

Tow Line

NUMBER ONE—1986



“A MIGHTY WOMAN WITH A TORCH,....”

ON THE COVER

"A MIGHTY WOMAN WITH A TORCH,...."

The sonnet of the 19th century poet Emma Lazarus takes on a revived meaning with the recent installation of the rebuilt Torch of Liberty on the statue. Constructed by French and American artisans on Liberty Island, the exact duplicate of the original torch is covered with gilded copper, and, unlike the first one, will be illuminated from spotlights on the outside.



All the scaffolding around the 151 foot, 2 inch high Statue of Liberty has been removed and she will be reopened again to the public for the estimated 1.8 million visitors a year on July 4th after having been closed for over two years. When the statue was dedicated in 1886, Moran tugs had been part of the harbor scene for over a quarter of a century and this coming July 4th centennial celebration will find the boats with the big white "M" on the stack still serving the customers in the Port of New York & New Jersey.



IN THIS ISSUE

| | |
|---|----|
| <i>C/V. AMERICAN GEORGIA</i> | 3 |
| Greenwich, Moran's New Home..... | 4 |
| Johnson & Higgins on the <i>MIRIAM MORAN</i> | 4 |
| Stolt-Nielsen's New Gem..... | 5 |
| Ferry to Freedom..... | 6 |
| <i>S/S STELLA SOLARIS</i> | 7 |
| The Ambrose Light..... | 8 |
| Hyundai Ships and Cars..... | 9 |
| <i>C/V HANJIN NEW YORK</i> | 10 |
| Ships in the News..... | 12 |
| Ashore and Afloat..... | 14 |
| Recent Career Advancements..... | 15 |
| <i>M/V HOMERIC</i> | 16 |
| <i>QE2's</i> New Antenna..... | 16 |
| Recommended Reading..... | 17 |
| Moran's Ports and Tugs..... | 18 |
| Rigs of the Op-Sail '86 Fleet..... | 19 |
| <i>CHRISTIAN RADICH</i> ... Back Cover | |

Moran's Overseas Agents ENGLAND: James A. McLaren & Co. Ltd., Baltic Exchange Chambers, 28 St. Mary Axe, London EC3A 8DE/DENMARK: Danish Maritime Service, 1 Skoleback, DK 3050, Humblebaek; FEDERAL REPUBLIC OF GERMANY: Menzell & Co. SCHIFFSMAKLER, Hamburg 11/37007-1, Alter Wall 67-69; FINLAND: O.Y. Lars Krogius A.B., P.O. Box 13301, Helsingfor 13; HOLLAND: F.A. Voight & Co., N.V., 4 Javastraat, 3000 BD, Rotterdam; HONG KONG: Wallen Shipping (Hong Kong) Ltd., 183 Queen's Road East, Hopewell Centre-46-48 Floors, P.O. Box 40; IRELAND: Leinster Shipping Company, Ltd., 23 Fitzwilliam Square, Dublin 2; ITALY: Paolo Scerni, 10 Piazza Portello, Genoa; NORWAY: Henning Astrup, Fridtjof Nansens plass 4, Oslo; Birger Gjestland, Kong Oscars Gate 62, Bergen; SCOTLAND: Henry Abram, Ltd., 17 Sandyford Place, Glasgow, C3; SPAIN: Joaquin Davila & Cia., S. A., Hermosilla 30-2, Madrid 1.

Tow Line

Vol. XXXIX

NUMBER ONE -- 1986

PUBLISHED BY

© MORAN TOWING & TRANSPORTATION CO., INC.

Two Greenwich Plaza, Greenwich, CT 08630

Cable Address: MORANTOW

Francis James Duffy, Editor



C.V. AMERICAN GEORGIA is escorted by Moran tugs into the Kill Van Kull on the way to the Howland Hook Container Terminal with a cargo. The United States Lines containership made her maiden voyage into the Port of New York & New Jersey on February 13th of this year. The 676-foot long ship was completed in late 1985 by the Daewoo Shipyard in Korea. She was christened in the Port of Savannah, Georgia by Jane Stevens before coming to New York. This is the seventeenth ship to be built by U.S. Lines in the last year and a half.



Moran relocated its corporate offices from Manhattan to Greenwich, Connecticut this past February. The new location, in the building on the left in the above photo, is on the third floor of Two Greenwich Plaza, overlooking Long Island Sound. The building is located between the Greenwich station of the main line of the Metro-North Railroad and the town's main

business district on the right and Exit 3 of the New England Thruway (I-95) on the left. Parking is available for visitors on the plaza by the entrance to the building. Moran tugboats and barges are still based in New York Harbor and there is a sales office in the World Trade Center, Manhattan.



Johnson & Higgins' chairman Robert D. Hatcher, Jr. joined the *MIRIAM MORAN* this past April to make a film for the company while sailing in New York Harbor. Like Moran, J & H has its roots in the port's maritime industry, starting in 1845, as average adjusters and marine insurers for American clipper ships. Moran is a long time client of J & H.

STOLT-NIELSEN'S NEW GEMS

The first of the new K-40 class of parcel tankers, the **M.T. STOLT SAPPHIRE**, was named in ceremonies at the Hudson Tank Farm, Port Newark, N.J. on March 26th of this year. The ship arrived on her maiden voyage here from the Daewoo Shipbuilding and Heavy Machinery Ltd. of South Korea, where she was one of five ships of this class that the yard is building for Stolt-Nielsen. She had already started to make a profit for the company on her maiden voyage, having arrived with 31 separate parcels of coconut and palm oils from the Philippines, Malaysia and Singapore.

Fifty-Eight Different Tanks

The new K-40 class ships are designed to carry up to 58 different specialty bulk liquid cargoes on the same voyage. To transport and protect the cargo there are 38 stainless steel tanks and 20 zinc-coated tanks, all separated by transverse cofferdams and having independent pumps and piping systems monitored by

complete instrumentation for control and safety. The products range from the most toxic chemicals to the most edible oil. There are three different heating systems, that can raise a cargo to 110° Centigrade and space for 6,500 cubic meters of semi-gases in cooled pressurized tanks.

A Godmother Names the Ship

Over one hundred guests of Stolt-Nielsen sailed to Port Newark on a Circle Line Yacht for the naming ceremonies, the first for a company ship in the United States. Mrs. Gillian Hartigan, wife of Ian G.S. Hartigan, Director and former Deputy Chairman of Stolt Tankers and Terminals, was the godmother who named the ship. The traditional bottle of champagne was broken on the bow of the tanker while Mrs. Hartigan stood on a barge moored to the ship. The ship sailed that evening for U.S. Atlantic and Gulf ports to complete loading chemicals and other

parcel cargoes for the Far East and Southeast Asia. On the way out from Port Newark to sea, **STOLT SAPPHIRE** sailed into the upper bay to receive the traditional fireboat welcome on her first trip to the Port of New York and New Jersey.

A Forty Vessel Fleet

The **SAPPHIRE** will join 35 other parcel tankers now in service in the world-wide Stolt-Nielsen fleet. In April, there was a triple naming ceremony at the Okpo Shipyard of Daewoo Shipbuilding & Heavy Machinery Ltd., for the **M.T. STOLT TOPAZ**, **M.T. STOLT AQUAMARINE** and the **M.T. STOLT JADE**. The **STOLT EMERALD** was previously launched and in service. The completion of the five ships give Stolt-Nielsen a forty vessel fleet of parcel tankers to serve the "drug store" trade requirements of its customers in the transportation of bulk parcels.



The M/T **STOLT SAPPHIRE** enters the upper New York Bay after her christening to receive the traditional port welcome on the maiden voyage.



The bridge of the new ship. (L) Part of the christening party (L to R) Captain Peder Overland, ship's master, Mr. Stanley Symon, Mrs. Gillian Hartigan, ship's Godmother, and the president of the company, Mr. Jacob Stolt-Nielsen, Jr. Far right, the engine room.

Photos courtesy of Stolt-Nielsen

FERRY TO FREEDOM



Photo by Herb Frank, Jr.

There will be thousands of vessels in New York Harbor this coming July 4th weekend to celebrate the 100th birthday of the Statue of Liberty but one vessel, that has operated under the eyes of the French Lady for fifty years, will pass unnoticed, the Ellis Island ferryboat. Named for the island she served, ELLIS ISLAND, had more to do with the American immigration experience than any boat in history.

The ELLIS ISLAND earned a place in history for faithfully carrying out her mission of transporting new Americans on the last leg of their journey through "The Golden Door." She carried on this service alone for fifty years and, when the Immigration Center closed in 1954, continued on at the island to die a slow death with the changing weather, winds, tides and the wakes of passing vessels. Today the ferryboat is just a hulk at the slip, with the steel smoke box sticking up out of the water.

Ferry Launched in 1904

When the Immigration Station first opened in 1892 it was served by a variety of unsuitable boats, until Congress appropriated funds for building the ELLIS ISLAND. She was designed on the lines of the then Jersey Central Railroad ferries and launched from the firm of Harland & Hollingsworth Company of Wilmington, Delaware, on March 18, 1904.

Although the boat had traditional lines of the typical harbor ferry she was very distinctive in using the lower deck

for passengers and baggage only since no horses, drays, or motor vehicles were transported to the island. The upper deck had two pilot houses, a cabin for employees and one for the Commissioner of Immigration. One unique part of the boat was a sick bay and a special padded cell for violent mental patients since there was a large Public Health Hospital on the island. The boat had a crew of eight and carried 1,000 passengers.

ELLIS ISLAND had a steel hull, a double bottom, and was reinforced to withstand ice floes. One tall funnel was located amidship, with the superstructure of wood. She was 160 length over all, 37 foot beam, a draft of 9 feet, 3 inches and displaced 660 tons. A steam compound engine of 450 HP drove the ferry at a service speed of 12 knots, with



steam supplied by two hand-fired, coal burning Scotch boilers at 135 PSI. In common with all double enders, she had a screw propeller on both ends, with a Stevenson's link reversing gear. ELLIS ISLAND was built at a cost of \$105,000 in 1904.

A Fifteen Minute Voyage

The ferry made the roundtrip between the Battery and the island within an hour, including loading and unloading, between 6 a.m. and midnight, generally taking fifteen minutes each way. With a one boat service ELLIS ISLAND often had to limp on even when repairs were needed until a replacement could be obtained. Request for a second boat never materialized and a new diesel boat costing \$500,000 scheduled for 1940 was dropped because of World War II.

The Black Tom Explosion

The most dramatic incident in the history of Ellis Island, and in the life of the ferryboat, happened on July 30,

1916. The Black Tom Wharf, located behind the island in New Jersey, had an ammunition explosion, and barges loaded with explosives broke loose, drifted over setting fires to the island. Ellis was saved from destruction by tugboat crews that towed the barges away before they exploded. The ferryboat evacuated all personnel from the island to Manhattan.

Finished With Engines In 1954

When the island closed in 1954, it was estimated the ELLIS ISLAND had carried some 20,000,000 passengers and logged over 1,000,000 miles, while never leaving the port. She rang up "Finished with Engines" for the last time on November 29, 1954, and was never to leave the slip again. Over the years the boat moved only vertically with the tides at Ellis Island until the weekend of August 10, 1968, when she sank in the slip. As if trying to cling to the island she served so well, ELLIS ISLAND'S hulk can still be seen today in the slip. A great piece of maritime and national history was lost with this ferryboat.



The ELLIS ISLAND died a slow death from the weather, changing tides and time in the ferry slip at the island.



SS STELLA SOLARIS — Sun Line Cruises brought the STELLA SOLARIS to the port on May 27th for the first time to enter her in the New York to Bermuda cruise trade. Our fleet was pleased to provide a maiden departure escort for the ship, which sails under the Greek flag.

THE AMBROSE LIGHT



The Ambrose Light Tower at dawn.

One of the oldest watch standing jobs in the port will soon fade into history, the keepers of the light at the entrance to the Ambrose Channel. There has been a round-the-clock watch over this aid-to-navigation since 1908 when the famous Ambrose Channel was first dredged and opened for ship traffic. From 1908 to 1967 a succession of lightships marked the channel entrance, first manned by civil service employees, of the U.S. Lighthouse Service, and then, after 1939, members of the U.S. Coast Guard. The present "Texas" tower, designed like an offshore oil rig, replaced the lightship in 1967.

90-Feet Above The Water

The ungainly structure looks completely out of place, sticking up alone in the water 7.4 miles east of Sandy Hook, N.J., with its four legs anchored 170-feet into the floor of the Atlantic Ocean. About 90-feet above the water is a square house containing the diesel generators, fuel and water tanks and living quarters for the Coast Guard crew.

A red light tower is located on the southeast corner of the house and it houses a high-intensity, 10-million-candle power white strobe light that flashes every $7\frac{1}{2}$ seconds. Following the tradition of the old lightships, word "Ambrose" is displayed in large white letters under the cabin and illuminated at night. The crews' quarters are luxurious compared to the old lightships, with air conditioning, a private room for each man, and a large recreation room. One man is on duty at all times checking the machinery and monitoring the controls and radio.

Lighthouse Keepers' Lot

Keeping a crew on station at Ambrose is an expensive operation and most Coast Guardsmen consider it a hardship assignment. In common with most keepers, the crew at Ambrose work two weeks on and then have a week ashore on leave, in addition to the normal leave allowance. This is one of the few advantages of working on the tower. There is good fishing in the area, witnessed by the fleet of party boats around the tower, but swimming is prohibited. Although the crews have great faith in the Sandy Hook Pilots that shepherd the ships coming from sea and leaving the port, there is always the fear of collision, especially with an average of 876 hours of fog a year.

Lamp Program

Plans now call for the Ambrose Light Tower to be automated by 1987 under the Coast Guard's LAMP program (Lighthouse Automation and Modernization Program). The age-old functions of the lighthouse keeper will now be carried on by mechanical and electronic means. Even at offshore stations like Ambrose, however, there is the danger of vandals breaking into the light and all automated lights now include an intrusion alarm as protection.



The light tower on Ambrose houses a 10-million-candle strobe that flashes white every $7\frac{1}{2}$ seconds (left). Time hangs heavily at the Ambrose Station for Coast Guardsman Paul Johnson on watch in the control room.

HYUNDAI SHIPS AND CARS

Moran is pleased to have the exclusive contract to handle the new fleet of pure car carriers of the Hyundai Merchant Marine Company, Ltd. of South Korea coming to the Port of New York & New Jersey. The first of these new ships, the HYUNDAI 101, came to the port on her maiden voyage this past February to deliver her cargo of Korean cars to Port Newark's Maher Terminal.

The Hyundai 101

The HYUNDAI 101 was built at another unit of the Korean conglomerate, Hyundai Heavy Industries Company, Ltd. at the Ulsan shipyard. The ship is 11,980 deadweight tons, 604-feet long and 100 feet wide. A direct drive diesel engine of 14,400 bhp gives the vessel a service speed of 18 knots. She has the capacity to deliver 4,210 cars on each voyage to the East Coast of the United States.

The Excel Cars


Although South Korea is a recent entry in the automotive export industry, having only started producing cars in 1962, it has taken a major part of the market world-wide. Their subcompact Pony, made by Hyundai Motor Company (HMC), became the fourth place importer in Canada in its first year in that market. Hyundai — the name rhymes with Sunday the company likes to point out to Americans that have difficulty in pronouncing the name — brought their Excel car to America aboard the HYUNDAI 101. This car replaces the Pony and is a front-drive subcompact with an overhead 68 horsepower engine. One of the most attractive features is the price tag of \$4,995. for the Excel with many items of equipment included.

American Parts

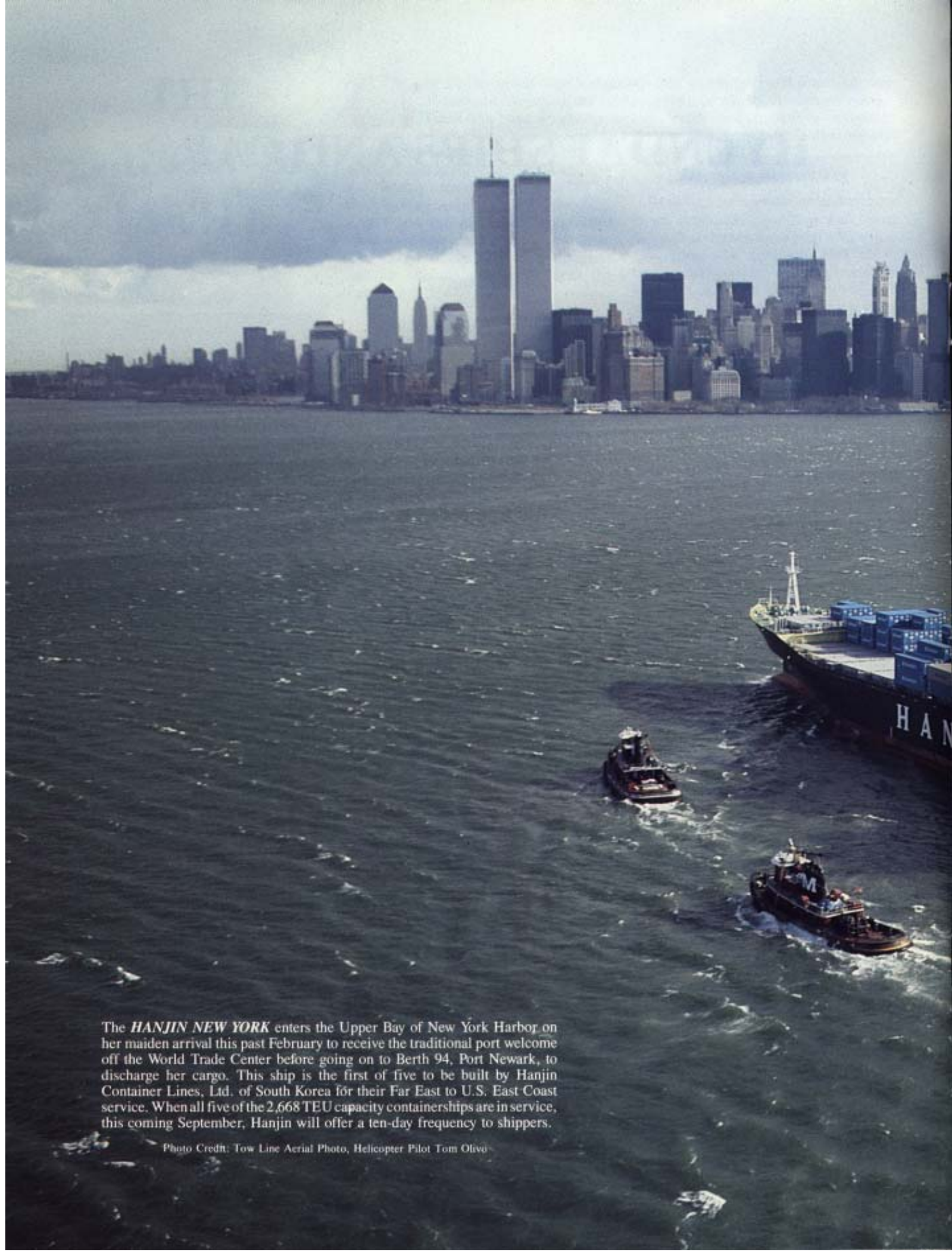
Hyundai Motor Company entered the U.S. foreign car market with a network of some 172 dealerships nationwide to sell and service the new Excels. The company points out that many American parts are in use in their cars, such as Goodyear tires, passenger seats from Ford Motors, GTE headlights and spark plugs from Champion, all with the idea of sharing the success of the venture by creating jobs for American workers. The Port Authority of New York & New Jersey estimates that the importing of the planned 35,000 Excels could mean 500 jobs to the region.

The Hyundai Group

Hyundai Merchant Marine Company, Ltd. and Hyundai Motor Company are part of the Hyundai Group, which only started in South Korea in 1947 as a small construction company. Today Hyundai is rated as the 39th largest industrial corporation outside the United States with sales at \$11 billion. The Group has 31 different companies, including world-wide construction, shipbuilding and repair, marine engines, industrial facilities, machinery, maritime transportation, electronics, offshore plants, railroad rolling stock and others.



The HYUNDAI 101 delivers the first shipment of Excel autos to the Maher Terminal, Port Newark, on her maiden voyage.



The *HANJIN NEW YORK* enters the Upper Bay of New York Harbor on her maiden arrival this past February to receive the traditional port welcome off the World Trade Center before going on to Berth 94, Port Newark, to discharge her cargo. This ship is the first of five to be built by Hanjin Container Lines, Ltd. of South Korea for their Far East to U.S. East Coast service. When all five of the 2,668 TEU capacity containerships are in service, this coming September, Hanjin will offer a ten-day frequency to shippers.

Photo Credit: Tow Line Aerial Photo, Helicopter Pilot Tom Olivo



SHIPS in the NEWS



M/V PROBO BIAKH - L. Gill-Johannessen & Co., Norway, Maiden Arrival February 1986



C/V SANTA CATHARINA - Ivaran Lines, New York, Maiden Arrival February 1986



12 *C/V LLOYD ATLANTICO* - Lloyd Brasileiro, New York, Maiden Arrival April 1986



C/V COLOMBO - Costa Line, Italy, Maiden Arrival March 1986

Photo by Flying Camera



M/Y HIGHLANDER V - Malcolm S. Forbes, New York, Maiden Arrival April 1986



PCC CENTURY HIGHWAY NO. 3 - Nippon K.K., Japan, Maiden Arrival May 1986



SERVICE AWARDS

FORTY YEARS

Edward J. Batcheller
Kenneth S. Johnson
Grover Sanschagrin

THIRTY-FIVE YEARS

George Minton

TEN YEARS

Robert J. Patten
George Sussex
W. Anthony Watt

FIFTEEN YEARS

Ann Gillespie
Nadine Gupton
Fred Jensen
Muriel Lewis

FIVE YEARS

Susan A. Logan
John J. Quinn
Robert Sherry
William R. William



Mr. Thomas E. Moran, president and chairman of the company, congratulates his personal executive secretary, Mrs. Muriel Lewis, on receiving her fifteen year service award.



Edward Balicky (L) and Fred Morgana (R), with a combined service of eighty years with Moran, are wished good luck on their retirement in December, 1985, by Richard H. Roe.



George Minton, Marine Superintendent, receives thirty-five year service award from Captain Russ McVay.



Mr. Moran presents Robert T. Patten, Assistant Controller, with his ten year award.



Eddie Batcheller, Manager, Personnel, is congratulated by Capt. Russ McVay, on completing forty years of service with the company.

RECENT CAREER ADVANCE- MENTS



Kenneth S. Johnson—Chief Dispatcher



Karl B. Eckhardt—Manager, Harbor Operations



John J. Quinn—Pay Master



Capt. Gaston W. Norgeot—Manager, Off-shore Operations



Marilyn A. Livi—Assistant Manager, Operations



Timothy Hogan—Billing Supervisor



Susan A. Logan—Manager, Information services



Bruce D. Richards—Manager, Chartering & Contract Administration



MV HOMERIC — The 1,085 passenger cruise ship **MV HOMERIC** made her maiden voyage to the port on May 22nd, arriving directly from the West German shipbuilder Meyer Werft's yard. Home Line will operate the ship out of Manhattan's Passenger Ship Terminal, along with the **MV ATLANTIC**, in the Bermuda seven-day cruise service.

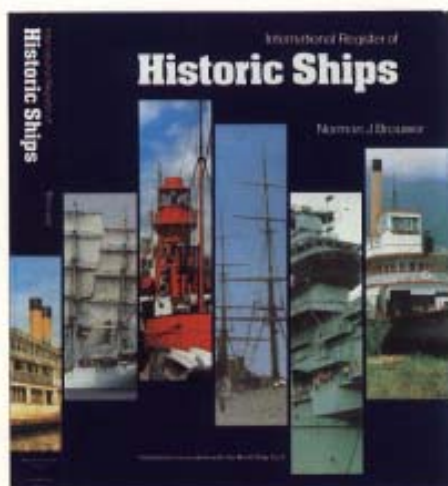


Passengers cruising off the coast of Peru on the **QUEEN ELIZABETH 2** this year didn't miss Super Bowl Sunday, thanks to the installation by Cunard of a Sea Tel antenna on the ship in January, just before her world cruise, to receive live TV transmission via satellite. The test system was set up by the



Communication Satellite Corporation (COMSAT). The radome and gyroscopic tracking mechanism package, weighing 1,100 lbs., was placed aboard the ship with a helicopter while she was in the Passenger Ship Terminal.

RECOMMENDED READING



The International Register of Historic Ships

By Norman Brouwer, Naval Institute Press, Annapolis, MD, 314 pages, black and white photographs, \$28.95.

Mr. Brouwer, who is the curator of the South Street Seaport Museum, New York City, has provided an exhaustive record of the ghost of shipping past. There is data on 706 ships 43 nations that were built as long ago as 2,500 B.C. Most of the vessels in the book are preserved or are undergoing preservation.

The book had its genesis, Mr. Brouwer tells us in the brief introduction, 23 years ago when he wrote a letter listing the 28 vessels he knew of around the world that were being preserved. In the intervening years, the list has grown, as has the vessel preservation movement, and the general interest of the public in maritime history.

In order to be included in the register, vessels have to be over 40-feet long, although a few exceptions were made. When similar ships were available, age, rarity and state of preservation were taken into consideration. Mr. Brouwer said his coverage is weakest behind the Iron Curtain, where there are few official sources and there could be as many as 300 more historic vessels.

This is basically a reference book, with the exception of the preface and

introduction, there is little text. It will provide an invaluable book for the ship historian and avid maritime buff.

Review by Mark Magnier



Woman In The Wheelhouse

By Nancy Taylor Robson, Tidewater Publishers, Centreville, Maryland, 198 pages, \$17.95.

This book covers the six years of Nancy Taylor Robson's life, from her marriage after graduating from the University of Maryland in 1975, to tugboat captain, until she came ashore to have her first child. With her husband's encouragement, she signed on as a crew member of a tug as a cook, then deckhand, and after putting in her time, sat for her mate's license from the U.S. Coast Guard. Most of her time on the small tug was spent running coastwise from Maine to New Orleans, with an exceptional trip to Bermuda. She was at home in the waters of the Chesapeake and Delaware Bays.

In her story, the author mentions, but does not dwell too much on, her feelings as the only female member of the tug's crew. The book is very well written, presenting the first description to appear in book form of life on a modern tug running on the East Coast of the United States. Previous books on the subject were stories of life on World War II salvage tugs that simply don't relate to today's world. Even without the added interest of the female crew member, this book provides a valuable insight into life aboard a working tug.

Review by Captain Thomas Evans,
AMY MORAN

OTHER BOOKS RECEIVED

The fabulous Interiors of the Great Liners in Historic Photographs by William H. Miller, Jr., Dover Publications, Mineola, N.Y., \$9.95. More from the pen of one of the world's experts on ocean liners, 200 black-and-white photographs with full captions, bibliography and alphabetical list. A different look at the ships, going inside to explore their lavish interiors. Text covers the period from 1890 to 1980.

Wreck Valley by Dan Berg, Aqua Explorers Inc., Lynbrook, N.Y., \$9.95. Available direct from the publishers, 22 Maiden Lane, Lynbrook, NY 11563, \$2.00 for postage. Berg, a professional Scuba diver and instructor, combines extensive research of the wrecks off the shores of Long Island, with six maps and illustrations.

Tall Ships of the World by C. Keith Wilbur, The Globe Pequot Press, Chester, CT 06412, 300 Drawings, \$9.95. A complete book of details on the world's large sailing vessels. Information from the figurehead on the bow, to sternboard, with over 300 pen-and-ink drawings and a fine calligraphy text. Suitable reading for the average layman with a glossary of nautical terms.

Ro-Ro to Finland by Barry Mitchell, Hutton Press Ltd., 130 Canada Drive, Cherry Burton, Beverley, North Humberside, HU 17 & SB, England. £ 4.75, paperback. At last we have a story on what life is like on today's roll-on, roll-off container ships in the short-sea service aboard the **BALTIC ENTERPRISE**. In addition to covering the accounts of ship handling, watch-keeping, weather, ports-of-call, the author goes into the relentless pressure of time these ships sail under. Text includes photographs, sketches and maps.

Review by Kearney L. Jones



Moran Towing Corporation

Two Greenwich Plaza □ Greenwich, Connecticut 06830 □ (203) 625-7800
(And its affiliated towing companies.)

New York/New Jersey

Moran Towing & Transportation Co., Inc.

Two Greenwich Plaza
Greenwich, Connecticut 06830
Captain Russell G. McVay, Vice President
Operations
Mr. W. Anthony Watt, Vice President Sales
(203) 625-7800

Tug Dispatch—24 Hours
(212) 466-3636 or (203) 625-7838
TELEX (TWX): 710-474-0051
(MORANTOWNG NYK)

| | |
|-----------------|----------|
| Esther Moran | 6.300HP* |
| M. Moran | 6.300HP* |
| Doris Moran | 5.000HP* |
| Marion Moran | 5.000HP* |
| Sheila Moran | 4.700HP* |
| Elizabeth Moran | 4.290HP* |
| Amy Moran | 3.300HP* |
| Judy Moran | 3.300HP* |
| Dorothy Moran | 3.300HP* |
| Margaret Moran | 3.300HP* |
| Miriam Moran | 3.300HP* |
| Grace Moran | 3.165HP |
| Maureen Moran | 2.360HP |
| Maira Moran | 2.360HP |
| Harriet Moran | 2.360HP |
| Nancy Moran | 1.800HP |
| Claire Moran | 1.750HP |
| Cynthia Moran | 1.750HP |
| Diana L. Moran | 1.750HP |
| Eugene F. Moran | 1.750HP |
| Margot Moran | 1.280HP |

Portland, Maine

Moran Towing of Maine, Inc.

(Formerly Central Wharf Towboat
Company, Inc.)

72 Commercial Street
P.O. Box 191
Portland, Maine 04112
Mr. Carl Welborn, Vice President &
General Manager
(207) 772-8319
TELEX: 950021 (MORANTOW, ME NH)
Kerry Moran 3.500HP*
Eugenia Moran 3.165HP

Portsmouth, New Hampshire

Portsmouth Navigation Division Moran Towing of Maine, Inc.

34 Ceres Street
P.O. Box 472
Portsmouth, New Hampshire 03801
Mr. Carl Welborn, Vice President &
General Manager
(207) 772-8319
Captain Richard Holt
(603) 436-1209
TELEX: 950021 (MORANTOW, ME NH)
Patricia Moran 3.500HP*
Bath 1.800HP
E.F. Moran, Jr. 1.750HP
Carol Moran 1.750HP

Beaumont/Orange/ Port Arthur, Texas

Moran Towing of Texas, Inc.

Box 139
2300 Hwy. 365, Suite 570
Nederland, Texas 77627
Mr. Larry G. Eaves, Assistant Vice President
(409) 727-7020
TELEX: 5106011372 (MORAN TEXAS) or
Easy Link 62922409 (MORAN TEXAS)

| | |
|-------------|----------|
| Alice Moran | 4.700HP* |
| Heide Moran | 4.700HP* |
| Joan Moran | 4.700HP* |
| Helen Moran | 3.500HP* |
| Mary Moran | 3.300HP* |
| E.M. Black | 1.600HP |
| Stella II | 1.600HP |

Hampton Roads, Virginia

Curtis Bay Towing Company of Virginia

109 East Main Street
P.O. Box 3415
Norfolk, Virginia 23514
Mr. Reginald T. Hensley, Vice President &
General Manager
(804) 625-6000
TELEX: 87862 (CURTISBACO BAL)

| | |
|---------------|----------|
| Cape Ann | 4.700HP* |
| Cape Cod | 4.290HP* |
| Cape Hatteras | 4.290HP* |
| Cape Henry | 4.290HP* |
| Cape Charles | 3.300HP* |
| Town Point | 2.360HP |
| Sewells Point | 2.360HP |
| Cedar Point | 1.750HP |
| Swan Point | 1.750HP |

Jacksonville, Florida

Florida Towing Company

One Independence Drive
Independence Square #3206
Jacksonville, Florida 32202
Mr. William P. Muller, Vice President &
General Manager
(904) 354-0483

| | |
|-------------------|----------|
| Cathleen E. Moran | 3.500HP* |
| Ann Moran | 3.300HP* |
| Mary M. Coppedge | 3.200HP* |
| Helen D. Coppedge | 2.850HP* |
| Powerful | 1.800HP |
| WT Coppedge, Jr | 1.800HP |
| Barbara Moran | 1.750HP |
| Julia C. Moran | 1.750HP |

Philadelphia, Pennsylvania

Curtis Bay Towing Company of Pennsylvania

12 South Twelfth Street
Philadelphia, Pennsylvania 19107
Mr. Paul P. Swensen, Vice President &
General Manager
(215) 928-3500
TELEX: 87862 (CURTISBACO BAL)

| | |
|----------------|----------|
| Cape May | 3.300HP* |
| Reedy Point | 2.400HP |
| Cavalier | 2.360HP |
| Carolyn | 1.800HP |
| H.C. Jefferson | 1.800HP |
| Wagners Point | 1.750HP |
| Lambert Point | 1.750HP |

Baltimore, Maryland

Curtis Bay Towing Company

The World Trade Center
Suite 800
Baltimore, Maryland 21202
Mr. Joseph J. Crist, Vice President &
General Manager
(301) 962-6500
TELEX: 87862 (CURTISBACO BAL)

| | |
|----------------|----------|
| Cape Romain | 3.300HP* |
| Cape Henlopen | 3.300HP* |
| Fells Point | 2.400HP |
| Kings Point | 2.400HP |
| Drum Point | 2.360HP |
| Harwkins Point | 1.750HP |



RIGS OF THE OP-SAIL

1986 FLEET OF TALL SHIPS



SHIP



BARKENTINE



THREE-MASTED SCHOONER



HERMAPHRODITE BRIG



SLOOP



BARK



BRIG



BRIGANTINE



TOPSAIL SCHOONER



CHRISTIAN RADICH

The first Tall Ship to arrive for Op-Sail 1986 is the Norwegian sail trainer **CHRISTIAN RADICH**. She was built in 1937, resurrected from a watery grave after World War II, and is used to train future merchant marine officers. The **RADICH** is a full-rigged ship, 238-feet overall. See page 19 for rig types.