



# the LOOKOUT

SEAMEN'S CHURCH INSTITUTE OF NEW YORK



DECEMBER 1968



## Christmas Tree

Radiantly  
Around the earth  
The hallowed tree  
Proclaims His birth,  
Blessing all  
From lowly stall  
To market-place  
With Christmas grace.



Both verses by Katharyn Wolcott



## Christmas Snow

White hills, white pastures,  
White cliffs, white shores.  
Snow blown in from the sea,  
Peace drifting the land.  
The Dove come home.

## the LOOKOUT

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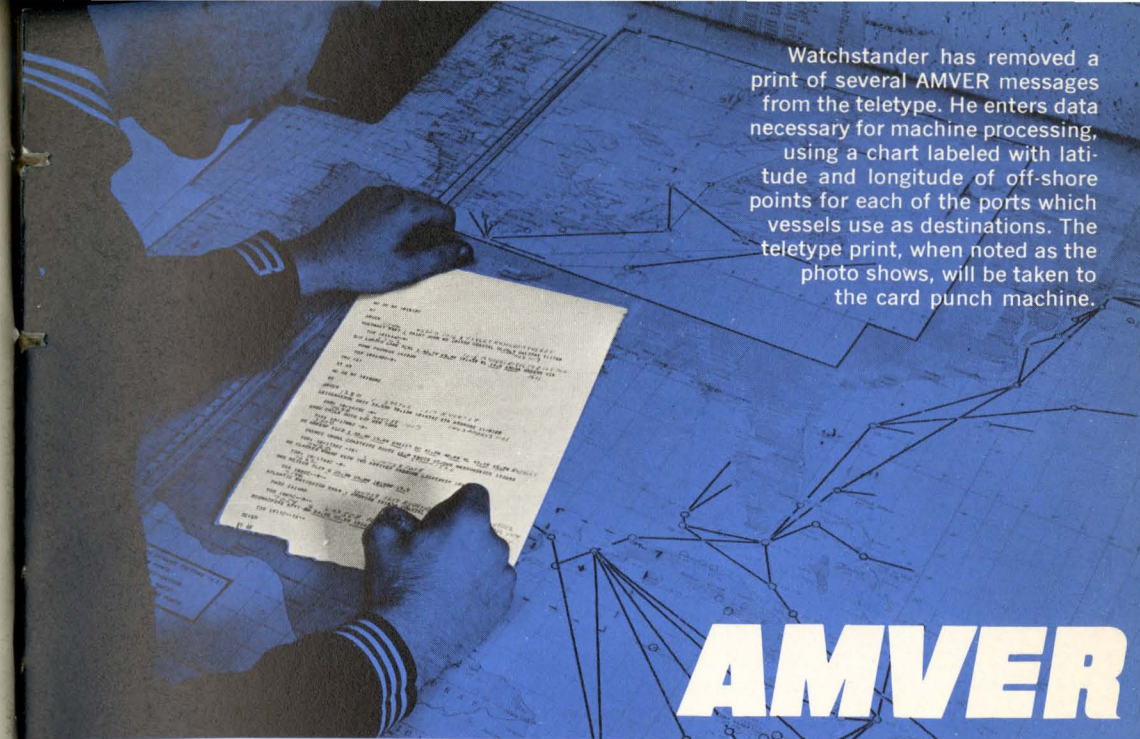
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COVER: Some of many special decorative knots tied by Chris Svendsen of SCI, veteran sail-ship seaman and artist in rope-work.



Watchstander has removed a print of several AMVER messages from the teletype. He enters data necessary for machine processing, using a chart labeled with latitude and longitude of off-shore points for each of the ports which vessels use as destinations. The teletype print, when noted as the photo shows, will be taken to the card punch machine.

# AMVER

## GLOBAL ELECTRONICS IN SEA RESCUES

This year ending marked the 10th Anniversary of the U. S. Coast Guard's Automated Merchant Vessel Report system, plotting more than a half million voyages in its decade of service to the maritime community.

AMVER, a world-wide maritime mutual assistance program, can provide aid to search and rescue efforts on any ocean of the world. This is accomplished by plotting the voyages of merchant ships representing 62 different nations. The vessels voluntarily radio their sailing plans to the AMVER Center on Governors Island in New York. There the information concerning the ship positions is kept continuously up-to-date by an electronic computer system.

When emergencies arise at sea, the AMVER Center will provide Surface Pictures (SURPICS) to any international search and rescue agency upon request. A SURPIC is a listing of ships which are known to be within the area of a distress and which contains the ship's position, course, speed, destina-

tion, communication and medical capabilities.

AMVER came into existence in the summer of 1958 when the U.S. Coast Guard activated the computerized program. At that time the system was plotting vessels in an area covering only a portion of the North Atlantic Ocean. With the value of AMVER being quickly affirmed, there followed a gradual expansion. In 1963 the plot area was expanded to cover the entire North Atlantic; the South Atlantic, the North Sea and the Mediterranean were included in 1964. Then finally in 1965, with the addition of the Indian and Pacific Oceans, AMVER became a world-wide merchant vessel report system.

The expansion of AMVER's boundaries also necessitated a need for broader and more expedient communications facilities. In 1958 the system had only 17 radio stations relaying the merchant vessels' sail plans to the AMVER Center. Today the system boasts a network of 67 maritime sta-





Information about the ill-fated S.S. Smith Voyager was relayed to the Coast Guard's computerized search and rescue service on Governor's Island, N.Y. In seconds, the computer produced a list of vessels in the emergency area. The Coast Guard cutter Rockaway and other sea-going and airborne rescue units were sent to pick up the crew.

tions, 25 of which are U. S. Coast Guard or Navy operated. The other 42 stations, maintained by foreign nations, are located in Canada, Japan, New Zealand, French Polynesia, Fiji, American Samoa, Australia and Spain.

Participation of merchant vessels in the AMVER program has shown a steady increase. Since 1958 when 4,800 voyages were plotted, the figure has grown to 114,764 passages plotted for 1967. Since the program first began, 725,625 voyages have been carried on the AMVER computer.

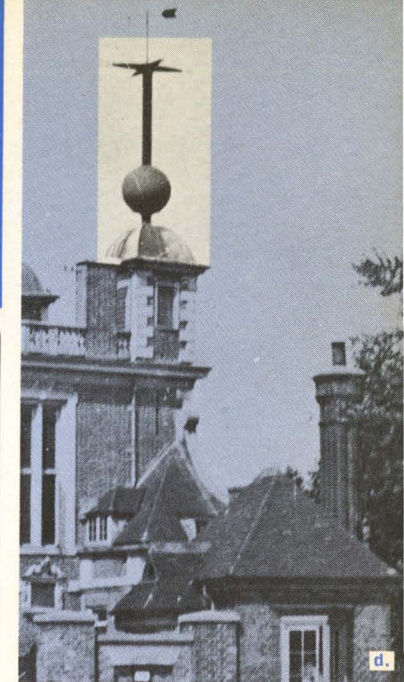
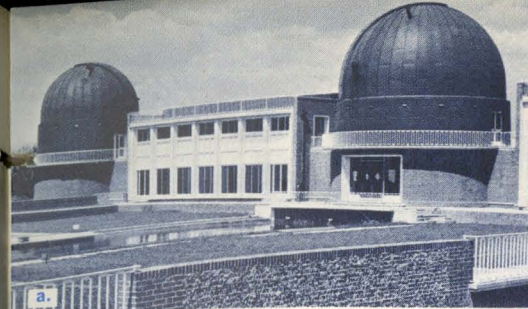
Operationally, AMVER has proven its worth time and again during the past 10 years. As a typical illustration, on June 23 of this year, the 411-foot Liberian cargo ship *SS North America* was aflame, forcing her 24 crewmen to abandon ship in the Pacific, 630 miles southeast of Honolulu. Word of the vessel's plight was passed to the Honolulu Rescue Coordination Center, where a request was made to AMVER for a 500-mile radius SURPIC.

Eight minutes later AMVER replied with a list of 10 vessels within the requested area. The rescue center then chose to contact the Liberian merchant vessel, *SS Saint Paul*, which was the first vessel listed on the SURPIC, and the closest to the *SS North America*. Once radio contact was made, the *Saint Paul* agreed to divert and head toward the hapless vessel. A rescue aircraft, dispatched by the Coast Guard, circled the burning ship and her crew, vectoring the assisting vessel to the scene. Five hours after the crew abandoned

ship, 22 survivors were safely aboard the *Saint Paul*. Only two men were lost.

The AMVER computer also aids those at sea who need medical assistance by furnishing SURPICs of ships carrying doctors. Should there be no ships of this nature in the area, a SURPIC can be requested listing vessels headed for a nearby port. By checking the SURPIC, the master of the requesting ship can easily arrange a rendezvous with a vessel that is enroute to a port where medical facilities are available.

AMVER also offers assistance to aircraft encountering difficulties during transoceanic flights. If an emergency should arise and it is doubtful as to whether the craft can remain airborne, a Trackline SURPIC is immediately made available. The SURPIC listing provides the positions of ships along the intended route. Then, should the pilot deem it necessary to ditch, he can set his plane down in the vicinity of a ship.



## Nautical Almanac NAVIGATOR'S GUIDE

By Arthur Gaunt

a. Exterior of astronomical center, Sussex, England. b. SCI ball atop lighthouse of old South Street building. c. One of the first public timepieces with a dial divided into 24 hours, outside Greenwich Observatory. d. Greenwich Royal Observatory, London.

The publication which has been aptly described as the "navigator's Bible" has just passed its 200th birthday anniversary. Its preparation was the main reason for the founding of Greenwich Observatory, London, in the 17th century, and although the first edition did not appear until 1767, astronomical observations carried out there during the interval helped to create a work of reference important to mariners even today.

The official title of this vital volume is the *Nautical Almanac*, and its compilation continues to be a British enterprise, but many other countries now issue editions based upon the British one. It contains tables from which seamen are able to determine their longitude, so that they know exactly where they are, even when no landmarks are in sight. This information is obtained by making observations of heavenly bodies as they apparently move across the sky, as a result of the Earth's rotation, and then referring to the tables.

Although the *Nautical Almanac* did not make its first appearance until more than 80 years after his death, its birth may be attributed to England's

"Merry Monarch," Charles the Second. He realized that Britain's continued sovereignty of the seas would depend to a large extent upon the ability of her mariners to pinpoint their position when out of sight of landmarks.

The age of exploration stressed the importance of solving this navigation problem, many a good ship having been lost or its crew having died of hunger, simply because it got badly off-course.

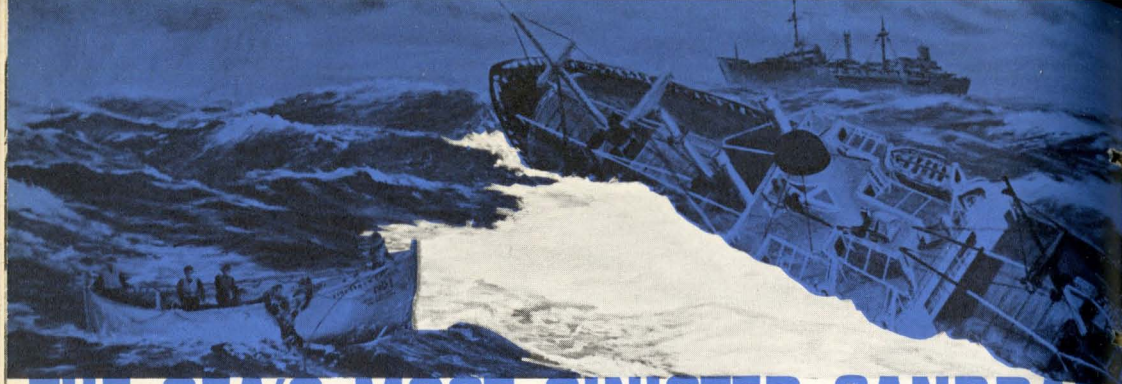
Britain was not the only country affected. As far back as 1598, Philip the Third of Spain offered a substantial prize for a system of finding the position of a ship on the high seas, and a similar reward was offered by Holland a few years later.

When Charles the Second was told that a Frenchman had, in fact, discovered such a system, he referred the matter to a scientific committee. They reported that the essence of longitude-finding at sea would be a series of tables giving the position of the Moon and certain so-called fixed stars.

Among the scientists was the astronomer, John Flamsteed, and Charles commanded him to set up an observatory in London where the astronomical

(Continued on page 14)





## THE SEA'S MOST SINISTER SANDBAR

"The Great Ship Swallower" is how sailors have always described the Goodwin Sands, the wreck-strewn stretch of submerged sand about six miles from the east coast of Kent, England.

Into the Sands, right down the centuries, has slid the tortured wreckage of *over a thousand ships*.

Vessels ranging from open Viking boats to towering galleons have been engulfed. Lumbering three-deckers and modern liners have foundered there.

Once caught, any vessel, no matter how strongly built, is inexorably pounded to complete destruction.

First charted during the reign of Queen Elizabeth I, the Goodwins comprise three hook-shaped banks lying in a semi-circle. Covering an area of some 35 square miles and sprawling across the bustling shipping lane between England and France, they consist of an eighty-foot depth of sand, shells and sea coral resting on a bed of soft chalk.

Driven by swirling tides, thousands of tons of sand are constantly in turmoil, forming alternate shoals and deep water patches. No lighthouse yet devised has been able to stand the terrific strain of such vast movement, making it necessary for mariners to settle for the next best thing, lightships and buoys.

See these sands at low tide and they appear friendly enough. People row out to them, get out of their boats and play

cricket and football on them without danger.

But in the last five centuries, the sands have engulfed hulls and cargoes to the value of *fifteen billion dollars and doomed eighty thousand souls*.

Just after the end of the Second World War when vessels ceased sailing in convoy, there were so many U. S. ships inadvertently picking a quarrel with the Great Ship Swallower that the sands became known as the "Calamity Corner of the Seven Seas for United States Freighters."

The U. S. War Shipping Administration once pronounced the North Sea and English Channel "relatively free of dangers."

Maybe all seas look blue on a map, but only seven days after the pronouncement coastguards reported that there was a ship hard aground on the Goodwins. It was the American vessel, *Luray Victory*, of 9,000 tons.

Veteran lifeboat skipper Cox'n Fred Upton put to sea in the Walmer lifeboat *Charles Dibden* to investigate.

A storm was raging, and heavy surf was pounding the stranded *Luray Victory* as Upton steered towards the American vessel. He found that the waters around the ship were too shallow for the lifeboat to get alongside, so he lay off in deep water, waiting for the next flood tide to cover the sands.

In the early hours of the morning he was joined by the tug *Persia*.

Winds of gale force came up but Upton took advantage of the rising tide and pulled alongside the *Luray Victory*, dragging the *Persia's* towing hawser and securing it on the stranded vessel.

The powerful tug then pitted its strength against that of the savage Goodwins. Her engines raced full ahead, churning the water astern into creamy foam.

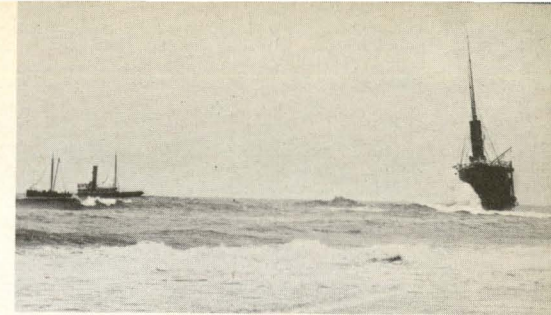
But the American ship never moved and the tug was still straining at her when the tide ebbed. The hawser was slipped and the *Persia* stood off while the *Charles Dibden* raced back to shore to refuel.

Only one hour later she was back on the scene, but in that short time the Goodwins had wreaked terrible punishment on the stricken American vessel. The whole ship was breaking up before the horrified eyes of the lifeboat's crew.

There was only one thing for it — the crew would have to jump for their lives.

And jump they did, without a single exception. Forty-nine times Upton thrust his lifeboat's bow hard against the *Luray Victory's* side and each time an American leapt from a dangling Jacob's ladder into the rescue vessel. Not a single life was lost, but the *Luray Victory* was pounded into two halves of shattered, twisted junk and then sucked slowly under.

On a pitch-black night, November 25, 1945, the maroons crashed out over the towns of Deal and Walmer. This time the American troopship *Leland Stanford* of 7,176 tons and with 670 U. S.



troops on board had struck the Goodwins and was hard aground on the "off" part of the sands.

Upton got the lifeboat alongside without much difficulty and climbed aboard for a conference with the captain. The troopship was in grave danger, half on and half off the sands, a position in which the Goodwins seized on to ships before snapping them like celery stalks. To Upton nothing was more certain than that the big troopship would break into halves as soon as the tide ebbed and left her unsupported.

The *Leland Stanford* began to list badly, and the troops on board looked at each other uneasily. America and home seemed far away now, and the grim heaving spectacle of the Goodwins all around them was enough to make the most combat-hardened soldier feel mighty nervous.

Upton and his crew toiled like galley slaves, running out a huge kedge anchor. Eventually the *Leland Stanford*, helped by tugs from Dover, was able to wrench herself free of the sucking grip of the Goodwins, and 670 American fighting men cheated death by a matter of minutes.

Every safety device ever erected on the treacherous Goodwin shoals has sooner or later been swept away. The longest-lived structure was a stoutly-braced mast put up by a Trinity House expert in 1849. Thirty years later it had vanished beneath the waves.

Other experts have suggested enclosing the area within breakwaters and thus forming a great harbor. Some have advocated the use of the hydrogen



*By Paul Brock*



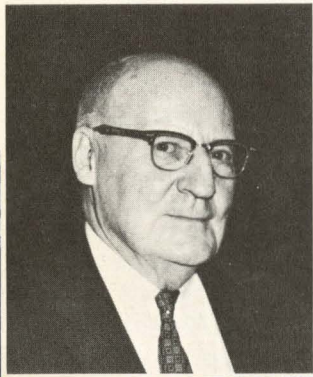
# We are a kaleidoscope of the waterfront



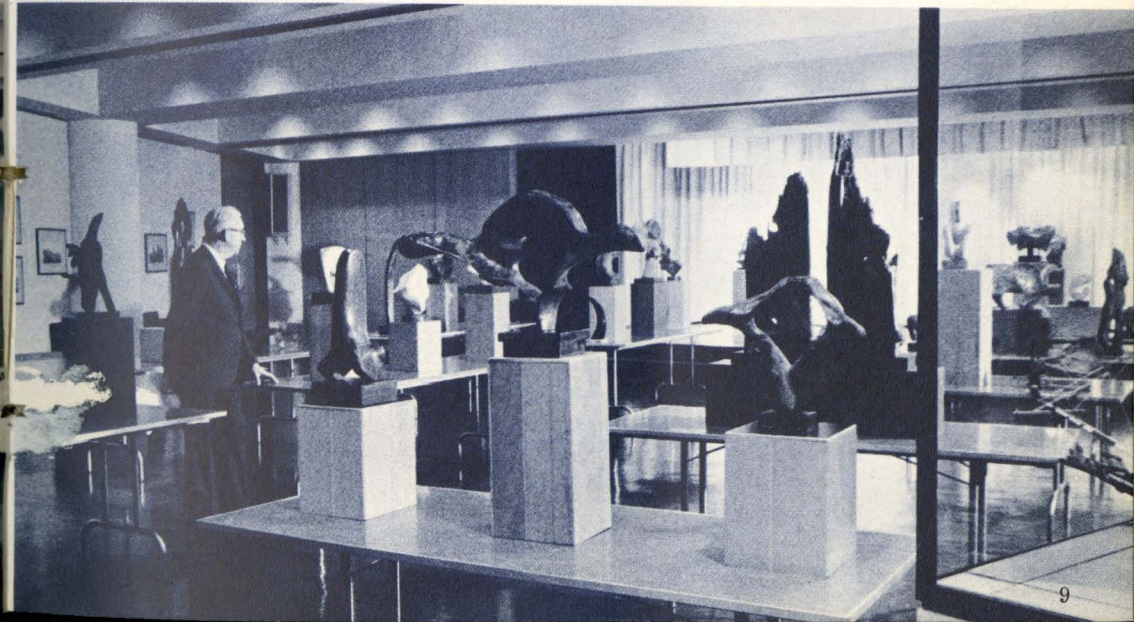
A gala Halloween dance was held in the SCI International Club — replete with hobgoblins, Jack-o-lanterns and witches.



Groups of volunteers from the Women's Council worked diligently in the "Christmas Room", wrapping and packaging the various items (eight, this year) contained in the traditional SCI Christmas gift package distributed to seamen aboard ships at Christmas. Around 10,000 of the packages were produced this fall by the women.



Memorial services were conducted in the chapel in early November for the late Leslie C. Westerman, former SCI general manager. He had been associated with the Institute for forty years prior to his retirement. He was 78.



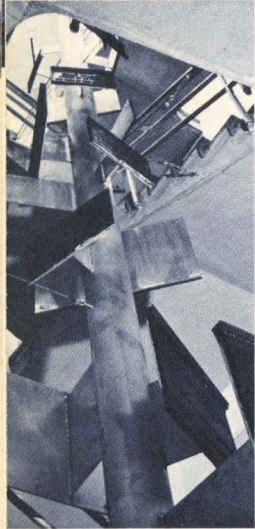
The SCI auditorium is the focal area for exhibits, lectures, musical events, movies and other affairs of cultural nature. It was recently the scene of a sculptor's showing — works of art carved chiefly from materials originating from the sea; whale vertebrae, for example.



With head colds prevalent at this time of year, the heat sauna in SCI's gymnasium is popular with seamen to relieve symptoms. The gym and its ancillary facilities are open to the male public for nominal fees.



A curving circular open stair case serving the first five floors of the Institute and featuring a display of historic plaques is receiving finishing touches before being opened to general use.



A five-story sectional aluminum pole with the plaques attached arises from the first (lobby) floor, in the center of the staircase. The artifacts were selected from some 1,500 formerly mounted throughout the former SCI South Street building and were chosen on the basis of both design and general interest.



## kaleidoscope

The Institute is becoming increasingly popular as a shoreside headquarters among women mariners or wives of mariners.

A group of German male seamen and two women (wives of seafarers) from the *Dafne*, a German ship of the Columbus Line, flew in to New York from Hamburg recently to await the arrival of the ship which was scheduled to make numerous coast-wise stops from Canada down through U. S. eastern ports and to South America. The group stayed at the Institute.

The two young women, Mrs. Marga Pyko, and Mrs. Inge Wessel, are the wives of the Second and Third Engineers of the *Dafne*. Mrs. Pyko works for a bank in Hamburg and Mrs. Wessel for an insurance company in the same city.

In an interview with The Lookout editor conducted with the help of Tim Franz, a seaman on the *Dafne* who acted as interpreter, the women said this was their first visit to the United States and that they were impressed with the accommodations to be found at SCI.

Mrs. Wessel commented that most of the European seamen's hostleries operated in a manner similar to the Institute and housed women seafarers and wives of seamen as well as seamen.

Mrs. Wessel, Mrs. Pyko and seaman Tim Franz stop by at exhibit case in auditorium to view German sail ship model as well as the others contained in the room.

noises  
down below



By Alan P. Major

During the last War, submarine crews listening for the sounds of enemy ships on the surface were frequently puzzled by the mysterious crackles, moans, whistles and groans they picked up. This was the first indication that fish and underwater mammals can make sounds, and, in fact, have a language of their own, communicating with each other, giving warnings of danger, scaring off predators, making love-calls to attract the opposite sex for mating and to show pleasure and displeasure.

Fish can "hear" because, in the majority of the bony fishes, there are within the cranium two flattened bones, termed ear bones, which respond to vibrations the fish receives and also help to maintain the fish's balance in the same way as our inner ear mechan-

ism controls our balance. Fish are receptive to sound waves and so it is possible for them to "hear" and "talk" in reply.

Dr. John Lilly of the U. S. Office of Naval Research, several years ago, when making recordings of the sounds made by dolphins, was surprised to hear, in a voice like Donald Duck, one of his dolphins say "Come and get it, boys."

*The dolphin had learned to mimic the man who fed it.*

Dr. Lilly stated that his recordings show dolphins have a highly developed language, and their voice boxes can make twenty basic sounds and thousands of different "words."

In the sea, dolphins make a whistle noise, while some whales make a sound like the noise of a cheering crowd. Electric eels emit a clicking sound, sea robins imitate a squawking farmyard hen, while toadfish normally make a



sound like a low steamboat whistle and a boom like a foghorn when alarmed.

Shrimps and prawns snap their claws so noisily, when in a shoal, it sounds like twigs burning.

Squirrel-fish utter heart-rending groans while other kinds of eel make low pitched drones. Catfish sound like someone beating on an empty barrel, while carp make a noise like a long-drawn-out wet kiss.

Marine biologists, investigating and recording fish sounds, state that in their experience the noises range from a band-saw cutting through metal, someone gnashing his teeth, a soft-shoe dancer performing on a sandy floor, an outboard motor about to stall, or like coal rumbling down a chute.

Other fish noises can be described as buzzing, croaking, chirping, squeaking, drumming and whistling. Recordings have been made of fish "talking" on the surface down to a depth of two miles. Fish make their noises by blowing the air from their air bladders through their mouth, rapidly opening and closing their mouths, grinding their teeth and vibrating their gills.

Normally these sounds are not heard

by sailors aboard ship, unless they are listening on echo sounding or electronic equipment. They might be scared stiff at the overpowering sounds and weird, frightening noise fish can make.

In 1942, a U.S. Army unit was manning a hydrophone warning system for submarines at Chesapeake Bay, when the listening personnel were astonished to hear a mass of unintelligible sound in their earphones. One man described the noise "like pneumatic drills boring through concrete."

The unusual noise continued for several days while efforts were made to identify it. Just when it was thought that somehow the enemy had found a way of jamming the underwater listening apparatus, it was reported there was a huge shoal of croaker fish in the Bay.

Normally a single croaker makes a negligible noise, but the shoal was estimated to total between 300 and 400 million and all making their strange sounds together. These were recorded, and at their loudest pitch reached about middle C. When the shoal was dispersed, the unit was able to get back to its vital job of submarine detection.

**THE SEA'S MOST SINISTER SANDBAR** (Continued from page 7)

bomb on this terrible menace to shipping, but to remove an area of unstable sand, ten miles long by four wide and eighty feet deep, which is submerged twice in 24 hours to a depth of 12 to 15 feet, is something of a task even for a hydrogen bomb.

Companies have been formed with the object of reclaiming the land and excavating the colossal treasure deposited there from hundreds of wrecked ships. It was planned to dump 50,000 tons of rock fill every week from the Kentish Pits, smack on top of the quicksands. But scientists discouraged this plan by saying that for years the hungry sliding, questing sands would engulf the mass as a piece of blotting

paper sucks up a drop of ink.

Today there are three lightships marking the Goodwins, the North, South and East Goodwin lightships. All are equipped with the most modern radar warning systems science can devise, and in addition there are nine lighted and unlighted buoys to help lessen the danger to shipping.

But men and ships still perish on the Goodwins, though not, these days, in such terrifying numbers as in the single disaster of 1703 when *two thousand men and thirteen British warships and merchantmen* were engulfed in one hellish night.

That, even for the Goodwins, is a world's record.

# YOU AND YOURS

by the Rev. Dr. John M. Mulligan

*"The Minister is ordered, from time to time, to advise the People, whilst they are in health, to make Wills arranging for the disposition of their temporal goods, and when of ability, to leave Bequests for religious and charitable uses."*

This "rubric" or instruction appears on page 320 of the *Book of Common Prayer*. It has been there for several centuries but many loyal church people have never been aware of it.

Many of the Clergy follow its instruction to them and of late years have seized upon the Sunday next before Advent as a logical occasion. The Collect for the Day begins, "Stir up, we beseech thee, O Lord, the wills of thy faithful people."

Of course, the Collect is not speaking of testamentary instruments but the humor does provide a light approach to what many people consider a dark and heavy subject.

It is amazing how many otherwise

sensible and sound people die without having left any kind of Will. This is bad stewardship and even worse house-keeping. It is also wasteful because those who would benefit as heirs are automatically deprived of a sizeable portion of the estate.

The Seamen's Church Institute of New York has only been able to carry on its important ministry for 135 years because concerned and thoughtful people have left us bequests in their Wills. Our ability to meet the demands of the future will be largely determined by the amount of testamentary support current friends and contributors provide.

A modest bequest continues in perpetuity the annual contribution given during one's lifetime. Once a bequest is written into a Will the individual knows that while he "can't take it with him" he can take with him the knowledge and comfort that the support he gave during his lifetime is forever assured.

The following simple table indicates how this may be done—

If your annual contribution is:	It is perpetuated by a Bequest of:	If your annual contribution is:	It is perpetuated by a Bequest of:
\$500 .....	\$12,500	\$50 .....	\$1,250
250 .....	6,250	25 .....	625
100 .....	2,500	10 .....	250
		5 .....	125

A simple bequest form for your use is suggested:

I give, devise and bequeath to SEAMEN'S CHURCH INSTITUTE OF NEW YORK, a New York corporation located at 15 State Street, New York City, the sum of .....

Dollars.

Note that the words, "Of New York," are a part of our title and should be used. If land or specific personal property is given, a brief description thereof should be inserted in place of the words, "the sum of ..... Dollars".

A calendar year is drawing to a close. A new one is about to begin. This then is a very good time to tidy up one's affairs and set the house in order.





NAUTICAL ALMANAC — NAVIGATORS' GUIDE  
(Continued from page 5)

research needed to prepare the tables could be undertaken. The cost of the observatory building was met by selling some damp gunpowder from the Tower of London, but Flamsteed, Britain's first Astronomer Royal, had to provide his own instruments.

Despite the royal backing, however, years went by without anything being published. Flamsteed collected a vast amount of data but refused to release it. His idea was to wait until a single monumental work could be published, rather than to issue the results piecemeal. Even Sir Isaac Newton experienced difficulty in persuading Flamsteed to let him have information which he needed for some lunar investigations.

Flamsteed steadfastly claimed that, having built his instruments at his own expense and received little more than a nominal salary, the records of his observations were his personal property — or that he was at least entitled to control their publication.

He eventually compromised by agreeing to hand over his notebooks, under seal, to the Royal Society, another scientific body backed by King Charles. In return, he was assured that nothing would be published without his express permission.

In 1712, however, an abridged version was printed without Flamsteed's consent. He was so incensed by this breach of faith, and by the errors in the published tables, that he bought up all the copies he could find.

About 300 of the 400 printed were withdrawn in this way. Flamsteed then burned them in public!

He died seven years later, leaving to posterity a catalog of nearly 3,000 stars, and was followed by Edmund Halley, the star-gazer whose name was given to a well-known comet.

Whereas Flamsteed had mainly studied the stars, Halley now concentrated on improving the lunar tables of his day, with the idea of helping navigators. Yet he had Flamsteed's fear that the results of his work might be used unfairly by others. So he too refused to make them public, and they were not published until 1749, seven years after his death.

In fact, not until 1765 were British Astronomers Royal legally required to make their observations available for publication yearly at the expense of the nation.

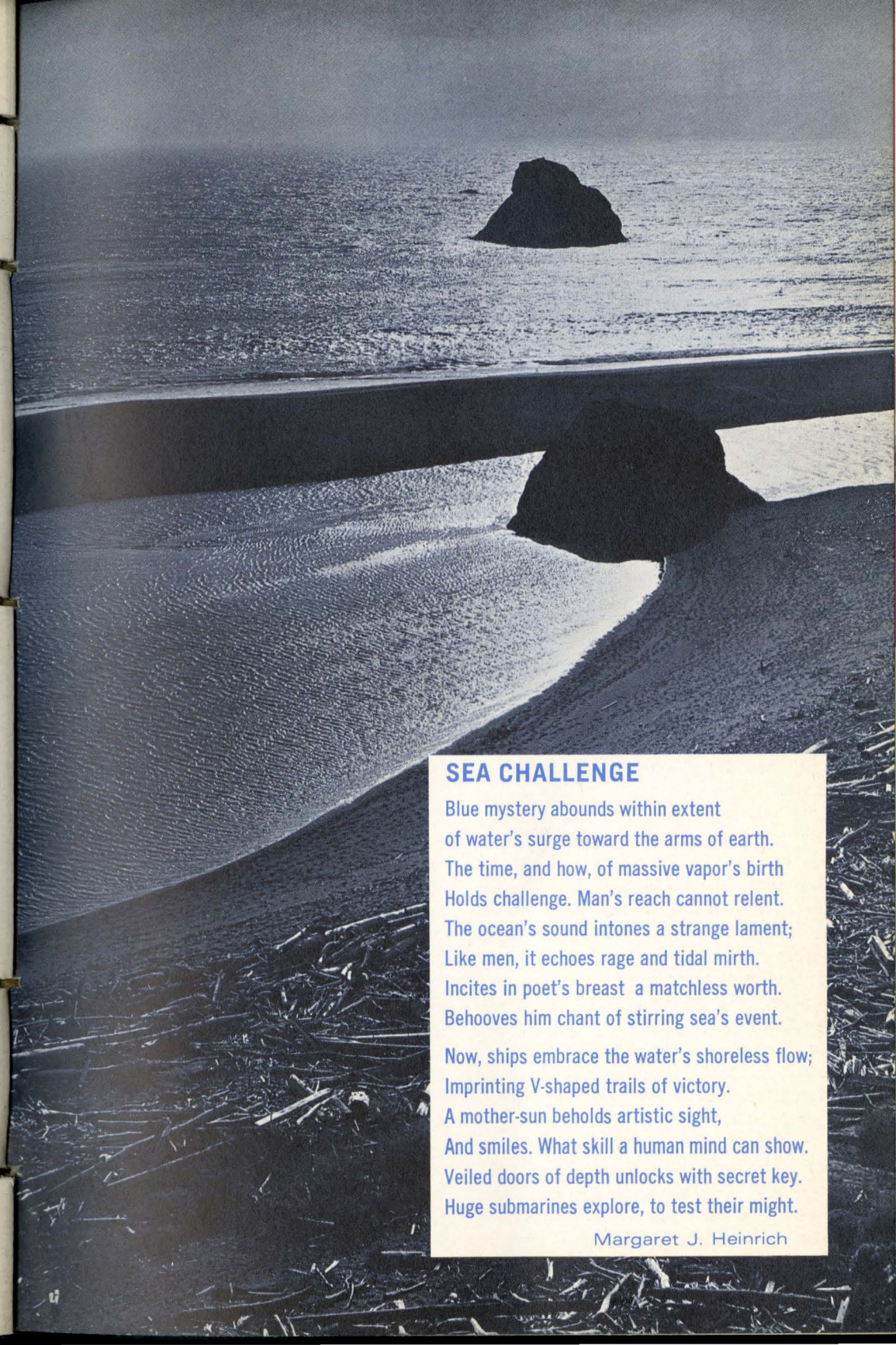
The holder of the post at that time, Nevil Maskelyne, took a keen interest in methods of determining longitude at sea, and he tested the theory of using lunar tables by voyaging to St. Helena.

Maskelyne's observations, and those of his forerunners, formed the basic data for the first official *Nautical Almanac*, issued for the year 1767.

The *Almanac* enabled navigators to determine their position to *within half a degree*, and the tables were so reliable that this annual publication remained practically unchanged for more than fifty years.

More comprehensive revisions were made in 1914 and 1952. In the latter year the *Almanac* was completely redesigned. It has been in its present form since 1958.

*Despite modern developments in navigation, the tables it contains are still the only universally applicable method of determining one's position without reference to landmarks.* In its bicentenary year the British-produced *Almanac* is used by most maritime countries.



### SEA CHALLENGE

Blue mystery abounds within extent  
of water's surge toward the arms of earth.  
The time, and how, of massive vapor's birth  
Holds challenge. Man's reach cannot relent.  
The ocean's sound intones a strange lament;  
Like men, it echoes rage and tidal mirth.  
Incites in poet's breast a matchless worth.  
Behooves him chant of stirring sea's event.  
  
Now, ships embrace the water's shoreless flow;  
Imprinting V-shaped trails of victory.  
A mother-sun beholds artistic sight,  
And smiles. What skill a human mind can show.  
Veiled doors of depth unlocks with secret key.  
Huge submarines explore, to test their might.

Margaret J. Heinrich



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