

TOW LINE

Winter 1971-72



ON THE COVER—

FLAGSHIP CRUISES' luxurious new *Sea Venture* breezes by the twin sentinels of New York City's changing skyline, the lofty World Trade Center towers, in this delightful painting by TOW LINE artist Albert Brenet.

Sporting the symbolic Viking Sea Hound of Norway on her bright blue funnel, the sturdy *Sea Venture*'s bound for Bermuda on one of her popular weekly cruises.

As this issue of TOW LINE goes to press, the *Sea Venture*'s new sistership *Island Venture* is receiving her finishing touches in preparation for a January 27th arrival in New York.

The *Island Venture* was christened in Emden, West Germany on December 14th by Rut Brandt, the Norwegian wife of Willy Brandt, West Germany's Chancellor and recent winner of the Nobel Peace Prize.



IN THIS ISSUE

On the Cover	2
U.S.C.G. Marine Inspection	4
Battery Park City	8
Ships in the News	10
Recommended Reading	17
Ashore & Afloat	18

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MARINE INSPECTION

OFFICE

TOW LINE

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U.S.C.G.

Marine Inspection Office

"My thanks to TOW LINE for featuring Coast Guard Marine Safety in this issue. Your efforts, in telling the story of this important responsibility, can only aid in furthering the safety aims and functions of our service."

Rear Admiral B. F. Engel,
Commander, Eastern Area
Commander, Third Coast Guard District



A LIFEBOAT SUSPENDED ON ITS FALLS stands poised for a crucial test. In its final steps of manufacture it had been filled with water to a weight well over its certified carrying capacity of passengers and provisions.

"Stand clear," warns Jim Peters, production manager of the lifeboat-building firm of Lane Marine Technology, Inc. of Brooklyn, New York.

Barroump!

Supported only by its falls, the lifeboat was released to plummet to within inches of the factory floor.

Hull inspector James Townley (Lieutenant, USCG), clipboard in hand, steps forward. His experienced eye seeks structural defects. If none, the lifeboat is approved.

"The prototype of this FRP (Fiberglass Reinforced Plastic) lifeboat has already undergone extensive tests," Lt. Townley assures us, "but each one subsequently manufactured has to be inspected and passed upon its own merits before it is certified for use aboard ship."

Lt. James Townley has been a marine inspector for two years. He is assigned to the Material Inspection department of the Marine Inspection Office of the Coast Guard in New York.

Like most of his fellow officers in this vital branch of the Coast Guard service, Lt. Townley goes to work in civilian clothes. Upon arrival at the Seatrain Shipyard in the old Brooklyn Navy Yard, where he is a 'resident inspector' with Commander Donald M. Taub, he will don white coveralls.



Capt. S. L. Waitzfelder
Officer in Charge

Guardians of Ship Safety

The United States Coast Guard, under the U. S. Department of Transportation and by authority of a series of Congressional Acts, is charged with the administration and enforcement of our country's Merchant Marine Safety program—the world's most stringent.

Through its own set of regulations (Coast Guard Regulations), conceived at the headquarters level of the Merchant Marine Safety Program in Washington, D.C., the effect of law is obtained but with a flexibility that allows modification and adaptation to meet contingencies and technological developments in the marine field.

The Coast Guard Regulations are administered and enforced within the country's eleven Coast Guard districts by 49 geographically-drawn Marine Inspection Zones.

The Marine Inspection Office in New York, where civilians as well as Coast Guard personnel are employed in the Marine Safety Program, has the largest number of personnel and the greatest volume of work.

New York Office

Captain Stanley L. Waitzfelder, Officer in Charge, commands the Marine Inspection Office in New York from his office in a neat, three-storied building at the southern tip of Manhattan island. Having come 'up through the ranks' in his thirty-two years of Coast Guard service, Captain Waitzfelder has devoted twenty of these years to marine inspection.

Interested in developing further information on the organization and scope of the marine inspection activity, we were introduced to Captain Waitzfelder by the Coast Guard's Public Information Officer, Lieutenant Walter N. Smith.

"Well, broadly speaking," begins Captain Waitzfelder, "the Merchant Marine Safety activity of this office is functionally divided into six departments. The inspection of vessels is a major part of it, coming under our department of Material Inspection which has a responsibility for nearly everything that goes into a ship. The Material Inspection department has twice the number of personnel of the largest of our five other departments."

In Captain Waitzfelder's command are 65 officers, 19 enlisted men and 53 civilian employees. Material Inspection employs 43 officers, 5 enlisted men and 4 civilians.

"In addition to the inspection of safety and lifesaving equipment, and in some cases marine parts and fittings, at the manufacturers' or sup-

pliers' level," continues Captain Waitzfelder, "this department inspected 502 U.S.-flag ships and 202 foreign-flag vessels in the annual period ending last October."

Each year Coast Guard Marine Inspection Offices in the eleven Coast Guard districts inspect some 10,000 vessels under the American flag and 1,200 under foreign flag.

"Under international treaties and agreements, the New York zone has a growing responsibility for the maintenance of international maritime safety standards."

Disasters Lead to Rules

At the first attempt at international cooperation for maritime safety, a conference held in Washington, D.C. in 1889, considered only the Rules of the Road.

The first international conference dealing with Safety of Life at Sea was held two years after the tragic sinking of the *Titanic* in 1912 and the loss of 1,502 lives. This disaster also prompted the eventual formation of the International Ice Patrol.

In ensuing years more International conferences strove toward the goal of making ships safer at sea. But it was not until the United Nations founded the International Maritime Consultative Organization (IMCO) which brought about the important Safety of Life at Sea convention of 1960 (SOLAS 60), that most of the present standards were set.

INSPECTION after removal of a tail shaft from the *Jacksonville* is the responsibility of Lieutenant Commander Cluese Russell, Resident Coast Guard Inspector at the Bethlehem Steel Corporation shipyard in Hoboken, New Jersey.

Structural fire prevention standards were further updated and implemented in 1966, prompted in part by the *Yarmouth Castle* fire disaster in which 90 persons lost their lives the year before.

Today, Safety of Life at Sea standards and regulations apply to all foreign vessels carrying American passengers and, although these standards still fall short of our own Merchant Marine Safety requirements, these vessels are far safer than they have ever been.

The Marine Inspector

The Senior Inspector, Material, of the New York Office of Marine Inspection is Captain Richard G. Donaldson. He is next in command under Captain Waitzfelder. Captain Donald-

son began his sea career on merchant ships. After seven years he joined the Coast Guard and has since served a decade aboard cutters and another twelve years in marine inspection.

"In my opinion it takes about three years to make a well-rounded marine inspector," Captain Donaldson explains. "Three months are spent in the Merchant Marine Safety School at Yorktown, Virginia and like terms of duty follow in on-the-job training in the various functional categories of the office. Somewhere along the line, some inspectors spend a year in industrial training: full-time duty with a steamship company."

The functional categories of the marine inspector include: Material Inspection, Licensing, Investigation,

(Continued on page 6)



Coast Guard

(Continued from page 5)

Shipping Commissioner, Documentation, Admeasurement.

"In most of the smaller Marine Inspection Offices the inspectors perform all or most of these functions individually but the size of our New York office allows us to assign our personnel by departments."

Historical Development

The promotion of safety of life and property at sea—the primary purpose of the Merchant Marine Safety Program—evolved slowly in the wake of many marine tragedies.

Early in the 19th Century a series of steamboat explosions prompted the City Council of Philadelphia in 1817 to launch the first official marine investigation. Although no action was taken, the investigation prompted some states to enact local laws. Territorial and jurisdictional disputes made these laws ineffectual.

The first Federal law to deal with Merchant Marine Safety was enacted July 7, 1838 requiring that all steam vessels operating on the navigable waters of the United States and carrying passengers or freight be manned by competent personnel. Certain items of safety equipment were required as well as annual hull and semi-annual boiler inspections. This Act stipulated that the inspectors be appointed by District Judges to conduct the inspections, collect fees and issue Certificates of Inspection.

The Steamboat Act of 1852 broadened the law to include all passenger vessels, established nine Supervisory Inspectors and required hydrostatic testing of boilers and the licensing of pilots and engineers.

This law proved inadequate when the *Sultana*, a 1,720 ton ship built in 1863 and certified to carry 376 passengers, became a major marine disaster on April 21, 1865 while enroute from St. Louis, Missouri to New Orleans. She was carrying 200 'passengers and crew,' 2,000 prisoners of war, two companies of Union soldiers and a number of mules and horses—1,500 human lives were lost.



Capt. R. G. Donaldson
Senior Inspector

The Steamboat Inspection Service was founded by the Act of February 28, 1871.

This act provided the framework for the present Merchant Marine Safety program and established its first three functional areas: Inspection of all passenger and all steam passenger and freight vessels at prescribed intervals with further re-inspections

authorized; Licensing of masters, mates, pilots and engineers; Investigation and revocation of licenses.

Bureau Established

The Economy Act of June 30, 1932 merged the Steamboat Inspection Service with the Bureau of Navigation and added a fourth area of authority and responsibility to the Marine Inspector: Shipping Commissioner.

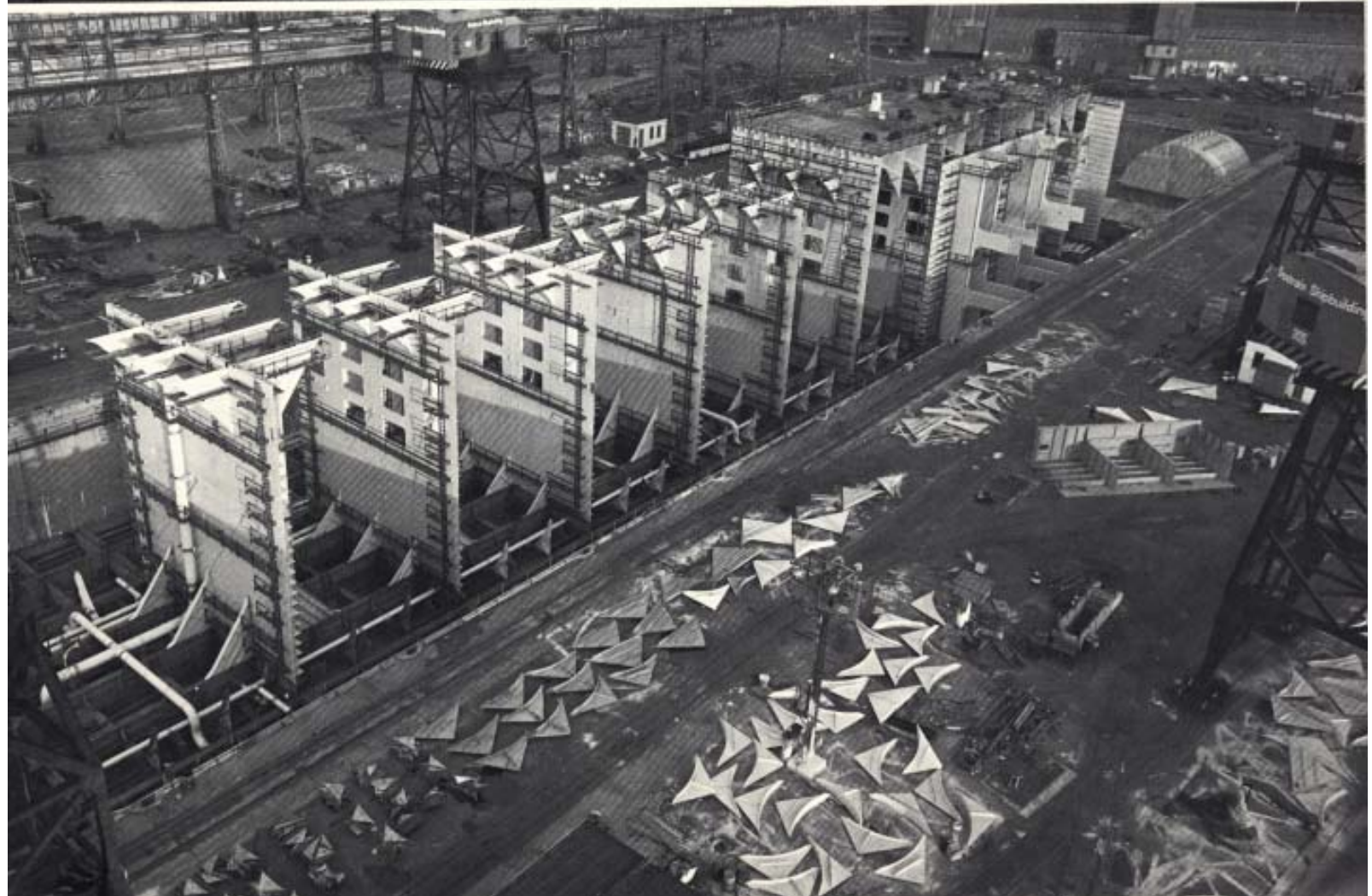
Primarily, the function of the Shipping Commissioner is to protect the rights and interests of crew members by supervising the signing of shipping articles (contracts) between the ship masters and crews prior to a voyage and witnessing the signing off and payment of wages at its termination.

The Act of May 27, 1936 established a Merchant Marine Technical branch to consider requirements for structural fire protection for passenger ships—largely brought about by the *Morro Castle* fire disaster of September 8, 1934 in which 137 persons

(Continued on page 14)

THE ART OF MODERN SHIPBUILDING is well illustrated in these crane's eye views (photos, right) of a mammoth 230,000 d.w.t. tankship under construction in Seatrain Shipyard's giant graving dock on the site of the old Brooklyn Navy Yard. Commander Donald M. Taub, Resident Coast Guard Inspector, (photo, below) examines one of the myriads of blue-prints required to piece together the fantastically-shaped pre-fabricated structural modules and parts into a viable ship.





Battery Park City

New Community Concept

"In view of the unusual nature of this project, the engineering problems that have to be resolved, and the coordination required among all aspects of this tremendous undertaking, our production schedule may seem ambitious. However, the Authority has gotten over its start-up hurdles, it has gained production momentum, and has developed an operating rhythm that makes meeting these schedules not only possible but predictably probable.

The Battery Park City Authority is committed to this project and is convinced of the need for the facilities it will provide.

Battery Park City is building tomorrow today. New Yorkers and visitors alike are watching it grow. As it does so, it is changing again the physical skyline of lower Manhattan. At the same time, it is changing the social and economic climate of the lower Manhattan waterfront, restoring optimism in the future of the city and the role of the waterfront in that restoration."

Charles J. Urstadt, Chairman
Battery Park City Authority

THE BATTERY PARK CITY AUTHORITY'S plans for the development of a community in place of a mile-long strip of Manhattan's dilapidated waterfront on the Hudson River may well set the trend for this borough's shoreline of the future.

The maritime needs of the great Port of New York, having shifted to more ample shores in Brooklyn, Staten Island and New Jersey, have left many ghosts of the past along Manhattan's waterfront. The Battery Park City vision is focused upon the utilization of this unused waterfront for the now and future needs of the City of New York.

Its goals were set forth in a "memorandum of understanding" between New York's Governor Nelson A. Rockefeller and New York City's Mayor John V. Lindsay in 1968. It was to implement this vision that the state legislature had created the Battery Park City Authority that same year.

A New City

When completed in the 1980's, a new family and business community for some 45,000 permanent residents and 35,000 employees of the office, commercial and service areas will have risen over the ghosts of a maritime heyday on 91 acres of new land



Charles J. Urstadt

Photo Fabian Bachrach

created in the Hudson River.

Residential apartments for 14,100 families will rise above broad plazas and terraces.

At the southern extreme of the mile-long, river front community three office towers will rise, 40-stories, 50-stories and 60-stories tall.

An internal transit system is planned to whisk passengers along the multi-level, enclosed malls with their shops, restaurants, civic and recreational facilities.

Through the ample use of glass in the enclosed malls, strollers in Battery Park City will have unobstructed views of the Hudson River regardless of the weather.

Master Development Plan

Following the 1968 "memorandum," the newly created Battery Park City Authority and the City Office of Lower Manhattan Development prepared a Master Development Plan. This was approved by the City Planning Commission in August 1969.

In addition to the general concept and goals, the plan provides for the removal of Piers 1 thru 20 on the Hudson River and the erection of a new bulkhead and fill along the mile-long strip. It further provides for the placing of all necessary utilities connected with the project and for the selection by the Authority of private developers who will erect the residential and office buildings.

Timetable

In June 1970 a 99-year lease between the Battery Park City Authority and the City of New York—owners of the property—became effective. The lease stipulates that the project be completed in thirteen years.

By the end of 1972 it is expected that the bulkhead and fill operation on the southernmost 16 acres of Battery Park City and the preparation of the 24-acre World Trade Center fill (See TOW LINE, Winter 1970 Issue) will be finished.

Construction of the three office towers, which will contain 5-million square feet of office space, and the first 6,400 units of residential housing will begin in 1974.

The Battery Park City project, rising out of the waters of the Hudson River, is a formidable engineering task but it is hoped that families will be occupying the first units by the end of 1975 and that the office tow-

ers will be ready for their first tenants early in 1976.

Members and Financing

Charles J. Urstadt is the Chairman and Chief Executive Officer of the Battery Park City Authority. Serving with Mr. Urstadt are Alfred S. Mills, Chairman of the Board and Chief Executive Officer of the New York Bank for Savings, and Judge Mario A. Procaccino, former Comptroller of the City of New York.

All members of the Battery Park City Authority are appointed by the Governor of New York to six-year terms and paid \$100 per day with a maximum yearly compensation of \$5,000 for their services.

To finance its portion of the \$1.1 billion project, the Battery Park City Authority will require no capital funds of the City of New York for any capital construction costs. The Authority will sell its own bonds and notes and, after meeting its debt service and administrative expenses, all excess income will revert to the City treasury.

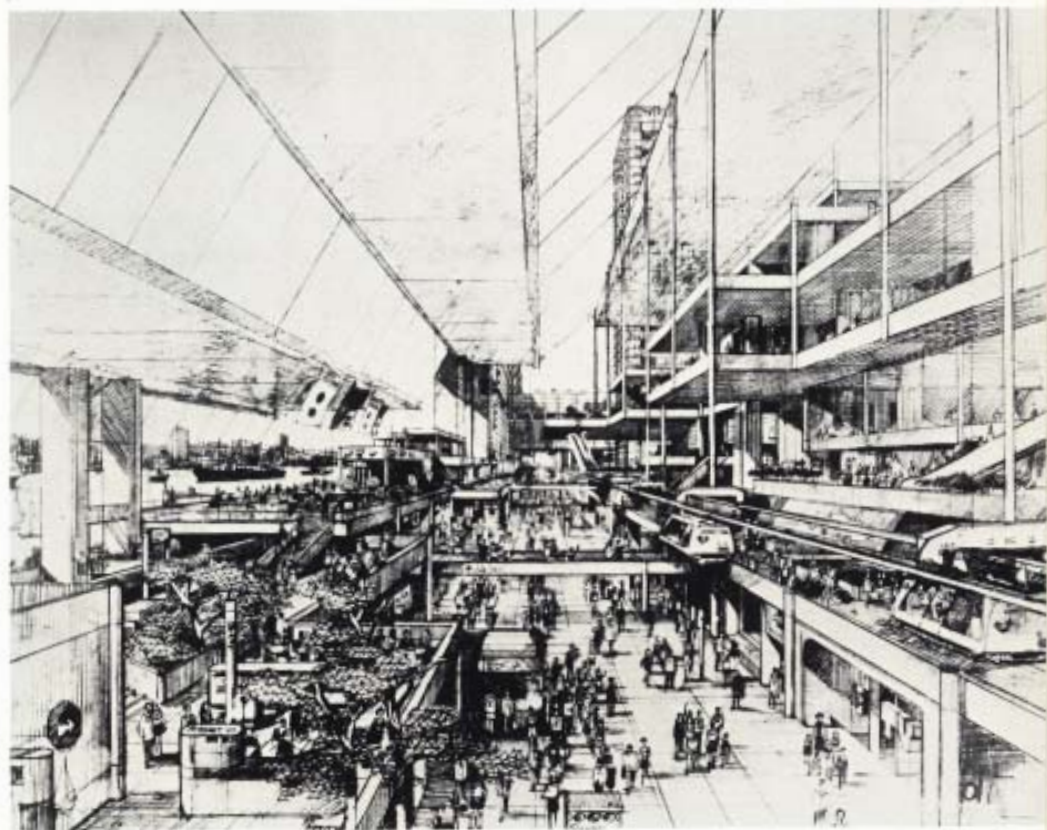
Private developers, selected by the Authority will sublease from the Authority the areas for the office buildings and conventionally-financed housing at fair market rates and will also pay to the Authority the equivalent of normal real estate taxes. Fixed ground rentals will be levied on the low and middle income units which will pay real estate taxes less the exemptions which are authorized by the programs under which they are developed.

Site Preparation

The first major construction phase for the development of the Battery Park City community began in the summer of 1971 with the demolition of the old steamship piers once occupied by the United Fruit Company at Morris Street.

Engineering studies for bulkheads, landfills and related work—and the contract designs for the south 16 Acres now under construction—have been made by Mueser, Rutledge, Wentworth & Johnston under the direction of Captain William T. Maley of the Battery Park City Authority.

The Geo. W. Rogers Construction Co., a century-old waterfront engineering firm of solid reputation for



construction and repair of marine facilities in the New York area, was awarded an \$8.5 million bid contract by the Authority for the demolition of piers, the construction of a new bulkhead and placing of the fill in the southernmost 16 acres of the site.

(Continued on page 12)

BROAD PLAZAS—Top illustration overlooks the broad plazas, terraces, housing units and the complex of office buildings planned for Battery Park City while the bottom artist's conception shows the inside view of the multi-level enclosed malls with unobstructed views of the Hudson River through the ample use of glass enclosures.

SHIPS in the NEWS



ATLANTICA LINE's new \$6 million containership *Atlantica Genova* completed her maiden sailing from the Port of New York December 21. With the *Atlantica Livorno*, the *Gutenfels* and the *Goldenfels*, the *Atlantica Genova* completes a four vessel container service between United States and Canadian ports on the North Atlantic and the Mediterranean. Atlantica Line is a new consortium of the West German-flag Hansa Line and the Italian-flag Fassio Line. The vessels are scheduled for weekly sailings from the Port of New York and fortnightly sailings from Norfolk, Baltimore, Boston and St. John, New Brunswick in Canada. The New York general agent for the new line is U. S. Atlantica Containership Agencies, Inc.



ORIENT OVERSEAS CONTAINER LINE's ultra-modern, new containership *Oriental Leader* is busy loading her capacity of 500 standard 40-foot dry cargo and refrigerator containers in this photograph taken at her Berth 53, Port Newark December 18. The giant 650-foot-long *Oriental Leader* was docked on her maiden arrival in the Port of New York by Captain Grover Sanschagrin of the tug *Marie S. Moran* near midnight December 17. The *Oriental Leader* is the first of six new, high-speed containerships being constructed for a new service between Canadian and U. S. Atlantic ports and the Far East. Thor Eckert & Company, Inc. of 19 Rector Street, New York is the line's U. S. Atlantic and Gulf ports agent.



Battery Park City

(Continued from page 9)

Almost immediately G. W. Rogers' Whirley cranes—extremely adaptable, revolving, floating cranes built by the Wiley Manufacturing Company—began breaking the heavy concrete decks and bulkhead platforms of Pier 2 and the adjoining Pier 3.

Giant "burning barges," former wartime LSTs (Landing Ship Tanks), converted to carry and dispose of waste lumber by incineration 25 miles at sea, were brought in to receive the 60-foot to 70-foot long piles plucked from the mud by the Whirley cranes. Each barge has a capacity of 1.3 million board feet of lumber.

As a part of the demolition plan, a portion of both piers still stand for use as access roads in subsequent operations but some seven thousand piles and 1.25 million board feet of scrap lumber have been removed.

Historical Pier 1

A reminder of the beauty of ancient Roman engineering, with its facing of hand-cut, granite stone, semi-circular arches and solidity, Pier 1 is being removed from the southern end of the Battery Park City site.

Fifty years ago Pier 1 was used by the Iron Steamboat Company, the Wright & Cobb Lighterage Company and the Middlesex Transportation Company but recent years have seen it decline as an automobile parking lot and a place for harbor craft to 'put out a line.'

As the first Chief Engineer of New York City's new Department of Docks (Established 1870), General George B. McClellan of Civil War fame designed Pier 1 in 1871.

Construction began in 1872—it was to be 500 feet long, eighty feet wide and supported by twenty arches—with a heavy rock foundation as thick as 40 feet placed upon the underlying bedrock.

Sixteen 'beton' (concrete) blocks weighing up to 25 tons each were placed to support arches formed by a mass pouring of concrete—only the facing of the half-round arches are hewn stone—which also formed a

thick pier deck.

Pier 1 was completed in 1876 with a wood plank deck and some fifty feet shorter than had originally been planned.

Dredge Teamwork

The task of removing sturdy Pier 1 began with the arrival of three dredges owned by the Great Lakes Dredge & Dock Company.

Dredge *Crest* was assigned to demolish the massive concrete block foundations. With a 300-thousand pound bail pull, the *Crest* is, perhaps, the most powerful dipper dredge in the world.

Clam shell dredge *Cleveland* retrieved the heavy, broken blocks of concrete, placing them in steel dump barges for disposal at sea.

Steam dredge #53, moored alongside Pier 1, broke the backs of the solid arches and the heavy cement deck using a 10-ton "pounder" or demolition ball.

By the time Pier 1 has been cleared away, it is estimated that 30-thousand to 40-thousand cubic yards of stone and concrete will have been removed.

New Construction

John J. Lennon, Vice President and Chief Engineer of the George W. Rogers Construction Corporation, forecasts what the "sidewalk superintendent" may expect to see in the area south of the World Trade Center fill area in the coming months.

"From a point approximately 75 feet south of the World Trade Center fill site, a new bulkhead will enclose the former pier areas and extend 1,475 feet in an easterly direction to terminate at the existing bulkhead line near Pier A," Engineer Lennon begins.

"Sand berms (a sand barrier) will be placed across the former pier slips, where the water is deepest, to contain the existing acceptable fill," he continues, "before we dredge a cut down to bedrock or hardpan along the full length of the new bulkhead line."

Pier A is the southernmost pier on Manhattan's Hudson River shoreline and is presently housing the headquarters of the Marine Division of the New York City Fire Department. At this date no plans have been announced for the pier's demolition.

Five New Tugs

Five new tugs are on order from the McDermott Shipyard Division of J. Ray McDermott & Co., Inc. in the largest single tug construction contract in the history of Moran. Designed by John J. McMullen Associates, Inc., the twin-screw, 107' long, 3,300 h.p. General Motors diesel-powered and air conditioned tugs will be built at Morgan City, Louisiana. The first completed tug will join the Moran fleet in the Fall of 1972.

"The dredged cut will then be partially filled with crusher run stone fill to provide lateral stability for the piles during construction."

Pre-cast and pre-stressed, 20 inch square concrete piles up to 70 feet in length will be driven through the stone fill. Riprap facing and filter stone will then be added to prevent erosion of the final, fine sand fill within the new bulkhead.

"To prove out the design load of 120 tons to be carried by each pile, three test piles have been driven. Loaded to at least 240 tons each, they tested out beautifully," affirms the chief engineer.

Six Miles of Piles

During the construction of the new bulkhead over six miles of 40 foot long to 70 foot long verticle and batter piles will be driven to bedrock. (The batter piles, driven at an angle facing inboard, take the lateral stress of the fill load.)

"Cast-in-place concrete caps will be installed on each pile bent (line of piles) and cast-in-place continuous concrete beams installed along the east face of the relieving platform will provide continuity," the Chief Engineer Lennon continues.

As the construction of the new bulkhead proceeds southward, additional remaining sections of Pier 2 and Pier 3 will be demolished.

"Pre-cast concrete 'seawall' sec-

(Continued on page 16)

DEMOLITION BEGINS on the decks and substructure of the old Piers 1 and 2 (top photo). In the upper right is the World Trade Center landfill of 24-acres. A wartime LST, converted to carry and dispose of waste lumber (bottom photo) is being loaded with scrap piles and lumber by Whirley cranes.



Coast Guard Marine Inspection

(Continued from page 6)

perished off the New Jersey coast. This Act also changed the name of the Bureau of Navigation and Steamboat Inspection to the Bureau of Marine Inspection and Navigation (BMIN).

Custodians of Safety

By Executive Order the Bureau of Marine Inspection and Navigation was transferred to the Coast Guard on February 28, 1942 and the transfer made permanent by the Reorganization Plan of July 16, 1946.

The scope and authority of the Merchant Marine Safety program was further broadened by additional legislation and the Department of Transportation Act of April 1, 1967 transferred the Coast Guard from the Treasury Department to the newly formed Department of Transportation.

Two new functions became the responsibility of the Marine Inspector by this Act: Admeasurement and Vessel Documentation.

Admeasurement deals directly with the designers, builders and owners of newly constructed or altered vessels in the determination of official net and gross tonnages. Since most charges, rates, fees and tolls a vessel is involved in during its lifetime are based upon measurement, an official determination is of great importance.

Documentation defines a vessel—its name, nationality, ownership, authority for use in specific trades and pertinent information affecting legal title and obligations.

New Shipyard—New Ship

Our arrival at the Seatrain Shipyard in the old Brooklyn Navy Yard was marked by a panoramic view of parts—ship parts—lying in profusion around one of the largest graving docks in the country.

Commander Donald M. Taub, who shares with Lieutenant Townley the small office provided by most large shipyards for the convenience of their resident marine inspectors, greeted us

All the Good Things

The experiences of two agile and young in spirit ladies on a Moran tug (Reported TOW LINE, Winter Issue 1970), will be included in a book to be published by Harcourt Brace & Jovanovich Inc. "Twice Over Lightly" subtitled "New York Now and Then" will be the title. Anita Loos and Helen Hayes authored the book about "all the good things in New York." A highlight of their experience afloat seems to have been the "fantastic food" served on Moran tugs. "The best food in the world," the authoritative ladies allow.

with a sheath of blueprints in hand.

"You might say that we watch over a vessel from the very moment of its conception until its final demise," Commander Taub sums up the duties of the marine inspector.

"At the design stage we must approve the plans before construction can begin and every item that goes into the vessel must meet regulations before the vessel's first certificate is issued."

Commander Taub continues, "Then, throughout its life, the vessel must undergo and pass repeated inspections in order to continue in service."

Commander Taub has been a marine inspector since 1960 and has

been assigned to the Seatrain Shipyard since the inception of the mammoth 230,000 d.w.t. tankship they are now building.

Prior to this prodigious assignment, Commander Taub became a qualified Naval Architect in addition to completing a year's industrial training with Grace Line and serving as Engineering Officer aboard ship after his graduation from the Coast Guard Academy.

"Normally, in the construction of a ship, the marine inspector confers with the owner, designer and builder separately. But, here at Seatrain, this relationship is one and the same."

A great, new shipyard is growing at Seatrain Shipyard as the giant ship itself takes shape. New shipbuilding processes are being introduced and new variations on the older techniques keep the resident marine inspectors busy with their own innovations for testing.

"The modules are inspected at origin but they are joined together here into whole sections containing all the piping, electrical cables, stairways, vents and even machinery prior to being incorporated into the structure of the ship in its graving dock. They're even completely painted beforehand," adds Commander Taub.

LUMBER BARGE—Passing the Rosebank Quarantine Station in New York harbor's Narrows, the T.E.O.336-3, a typical PAC-type barge (The Pacific Inland Navigation Company of Seattle, Washington designation for their barges originally developed to transport oil pipe line from Japan to Alaska) is assisted by tugs *Grace Moran* and *Cathleen Moran* to the lumber docks at Green Sreet, Brooklyn. Able to carry up to 7 million board feet of lumber, this particular barge loaded in British Columbia, Canada transversed the Panama Canal, off-loaded in Savannah, Georgia and discharged the last of her cargo in Greenpoint, Brooklyn.



On the Teresa

Under *Summer Glimpses* in *The Talk of the Town of The New Yorker*, tug *Teresa Moran* and Captain Harry Hennessey hosted a pleasant harbor scene set down in the inimitable style of that venerable magazine. A glimpse "of a kind to be glimpsed only in the City of New York" included the *Bon voyage* of the distinctive *Leonardo da Vinci*.

"As Seatrain is also training new shipyard workers as it builds its ship, we are also involved in certifying the graduates of their welding school here at the yard."

Periodic Inspections

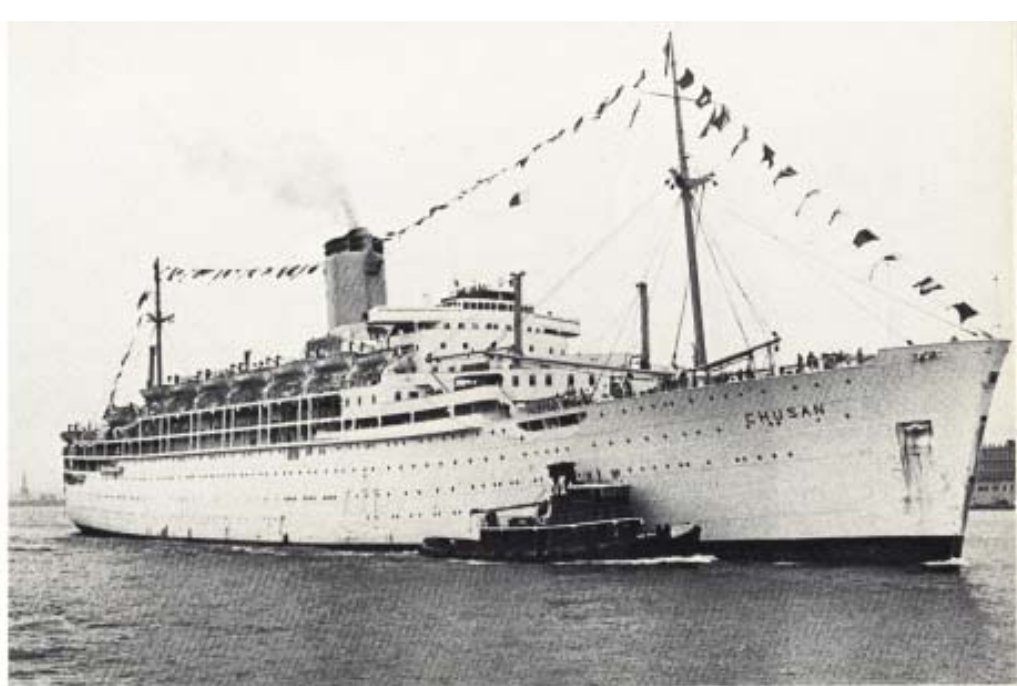
Four ships, three bearing the familiar stack markings of Sea-Land Service and one the insignia of the Army Corps of Engineers, were undergoing repairs and Coast Guard inspection as we arrived at big Bethlehem Steel Corporation shipyard in Hoboken, New Jersey.

Containership *Jacksonville*, still loaded with containers as a result of the recent longshoremen's strike, and the Army's dredge *Essayons* were in drydock while the *Summit* and *Gateway City* occupied wetdocks (pier-side).

All were American flag vessels and, with the exception of the *Essayons'* 'requested' inspection, required to undergo the merchant ship certification inspection every two years and mid-period inspections yearly.

American flag passenger ships are required to be certificated annually in addition to quarterly checks on the maintenance of safety and propulsion equipment. Many foreign flag passenger ships now request more frequent inspections than presently required.

Literally everything from rudder to bow, inside and outside the hull of an American ship comes under the eye of the Marine Inspector during the comprehensive certification inspection. Fire and boat drills are witnessed, living quarters and sanitation facilities are inspected as well as the navigation and propulsion equipment. Hydrostatic tests are made to determine the strength of boilers and piping and ultrasonic and X-ray tests are



RARE VISITOR—On a world cruise, the Peninsular & Oriental Steam Navigation Company's passenger liner *Chusan* visited the Port of New York too late for last Fall's TOW LINE Issue. Arriving in the wee hours of October 9th, the *Chusan* was docked at Pier 40, North River by Moran Pilot-Captain Grover Sanschagrin and, fortunately, photographed by J. Fred Rodriguez in the dim morning's light. The *Chusan* continued her world cruise October 11 with an 0325 hours departure.

made where the thickness of metal or the strength of a weld is critical.

A certification inspection (requiring drydocking) can usually be made in three days' time but—and this includes most of the mid-period items—a majority of merchant and passenger ships are inspected piecemeal at their berths in various American ports. This is a part of the realistic approach the Coast Guard Marine Inspection Office takes toward maintaining a considerate view of the operating problems of the ship owner or operator.

Lieutenant Commander Cluese Russell changes from civilian clothes into white coveralls in the small shipyard office he shares with fellow marine inspector Chief Warrant Officer James Walsh. Commander Russell is in his twenty-ninth year of Coast Guard service, having begun with a six-year tour of duty in the Navy. For six years he has been a marine inspector.

Pocketing a flashlight and a small hammer with both a blunt and a sharp tip to its head, Commander Russell comments, "These are the tools of our trade, but it takes an experienced eye and ear combined with good common sense to make them tell you what you need to

know."

On a scaffold erected at the stern of the *Jacksonville*, where a number of workmen were welding the ship's gigantic rudder, a gaping hole was left where the propeller should have been.

"Unfortunately the tail shaft had to be removed because the liner was badly scored," and Cdr. Russell informs us that at least every four years the long, heavy, solid steel propeller shaft undergoes close scrutiny. "It's in the shop being repaired."

The *Gateway City* in its wet dock was having its mid-period inspections and the *Summit*, a former C-3 type vessel converted into a containership, was undergoing extensive repair for Alaskan service.

A Book is Needed

To tell the story of the U. S. Coast Guard's Marine Inspection Office in its entirety is beyond the scope of TOW LINE. The ramification of the Coast Guard's responsibilities under the Merchant Marine Safety program may be likened to a boxwood hedge in a Colonial garden. To trace each branch leads to infinitesimal involvement but under skillful hands the overall objective is ably achieved even as it grows.

Battery Park City

(Continued from page 12)

tions, each weighing up to 35 tons, will then be installed on the caps along the west or river side of the bulkhead. To provide continuity, steel sections set into the caps as well as into the 'seawall' sections will be welded together."

Final Decking

Between the cast-in-place continuous concrete beams on the east face and the joined "seawall" sections, slabs of heavy, pre-stressed concrete measuring approximately 20 feet by 6 feet will be placed to form a deck.

The pre-cast deck will then be topped with a poured, 7½ inch thick, cast-in-place concrete slab to provide a composite slab without the use of expensive form work.

The slabs will then be covered with a Urethan deck sealant to prevent its final sand covering from filtering through.

New Real Estate

When the new bulkhead is completed, the sixteen acres enclosed by it will be filled with nearly 1 million cubic yards of graded fill to approximately 5 feet above the mean high water level.

"The final look of the area will be that of a large, vacant lot. The new bulkhead will be completely covered to the river's edge and our work on this section of Battery Park City will be completed," concludes Chief Engineer John J. Lennon.

DRIVING A TEST PILE—A G. W. Rogers' Whirley crane drives one of the pre-cast and pre-stressed, 20-inch square concrete piles (photo, right). Historical Pier 1 disappears (photo, below) under the onslaught of the Great Lakes Dredge & Dock Company dredges *Crest*, upper right, and *Cleveland*, middle right, and the #53, moored on the south side of the pier. As the #53 breaks the pier's concrete arches and decks with a 10-ton demolition ball, the century-old stone and concrete fragments are loaded into steel dumpers for disposal.



RECOMMENDED READING

THE EVERGREEN FLEET—a pictorial History of Washington State Ferries by Harre Demoro. Published by Golden West Books, San Marino, California, 1971. Price: \$10.00.

ALL THAT GLITTERS is not necessarily base metal. *The Evergreen Fleet* is a case in point. Large-page and beautifully illustrated, it could easily be mistaken for a slick maritime parlor-table nonbook; but the mistake would be a bad one. What we have here, rather, is a serious historical record of ferryboats and ferry services on Puget Sound in the past decade. The author, a Californian, became keenly interested in the Washington State Ferries (which then included many prematurely retired San Francisco Bay boats) in 1963, twelve years after the State took over the fleet of the Puget Sound Navigation Company (Black Ball Line). Since that time he has faithfully followed and photographed the thirty vessels—28 diesel, 2 steam, 19 still in service—which have plied the eight public ferry routes across Puget Sound and the Strait of Georgia in recent years. His book is more pictorial than textual, over three-fourths of his photographs being from his own lens—and very good. Antiquarians may object that double-ended contemporary motorcraft are a bit shy on their brand of glamour; but this is a sober, painstakingly informed study of modern water transport, and an absorbing slice of 20th century life on Puget Sound. No true shiplover could ask for more.

FORECAST FOR OVERLORD by J. M. Stagg. Published by Ian Allan Ltd., Shepperton, Surrey, England 1971. Price: £2.60.

THE ALLIED INVASION OF EUROPE, dubbed Operation Overlord, in June 1944 pivoted on the predictions of weather over England and the British Channel. Three forecasting centers, two British and one American, cooperated under Group Captain Stagg to give the best possible weather advice to General Eisenhower. For his evaluation on that fateful day as the Allied Commander's chief weatherman, the author was awarded the U. S. Legion of Merit by President Truman in 1946. This account is a diary in detail of the problems and preparations made in the months leading up to the invasion written with a keen awareness of the serious importance of constant evaluation, not only of the content of the weathermen's reports, but of the personalities of the men involved. *FORECAST FOR OVERLORD* is, indeed, a rare insight into the world of the weathermen.

OCEAN SALVAGE by D. A. Koster. Published by St. Martin's Press, 175 Fifth Ave., New York 10010, 1971. Price \$6.95.

D. A. KOSTER's book "Ocean Salvage" is historically interesting and professionally adequate. Of great interest to Americans, the book deals with the loss of the nuclear submarines *Thresher* and *Scorpion* in the deep waters of the Atlantic. The search and subsequent locating of the two submarines reveals the expert salvage capabilities of the United States Navy. The amazing hunt for the nuclear bomb lost from a SAC aircraft off Palomares, Spain is excellently told and is well worth the reading. For anyone interested in marine salvage the book is knowledgeable. T.B.

THE EPPLETON HALL by Scott Newhall. Published by Howell-North Books, 1050 Parker Street, Berkeley, Calif. 94710, 1971. Price: \$6.95.

A PADDLE WHEEL tug crossing the Atlantic is not only news but most newsworthy. Such an epic is recorded in this exciting adventure story by Scott Newhall, recently candidate for Mayor of San Francisco, maritime historian and famous newspaper editor. With a preface by Karl Kortum, director of the San Francisco Maritime Museum and first mate on the voyage and with an outstanding dust jacket painting by Mark Myers, this volume is a tribute to the foresight and pluck of those who are determined to enshrine the record and achievements of steamboats for the future. It is also a document of individual achievement and man against the elements. In addition to all this, it's great fun reading. F.O.B.

OCEANOGRAPHIC SHIPS, Fore & Aft by Stewart B. Nelson. Published by the Office of the Oceanographer of the Navy. Price: \$4.50 (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.)

THE NEW FRONTIER is not only in the sky, in space, but is also below the sea. A whole new library of books, studies and research programs has been spurred by man's awareness of what awaits below the surface. No bookshelf of the sea will ever be complete without this fine study of the history of oceanographic ships. Its list of undersea research vessels of today and its good bibliography add much to the work's value. Author Nelson is the Special Assistant for Environmental Quality to the Office of the Oceanographer of the Navy. F.O.B.

MORAN'S NEW HOME OFFICE —THE WORLD TRADE CENTER

OVERLOOKING NEW YORK HARBOR from the 53rd floor of the lofty North Tower building of the Port of New York Authority's great World Trade Center, the new home offices of the Moran Towing Corporation and its subsidiaries will be occupied May 1, 1972. The first change of address for the world-wide towing concern since 1906 will be: One World Trade Center, Suite 5335, New York 10048. Telephone: 466-3600. TOW LINE will report more details in subsequent issues.

WITHOUT PREJUDICE . . . A History of The United States Salvage Association, Inc. 1921-1971 by C. Bradford Mitchell. Published by The United States Salvage Association, Inc., New York, 1971. Price: \$5.00. (Obtainable from the South Street Seaport Museum, 16 Fulton St., New York 10038 or the Steamship Historical Society of America, Inc., P.O. Box 149, Montclair, New Jersey 07043 "who benefit in full from the proceeds.")

C. BRADFORD MITCHELL has again written a history of a not widely publicized group of marine experts on the occasion of their semi-centennial celebration. (In 1970 "Touching the Adventures & Perils" unfolded the drama of the growth of the American Hull Insurance Syndicate.) The United States Salvage Association, Inc., has had an equally dramatic parallel growth as a provider of the technical intelligence as to the risks insured by the marine underwriters. The marine expertise of members of the syndicate has gone beyond the ancient disciplines of survey and salvage into the new technology of shipbuilding and towing in the nuclear field. Many excellent photographs from the author's own collection and others provide visual reality to historical highlights in this testament to the marine surveyor's extensive knowledge and great professional integrity. "Without Prejudice" belongs on the same shelf with other definitive works of the world of ships.

New LNG Barge Coming

Scheduled for completion in October 1972, the first ocean-going LIQUEFIED NATURAL GAS barge to be built in the United States is under construction at Todd Shipyards' Houston Division in Texas. A subsidiary of the Moran Towing Corporation will charter the new barge to Distrigas Corporation of Boston, Mass. to transport LNG from their new Staten Island facility to various public utilities. The new barge will have a capacity of 32,000 barrels of LNG carried in four cylindrical aluminum tanks at a temperature of -260° Fahrenheit.



MORAN SERVICE AWARDS, symbolizing the company's appreciation for years of continuous service, were presented to eighty-three employees of Moran and its subsidiaries during the year 1971.

John S. Bull, president of Moran Towing & Transportation Company, personally presented as many awards as possible, wishing the recipients many more years of association with our growing company.

The Moran Service Awards are miniature reproductions in yellow gold of the Moran tug stack mounted on a white gold rhomboid with an inset of three jewels. The jewels are the key denoting length of service.

Awarded for every five years of service, the jewel code is: three rubies, five years; three sapphires, ten years; three emeralds, fifteen years. At twenty years a diamond replaces a ruby, at twenty-five it replaces a sapphire and at thirty, an emerald. For the years thirty-five, forty and forty-five, two diamonds replace two stones in the same order. Three diamonds denoting fifty years service is the ultimate award.

With Edwin 'Dutch' Heiser, who retired from the tugs near the close of 1971 as the only recipient of the 50-year Moran Service Award, the following shoreside and tug personnel received awards in 1971:

50 years service: Edwin Heiser.

40-years service: Irving Miller.

35-years service: Clarence Beale, George Jacobsen, John Jorgensen, E. P. McDuffie, Sr., Felix Perry and Salem S. Seren.

30-years service: Howard Antonson, Alexander Burgo, Margaret Craig, Lawrence Foley, Joseph Jones, John Joyce, George Kircher, Eivind Knutsen and James Monahan.

25-years service: Ralph Bailey, Jr., James Barrow, Edward Batchellor, Manuel Daluz, Peter Elkowitz, Charles Fausak, Leonard G. Goodwin, William Morrissey, Paul Noon, William Pusty, Esmond Rose, Leo P. Theriault, John H. Williams, Ollie Woodcock and Richard Zacherenko.

20-years service: Eldred V. Anderson, Thomas Bishop, Leif Breivik, Jose Cubelo, Jean Cuff, Ture Eklund, Fred Hansen, Julius Heine, Werner Hoer, Ernest Kohler, E. P. McDuffie, Jr., Arthur Montgomery, Inge Nordberg, Warren Pfeiffer, Gerard Sattel, Knute Svenningsen, Vaughn Tilghman and Dorothy Tozier.

15-years service: Frank Janse, John Kriete, Fremont S. Macaulay, John Maeder, Ragnar Mattson, Morgan Moen, Ole Odegaard, Peter Perrotti, Johannes Rossland and Otto Thoresen.

10-years service: Richard C. Holt, Walter Janeczek, Eugene F. Moran, III, Edward W. Murphy, John Saether, Saverio Stea and William Tellefsen.

5-years service: Paul L. Allen, Charles Brassard, James J. Carey, Margaret Chicolo, Alexander Dorantes, Elly Freiman, Lloyd R. Graham, Charles W. Greene, Richard Krebb, Gunnar Lervik, Mary J. Leavey, Clabe Liggett, Donald Schenck, Kristian Staalsen, Edward Tavares and Otto Thoresen.

The McDuffies

The Evening Express of Portland, Maine published a 5-column story under the by-line of Robert Niss and photograph of the 10,000th ship to use the Portland Pipe Line. The ship was the tanker *Petro Pan* of Universe Tankships, Inc. and the docking pilot, Captain Edwin P. McDuffie, Sr. of Central Wharf Towboat Co. Captain McDuffie, Sr. is a spry 73. His father, Captain Charles C. McDuffie was 81 when he guided the first ship to the new pipe line in 1941. Son, Edwin P., Jr. is 39 and it may well be that he will be the Moran pilot to ease the 20,000th ship to Portland's pipe line.

HARBINGER OF SPRING—A colorful, repeat, a colorful preview of the new spring and summer fashions for men was aired on NBC's Channel 4 TV *Today's Show* on January 24th. The Men's Fashion Association of America, who co-ordinated the various designer's fashions, chose five non-professional models to display the sartorial splendor on the show hosted by former New York Yankee announcer Joe Garagiola. Captain William Hayes, a natty dresser among Moran pilots, chose to spend his day off from docking liners to navigate the unfamiliar (to him) channel. By all reports, Captain Hayes steers a steady course be it on water or on air. Without the benefit of color, in the photograph below Captain Hayes, left, answers a pertinent query from Joe Garagiola, right, with aplomb.

Photo by Camera 1



SMITHSONIAN INSTITUTION PLANS NEW AMERICAN MARITIME HALL

The Propeller Club of the United States launched a fund raising drive for a new \$1.5 million hall to be constructed at the Smithsonian Institution in Washington, D. C. Dr. Daniel J. Boorstin, Director of the National Museum of History and Technology announced the plans for the new hall with the hope that its dedication will coincide with the nation's bicentennial celebration. Dr. Melvin H. Jackson, Curator of the Smithsonian's maritime collection said that the new hall will span the history and development of American maritime commerce with scale models and dioramas including an exhibit of containerization and the integration of sea-land transport, an exhibit of hydrofoil craft and a large model of the *Manhattan*, the huge ice-breaking tanker which cleared the Northwest Passage. Funds for the construction of the hall are being sought from individual donors and maritime organizations.



CREWLADIES IN TRAINING

Atlantic Container Line's *Atlantic Crown* recently added Miss Esse Agtar of Vlieland, The Netherlands as student navigation officer and the *Atlantic Cognac* signed-on Genevieve Dohen and Jocelyn Jamet of France as cadet radio operators. When licensed, the three young ladies will be the first females of their respective countries qualified for merchant marine duty.

NEW FLAG FOR NASM

A new company flag for the Holland America Line was hoisted for the first time since 1873 at the launching of their new LASH ship *Bilderdyk* in Hoboken, Belgium. The new emblem, aqua-white-aqua centered on an orange background, replaces the long familiar horizontal green-white-green stripes with initials NASM set against a white background.

SATELLITE NAVIGATION

United States Lines' *American Argosy*, one of 16 high speed containerhips in the company's "Sea Bridge" service between Europe the United States and the Far East, was the first containerhip to use U. S. Navy Satellites in its computerized navigation system. The ship's position may be pinpointed to within 300 feet of actual position every 45 to 90 minutes, depending upon its latitude, day or night the year 'round.

EDITOR HONORED—Jeff Blinn, Editor of TOW LINE was recently honored by the Italian government for his work with the Verrazano Bridge committee and for his contributions over the years through photography and the written word in making Italy better known to Americans. In the top photo Dr. Vieri Traxler, Consul General of Italy in New York, pins on Blinn's lapel the decoration of Cavalleri in the Order of Merit of the Italian Republic.

MARY ANN CUMMINGS, whose pleasant voice responded to WHitehall 3-2525 calls for 23 years, switched to Area Code 201 at the close of '71. Mary retired to her 14-room, two-story, white-frame-clapboard - with - tile-roof-and-sun-porch house in Cresskill, New Jersey. "See what's wrong at the Moran switchboard," the New York Telephone Company told their trouble-shooter in 1948. Mary Cummings came and, perhaps, found a challenge or excitement in the busy switchboard of a tug company unequalled elsewhere, for she stayed to become chief operator. "I always wanted to be a full-time housewife," Mary confessed after her retirement luncheon. Moran and a lot of people 'on the other end of the telephone' will miss Mary but not so a Welsh Terrier named Toddy (Wee One) and Mary's husband.



Order of Merit
of the Italian Republic

