

TOW LINE

Fall 1967



ON THE COVER—

T O US OF THE MARINE WORLD there is nothing quite so fair as a ship — a new ship or a grand old lady — be she liner, freighter, tanker or tug.

Through the talents of noted marine artists, we have tried over the years to show this appreciation of the noble ship by making available to all artistic reproductions of those vessels that we feel are outstanding examples of the marine architect's skill. Thousands of letters, comments and personal calls have told us we are successful. So, here again is a fine painting by Albert Brenet for Tow Line's Fall issue.

Home Line's beautiful *Oceanic* in all her splendor is depicted passing the lower Manhattan skyline on her way to sea. From our own offices in the building just abaft the *Oceanic's* foremast, we watched her arrive on her maiden voyage April 14, 1965.

We never tire of the wondrous sight of great ships silently moving past our windows. If you would like to preserve such an event, write to us for your own personal art print of the *Oceanic*.



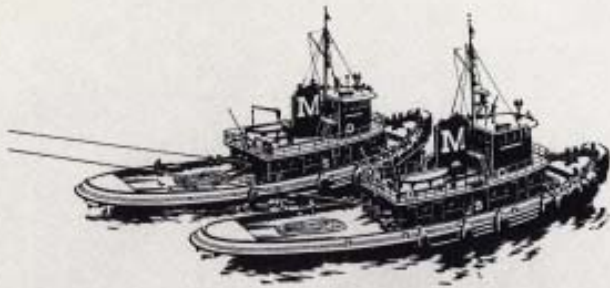
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TOW LINE



MORE POWER

(see Center Spread for Teresa-class engine-room layout)



SHIPS IN THE NEWS — The four ships on this and the facing page all made headlines recently. Our top view shows the motorship *Sakura Maru*, Japan's floating trade fair, receiving a welcome off the Battery. The 8,000 exhibits displayed aboard her represent a cross-section of Japanese industry. The sleek 12,600-ton ship is owned by Mitsui-OSK Line. Just below the *Sakura Maru* is the new *Crossafels*, heavy-lift Hansa Line freighter. Five sisters are coming, and each will boast a giant 150-ton capacity boom amidships. The *Crossafels'* engine room is automated. Her general agents in the U.S. are F. W. Hartmann & Co. At the bottom, right, is the "K" Line's *France Maru*, which averaged 20.5 knots on her first Pacific crossing. This 13,650 ton vessel will be followed by three sisters, bringing the company's cargo fleet to over 1,000,000 tons. Our full-page picture at the right is of the barkentine *Regina Maris*. You don't see moon sails very often these days, but she has one. The tug *Kerry Moran* participated in her welcome last June after the *Regina Maris* had completed a westward trip around Cape Horn. Built in 1908 in Denmark, she is owned by the Norwegian brothers John and Sigfried Wilson, of the Ocean Transport Line of Santiago, Chile.







NEW ARRIVALS IN PORT — The new, Norwegian-flag motor-ship *Mosgulf* made her maiden call at Port Newark with a full cargo of chrome ore. Later (see upper photo) Moran tugs shifted the A/S *Mosbulkers* ship to Port Elizabeth to load containers. That's Portugal's sail training ship *Sagres* astern of the *Mosgulf*. Home port for the *Mosgulf* is Kristiansand, Norway and she is on charter to Central Gulf Lines, 1 Whitehall St., New York. On a misty Sunday morning the latest in French Line cargo motorships, the *Suffren*, made her debut in the line's North Atlantic service. The highly automated vessel has a controllable-pitch propeller, a bow thruster for quick maneuvering and bridge-controlled diesel engines. A sistership, the *Rochambeau*, is expected to join her in the French Line service as this Tow Line issue reaches its readers.



A PROUD MOMENT — Mate Robert Begley, of the *Julia C. Moran* holding the National Safety Council, Marine Section, Special Sea Rescue Award pennant, just awarded to the *Julia* and six other Moran tugs for their part in the *Alva Cape* disaster of June, 1966. Every member of each crew also received an individually prepared certificate of commendation. The tugs have the privilege of flying the blue, green and white pennant for one year. Looking on from left to right are: Mike Westgate (whose head is partly obscured just below the life ring on the *Julia*), Dept. of Marine and Aviation; Donald Sahlberg, of the *Harriet Moran*; your editor; an unidentified gentleman; Captain George Sahlberg; Captain Jones F. Devlin, United States Lines and chairman of the awards committee; Thomas Moran; John Bull; Captain Charles E. Leising, USCG Deputy Commander, Eastern Area, who presented the pennants; Frank C. Grant, United States Lines, General Chairman, Marine Section; Commissioner Herbert B. Halberg, Dept. of Marine and Aviation, who presented the certificates, and Parker Wise, Secretary-Treasurer of the American Merchant Marine Institute, joint sponsor of the awards. Capt. John Sahlberg, master of the *Kerry Moran*, is standing on her upper deck.

OCEAN WAVES

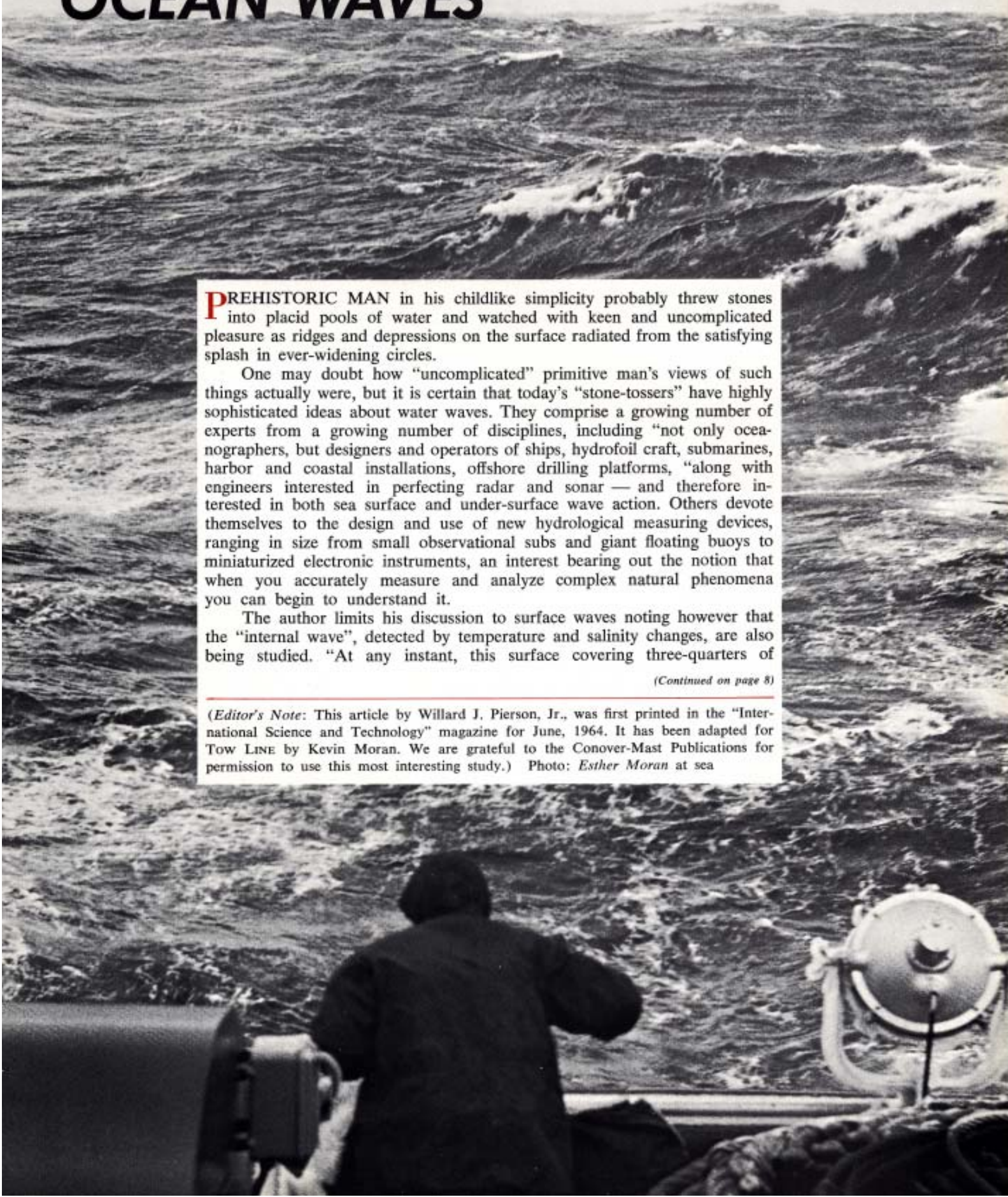
PREHISTORIC MAN in his childlike simplicity probably threw stones into placid pools of water and watched with keen and uncomplicated pleasure as ridges and depressions on the surface radiated from the satisfying splash in ever-widening circles.

One may doubt how "uncomplicated" primitive man's views of such things actually were, but it is certain that today's "stone-tossers" have highly sophisticated ideas about water waves. They comprise a growing number of experts from a growing number of disciplines, including "not only oceanographers, but designers and operators of ships, hydrofoil craft, submarines, harbor and coastal installations, offshore drilling platforms, "along with engineers interested in perfecting radar and sonar — and therefore interested in both sea surface and under-surface wave action. Others devote themselves to the design and use of new hydrological measuring devices, ranging in size from small observational subs and giant floating buoys to miniaturized electronic instruments, an interest bearing out the notion that when you accurately measure and analyze complex natural phenomena you can begin to understand it.

The author limits his discussion to surface waves noting however that the "internal wave", detected by temperature and salinity changes, are also being studied. "At any instant, this surface covering three-quarters of

(Continued on page 8)

(Editor's Note: This article by Willard J. Pierson, Jr., was first printed in the "International Science and Technology" magazine for June, 1964. It has been adapted for TOW LINE by Kevin Moran. We are grateful to the Conover-Mast Publications for permission to use this most interesting study.) Photo: Esther Moran at sea



OCEAN WAVES

(Continued from page 7)

the earth exhibits an amazingly complex and thoroughly random shape. . . . But individual elements of the total pattern — individual kinds and groups of waves — do repeat themselves; they are periodic, over a tremendous range in time. The periods of the smallest 'capillary' ripples, for instance, so important in radar work at sea, are less than a second, while a single cyclic oscillation in world-wide sea level sometimes takes geologic ages to complete. Small wonder . . . that many scientists and engineers came to feel prior to the last war that real ocean waves — unlike the ideal waves of classical hydrodynamic theory — lay beyond . . . understanding. Yet . . . we have partly broken through the 'chaos' barrier to a reasonably clear understanding of . . . several kinds of waves. *We can — and routinely do — forecast the heights, periods, distribution, and travel paths of the dominant kind of ocean waves, those generated by turbulent fluctuations in the wind.* [Editor's italics.]

The Family Tree of Ocean Waves

The author admits that "the state of the art" falls short of "truly understanding ocean waves" just as the weather forecaster hasn't fully understood the dynamics of our atmosphere, and proceeds to discuss the various types of ocean waves. We learn that "in order of decreasing wavelengths" these include:

a. *The tides*: the most regular wave, which "may someday be as important in power generation as they long have been in determining ship arrival and departure times."

b. *Seiches and storm surges*: the former differs from the latter in that it is "a storm surge which, because it occurs in a land-locked lake or partially inclosed harbor, enters into a standing-wave oscillation which persists after the generating wind dies down".

c. *Tsunamis*: a Japanese word describing the most awesome

coastal wave which, starting with mere 1-2 ft heights over the area of underground disturbance — often the eruption of ocean volcanoes — can raise a 100-ft wall along "beaches of appropriate configuration".

d. *Wind waves and swell*: the author's main interest.

e. *Capillary waves*: these, the smallest ocean waves, measured in centimeters, "have sharp troughs that point downward into the water, in contrast to ordinary wind-driven waves which have sharp crests that point up into the air", and "show puzzling nonlinear properties, which are somehow related to the large local curvature of the water surface."

Birth and Development of Wind Waves

"If wind waves were perfectly periodic, simple harmonic progressive waves with infinitely long crests . . . they would have been understood for centuries. But wind effects on the sea surface are not this simple, because turbulence and viscosity in both sea and air introduce complex nonlinear effects.

Wind turbulence creates a moving pattern of minute fluctuations in air pressure over the water; these can generate the initial tiny ripples that eventually become fully developed waves. Viscosity and turbulence also create a distribution of pressure differences in the air that is out of phase with the waves, and these pressure differences feed in the energy needed to grow bigger waves.

. . . We can attain one important practical end — forecasting sea states — by treating the character

of the sea surface statistically, *after the energy being fed into the waves equals the energy dissipated by breaking at the wave crests, so the waves are no longer growing.* [Editor's italics]. This point of dynamic equilibrium — where the sea is said to be 'fully developed' — limits the height wind waves can achieve, even under forcing conditions of strong winds in severe storm areas."

How does water really travel? "Instead of travelling with the waves, the particles move in nearly stationary circular orbits which lie in the vertical plane. . . . All water particles in the long-crested deepwater waves, whatever their depth and regardless of their orbital diameters, complete one orbit in the same period taken by the wave itself to advance on wavelength. But the particles don't all reach the same points in their orbits — the top for instance — at the same instant. Rather, like the valves in an engine opening and closing at just the right instant in the combustion cycle, the water particles phase in and out . . . so as to fill the wave form as it progresses laterally." (See Figure 1.)

The Energy Spectrum of the Sea

But, again, we are talking about the ideal, sinusoidal wave, whereas actual waves are "irregular, aperiodic, and short crested," and "must be studied in terms of probabilistic models and measured and analyzed by statistical techniques."

To summarize Mr. Pierson's discussion: ". . . the total energy present in all the waves of a developing sea progressively distributes itself over a range of frequencies characterizing a particular wave train. As waves con-

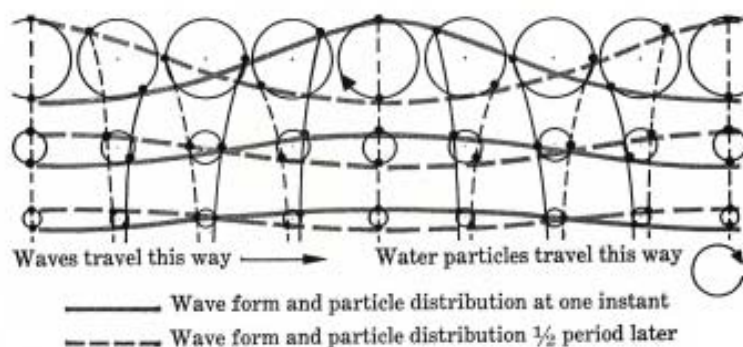


Figure 1.

(Continued on next page)

continue to grow and as new trains continually develop, this range extends more and more to shorter frequency . . . waves. In brief, a *spectrum* of ocean waves is formed in which — for any given wind velocity and for fully developed waves — the energy distribution over the band of wave frequencies from 0.4×10^{-1} to 3 cps [cycles per second] is distinctive.” (See Figure 2.)

Spectral Filters and Wave Forecasts

Mr. Pierson explains, “. . . if the waves on the sea surface are put through a filter — either in recording or in subsequent analysis — so that only those waves traveling in a small range of directions and occupying a small band of frequencies are left on the model ‘sea surface’, we can specify this fraction or component of the variance.

“The problem of finding an adequate way to estimate the spectrum of a statistically invariant Gaussian process is not simple. And it arises in many fields besides ocean waves such as turbulence, seismic analysis, electronics, and weather prediction. Happily, it was solved in 1949 by John Tuxey of Princeton.

“. . . The idea of spectral filtering just mentioned comes up in still another important way, in connection with operational wave-and-swell forecasting. About 10 years ago, for example, Gerhard Neumann of New York University found it was possible to derive a theoretical expression for the characteristic frequency spectrum of wind waves from thousands of visual wave observations made with a stop watch. . . . It depended on only two variables: (1) the wind velocity; and (2) either the distance over the water that the wind blew with constant velocity and direction, also called the “fetch”, or the duration of the wind. And it provided a moderately accurate way to forecast the spectrum of waves in deep water as a function of the past history of the weather over the ocean. . . . It forecasts — among other things — the average of the heights of the one-third-highest waves that will be running, and an average wave period. (See Figure 3.)

It is interesting to note that *swell* has proved amenable to forecast by

use of mathematical filters, that is, “as a function of the dimensions of the storm source, the strength of the wind in the source, and the distance from the source. . . .”

Mr. Pierson, himself, has had a hand in these forecasting systems which are “in current use by the U.S. Navy and most other maritime agencies.”

New Ways to Measure Waves

England’s National Institute of Oceanography (NIO) is credited with one present technique of ascer-

taining accurate open-sea wave measurements: the use of “two identical instruments mounted on opposite sides of the ship, . . . their outputs . . . averaged to compensate for differences in wave height on either side. Each instrument consists of a pressure sensor and a vertical accelerometer. . . . Recorders using essentially the same principle may soon be installed on all U.S. Coast Guard weather ships.”

Another method uses a “drogue”, or large flat plate submerged into quiet water suspended from a buoy which holds a measuring pole over which wave heights may pass and be recorded. Another, called the “Splashnik”, is a floating buoy device that converts the readings of a vertical accelerometer into an FM signal picked up by a nearby ship. Another technique has been the use of the Scripps Institute’s FLIP — the famous “ship-on-end” — which has been known to move only 6 inches in 40 ft. seas.

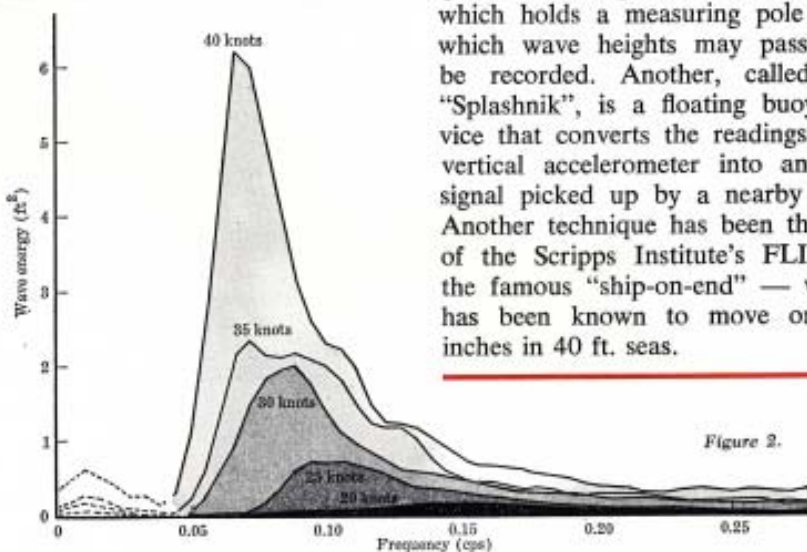
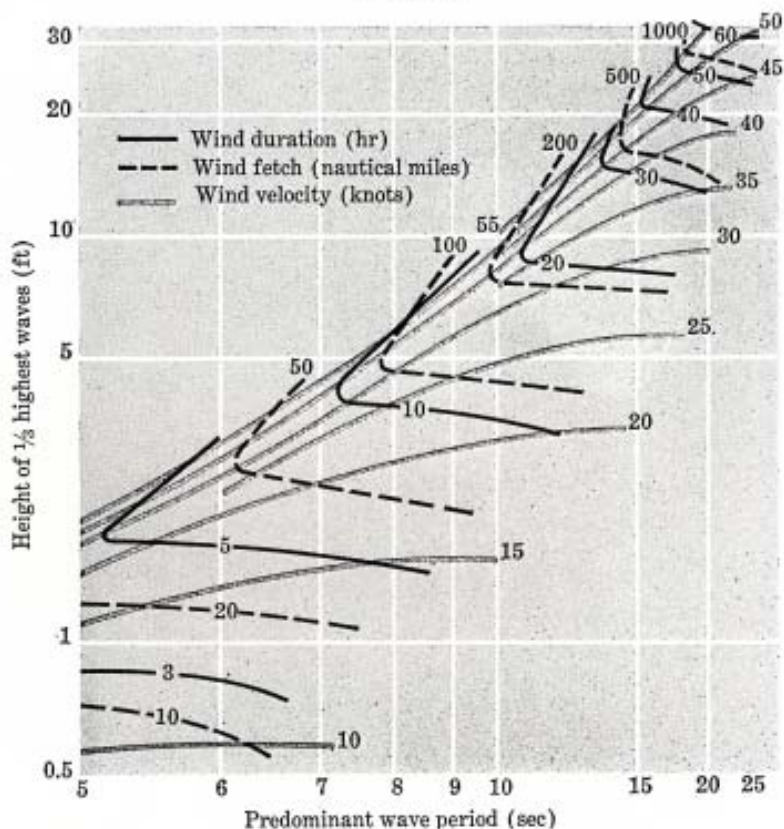
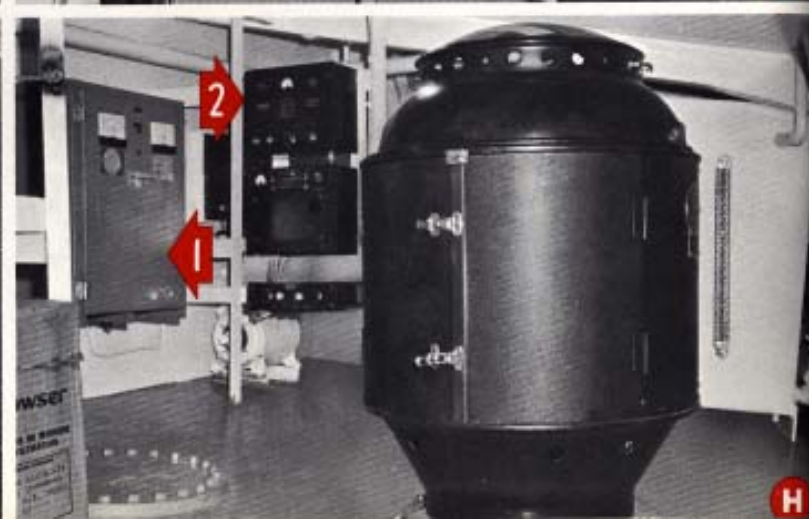
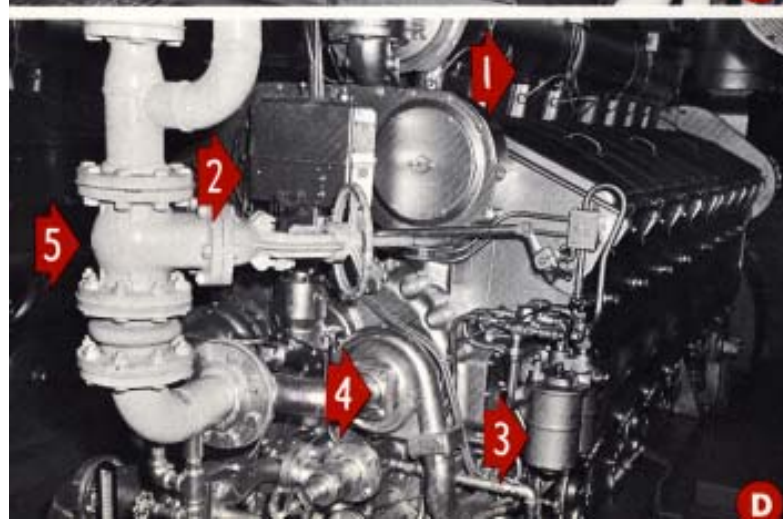
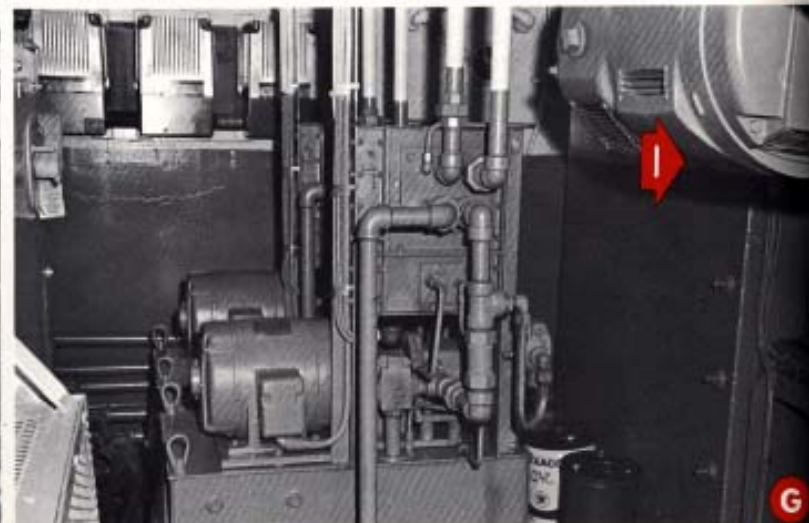
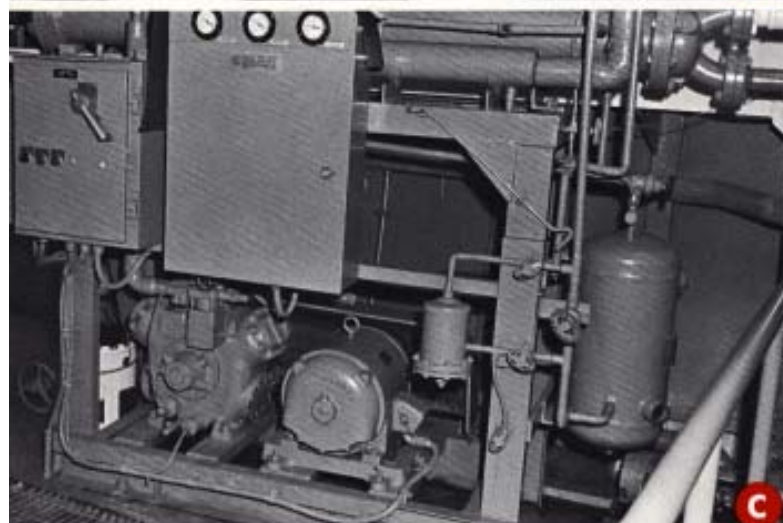
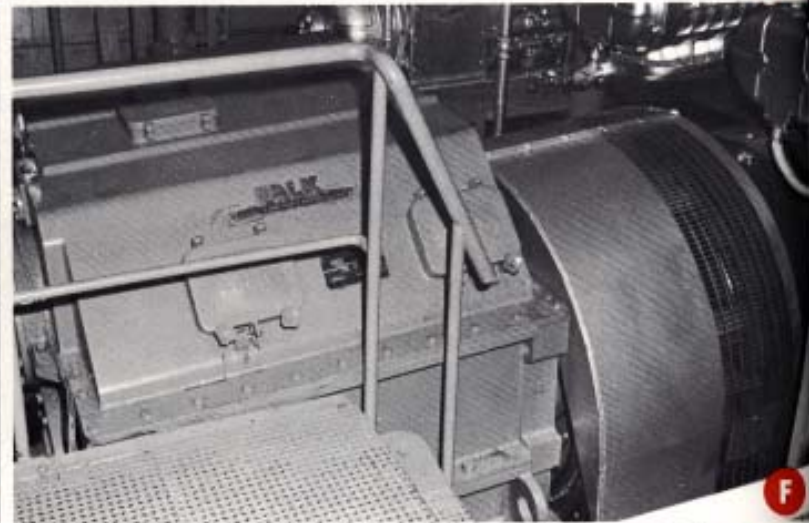
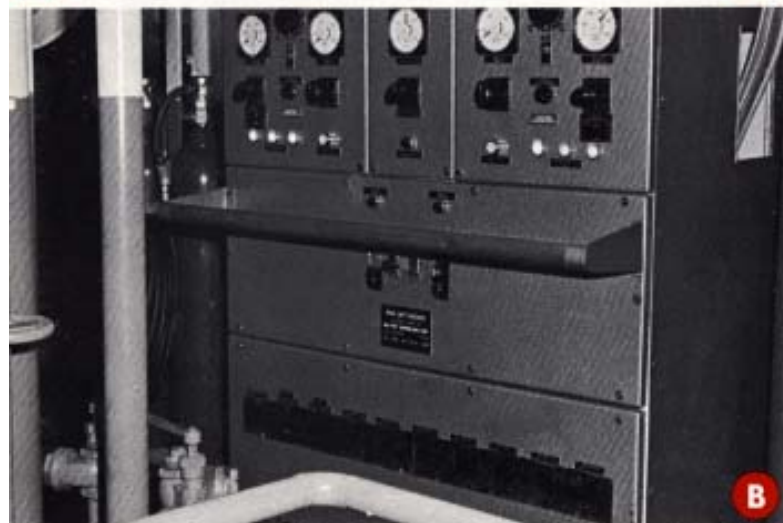
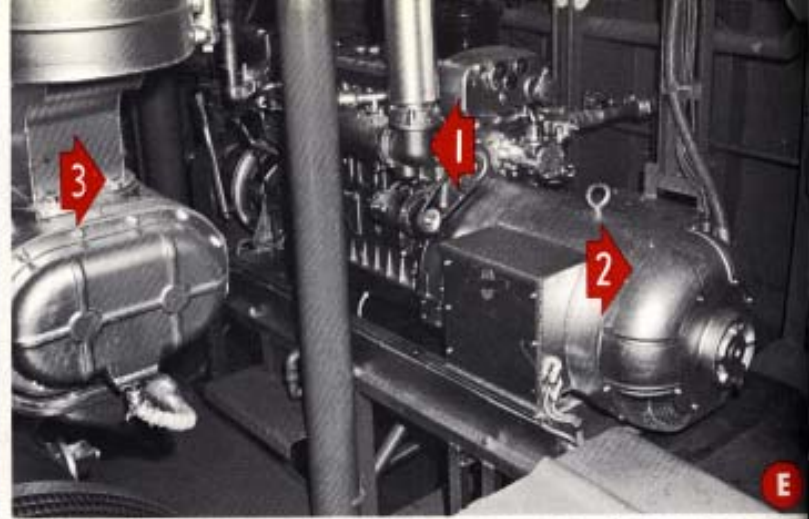


Figure 2.



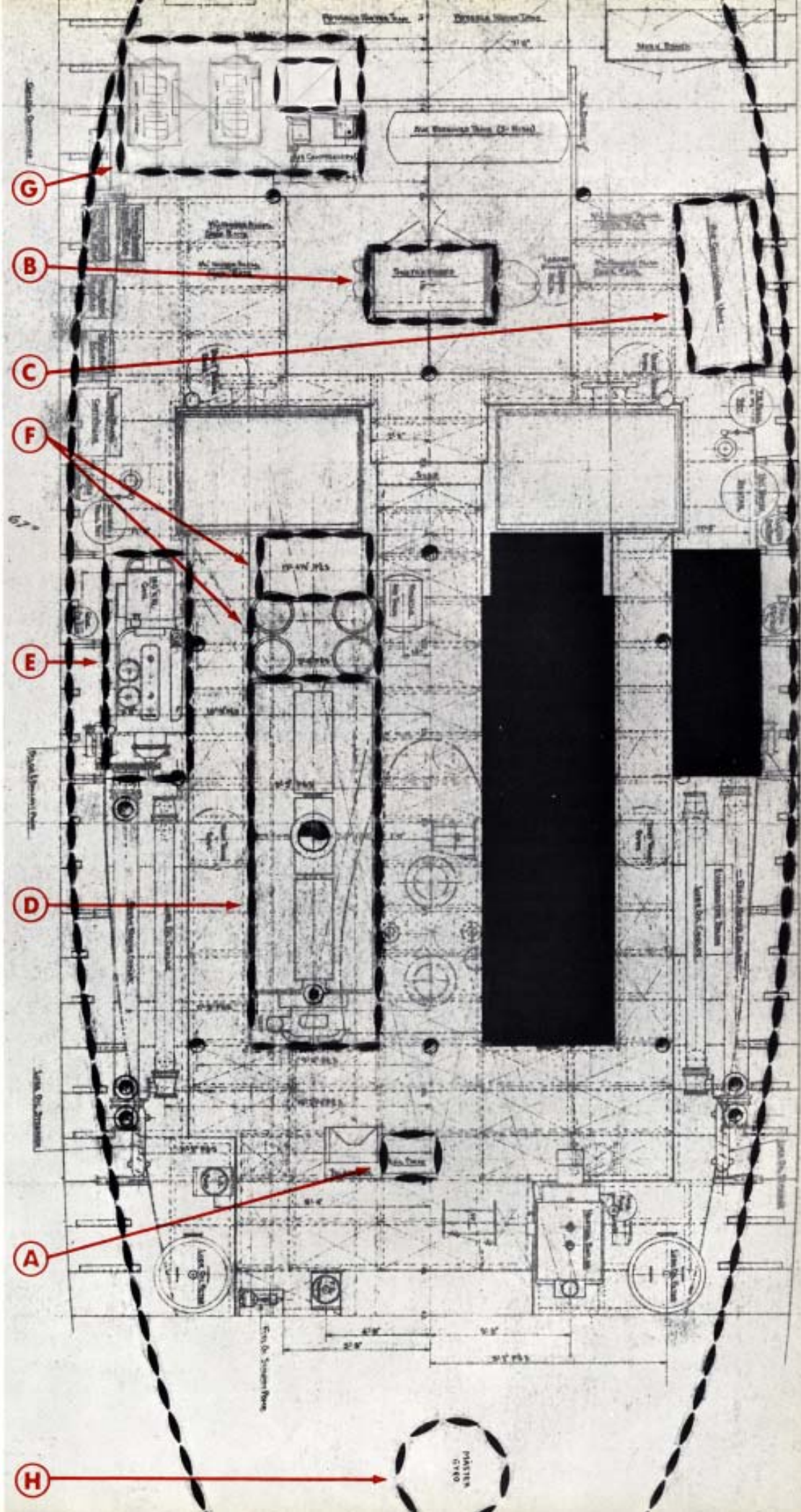


THE ENGINE ROOM

Teresa Moran Class

(The lettered areas in engine room scale drawing at right illustrated by the photographs on the left.)

- A. Engine Room Control Panel**
Arrows indicate main instruments on the port side of the panel. 1. Port engine's pressure gauges and tachometer; 2. Pyrometer; 3. Alarm system; 4. Main engine control.
- B. Switchboard**
Controls all electric distribution from both auxiliary generators.
- C. Air Conditioning Unit**
Provides air conditioning for all living quarters and galley.
- D. Main Engine, Port Side**
Looking aft is one of the tug's two 16-cylinder, Model 645E2, turbocharged engines. Each is rated 2,145 BHP. Arrows indicate 1. Exhaust manifold; 2. Governor; 3. Duplex oil filters; 4. Fresh water pump; 5. Fresh water line.
- E. Starboard Auxiliary Generator**
One of two auxiliary generators for providing electrical power for the tug. One acts as a standby or is used for extra power when needed. Arrows indicate 1. Diesel engine; 2. 100-KW generator; 3. Section of the starboard main engine turbo-charger.
- F. Falk Reduction Gear and Air-flex Clutch**
This reduction gear (left) and clutch (right) is for the port main engine and is duplicated for the starboard engine.
- G. Hydraulic Steering Gear Pumps and Motors**
There are two units, one held in reserve. The arrow indicates the capstan motor overhead.
- H. Sperry Master Gyroscope**
Installed in the upper engine room forward, its readings are read on a gyro-repeater in the tug's pilot house. The arrows indicate the gyroscope's control panels.



Bouchet-Lewis Models

A FEW MONTHS AGO, when the waterline model of the new Cunard Line superliner was unveiled, there was a fine British tug alongside. Thanks to a thoughtful gesture by that famous company, and because it was to be displayed in the United States, the Q4 model now has a Moran tug in attendance. The waterline tug model is the *M. Moran*, made by the Bouchet-Lewis Model Company, and so begins our tale.

Professional model makers are a very special breed of craftsmen. Ship modelers, in particular, are highly skilled artists. The Bouchet-Lewis Company was organized by Horace Bouchet in 1905. Paton Lewis, its present owner, has been in the business since 1935. The company's list of patrons is a long one and includes the Smithsonian Institute in Washington, D. C.

Bouchet has made at least a half dozen models of tugs for Moran. Their other customers include the U. S. Coast Guard, U. S. Navy, the State Department, Farrell Lines, Moore-McCormack Lines, Grace Line, United States Lines and many large oil tanker companies.

Bouchet's workshop on 12th Street in Manhattan is a fascinating place with an array of new models of every description under construction and old ones being repaired. Tiny ones and ones taking up considerable space are all made with fine precision.

One of the most unusual models the firm ever made was that of a

giant radio telescope planned by the Navy. Built to a 1:200 scale, it was three feet wide at its base and made entirely of brass. But due to unexpected technical difficulties the real life-size version was never constructed.

Two models of which Mr. Lewis is most proud had nothing whatsoever to do with the sea. They are models of fine, old carriages and are on display today in the Smithsonian.

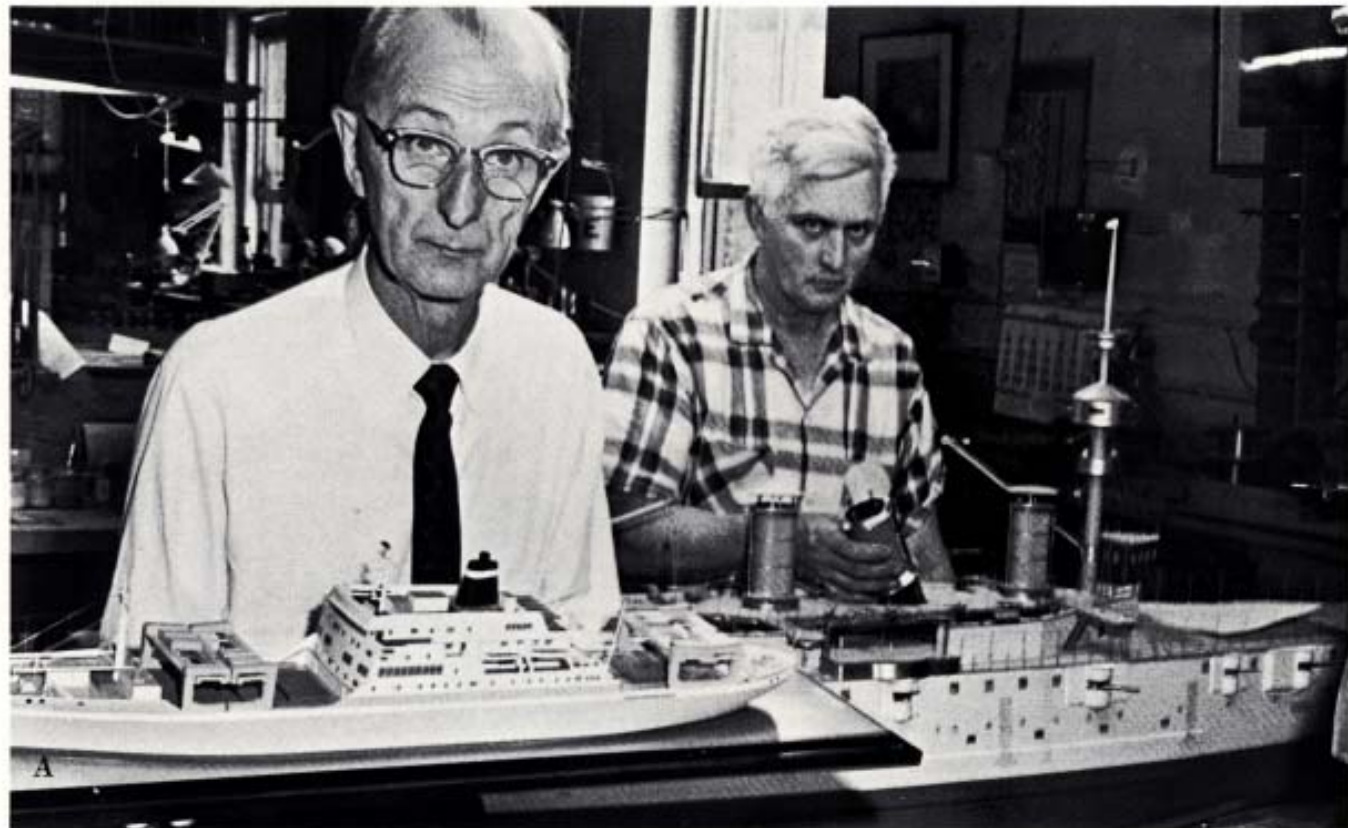
Not long ago a seven-foot-long model of the nuclear ship *Savannah* was built for showing at the Brussels World's Fair.

"My daughter was at the Fair and spotted it in its case from a distance", said Mr. Lewis with a smile.

"She shouted out to her friends 'That's my Daddy's work! Only he can do numerals like that.'"

Mr. Lewis explained, "She meant the ship's draft numbers. We all have our specialties."

MODELS AND MODELERS — (A) Paton Lewis, present owner of the famous model-making company, holds a replica of Grace Line's *Santa Magdalena*-class passenger-container ships as model craftsman Frank Moucha replaces the center stack of an old timer of the Spanish-American war era. (B) This fine coach model stands in the Smithsonian Institute in Washington. The first vehicle built in the United States in the early 1700's, it was known as 'John Brown's chariot', named for the gentleman from Providence, Rhode Island who ordered it built. (C) A fine Bouchet-Lewis model of Sun Oil Company's *New Jersey Sun*, a beautiful super-tanker. (D) The *Quistconck* was the first Hog Island ship built in 1918. (E) Another craftsman-artist, Vincent Castello, concentrates on the details of truck-trailers to go aboard three models of a new-type vessel being built by Sun Shipbuilding for Trans-American Trailer Transport Inc. (T.T.T.)



B



C



D



E

**RECOMMENDED
READING**

TUGS, TOWBOATS AND TOWING
by Edward M. Brady. Published by the
Cornell Maritime Press, Cambridge, Md.,
1967. Price: \$10.00.

STRANGE TO SAY, there are very few works on tugs and towing. This new book is a very welcome addition to the slim bookshelf on our industry. We hope there will be others. The towing industry deserves greater coverage. Aside from our own *A Tugman's Sketchbook*, Eugene F. Moran's splendid *Tugboat, The Moran Story*, (now out of print and virtually impossible to get), there is no recent literature on American East Coast tugs. Not one single full-sized book is mentioned in the bibliography of the book under review.

The Brady book is certainly needed. It is basically a primer of tug operations. The work opens with a chapter on types of tugs. A section on tug construction and design follows. Other chapters are on towing theory, inland towing, offshore towing and towing techniques and hazards. Mr. Brady is a surveyor for the United States Salvage Association and brings not only a respectable background of knowledge to his task but a clean and experienced writing style. Three of the four photographs used on the cover are from our files, and, we are happy to say, a good number in the book show our fine craft.

MERCHANT SHIPS WORLD BUILT, Volume XIV, 1966, New Ships, Compiled by E. E. Sigwart. American publisher John de Graff, Inc., 34 Oak Ave., Tuckahoe, N. Y. 1966. Price: \$9.50.

PERHAPS THE MOST interesting part of this book is the great number of small passenger ships that it shows were built in the year covered. A few of the more interesting ones might be listed here, for they certainly do show that the airplane has not conquered in every field. In fact the rebirth of the small liner as a major factor in shipbuilding hints that overseas air travel is actually stimulating new short route ship construction. Among the year's notable new small passenger ships were the following:

- Akershus* . . . 5,012 gross, Danish, Jutland-Norway
- Aphrodite* . . . 4,504 gross, Greek, Greek islands
- Canguro Azzuro* . . . 5,400 gross, Italian, Naples-Palermo
- Dover* . . . 3,602 gross, British, Cross Channel
- Free Enterprise II* . . . 4,122 gross, British, Channel

- Fuji* . . . 2,801 gross, Japanese, Inland Sea
- Gennargentu* . . . 4,887 gross, Italian, Sardinia
- Holyhead Ferry No. 1* . . . 3,879 gross, British, Channel
- Liburnija* . . . 2,868 gross, Yugoslavian, Adriatic
- Nili* . . . 7,851 gross, Israeli, Mediterranean
- Norwave* . . . 3,500 gross, British, Channel
- Peter Pan* . . . 4,407 gross, German, Travemunde-Trelleborg
- Prinsessan Desiree* . . . 3,090 gross, Swedish, Baltic
- Roi Baudouin* . . . 2,800 gross, Belgian, Channel
- Sarita* . . . 1,889 gross, Indian, Bombay-Goa
- Skagerak* . . . 2,703 gross, Norwegian, Kristiansand-Hirtshals
- Stena Nordica* . . . 3,726 gross, Swedish, Tilbury-Calais
- Villandry* . . . 3,433 gross, French, Newhaven-Dieppe
- W. von Hamburg* . . . 4,438 gross, Greek, cruising (*Lucaya*)
- Yohte Maru* . . . 8,300 gross, Japanese, Aomori-Hakodate

Many of these vessels have sisterships built or building, and this list only hints at the large number of new liners in miniature that will be serving passengers and carrying automobiles throughout the world in the next two decades.

On the overall shipbuilding scene, Japan continues to lead the world. Her production in 1965 (the year covered by the volume under review) exceeded the combined totals of the next eight countries: Sweden, Great Britain, W. Germany, France, Italy, Norway, Poland, Spain and Finland.

The 192-page volume, filled with fine photographs, includes an alphabetical listing of ships of 1,000 gross tons and over built throughout the world. Many interesting tables and comparative statistical charts are included.

ALBERT BALLIN, BUSINESS AND POLITICS IN IMPERIAL GERMANY, 1888-1918, by Prof. Lamar Cecil. Published by Princeton University Press, Princeton, N. J., 1967. Price: \$9.00.

A TRAGIC STORY, the life of Albert Ballin. Possibly the greatest name in trans-Atlantic shipping of his era, this extraordinary business man rose to top man in the world's largest shipping company. His dream of further triumphs with the three largest ships of the time (*Imperator, Vaterland* and *Bismarck*) was shattered by World War I. His end was tragic, and his death is thought by some to have been self-inflicted. We trust that there will be further books in English about this powerful and able shipping wizard, for this volume is largely a history of his business and political intrigues. We had hoped to find much

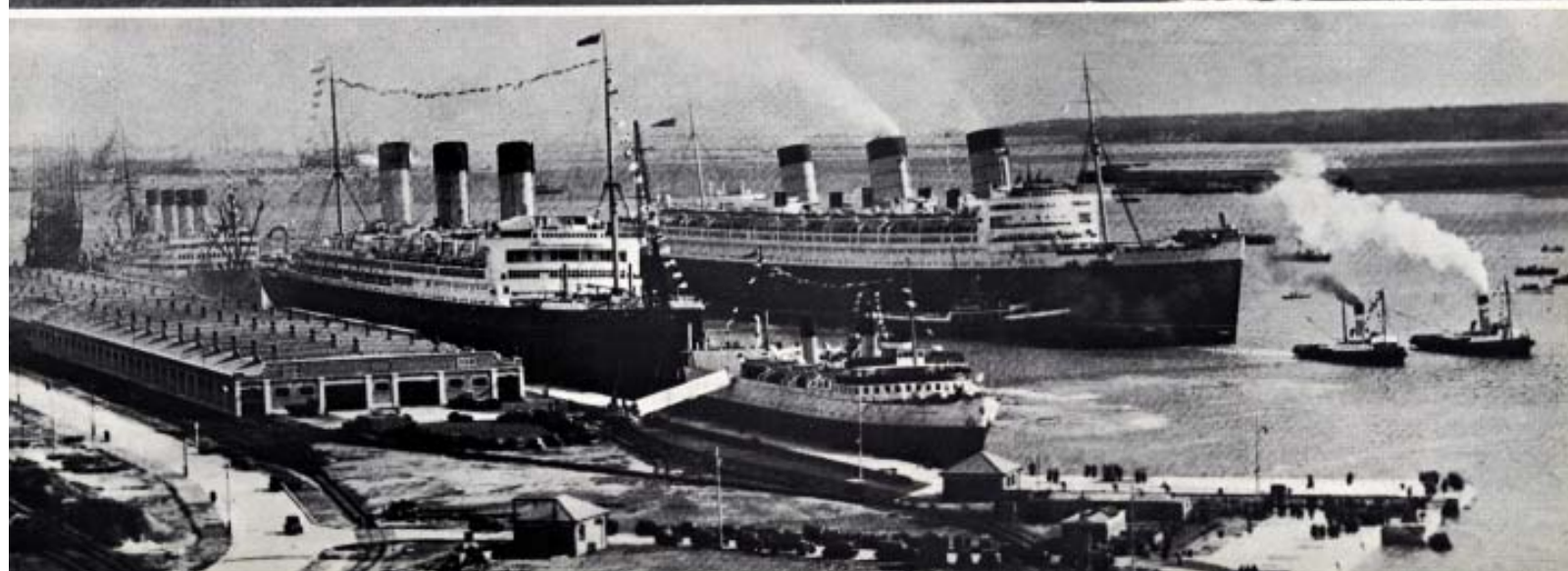
greater emphasis on the ships of the great Hapag fleet. It was disappointing, also, to find only one illustration in the entire book. For a volume that is priced at \$9.00 this is a glaring omission. There must be no lack of photographs of Ballin. The author's lack of interest in shipping is shown by his frequent reference to great rival North German Lloyd ships as "Schnelldampfers", their nickname, although he never identifies them by their actual names. It should also be noted that Hapag's *Columbia* and *Auguste Victoria* were not holders of the "coveted Blue Ribbon of the Atlantic," as Professor Cecil states, although their *Deutschland* did later gain the title. All ships are referred to as "it," a further indignity, although admittedly a trifling one.

These criticisms are really no reflection on the book's scholarship or value to history. They reflect our disappointment because the Ballin we had hoped to learn more about was the man who counted the silver on the *Vaterland*, one of the pioneers in ocean cruising, and the man who led all others in giving luxury to first class passengers on the Atlantic. It is rather sad, too, that no mention is made of the final twist in the Ballin story, the naming by Hapag of a major Atlantic liner after this famous man, the subsequent obliteration of the name by Hitler, and finally the capture and renaming of the same ship by the Russians. She is today the *Sovetsky Sojus*, largest liner in the Russian merchant marine.

DAYS OF THE STEAMBOATS, by William Hopkins Ewen. Published by Parents' Magazine Press, 52 Vanderbilt Ave., New York, N. Y. 10017, 1967. Price: \$3.50.

IT IS FRIGHTENING to realize how rapidly the steamboat is becoming a thing of the past. Fortunately the steamship, that is the ocean-going counterpart of the steamboat, is not being outmoded, but actually expanding in potential value to man. This new work will provide a good foundation for the young student of today (and tomorrow) in American steamboat lore. With its most appealing format, the work takes a broad approach to the whole subject, giving not only a brief historical introduction but moving from Atlantic to Pacific, right across America, including chapters on the Hudson, Long Island Sound, the Western rivers, the Great Lakes and the Far West. Excellent pictures add to the pleasure of this interesting volume. We hope the book will stimulate young readers to go deeper into steamboat lore. The author, Bill Ewen, has loved ships all his life. As a Borden advertising executive, he once took "Elsie the Cow" aboard a Hudson River Day Line steamer, effectively combining his hobby with his work. His photographic collection of steamboats is one of the world's largest.

HAIL AND FAIRWELL — Cunard's newest superliner, unnamed as this issue went to press, will be an illustrious replacement for the noble *Queen Mary*. The new vessel is due to make her maiden voyage late in 1968. The *Queen Mary*'s last departure from New York is set for September 22, 1967. Our picture at the right was made on one of her final sailings. Below is a view of her first arrival here, June 1, 1936. At the bottom she makes her maiden entry into Southampton.



Largest Class of World War II Trooper- A Review of the Famous P2-Type Fleet

THE P2 TRANSPORT has proven to be one of the most successful and long-lived class of World War II-built ships. All of the 21 vessels of this class built are still in service or in "ready lay-up" today.

Three have become luxurious passenger liners. Operated by American President Lines, they are the *President Roosevelt*, *President Wilson* and *President Cleveland*.

Twenty-four ships of this class were planned. When war ended, the twenty-fourth had not been begun. She never left the drawing board. There were four on the ways, two of which were scrapped on the spot because they were just started. The two others were completed as APL's *Wilson* and *Cleveland*.

The *President Roosevelt* was originally the *General W. P. Richardson*. She is now on American President's round-the-world passenger service and is a frequent visitor to New York. The *Wilson* and *Cleveland* are employed in trans-Pacific service.

It was widely supposed at the end of the war that all these great vessels would become passenger ships as had their counterparts of World War I, the highly successful ex-troopships known as the "535's" and the "512's" — because of their overall lengths.

Many features built into them were seen as making them most desirable for commercial service, *i.e.* their size, their 20-knot speed, their air-conditioning, but such was not to be the case.

Two classes were built. Eleven came from the famous Federal Shipbuilding and Dry Dock Company yard at Kearny, N. J. Eight were built by the Bethlehem Steel Company at Alameda, Calif.

The Federal ships were propelled by twin turbine steam engines and could carry 5,197 troops plus 144,000 cubic feet of cargo. They had the following dimensions:

Length — 622' 7"

Beam — 75' 6"

Draft — 25'

Gross — 17,833 (US) tons

Remarkable vessels, they had a cruising radius of 12,400 miles.

In appearance they were striking, with very fine hull lines, a low superstructure and two very large, pear-shaped smokestacks. They could make twenty knots, as could their California-built counterparts.

The Bethlehem ships were turbo-electric drive. They could carry 4,673 passengers (troops) and had a cargo capacity of 48,000 cubic feet. Their cruising radius was 15,000 miles.

The dimensions of the Bethlehem ships were:

Length — 608' 11"

Beam — 75' 6"

Draft — 25'

Gross — 17,000 (US) tons

(If measured by British gross-tonnage rules these vessels would be about 21,000 tons each, since American rules do not include the bulk of the ship's superstructure.)

The Military Sea Transportation Service has put these great vessels to good use over the past two decades. They were all built in 1943 and 1944. The Kearny Ps have kept their original "General" names, but the "Admiral" names given the Alameda ships have all been changed to "General" names. The entire 19 are as follows:

Kearny-built P2s

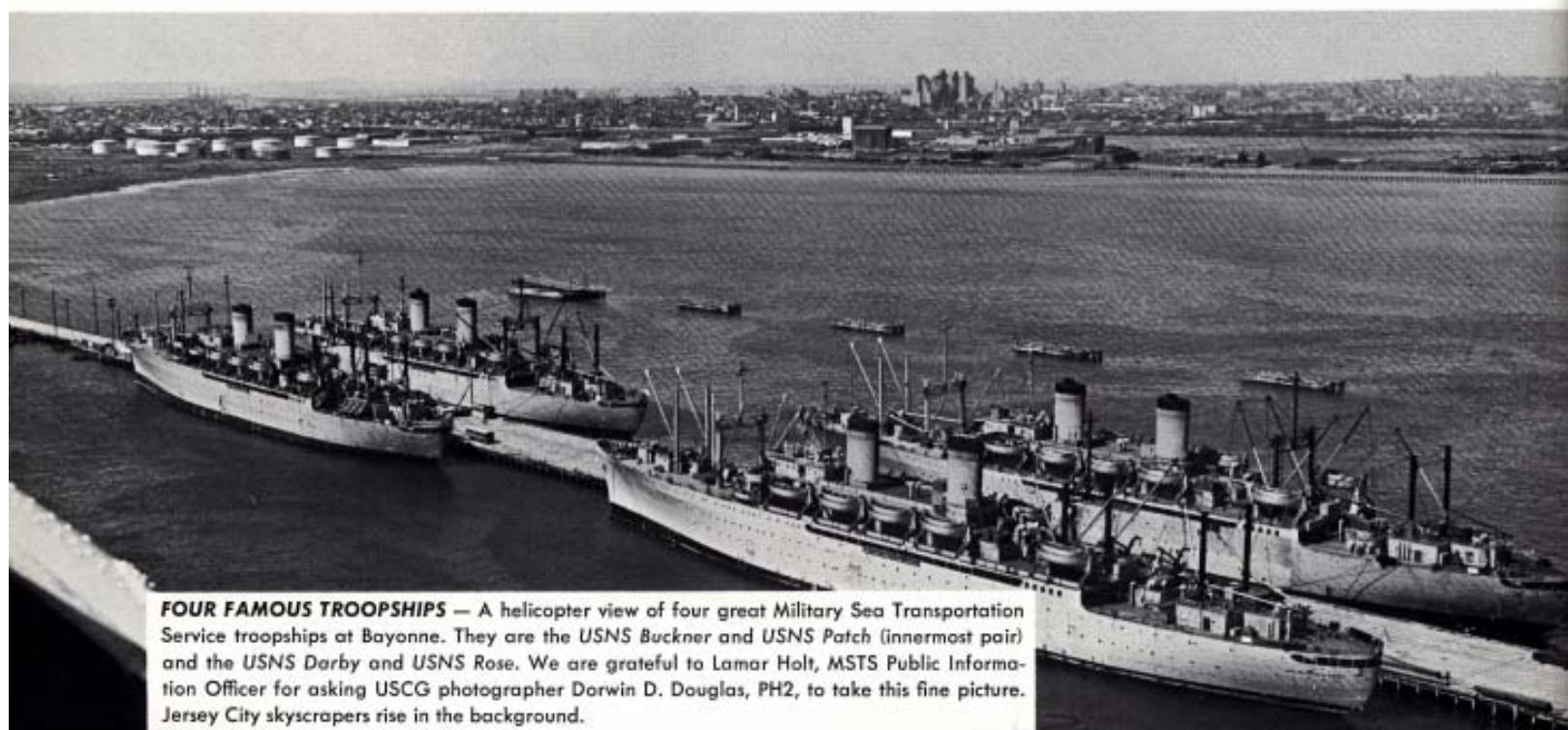
T - AP 110 — *General John Pope*
T - AP 111 — *General A. E. Anderson*
T - AP 112 — *General W. A. Mann*
T - AP 113 — *General H. W. Butner*
T - AP 114 — *General William Mitchell*
T - AP 115 — *General G. M. Randall*
T - AP 116 — *General M. C. Meigs*
T - AP 117 — *General W. H. Gorden*
T - AP 118 — *General W. P. Richardson*
T - AP 119 — *General William Welgel*
T - AP 176 — *General J. C. Breckinridge*

Alameda-built P2s

(first and second names)

T - AP 120 — *Admiral W. S. Benson*
now *General Daniel I. Sultan*
T - AP 121 — *Admiral W. L. Capps*
now *General Hugh J. Gaffey*
T - AP 122 — *Admiral R. E. Countz*
now *General Alexander Patch*
T - AP 123 — *Admiral E. W. Eberle*
now *General Simon B. Buckner*

(Continued on page 17)



FOUR FAMOUS TROOPSHIPS — A helicopter view of four great Military Sea Transportation Service troopships at Bayonne. They are the USNS *Buckner* and USNS *Patch* (innermost pair) and the USNS *Darby* and USNS *Rose*. We are grateful to Lamar Holt, MSTs Public Information Officer for asking USCG photographer Dorwin D. Douglas, PH2, to take this fine picture. Jersey City skyscrapers rise in the background.



TRANSPORTS

(Continued from page 16)

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- T - AP 124 — *Admiral C. F. Hughes*
now *General Edwin D. Patrick*
 - T - AP 125 — *Admiral H. T. Mayo*
now *General Nelson M. Walker*
 - T - AP 126 — *Admiral Hugh Rodman*
now *General Maurice Rose*
 - T - AP 127 — *Admiral W. S. Sims*
now *General William O. Darby*

Four are in "ready reserve status" at Bayonne, N. J. They are the *Rose*, *Darby*, *Parch* and *Buckner*.

Four are on duty in the Pacific: the *Generals Walker*, *Pope*, *Gordon* and *Weigel*.

Three are on ready reserve in the

THE ISLE OF MANHATTAN . . . looks exactly like that, in this wide-angle view of the Battery's southern tip taken recently by Joseph Lewis of the Inwood News Photo Service, Inwood, L. I. The air scoop extending out our *Eugenia's* porthole rounds out the composition nicely.

Pacific area: the *Sultan*, *Gaffey* and *Patrick*.

Three are in Suisun Bay, Calif., National Defense Reserve Fleet: the *Anderson*, *Mitchell* and *Breckinridge*.

Two are in the James River, Va., Reserve Fleet: the *Butner* and *Randall*.

One is in the Olympia, Wash., reserve fleet: the *Meigs*. Another is in the Hudson River laid up fleet, the *Mann*.

The *Richardson* is, as mentioned above, the luxury liner *President Roosevelt*.

The *Gordon* and *Meigs* served for a number of years as "interim" passenger ships for American President Lines, with peacetime funnel markings and hull colors. Two others were marked for conversion to liner status by the late Arnold Bernstein. They were the *Pope* and the *Weigel*, but the requested operating subsidy arrangements were never provided and the project died.

These vessels represent an outstanding fleet of merchant-type ships, which have, indeed, served America well.

ASHORE**AND AFLOAT**

JACK BALSAMO, the most recent addition to our sales force, brings a special knowledge to the job. With some twelve years experience in dispatching Moran tugs and a short stint as a tugman on the *William J. Moran*, Jack is well-versed in the practical end of the business.

With his new duties he's experiencing a new situation, odd in a way. Through years of dispatching, Jack has learned to recognize most of our customers by voice, a recognition which has worked both ways. As a salesman he frequently finds himself tying a name to a voice before he is actually introduced to the person. In large gatherings he may catch the sound of a voice, walk halfway across the room and say, "Aren't you Mr. So-and-so?" And, more often than not, the surprised person will immediately recognize him — by voice.

Jack began his maritime career at seventeen by shipping out as ordinary seaman on an oil tanker. He graduated from the Sheepshead Bay Maritime School and remained on tankers until family life dictated a shoreside change. But before signing-off he added a mate's license to his achievements.

With his knowledge of the port's piers, channels and tides, Jack feels he can appreciate, from the customers' point of view, a ship's requirements in the port.

As to the future, he can only see the growing importance of the container-ship and its need for special handling by tugs.

The Balsamos have two teen-age children, which, Jack says, takes care of the question of hobbies.

HERE'S AN ODD COINCIDENCE

— Mate Frank Venhorst and Deckhand Frank Janse, of the *Patricia Moran*, are friends of many years standing, in fact they served as buck privates together in Africa during World War II. As if this is not enough of a coincidence, the *Patricia's* Chief Engineer Ted Publicover was chatting with his assistant, Engineer George Kircher, when it developed that they both served together aboard the U. S. N. *Mission Bay*. Ted was a Lieutenant Commander then and was the Chief Engineer. Small, small world!

VINCENT BORELLO — of our Staten Island yard — has entered Naval service. He will learn the ropes at the Great Lakes Naval Training Center.

Bolt of Lightning

This is one that "Believe-It-Or-Not" Bob Ripley would have liked.

We got it straight from a man who saw it all happen — Captain Jesse E. Baker, until recently Port Captain of the Erie-Lackawanna Railroad. He was aboard the ferry *Youngstown*, in the pilot house, and it was around 1938. A thunder storm was whipping up the Hudson as he left Chambers Street for the Erie's Pavonia Avenue terminal in Jersey City. A wheelsman was with him and two of the Pilot House windows were open when it happened. A round ball or bolt of lightening came in through the starboard front window. It passed through the Pilot House, pausing briefly over the binnacle, and disappearing out of the port front window. The two men stared in disbelief, but neither was hurt. The bolt did no damage except to break the hair spring on Captain Baker's pocket watch. He knew this was why it was broken, because the watch stopped at precisely the moment of the lightening incident, believe it or not.



Knut Johansen

ABOUT 1015 HOURS on May 30 the *Nancy Moran* found herself returning downriver after a routine oil barge delivery at Yonkers. The North River was alive with its first summer holiday traffic. Mate Secondo Vercelli had just been handed a cup of coffee by Deckhand Knut Johansen when both of them spied the Hudson River Day Line's side-wheeler *Alexander Hamilton* stopped dead in the river off 79th Street. Mate Vercelli, thinking to lend a hand, eased the *Nancy* over.

Then they caught the splash of someone struggling in the water some distance away. Easing closer Knut saw a woman going under, called to her and threw a life preserver. She made no effort to use it in spite of Knut's pleas. Grabbing a second life preserver after securing its lifeline to a bitt, Knut dove overboard and swam some fifty yards to the woman.

"Leave me alone" she cried, struggling to get away.

Knut Johansen then grabbed hold of her clothes and hung on while others in the tug's crew hauled in on the lifeline. Knut helped her up the short ladder which had been dropped over the side and secured to the tug's rail. Then she was wrapped in blankets and propelled to the galley for hot coffee.

"It was nothing", smiled the modest deckhand, although he had been in the 50-degree water for at least a quarter of an hour battling to save a life.

A Moran deckhand for the past five years, Knut had made a similar rescue once before — in mid-winter. He is married, the father of a nine-year-old girl and a four-year-old son and lives in Livingston, New Jersey.

Nice job, Knut!





HATS OFF TO M's 18th OUTING

GAMES, grub and grab bag prizes for some hundred funsters, oldsters and youngsters, was the order of the day June 20 at the Old Cider Mill Grove in Union, New Jersey. Moran employees, friends and family gathered there by chartered bus, automobile and shank's mare for their annual day in the sun master-minded again by Art Gormley, Moran's general (and genial) accounting supervisor. Mr. Weatherman provided a cool start which was offset by hot chowder, coffee and an endless stream of good fuel from the culinary counter to be topped off later in the day by a full course roast beef dinner. The consensus had it that those stalwarts required to man the ship back at Moran headquarters missed a good thing. Their turn will come next year!

Speaking of 'years', the first official Moran outing was a harbor tour aboard a tug. According to TOW LINE, Vol. 3, No. 5, our indefatigable Edward J. Hennessey guided the festivities. The tug was the 'new' *Barbara Moran* (Capt. John T. Jorgensen) and the harbor tour included an exchange of whistle salutes with the grand, old *Queen Mary* outbound to Europe. Entertainment aboard included a strolling accordion player and such live wires as Frances Smith, Lucy Christian and Rosemary Ryan, to name a few. The T. L. report added a 'Thanx, boss!' to E. J. M., which is still in order for the 18th.





A. Brenet →