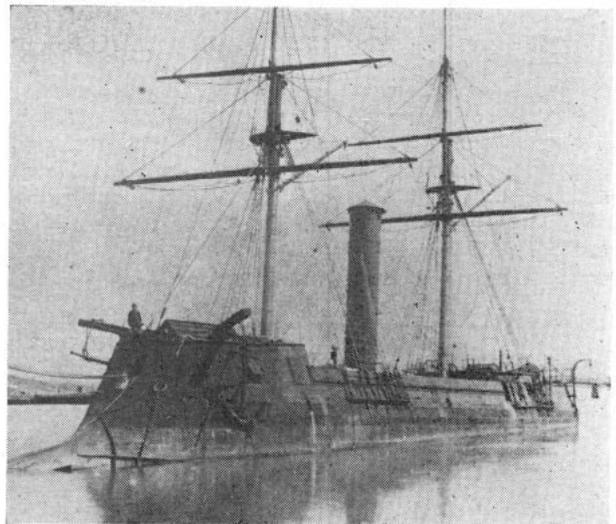
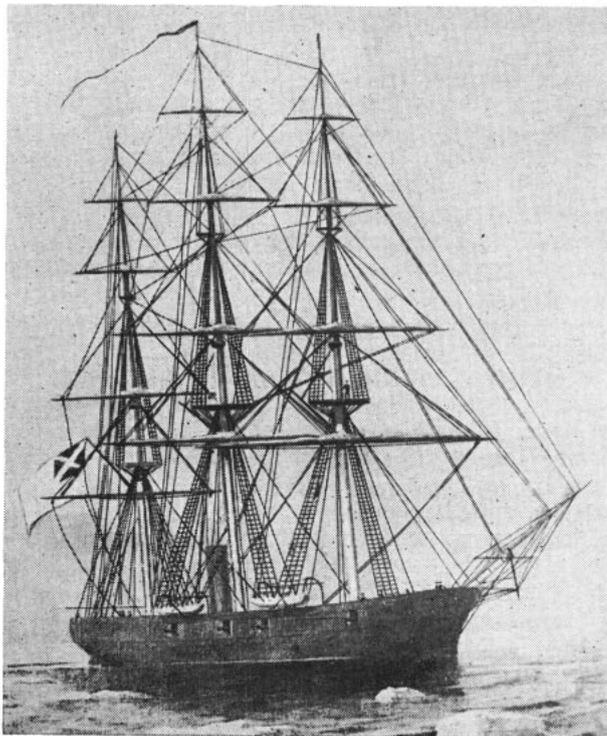
The vessel and cargo were appraised and condemned as prize and, within an hour after her capture, *Alina* was scuttled. We took nothing from her but her ensign and chronometer. The officers and crew were allowed to take their personal effects with them when sent on board *Shenandoah* as prisoners.

We made it a rule from the start that there should be no pillaging of the captured vessels. If we needed stores for the ship's use, we took them, but our sailors were not allowed to plunder on their own account.

Alina had a crew of nine men, six of whom joined us at once, and were a most welcome addition to our slender ship's company.

During the next few weeks we were in the track of vessels crossing the equator and made a number of captures. Among them were the schooner *Charter Oak* from

CONFEDERATE CRUISER had a propeller that could be hoisted out of water. Funnel telescoped flush with rail.



REBEL RAM *Stonewall* was bought in Denmark and fitted by ships from England. She was sold to Japan after war.

Boston. Although her cargo included a most welcome addition of canned fruits and vegetables, she also gave us an acquisition we had not anticipated—the captain's wife, sister and little boy.

As we had no accommodations for ladies, Captain Waddell gave them quarters in one of his cabins. A few days later we spoke a Danish brig and transferred a number of our prisoners to her, paying their passage to Rio.

From this ship and a number of prizes we captured in the following few days, we received recruits for our ship's company. In some cases, all hands volunteered with the exception of the officers.

In one case the captain himself expressed a desire to ship before the mast. This was the captain of the brig *Susan*. He was a German and knew little and cared less about the war between the States. He was deterred from becoming one of us because, in doing so, he might prejudice the rights of the owners of the vessel and cargo in claiming their insurance money.

Most of the sailors in the merchant service at this time were foreigners and it was due to this fact that so many of them shipped with us when their vessels were destroyed.

BY THE LATTER PART of November we were pretty well to the southward, and early in December we entered the whaling grounds of the South Atlantic. We did not stop to cruise here as our principal field of operations was to be in the North Pacific and the Arctic. In passing, however, we picked up one whaler, the bark *Edward* of New Bedford, with a good-sized whale alongside which the crew were busily engaged in cutting up and trying out.

We were now quite near the island of Tristan da Cunha, an out-of-the-way place inhabited by some 40 people, mostly English and Americans, who very seldom saw any one from the outside world. No vessel stopped there except an occasional whaler to get fresh water and provisions. We ran into Falmouth Bay and put ashore the officers and crew of *Edward*, and got from the inhabitants of the island some fresh meat in exchange for some flour we had taken from our prize. This island

was the first land we had seen since leaving Madeira but we did not drop anchor and no one was allowed to go ashore.

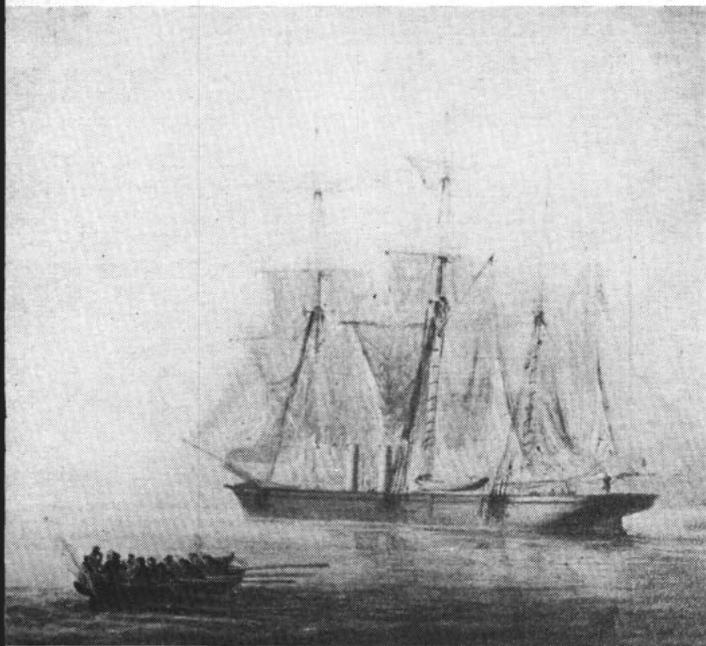
The day after leaving Tristan da Cunha we discovered that the coupling band of our propeller shaft had been damaged seriously. This meant that our steaming apparatus was useless for the time being. As our main reliance in fast traveling was upon sails, this accident caused us no delay. We got the propeller upon deck, however, and in the course of a few weeks the engineers repaired the injury as well as possible.

THE WEATHER CLEARED up with the beginning of the new year and on 2 Jan 1865 we made the island of St. Paul, which the sailing directions described as thrown up by volcanic action and uninhabited. We pulled off in a whaleboat and upon reaching the island were surprised to find two Frenchmen in possession. It was used as a fishing station by these men who came from the Isle de Bourbon, on the coast of Africa. They fished during the summer and left in the fall with their catch as the winter season was too stormy to stay on the island. The water of the harbor literally swarmed with fish and we very soon filled our boat. On one margin of the little bay we found a spring of water hot enough to cook the fish we caught from the other end of the boat.

The damage caused by the broken coupling was more serious than suspected and it took several weeks in dry-dock in Melbourne before Shenandoah was ready for sea again. Authorities and citizens were friendly but an unpleasant situation arose over false charges that Shenandoah was recruiting British subjects to fill out her crew. There may have been some grounds for these suspicions for, after the ship had cleared British jurisdiction, more than 40 "stowaways" were found on board, of every nationality, including English.

By April, the ship had worked her way to Ascension Island, where the account is resumed.

RAIDER—CSS *Florida* escaped from England two years before *Shenandoah*, when such getaways were easier.



ON APRIL 15 we went to sea again, having spent two weeks at Ascension Island, and continued our northerly course. Upon reaching the outer edge of the Japan seas, we cruised there for about a week in the track of vessels crossing the Pacific; but meeting no American ships, and our principal object being to capture whale-ships, we went on to the Okhotsk Sea, which we entered on the 20th of May.

We captured the whaling-bark *Abigail*, which we burned, taking the officers and crew on *Shenandoah*.

We found floe ice as far as the eye could see. Fortunately for us, the weather remained calm, and we were able to work out of our uncomfortable position without serious damage.

We cruised three weeks in the Okhotsk Sea; but either there were no more whalers there, or else we could not find them, and at the end of that time we passed out, and shaped our course for Bering Sea and the Arctic Ocean. Our prisoners from the *Abigail* were a very jolly set, and bore their misfortune with great cheerfulness. Almost every evening they would enliven the monotony of their captivity by a dance on the fore-castle or a "shanty." Fifteen of these men joined us, among whom were two of the mates.

On the twenty-first day of June we entered Bering Sea, and crossed the 180 the meridian of longitude.

Having completed half the circuit of the globe in an easterly direction, we gained a day; but before nightfall we went out of our course to chase a ship, which carried us back to the other side, and our new day was lost almost as soon as won. The following morning, however, we again crossed the central meridian, and the 22d of June was a double day, 48 hours long.

THE SIGHT OF LARGE PIECES of "fat-lean," or whale meat, floating in the water now warned us that whalers were at work nearby, and very soon afterward we came up with several.

The week which followed was the busiest of the cruise. Not a day passed without our making one or more captures.

In all we took 25 whale-ships, which, with the exception of three or four, were burned. Some disposition had to be made of the prisoners, and as we could not put them ashore in those frozen regions, we were obliged to bond one vessel in every six or seven, in order to dispose of the crews of the others.

Occasionally, when the weather was fine and we had more prisoners than we could conveniently accommodate on board, we put them astern in whale-boats for the day. On one occasion we had 24 of these loaded boats towing astern.

Our last capture was made on the 28th of June, on which day we took 11 vessels. Nine of them were fired, and were all burning at the same time within a few miles of one another. One of these 11 vessels had been caught in an ice-floe, and was so badly injured that her captain had determined to abandon her, preparatory to which there was a sale of all the movables on board, which the other vessels had assembled to attend. Most of these were at anchor near the injured vessel, and hence we captured them all with but little trouble.

THE CAPTAIN of one of these vessels showed fight. He mounted the poop-deck of his ship, armed with a bomb-gun used in killing whales, and threatened to fire

into the boat which was about to board him. The officer in charge of the boat, however, disregarded this threat, pulled to the gangway and boarded with his crew.

When the flag was about to be hauled down, another scene of the same sort was enacted; but by this time the boarding party had discovered that the belligerent captain had been celebrating the occasion and was royally drunk. He was taken in charge after some resistance, and refusing to leave his ship, had to be lowered into the boat with a block and tackle. Several of the ships, when they saw what was going on slipped their cables, and steered, some for the shore to get within the marine league, and some for the ice-floes; but as the wind was light, and we had steam up, we very soon had them all in hand.

We were now in Bering Strait, and the next morning entered the Arctic Ocean, and the navigation was very dangerous.

There was every reason to believe that a number of whalers had passed into the Arctic ahead of us, and we hoped to come up with them; but the captain was afraid to venture very far, the ice being so heavy; and after a day spent in the Arctic, we turned and steered to the southward. On the 5th of July we passed out of Bering Sea into the Pacific, and saw the last ice-floes.

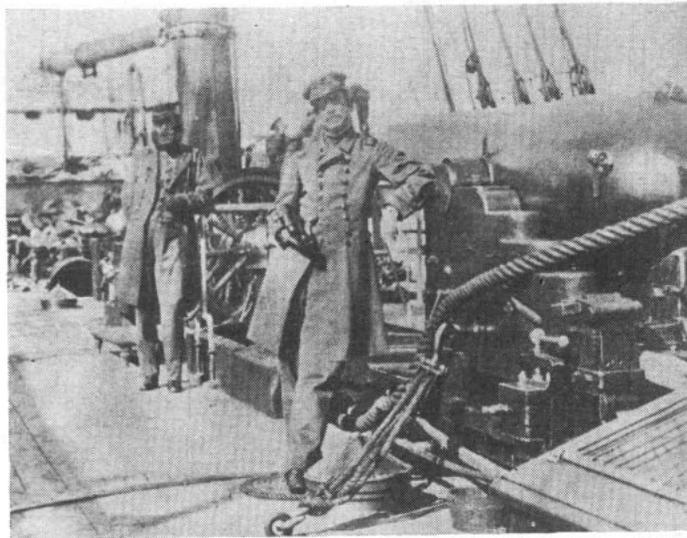
FOR THE NEXT MONTH nothing occurred to break the monotony of ordinary sea life on *Shenandoah*. We were steering to the southward to get into the track of the China traders and the Pacific mail-steamers. By the end of the month we were in the desired cruising-ground, and on the 2d of August we overhauled and spoke the English bark *Barracouta*, from whom we received news of the collapse of the Confederate government.

While in the Arctic Ocean we had received from *William Thompson*, one of the captured whalers, California papers of 22 April, giving an account of the assassination of Mr. Lincoln and the evacuation of Richmond; but the same papers contained the proclamation of Mr. Davis, issued from Danville, saying that the war would be prosecuted with renewed vigor. We had hoped all along that the disaster might not be as bad as these accounts stated; but *Barracouta* had left San Francisco on 20 July and it was impossible to doubt the correctness of the news she gave us. Yet, so strong had been our faith, it seemed incredible to us.

The important question now arose as to the proper disposition to be made of *Shenandoah*. Captain Waddell at first thought of taking the ship to Australia, and running into Sydney or back to Melbourne, and the course of the ship was altered with that view, and for 24 hours we steered for Australia.

At the end of that time, however, the captain changed his mind, and the course was again altered, and we resumed our way to Cape Horn. The captain announced to the officers and crew that he had determined to take the ship to the nearest English port; but her actual destination was not made known to any one.

Immediately after parting company with *Barracouta*, the guns of *Shenandoah* were dismantled and sent below in the hold for ballast; the port-holes, which were of our own construction, were boarded up again; and all the small arms and warlike appliances were stowed away between decks. We kept the ship under sail most



SKIPPER OF CSS *Alabama* was Captain Raphael Semmes, probably most famous of the Confederate sea raiders.

of the time, with propeller up and smokestack "reefed," saving the little fuel that remained for condensing fresh water for the use of the ship's company, and for any other emergency that might arise.

OUR CREW, augmented by the stowaways from Melbourne and volunteers who had joined us from the prizes captured, now numbered about 130 men, of all nations under the sun. As they were acquainted with the unfortunate termination of the war for the South, and knew that *Shenandoah* had no government behind her, we had contemplated the possibility of having some trouble with them.

But in this we were agreeably disappointed, for every one of this cosmopolitan crew behaved with perfect subordination. Our first lieutenant, Mr. Whittle, had from the start preserved the most admirable discipline on board at all times, and it was in a great measure due to his excellent management that no difficulty occurred.

On 29 September we struck our track of the year before in the South Atlantic, and early in October crossed the equator. So far we had not lost a man by sickness or accident, but we had now two very sick men on board. There is a superstition among sailors that, however long a sick man may last at sea, he is sure to die as soon as he "smells the land." Our two invalids respected this superstition, for they died within a few days of each other, and less than a week before the ship reached Liverpool and when some of the old sailors declared they could smell the bogs of Ireland.

On the 5th of November, 1865, we reached England, anchoring in the Mersey on the morning of the 6th, and the cruise of *Shenandoah* ended, the vessel being surrendered to the English authorities. When we took on board the pilot, the first question we asked him was about the war in America, as we had been hoping against hope that there might be some mistake about the news we had received in the Pacific. This called forth a cartoon from "Punch," representing *Shenandoah*, with Captain Waddell astride one of his guns, shouting through a huge trumpet to a pilotboat in the distance; "Is Queen Anne dead?" [*She died in 1714.*]

TAFFRAIL TALK

WITH DEEPEST REGRET we take note of the passing of Fleet Admiral William D. Leahy, USN. The nation's and the world's press has written much of his distinguished and honorable career. However, we would like to add a little yarn we think is a fitting epitaph for a blue-water sailor.

FADM Leahy, while in retirement, was visiting his son in the Hawaiian Islands. During his visit, he went to a barber shop he had frequently patronized. The barber, a long-time friend and admirer, greeted him, as always, with a cheerful "Hello, Admiral Leahy."

A young sailor, next in line, offered to let the admiral to take his place. "Go ahead, son, and thank you," replied the admiral. "You have to go back to work. I have plenty of time, now."

Admiral Leahy made the best of his time in the Navy, and it was a better Navy because of him. We're proud to have been in the same uniform with him. We're sorry that he's gone.

* * *

As we've said before, in the course of our travels we run into a lot of good stuff we just can't find the proper space for in the magazine. In this connection, we'd like to refer to the sailing directions of that old fresh-water sea dog, Captain Thomas F. Burns, Buffalo, N. Y., who served as pilot for USS *Oglethorpe* (AKA 100) during Operation Inland Seas.

For instance, when approaching Cortunigh Point, he gave orders to the steersman with words like this: "See the haystack there to the north of Peggy's Barn? Keep it open to the north till we are abreast of the outhouse, then we'll haul northwest. . . . Now, give me a little left rudder. We'll hold this course till the hay stack can be seen through both the north and south barn doors. . . . Now haul north . . . OK, just steer on the laundry there west of the Mooretown graveyard.

Although *Oglethorpe* cleared the Portage on a clear day, Captain Burns had some sound advice for future mariners when the situation became a little sticky: "When approaching the Portage during a fog, keep sounding your fog whistle until you pick up the bark of Olsen's dog. He's always at the garden gate, so when the bark bears southwestward, haul south and pass between the piers."

He interrupted his advice to walk out on the wing of the bridge. "Always say hello to the dog in clear weather. Otherwise, he may not answer when you need a bearing."

We're indebted to LTJG George T. Odom, of *Oglethorpe* who, open-mouthed with astonishment, made these further notes of Captain Burns' *Notice to Mariners*:

"Now keep Squirrel Island light well open to port. When the red light on the Squaw's shack comes out clear of the Walpole Reservation, haul and head on the red light until abeam of John's Tavern—that's the one with green neon lights on the roof—then starboard until the red light on the Squaw's shack is six degrees off the port bow."

While going up the St. Clair River, it was: "Steer 101 degrees on Joe Bedore's Joy House until the lone pine tree on the Canadian bank bears four points on the starboard bow, then haul and steer 133 degrees. When Joe's wood pile is four points abaft your beam, haul to 091 degrees, and steer on the Canadian club house." Now you know. You have the conn.

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: LAND HO—Across the street from the Merchandise Mart in Chicago, USS *Joseph P. Kennedy, Jr.*, (DD 850) receives visitors. The ship traveled to the Midwest via the new St. Lawrence Seaway. ➤



850

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