

# PORTS *and* HARBORS

April, 1977 Vol. 22, No. 4



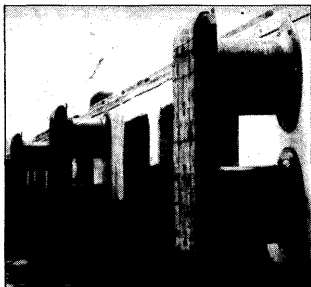
Port of Helsingborg  
Sweden

## Houston Conference April 24-30, 1977

The Publisher: The International Association of Ports and Harbors

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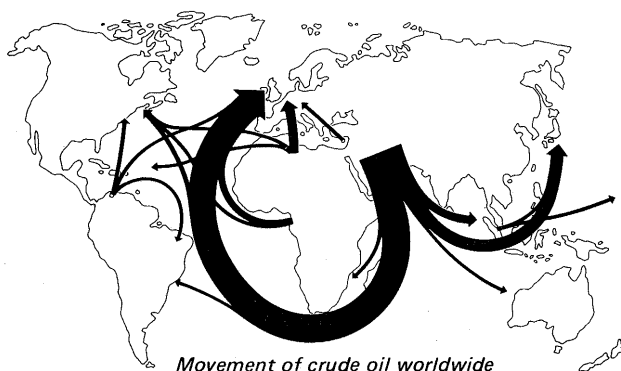


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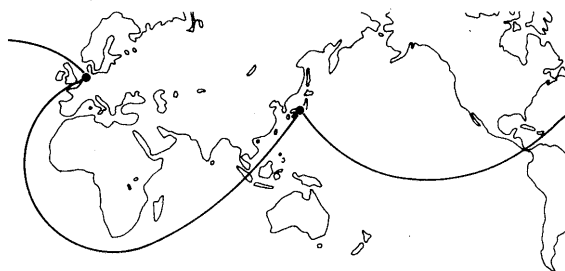
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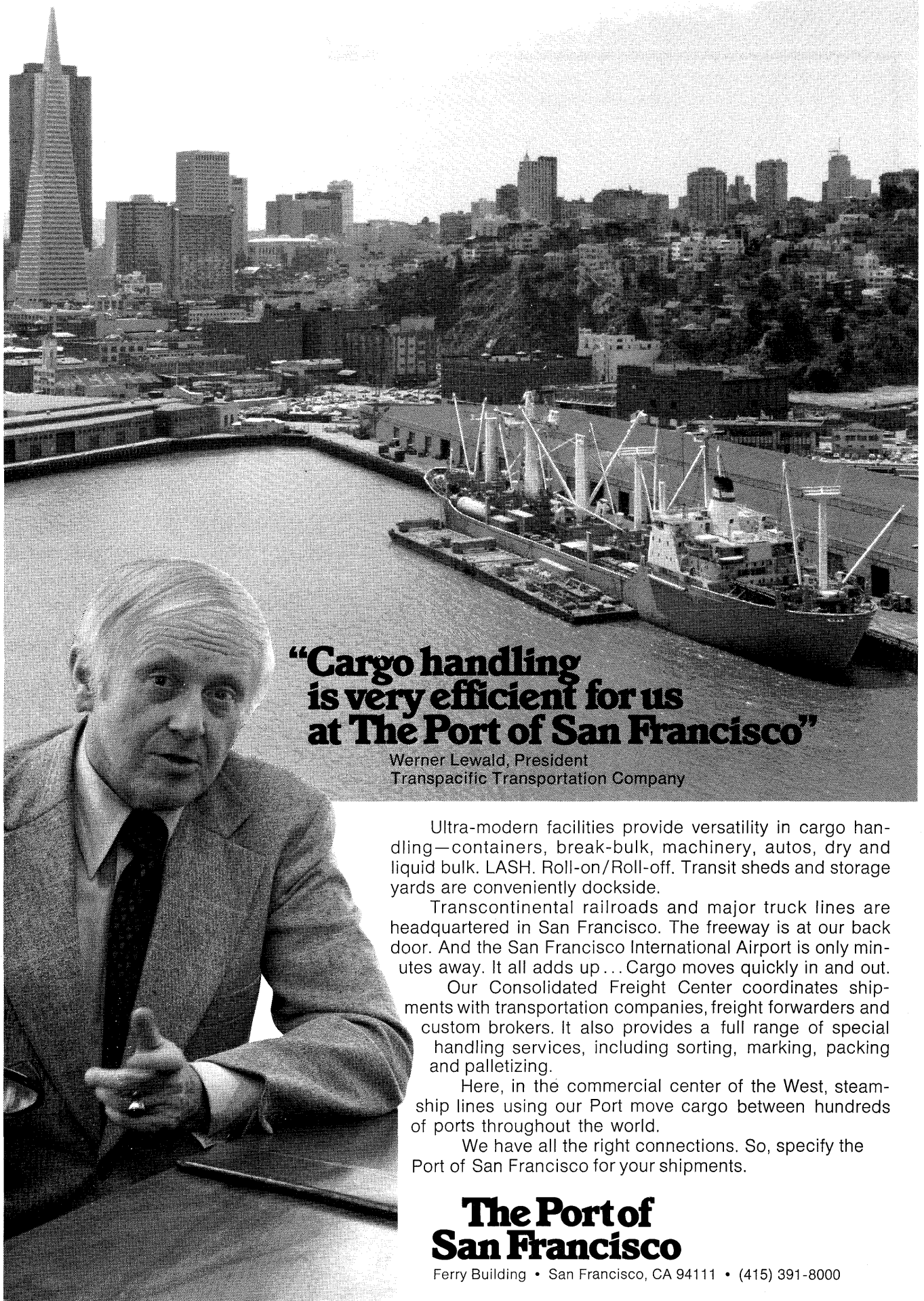
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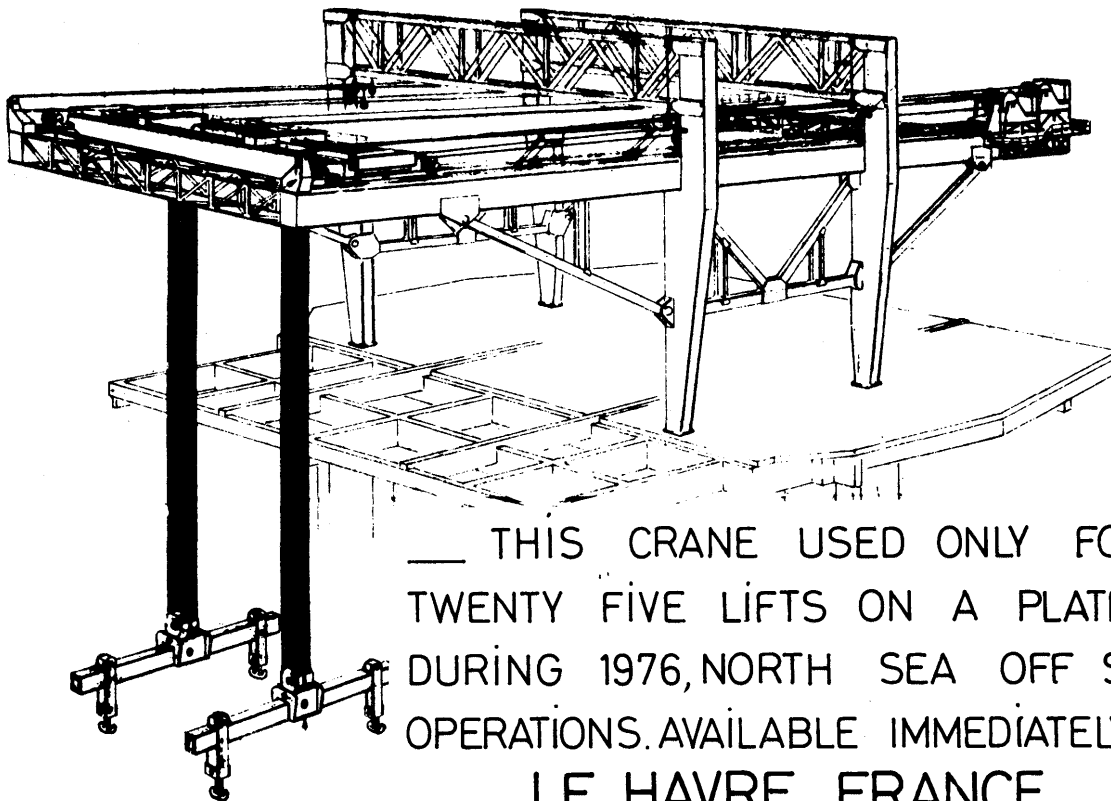
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# PORTS *and* HARBORS

Editor: Yoshio Hayashi

Published monthly by

**The International Association of Ports and Harbors**

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The ferry terminals in the North Harbour are centrally located in the city. In the front is seen the new Ro/Ro facility "Sundsterminalen" and in the distance the ferry berths for short sea traffic. The Ocean Terminal for general cargo ships on deep sea routes occupies the central part of the picture. (See also story on page 61.)	

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# PORTS *and* HARBORS

**IAPH Head Office Announcements:** Pages 7~14

## Agenda and Time Schedule of the 10th Conference

*Following the previous issue of this journal which carried the final 10th Conference Program, in this edition, we announce the tentative Agenda and Time Schedule for the convenience of the Conference participants.*

*The Agenda is now being deliberated by the Executive Committee for later submission to the Board of Directors with the recommendations of the Executive Committee endorsed thereon, asking for approval by its meeting by correspondence to be held prior to the Houston Conference. (Head Office)*

### Plenary Sessions:

1. **Opening Session** (09:30/10:30—Monday, April 25)—0900/0925 Start Band concert by U.S. Coast Guard Band as delegates arrive.
  - 1) Address of Welcome by Mr. George W. Altvater, Conference Chairman
  - 2) Posting of Colors
  - 3) Playing of National Anthem
  - 4) Invoication
  - 5) Address by Mr. Dolph Briscoe, Governor, State of Texas
  - 6) Welcome address by Mr. Fred Hofheinz, Mayor of Houston
  - 7) Address by Mr. Fentress Bracewell, General Chairman and Host
  - 8) Recognition of distinguished platform guests by Mr. George W. Altvater
  - 9) Introduction of messages from Friendly Organizations by Mr. George W. Altvater
  - 10) Address and Declaration of Opening of Conference by Mr. Howe Yoon Chong, President of IAPH—followed by announcements of Members of the Conference Committees
    - a. Nominating Committee
    - b. Honorary Membership Committee
    - c. Ways and Means Committee
    - d. Bills and Resolutions Committee
    - e. Credentials Committee
  - 11) Mr. Howe Yoon Chong declares ending of Opening Ceremony and closes session
2. **First Plenary Session** (14:00/15:30—Monday, April 25)
  - 1) Report by Secretary-General
  - 2) Reports by Chairmen of Special Committees (Household Committees)
    - a. Finance Committee
    - b. Constitution and By-Laws Special Review Committee
    - c. Membership Committee
  - 3) Others
3. **Second Plenary Session** (08:45/10:00—Wednesday, April 27)
  - 1) Reports by Chairmen of Special Committees
    - a. Committee on International Port Development
    - b. Committee on Large Ships
    - c. Committee on Containerization, Barge Carriers and Ro-Ro Vessels
    - d. Committee on Legal Protection of Navigable Waterways
  - 2) Others
4. **Third Plenary Session** (09:00/10:30—Thursday, April 28)
  - 1) Reports by Chairmen of Conference Committees
    - a. Credentials Committee
    - b. Ways and Means Committee (For Approval)
    - c. Bills and Resolutions Committee
  - 2) Adoption of Bills and Resolutions
    - a. Bills (Issues relative to the amendment of By-Laws)
    - b. Resolutions of Condolences
    - c. Resolutions of Appeals to Other Bodies
    - d. Others
  - 3) Others
5. **Closing Session** (10:45/12:00—Friday, April 29)
  - 1) Announcement of Nominations and Election of the New President and Vice-Presidents, by Chairman of Board, Mr. Howe Yoon Chong
  - 2) Take-over of the Presidency to the New President (Change of Seats)
  - 3) Address by the Retiring President
  - 4) Address by the New President
  - 5) Report by the Chairman of Honorary Membership Committee (For Approval)
  - 6) Presentation of Gold Badge and Scroll to the Retiring President and other newly elected Honorary Members if any
  - 7) Announcement of Directors and Alternate Directors, and Members of Executive Committee for 1977-1979 by the New President
  - 8) Announcement of the Continuance, Termination and/or Establishment of Special Committees by the New President (Report)
  - 9) Announcement of the Proposed Time and Place of the 11th Conference by the New President
  - 10) Invitation Address by the Host of the 11th Conference, including a film presentation
  - 11) Report by Chairman of Bills and Resolutions Committee on Resolutions of Thanks
  - 12) Adoption of Resolutions of Thanks
  - 13) Closing Address by Conference Chairman, Mr. G.W. Altvater

(Continued on next page bottom)

# Houston, Space City U.S.A Awaits You as the Site for your 10th Conference

Officers and Delegates  
International Association of Ports & Harbors:

Houston, SPACE CITY, USA, with its dynamic civic and business interests as united in the Greater Houston Convention and Visitors Council, is delighted to have the opportunity to extend a most cordial invitation to the International Association of Ports & Harbors to select Houston as the site for its 1977 convention.

We are very pleased to offer for your consideration the following features and advantages which we believe are important in choosing a host city for the annual meeting of your splendid association.

## ACCESSIBILITY

With present day expanded jet service, Houston is but a few hours from all major transportation centers of the North American Continent as well as being the Southwest's newest international gateway. The Houston Intercontinental Airport, designed to accommodate the coming age of 747 jumbo jets and supersonic planes is equipped to

handle 40 airplanes simultaneously and at the present time, more than 24,000 airplane seats are available in and out of Houston daily.

The construction of modern interstate highway systems, together with our superb state highways, makes Houston an easy destination point. Seven major freeway arteries feed the city's 38.7 mile loop and most streets in the central business district are wide, one-way thoroughfares serving to expedite traffic.

In addition two passenger railways and two national bus companies serve Houston, augmenting the variety of transportation available to the city.

## LOCAL TRANSPORTATION

Modes of local transportation include airport limousine and bus service to a downtown terminal as well as to most major lodgings; a modern air conditioned public bus system; a fleet of nearly 700 taxis (air conditioned); several fine charter bus companies; VIP limousine service; helicopter service from the airport to NASA and to various hotels; six reputable rent-a-car firms plus intra-city service

## SCHEDULES OF VARIOUS MEETINGS

### 1. PLENARY SESSIONS

Opening Ceremony	April 25 (MON) 09:30-10:30
1st Plenary Session	April 25 (MON) 14:00-15:30
2nd Plenary Session	April 27 (WED) 08:45-10:00
3rd Plenary Session	April 28 (THU) 09:00-10:30
Closing Session	April 29 (FRI) 10:45-12:00

### 2. BOARD AND EXECUTIVE

Executive Committee Meeting	April 23 (SAT) 13:00-14:00
Pre-conference Joint Meeting	April 24 (SUN) 09:00-10:30
Post-conference Joint Meeting	April 29 (FRI) 14:30-17:00

### 3. SPECIAL COMMITTEES

Special Review Committee	April 23 (SAT) 09:00-10:00
Committee on Large Ships	April 23 (SAT) 15:00-17:00
Joint Meeting of Finance Committee and Membership Committee	April 23 (SAT) 10:00-12:00
Committee on Containerization, Barge Carriers, Ro-Ro Vessels	April 24 (SUN) 13:00-14:00
Committee on International Port Development	April 24 (SUN) 14:00-15:00
Committee on Legal Protection of Navigable Waterways	April 25 (MON) 11:00-11:45
Finance Committee	April 26 (TUE) 08:00-09:00

### 4. OPEN SYMPOSIUM

Committee on Containerization, Barge Carriers, Ro-Ro Vessels	April 26 (TUE) 14:00-15:45
Committee on Large Ships	April 26 (TUE) 14:00-15:45
Committee on International Port Development	

April 26 (TUE) 16:00-17:45

Committee on Legal Protection of Navigable Waterways  
April 26 (TUE) 16:00-17:45

### 5. PANEL SESSION

Meeting of Chairmen and Panelists	April 25 (MON) 15:45-16:30
No. 1 "Problems of Port Congestion"	April 26 (TUE) 09:30-11:30
No. 2 "The Port of the Future"	April 27 (WED) 10:30-11:45
No. 3 "Port Contribution to International Trade and Development"	April 27 (WED) 13:45-15:00
No. 4 "Environmental Problems of Ports"	April 29 (FRI) 09:00-10:30

### 6. CONFERENCE COMMITTEES

Nominating Committee	April 23 (SAT) 14:00-15:00
Credentials Committee-1st	April 24 (SUN) 15:00-16:00
Credentials Committee-2nd	April 28 (THU) 08:00-08:45
Bills and Resolutions-1st	April 24 (SUN) 15:00-16:00
Bills and Resolutions-2nd	April 26 (TUE) 08:00-09:00
Bills and Resolutions-3rd	April 27 (WED) 08:00-08:45
Bills and Resolutions-4th	April 28 (THU) 08:00-08:45
Bills and Resolutions-5th	April 29 (FRI) 08:00-08:45
Ways and Means Committee	April 24 (SUN) 16:00-17:00
Honorary Membership Committee	April 26 (TUE) 17:00-18:00



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Texas International Airlines, Inc.

#### Bus

Continental Trailways Bus System  
Greyhound Bus Lines

#### Railroads

Santa Fe Railway Company  
Southern Pacific Lines

#### CONVENTION FACILITIES

Houston boasts the largest convention facility complex in the nation with more than one million square feet of space and 18,000 permanent seats. The complex is made up of four major structures including the world famous Astrodome, Astrohall, Albert Thomas Convention and Exhibit Center and Sam Houston Coliseum and Annex-Music Hall.

Astrohall alone contains 500,000 square feet of exhibit space all on one level and air-conditioned. The Albert Thomas Convention and Exhibit Center is the city's newest exhibit hall and contains 125,000 square feet of exhibit space. Both Astrohall and Albert Thomas hall contain 40,000 square feet in permanent meeting room space. These facilities are in addition to the fine convention and exhibit space contained in the Sam Houston Coliseum and Annex-Music Hall.

Of course there are a number of fine major hotels and motor hotels which are possible headquarters properties and large enough to contain exhibits on the premises.

#### HOUSING ACCOMMODATIONS

At the present time Houston can provide in excess of 13,000 first class hotel and motor hotel rooms. Under construction or about to get underway are still other properties which will greatly enhance the city's lodging

complexes, adding at least 5,000 new rooms within the next several years. Up to 700 rooms and suites can now be set aside in hotels that may be considered as headquarters for your convention.

## RESTAURANTS

The Houston Restaurant Association is one of the South's largest with a total of 500 members. Among these are at least 100 fine gourmet restaurants providing the conventioneer ample opportunity to explore the typical culinary arts that have made the Texas Gulf Coast a pleasure dining area. We are confident delegates will find our steak and seafood houses, barbecue and other specialty houses and certainly our international cuisine restaurants delightful dining experiences.

## SHOPPING

Houston is high fashion conscious and delegates and their wives will enjoy the myriad shopping opportunities that prevail both in the central business district and in outlying modern shopping centers. Leading name department stores, prestigious specialty shops, numerous boutiques, aesthetic malls, old-world shopping villages and even a flea market give shopping in Houston a luster long to be remembered.

## RECREATION AND ENTERTAINMENT

As a metropolitan area approaching two million citizens, Houston is endowed with a great variety of entertainment, recreational and cultural opportunities. It abounds with museums including a fine arts museum, antique armory museum, the San Jacinto Museum of Regional History, Battleship Texas Museum, Museum of Natural Science, National Space Hall of Fame and even an antique toys museum.

Houston boasts one of the nation's finest symphony orchestras, a grand opera company headed by world great talents, and a new emerging ballet company.

Perhaps second only to New York and Los Angeles, Houston has a most lively legitimate theatre circle with five professional theatres and at least a dozen amateur theatres, all providing year round entertainment in the drama arts.

Hundreds of art galleries and antique shops may be found throughout the city.

Spectator sports? No where in the world can sports fans enjoy such a variety of professional and intercollegiate sporting events than in Houston, home of the Astros, the Oilers and the University of Houston Cougars, all of whom play thrilling games in the world's largest and most luxurious air conditioned sports arena—the ASTRODOME.

Adding further enhancement to the world of sports in Houston are the Rice Owls playing in beautiful Rice Stadium, the U of H Cougars basketball in the new Hofheinz Pavilion, invitational championship tournaments at Champions Golf Club, invitational tennis at River Oaks Country Club plus annual professional roller derby and wrestling in Sam Houston Coliseum.

Situated at the head of Galveston Bay, Houston offers year round fishing, boating and water sports, with Sylvan Beach, Clear Lake, and Lake Houston adding alternate favorite outdoor scenes to the miles of sandy beaches at Galveston Island.

Houston is sometimes called a city of parks, flowers and fountains and we point with pride to our many municipal parks featuring botanical gardens, outdoor amphitheatre for

free summer programs, planetarium, rose garden, adult and children's zoos, equestrian trails plus summer band concerts in outdoor areas.

While Houston is a young city geared to the space age, there remains considerable charm from its pioneer days and Houstonians are proud of their historical points of interest, namely the San Jacinto Battleground where Texas won its independence from Mexico, Sam Houston Park which is a village replica of early Houston and Allen's Landing Park where the city was founded in 1836.

Night life may be enjoyed throughout the city with name entertainment in a number of cabaret theatres and posh supper clubs plus a vast variety of fun spots in Old Market Square, Houston's "left bank" night life mecca.

In Houston there is something for all ages and certainly ASTROWORLD amusement park, the second largest in the nation and a space-city version of Disneyland, has proven to be a wonderful world of fun for the entire family. Still another park just over the horizon is Busch Gardens, a venture by the Anheuser Busch Brewery to offer still another type of family fun with an Asian theme.

No other city in Texas offers so much to the sightseer and with major attractions such as NASA, Manned Spacecraft Center now open to the public daily except Saturdays, the internationally famous Texas Medical Center; the Port of Houston excursions and River Oaks Scenic Trail, there is no wonder that Houston has become one of America's leading visitor centers—the new place to discover.

## SERVICES

The Greater Houston Convention and Visitors Council is happy to assist in any way possible to assure the success of your meeting. If you request, we will be pleased to function as the Housing Bureau for your convention, handling individual requests for room accommodations. Our Services Department specializes in aiding organizations in program arrangement and in the securing of trained registration personnel, office machinery, or any other requirements in conjunction with your meeting.

The Council's Department of Information will make available to you, free of charge, any number of glossy photos or color slides which may be borrowed for your own attendance promotion purposes. This department also has available various information brochures on Houston such as a restaurant guide, shoppers guide and others which you may have in quantity for registration periods. The department is ready to assist your publicity chairman by advising of local contacts and approaches in planning a publicity program. We also maintain a clipping service on all news coverage of your meeting should you request such service.

## CONCLUSION

We sincerely hope that the letters of invitation contained in this brochure will emphasize the interest on the part of the City of Houston in conveying to you our eagerness to serve as host to your annual convention. We trust that upon reviewing the contents herein that your decision will be favorable. With continued interest and kindest regards.

Cordially yours,

Chester A. Wilkins  
Executive Vice President  
Greater Houston Convention and  
Visitors Council



# General Information on the 10th Conference

## ARRIVAL AND RECEPTION

Port of Houston Authority staff will be on hand at Houston Inter-continental Airport to receive and be of assistance to arriving delegates. A special reception area identified by an IAPH banner will be set up in the International Terminal Building where delegates may wait in comfort while travel documents are being processed. Luggage with special IAPH tags will receive speedy handling for quick loading and transfer to the Shamrock Hilton Hotel.

## BADGE IDENTIFICATION

All delegates, guests, staff of the Head Office, Host Secretariat, and members of the press will be distinguished by different colored name badges, which are to be worn at all times. The categories and badge colors are as follows:

Category	Color
1. Directors, Alternate Directors, Members of Executive Committee, and Regular Members	Blue
2. Associate Members	Walnut
3. Honorary Members	Red
4. Non-Members	Brown
5. Ladies	Yellow
6. Guests	Green
7. Staff of Head Office and Host Secretariat	White
8. Press	Black
9. Host Port Commissioners	Gold

## BULLETIN BOARD

Announcements and notices on the Conference, Meetings, and other items of interest will be posted on the Board. Delegates are requested to check the Board daily for such communications.

## COMMUNICATIONS

### a) Postal Services

Postal facilities located in the Lobby area of the Grand Ballroom will have stamps and other postal services available. Delegates can mail letters and parcels there. The service will operate daily from 0900 to 1700 hours, beginning Monday, April 25, 1977. A Post Office representative will be on hand during these hours to answer questions and be of assistance in the preparation of Conference material for mailing.

### b) Incoming Mail

Incoming mail for all delegates registered at the Shamrock Hilton can be collected from the pigeon holes. All such mail should be addressed to the delegate c/o 10th IAPH Conference Secretariat, Shamrock Hilton Hotel, P.O. Box 2848, Houston, Texas 77001, U.S.A.

### c) Telex Facilities

A telex machine will be installed in the Walnut Room on the third floor of the Shamrock Hilton and those delegates

who wish to use these facilities must pay in cash.

Incoming telex messages received during the Conference hours will be posted in the pigeon holes located near the Grand Ballroom. Messages received after 1800 hours will be distributed the next morning. A telex number will be assigned and made known to the delegates with Conference promotion material well in advance of the Conference.

### d) Telegraphic Messages/Cables

The Telex Office will also handle outgoing telegraphic or cable messages, the services for which must be paid for in cash. Incoming messages will be placed in the respective delegate's pigeon hole. All incoming telegraphic/cable messages should be address to the name of the delegate c/o IAPH Conference, c/o Port of Houston (910-881-5787 PORTOFHOU HO), Houston, Texas, U.S.A.

### e) Telephone

Telephone extensions for delegates' use are amply provided in hotel rooms and hotel lobbies.

Internal calls within the Shamrock Hilton can be made by dialing the hotel operator.

External calls from the Shamrock Hilton can be made by dialing "9" followed by the telephone numbers. The switchboard operator should be able to put the calls through if requested.

Internal calls may be made on delegate's own account through switchboard operator.

Incoming calls during the Conference sessions will be noted and messages will be placed in the respective delegate's pigeon hole.

If any telecommunication message is urgent, then the message will be delivered immediately to the delegate personally.

## CURRENCY

Visiting delegates are encouraged to exchange currency for U.S. dollars prior to their arrival in Houston. International traveler checks and credit cards are acceptable at the majority of shopping centers and hotels. Arrangements are being made for an international bank to have a representative on hand in the hotel for limited hours to assist delegates in converting most world currencies into the local dollar and vice-versa.

## CUSTOMS

Customs are committed to the expeditious clearance of international passengers arriving in Houston as the port of entry. Delegates may bring the following items into the United States, free of duty:

Alcoholic beverages	One U.S. quart (0.946 litre)
Cigarettes	300
Cigars	50
Tobacco	3 Pounds (250 grams)

Personal affects such as wearing apparel, jewelry, toilet articles, hunting and fishing equipment, and similar personal effects, if owned by a delegate and in his possession before arriving in the United States, and appropriate for his

personal use.

It must be emphasised that the list of duty-free allowances are not allowed to be transferred to non-entitled persons as they are for the sole consumption or use of the traveler.

#### EXHIBITS

The Conference will also feature an Exhibit on ports and related port equipment, machinery, and construction. Limited information and a proposed application form may be found in Section X of this brochure.

#### IMMIGRATION AND HEALTH

Visitors to the United States must have a valid passport together with stamped Visa of Consulate of the United States or Embassy of the United States. Multiple entry visas are needed if delegates plan to visit other countries while visiting the United States.

No certificates of vaccination or record of immunizations are required for entry in the United States.

#### INFORMATION COUNTER

Any inquiry relating to the meeting, taxi or car rental services, tipping, photographs, restaurants or entertainment and others may be made at the Information Desk at the entrance to the Grand Ballroom of the Shamrock Hilton Hotel. (Separate facilities will be provided for the Press.)

#### LANGUAGES

In accordance with the IAPH Constitution, the official language in the Houston Conference will be English. There will also be simultaneous translation of all Plenary and Panel Sessions in Japanese. All working papers will be printed in English.

#### MAILING ADDRESS

Houston Conference Secretariat  
10th International Association of Ports and Harbors  
Host Secretariat  
Port of Houston Authority  
P.O. Box 2562  
Houston, Texas 77001  
Telephone: (713) 225-0671  
TWX: (910) 881-5787  
Telegraph Address: Shamrock Hilton Hotel  
(After April 22, 1977)

#### MEDICAL FACILITIES

A doctor can be made available through the Front Office Manager on duty at the Shamrock Hilton Hotel or by calling him through the hotel switchboard. For emergency, ask for Manager on duty.

#### OFFICIAL AIR CARRIERS

Pan American Airways, Japan Airlines, and KLM Royal Dutch Airline have been designated as the official air carriers for the Conference. They are making special arrangements to provide the best possible service to Conference delegates from the regions they serve with special emphasis to delegates transferring or connecting with one of several domestic airlines serving Houston as they arrive at various U.S. gateways or ports of entry.

Delta, Eastern and National Airlines have a ticket office to assist delegates with flight confirmations or any other

travel requirements, located in the Shamrock Hilton Hotel near the lobby, inside the entrance next to Trader Vic's.

#### OFFICIAL TRANSPORTATION

Transportation will be provided for delegates attending official functions held away from the Shamrock Hilton Hotel. The times buses leave for various functions are given in the Daily Program. The meeting area for the delegates to board buses is the front entrance of the Shamrock Hilton. Delegates are requested to be punctual.

#### PIGEON HOLES

Pigeon holes located at the Registration area outside the Grand Ballroom of the Shamrock Hilton Hotel will be provided for the delegates to receive telex and telegrams if any, as well as meeting information and other relevant material from the Host Secretariat and others. Delegates are requested to check the pigeon holes daily for such material.

#### SHOPPING IN HOTEL

Speciality shops for the ladies include a Beauty Salon, Jeweler, Drug Store and Gift Shop. For the men, a package Liquor Store, Ready-to-Wear, and Gift Shop.

#### SOUVENIRS

A desk selling IAPH and Conference souvenirs will be located in the area near the Registration area. Delegates may purchase ties, scarves or cufflinks with the IAPH insignia.

#### WEATHER AND DRESS

Springtime in Houston is generally warm and sunny with occasional rainfall. The average temperature is normally between 18°C to 38°C, therefore, only light clothing is necessary. Informal dress will prevail at practically all Conference functions. For men the normal evening dress is optional. National dress would be desired but business lounge suits may also be worn. For the ladies, evening gowns, cocktail dress or national dress will be in order.

#### ORGANIZING COMMITTEE

Conference Host—Port of Houston Authority  
General Chairman—Fentress Bracewell, Chairman,  
Port Commission  
W.D. Haden, II, Member,  
Port Commission  
Marcella D. Perry, Member,  
Port Commission  
Paul Drozak, Member, Port Commission  
John H. Garrett, Member,  
Port Commission

#### 1977 CONFERENCE COMMITTEE

General Chairman—Fentress Bracewell  
Chairman—George W. Altvater  
Conference Coordinator—Michael Scorcio  
C.E. Bullock            W.D. Dunnahoe            C.A. Rousser, Jr.  
R.P. Leach                J.K. Henderson            C.G. Seaman  
Ivonne Brieger           Norman E. Hueni            Ted Sumerlin  
W.R. Cook                Bruce Lyle                 David P. Walsh  
J.R. Curtis                Middy Randerson           Armando Waterland

#### LADIES COMMITTEE

Mrs. Fentress Bracewell, Chairman   Mrs. George W. Altvater  
Mrs. W.D. Haden   Mrs. Michael Scorcio  
Mrs. Marcella D. Perry   Mrs C.E. Bullock  
Mrs. Paul Drozak   Mrs. R.P. Leach  
Mrs. John H. Garrett   Mrs. C.A. Rousser, Jr.

#### OFFICIAL PHOTOGRAPHERS

Middy Randerson   Carl Bond

## TIME CAPSULE to be unsealed in 2014 at 100<sup>th</sup> Anniversary of Port of Houston

As a special commemorative event of the opening of Barbours Cut Container Terminal during the 10th Conference, a sealing of a time capsule is planned by the Port of Houston, according to Mr. G.W. Altvater's recent letter.

He says to all IAPH port members that;

One of events to take place during the forthcoming 10th IAPH Conference in Houston will be the dedication of our new Barbours Cut Container Terminal. This new \$55 million facility goes into operation in the next few weeks, but we plan to delay its dedication until the April Conference.

It is hoped that we will have one of our high government leaders officiate in the dedication. In addition, we are planning to seal a time capsule which will be opened on our 100th anniversary some thirty-seven years from now in 2014. While many remembrances of our own local scene will be included in the capsule, we feel it would be most appropriate if communications were included from our sister ports throughout the world.

If you would be willing to cooperate with us in this efforts, we would like to have a short letter from you expressing your thoughts, opinions and ideas on what you think world trade will be like forty years hence and what you feel your port will look like in the year 2014.

He concluded that a contribution be made until April 1, 1977. (rin)

## Election of Directors and Alternate Directors for the term 1977-1979

Secretary General Dr. Sato sent a letter of February 21, 1977 to all members of the Board of Directors of IAPH requesting them to elect new Directors and Alternate Directors for the term 1977-1979 and inform the Head Office of the result of the election by March 15, 1977.

The list of the Directors and Alternate Directors newly elected will be available prior to the 10th Conference and the official announcement of the new members will be made at the Closing Session of the 10th Conference on April 29 (Friday) 10:45-12:00. (TKD)

## Supplement to the Membership Directory 1977 Out

Under the date of February 28, 1977, "Corrigenda and Supplement to the IAPH Membership Directory 1977" which had been mailed out to all members of the

Association last October, was circulated among the members.

All changes and new additions received at the Head Office by February 10, 1977 were incorporated in the Supplement while those coming after February 11, 1977 will have to wait for due amendment until the next edition of the Directory which will be published in October, 1977.

Additional copies, will be available by requesting to the IAPH Head Office, Tokyo. (TKD)

## Port Mission from Jamaica Visited

On February 2, 1977, the Mission of the Port Authority of Jamaica, led by Mr. Noel A. Hylton, Chief Executive, visited the Head Office and was received by Dr. Hajime Sato, Secretary-General, and his staff.

The Mission was in Japan for about a week to promote the Jamaica's unique position in the Caribbean region as well as the newly built free-zone in the Kingston, among the Japanese enterprises.

During the visit to the Head Office, Mr. Hylton assured that his Authority intended to join the Association, in response to Dr. Hajime Sato's invitation.

The Members of the Mission were:

Mr. Noel A. Hylton, Chief Executive, the Port Authority of Jamaica  
Mr. Dhiru Tanna, Economic Adviser, Ministry of Public Utilities and Transport  
Mr. Ernest A. Sirod, Chairman, the Shipping Association of Jamaica  
Mr. Byron G. Lewis, Manager, Kingston Free Zone  
Mr. Peter E. Evelyn Managing Director, LASOCEAN



(Port Authority of Jamaica Mission at reception on Feb. 2, at Hotel Okura. Photo: Courtesy of Nippon Keizaisha Advertising Co., Ltd.)

## Mr. Kudo of A D B visited Head Office

On February 4, Mr. Kazuo Kudo, Senior Project Engineer, Asian Development Bank, Manila, visited this office and was met by Dr. Sato and his staff. A necessity for establishing a closer coordinating relationship between the two organizations was discussed. Mr. Kudo is a civil engineer specialized in harbour engineering, and has been working for the Asian Development Bank since 1974 being despatched from the Ministry of Transport. (rin)

# Natural Harbours Can Accommodate Very Large Ships

*The following article was received from Mr. Paul Bastard, Chairman of Special Committee on Large Ships, IAPH, who is Director of the Bureau of Ports and Harbors, Ministry of Equipment, France with his instructions the article should be published in this particular issue of the journal coming out prior to the 10th Houston Conference. The article, as Mr. Bastard comments, was originally written by Captain Young, Harbour Master, Clyde Port Authority, U.K. and was sent to him by the good offices of Mr. J.P. Davidson, the Authority's Managing Director, who is a member of Mr. Bastard's Committee on Large Ships. (TKD)*

Ports need not be large in administrative, financial and physical dimensions to successfully accommodate Very Large Ships. Indeed in these days of galloping inflation and the unpredictable demand, consumption and resources of energy, there is a very positive role for the smaller ports which, by the destiny of nature, have been endowed with the necessary geophysical characteristics for such a purpose.

The term 'Very Large Ships' includes V.L.C.C.s, U.L.C.C.s, Large Combination Carriers, Large Container Vessels and Liquid Gas Carriers. The fundamental criteria for the reception of Very Large Ships are as follows:—

## (1) Adequate Depth of Water

It is important that the depth of water avails not only at the berth, but also along the route and in the near approaches to the Port.

## (2) Adequate Water Space

The less constrained Very Large Vessels are by man-made channels the fewer are the constraints placed upon their navigation.

## (3) Adequate Shelter

This in natural deep water ports is most often present as an integral part of the geophysical fjord-like nature of the harbourage.

## (4) Control Systems

An efficient Port Control organisation which is consistent with the traffic using that Port and with the meteorological conditions, especially the incidence of impaired visibility.

Given the foregoing criteria, a relatively small port may well accommodate Very Large Ships without vast capital expenditure. Such ports may be so situated as to avoid the constraints imposed on large vessels having to navigate along sea-routes where insufficient depth of water avails at low tide. It is in such waters that the dangerous practice of 'riding the tide' is employed and where Owners and Operators of Very Large Vessels on occasion accept margins of underkeel clearance which would have been considered inadequate for conventional vessels a relatively short time ago.

No-one would wish to detract from the engineering ingenuity of the massive developments for the accommodation of Very Large Ships at, for instance, Europort, Cap d'Antifer and Fos-sur-Mer. Physically they are excellent but the necessary large capital and maintenance expenditure must impose a considerable burden on the economical viability of these particular Ports.

The advantage of the smaller sheltered port with natural deep water are:—

- (1) There may be no capital dredging required and very often no maintenance dredging commitment.
- (2) Traffic volume is relatively low and generally does not impose a highly sophisticated and expensive port control establishment.
- (3) There is generally a lesser degree of exposure and, consequently, construction costs tend to be less costly.
- (4) Such developments tend to be located at a distance from large industrial and urban conurbations and, consequently, have planning attractiveness.

A further factor in the exploitation of natural deep water Ports, however minor, is the tremendous technological developments and success in pipe-line construction, both overland, underground and submarine. Pride of place must, of course, be given to the Prudhoe Bay/Valdez pipe-line, 800 miles long, particularly in view of the geophysical, climatological and environmental difficulties which were overcome by sheer dint of effort and technological ingenuity. There are also impressive continental overland pipe-lines such as the South European Pipe-line which reaches 490 miles into Europe from Fos to Karlsruhe, serving more than 15 oil installations en route and, of course, the tremendous achievement in connecting the North Sea oil wells to the United Kingdom and Continental shores.

Pipe-lines, while politically vulnerable, as has been experienced in the Middle East, are proving that inland petro-chemical installations can be efficiently, economically and strategically sited and supplied by this means, which has the added advantage of avoiding an unnecessary proliferation of oil ports around a Nation's coastline while, at the same time, permitting the economy of scale related to Very Large Ships to be successfully exploited.

24th January, 1977.

## Membership Notes

### New Members

#### Regular Member

Mississippi State Port Authority  
P.O. Box 40, Gulfport, Mississippi 39501, U.S.A.  
Office Phone: (601) 863-3851  
(Capt. Robert C. Engram, Port Director)

#### Associate Members

Sir William Halcrow & Partners (Class A)  
Newcombe House, 45 Notting Hill Gate, London W11 3JX  
England, U.K.  
Office Phone: 01-727-8080  
Cable Address: PROPULSION LONDON W11  
Telex No.: 267842 HALCRO G  
(Mr. E. Loewy BSc FICE M. ASCE, Partner)  
Mr. D. Charritat  
5, rue Chante-Coq—92801 PUTEAUX, France  
Office Phone: 776-42-32  
Telex No. 620495 OTEPIPE PUTAU  
(Petroleum & Ore Transportation Engineering)



# Port of New Orleans Is the Birthplace For the LASH and SEABEE Concepts

**Special to IAPH**  
**By Rosemary James**  
**Special Assistant to the Board**  
**of Commissioners of the Port**  
**of New Orleans**

New Orleans, La., January 25, 1977:—The Port of New Orleans is both the birthplace for the LASH and SEABEE concepts and the world's capital for the operation of these ships. LASH was invented by the New Orleans marine architectural firm of Friede and Goldman and the SEABEE system was conceived, designed and built exclusively for Lykes Brothers Steamship Co. Inc. of New Orleans.

About 80 per cent of all the world's LASH/SEABEE vessels operate in and out of New Orleans on trade routes to Latin America, Europe, the Middle East and the Far East. The lines using New Orleans as a major terminus are:

— Central Gulf Lines Inc., the pioneer line for LASH, home-based in New Orleans.

— Combi Line, European based, with New Orleans as its major U.S. port and represented by Biehl and Co. Inc.

— Delta Steamship Lines Inc., home-based in New Orleans.

— Lykes Brothers Steamship Co. Inc., home-based in New Orleans with both its SEABEE and its other shipping operations.

— Waterman Steamship Corporation, headquartered on the U.S. Gulf Coast and a major line New Orleans.

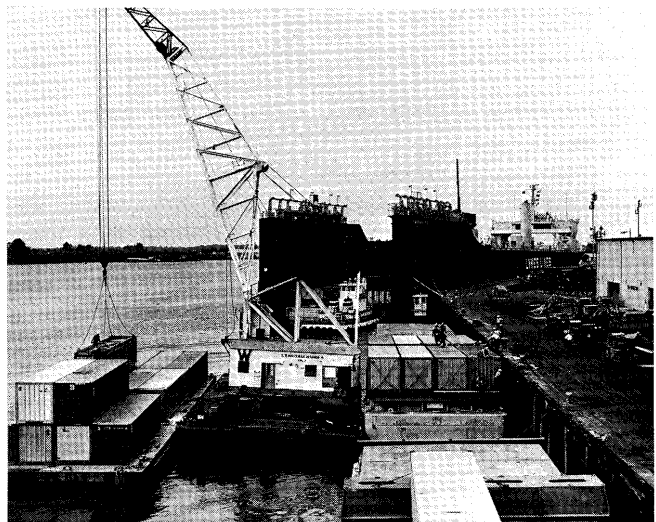
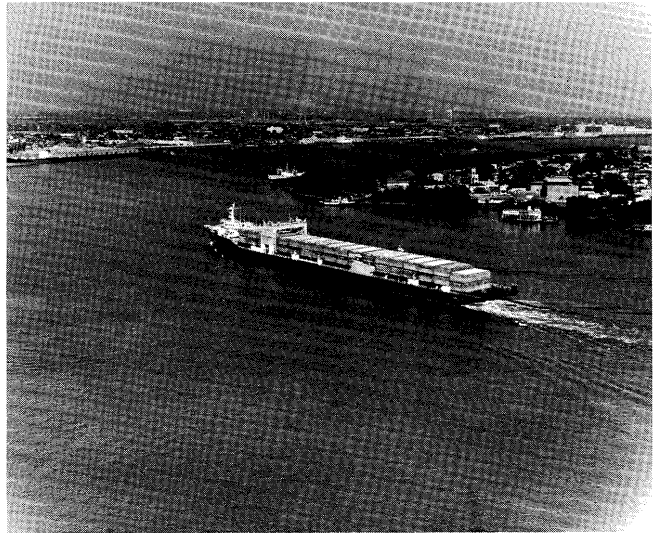
While the barge-carrying ships and their barge fleets can be built anywhere in the world, in fact most of the units have been built in the New Orleans area by shipyards also holding contracts for future construction of these vessels and barges.

Because of its location at the terminus of the nation's greatest waterway system—the Mississippi River and its tributaries—New Orleans is the logical LASH/SEABEE port for all of America. As a result, the Board of Commissioners of the Port of New Orleans has worked closely with operators of these vessels to provide the facilities needed to accommodate the mammoth ships with their sprawling loading operations.

Special facilities such as the Milan Street—Napoleon Avenue wharf complex are specifically equipped to handle the barge-carrying ships. Milan's capacity is estimated at 650,000 tons of cargo per year. Delta Line is preferentially assigned to Milan Street and also uses the new Napoleon Avenue open wharf, located immediately upstream. Combi Line and Lykes use Nashville Avenue, one of the finest wharf complexes in the world.

Central Gulf recently consolidated its operations at Perry Street Wharf, a West Bank terminal across the Mississippi River from the city's Central Business District. The wharf has a 1,000-foot frontage and a total cargo area of 239,985 square feet of sheeded area. It is served by direct truck and rail connections, including double water-side marginal tracks.

Waterman was preferentially assigned recently to the Erato-Julia Street wharf complex, enabling the firm to accommodate its LASH and conventional ships at con-

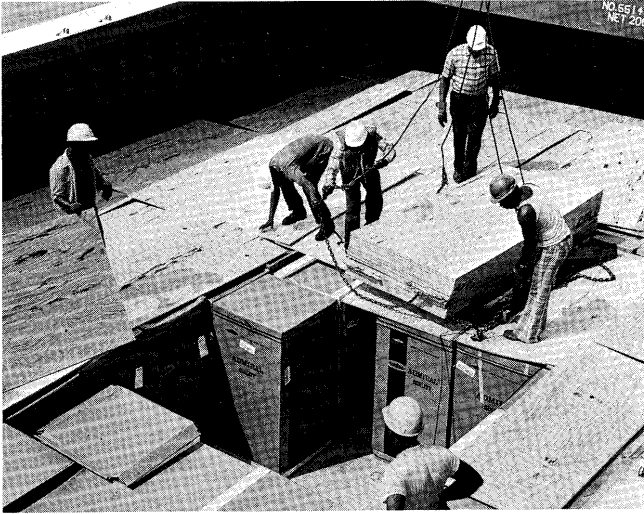


tiguous berths.

The success of LASH/SEABEE with inland penetration has been helped enormously by the fact that New Orleans has excellent commercial barge and towing services. The abundance of heavy lift equipment, including floating derricks, and expert stevedoring operations has meant good service in terms of both handling speed and care in transferring cargo from ships to many barges bound for many destinations.

W.J. Amoss Jr., president of Lykes, believes that improving the availability of specialized barges such as chemical carriers and reefer equipment will allow the operators to improve the scope of LASH/SEABEE service.

He does not believe there will be any radical changes in the mothership concept for some time to come. "For example, advances in terms of speeds have been pretty well screwed down by the energy crunch. With the sharp increases in fuel costs, even the smallest increases in speed would mean heavy increases in the cost of operating the ship. And there is not likely to be any change in this situation for the foreseeable future.



Appliances are stowed safely aboard Waterman LASH barge for shipment to the Middle East. (Waterman Steamship Corporation)

“Some people have toyed with the idea of atomic power for commercial ships but in reality the notion of utilizing this form of energy is totally out of sight. For the immediate future, therefore, improvements in the utilization of these concepts are going to be in the area of regining the delivery system, in some cases by third party firms, such as tug operators, and in marketing the advantages of the system.”

Amoss says there is no question in his mind that LASH/SEABEE will continue to gain in popularity because of the rate differentials with other transportation systems.

Central Gulf president Erik F. Johnsen agrees that more specialty barges could be a decided factor in improving utilization of the LASH concept but adds a qualifier.

“There is a potential for carrying more cargoes as specialty barges become more sophisticated and more available. The problem with this avenue for increasing cargoes, however, is that the operator must always look for a balance between outbound and inbound cargoes. If you start getting too specialized in your barge fleet and begin, for instance, carrying a lot of chemical carriers in one direction, you must find similar cargoes for the return voyages in order to make a profit. Of course, this adds to cargo solicitation headaches.”

It is in the area of marketing and rate-making that Johnsen sees the most potential for improving utilization of barge-carrying ships and at the same time improving utilization of the Port of New Orleans.

“LASH already is proving a better tool for the cargoes that are pretty much captive cargoes for New Orleans right now, such as agricultural products on the export side and steel products on the import side. The basic advantages of LASH—such as faster turnarounds, and cargo deliveries, superior cargo protection minimizing damage and pilferage, reduction in inventory and warehousing requirements, single bills of lading and versatility in cargo handling—make me believe that LASH will also become the obvious and better tool for a lot more high values cargo than we are carrying now.”

Rolph Rukan, vice president of Biehl & Company, says, “Once American shippers begin to realize that even though



their plant locations are not on waterways they can save by shipping via LASH to the great river systems of other nations—saving money on the other end in other words—I see a great future for New Orleans as a major LASH assembly point.”

Herbert Hansen, Waterman vice-president, agrees. “New Orleans is a natural assembly and break-out point.” So does William St. John, president of the International Association of Freight Forwarders and Customs House Brokers of New Orleans. “LASH offers great possibilities as a competitive tool to offset Mini-Bridge, which is causing the Gulf of Mexico to be completely bypassed on many cargoes. If a new structure of intermodal rates built around LASH/SEABEE can be put together—and the operators already are working toward this goal—New Orleans will be able to get some of those cargoes back.”

Port officials already are working to establish New Orleans as the major assembly/break-out point for LASH/SEABEE. Capt. H.G. Joffray, associate port director, points out that economic analyses done for New Orleans indicate that by the year 2000 one third of the cargo moving through New Orleans will be oriented toward LASH/SEABEE vessels.

“With this as a guideline, port officials have been carrying out facility planning to meet the needs of LASH/SEABEE as these needs occur. With some renovation and rehabilitation, existing facilities can accommodate these vessels without the need for tremendous expenditures for overly sophisticated facilities.”

As Hansen and Rukan put it, “The beauty of the LASH/SEABEE technology is that it does not require heavy investment in shoreside facilities.”

# An Outline of Port Developments in Brazil — III (Concluded)

(Continued from March 1977  
issue)

Reprinted from "Portos e Navios",  
August 1976 with personal approval  
from Mr. A. O. Markus who visited  
IAPH in Japan in September, 1976.

## Terminals for specific cargoes

Since they became operational, Brazil's ports have been known worldwide as general cargo ports and, with the exception of coffee and cocoa exports, have usually been thought of as ports of importation.

With the surge in Brazil's other agricultural products and mineral production, a series of what might be called special ports have quite recently come into maritime use.

The first of these in export tonnage is undoubtedly Tubarão. Situated within the old harbour of Vitória, State of Espírito Santo, this terminal, controlled by Vale do Rio Doce S/A is now loading some 55 million tons of iron ore per annum. This is about an average of 150,000 tons per working day.

Santos and Recife have newly constructed bulk sugar terminals and in recent times sugar exports from Brazil have sometimes topped the traditional coffee exports in dollar value.

Built on the island of São Sebastião, off the coast of the State of São Paulo, this terminal is used exclusively for crude petroleum imports, and is controlled by Petrobrás.

## SALT ISLAND IN THE SEA

Fourteen kilometres off the easternmost coast of Brazil that juts out into the Atlantic, there is a new island, and shipping has been warned of its existence. This is Brazil's new ocean port devoted entirely to the shipping of salt in bulk.

Situated 5° South of the equator, this is an artificial island built on the continental shelf. The coastal waters here are shallow and contain many reefs making it impossible for large ships to come close inshore. Along the coast for many years there have been sea water evaporating pans where salt is produced by the heat of the tropical sun.

Volume production of salt is little problem, but getting it to market from this isolated coast has always been the difficulty. Brazil, like any industrial country, needs salt in ever-increasing quantities and the problem has now been solved in one of the most outstanding feats of engineering of today.

This new salt terminal which ranks as one of Brazil's newest and most modern ports—known as Termisa—Terminals Salineiros do Rio Grande do Norte S/A—carries a stock of 100,000 tons, which is supplied by shallow draft barges from the coastal salt pans at the rate of 300 tons/hour as a continuous service.

The salt is unloaded by two travelling grab gantries in continuous operation, discharging via conveyors on to the

island stockpile.

Bulk carriers of up to 35,000 dwt moor against dolphins and are secured to three buoys able to take a strain of 75 tons in a water depth of 16 metres in the open sea.

The deepwater loading point is connected to the artificial island salt terminal by a continuous conveyor belt bridge, 400 metres in length and 12 to 21 metres above sea level. This 36-inch conveyor delivers salt at 1,500 tons/hour to the bulk carrier, where it is distributed by a radial ship-loader, with a 34-metre retractable extension arm. The conveyor drive house is located on the ship-loader from where all loading operations can be controlled.

The artificial island, with its salt stockpile, contains the diesel power house, administration offices and communications centre with both shore and loading point, together with all the usual services of canteen, wash rooms, first aid station and stores.

Fast launches ferry personnel to and from the island and the shore on a regular schedule.

This is a port in all its essentials, but although it is out of sight of land it is now loading 1,300,000 tons per annum. Some of the salt cargo is exported, but the majority goes to the industrial south of Brazil. The total investment was about US\$35 million for this Brazilian special product port.

## SUPERPORT FOR A PRODUCTIVE AREA

The State of Rio Grande do Sul is one of the most productive per square kilometre of any State of Brazil. Porto Alegre is the capital and a rapidly growing industrial area, but is not an open sea Atlantic port.

The most modern port facilities of this highly diversified and productive southernmost region of Brazil is Rio Grande, south of Porto Alegre on the Atlantic. For the specific purpose of serving both agriculture and the expanding industrial centres, the installation by Portobrás of new wheat and soya terminals are priority projects within the scope of the II National Development Plan.

This new project will take care of soya exports and the shipping to other parts of Brazil of wheat grown in Rio Grande do Sul, to the extent of 11 million tons per annum of grain, meal and cake.

Three years have been allowed for the termination of the terminals, starting in 1977, at a cost of US\$130 million, 20% of which will be supplied by Portobrás, the remaining 80% to come from long-term financing. Equipment is expected to consume US\$30 million, of which not more than US\$6 million will be imported.

Specifications provide for the following facilities:

- a) 412.5 metre quay, with 14.5 metre depth to allow one category 4 ship (average 40,000 dwt) and one category 6 ship (62,000 dwt average) to tie up simultaneously;
- b) 611.72 metre quay, 3.5 metre depth with 6 berths for 1,250 ton barges (3 for wheat and soya grain with 400 ton/hour capacity each and 3 for meal and cake cargoes with 500 ton/hour capacity each);
- c) Vertical wheat and soya grain silo, 130,000 ton capacity, 4,400 square metre area;

- d) 2 horizontal warehouses for meal and cake storage, 65,000 tons capacity and 1,960 square metres each;
- e) Truck and rail wagon unloading bays;
- f) Road and rail connexions;
- g) Various buildings;
- h) Loading and unloading equipment for the barge quay.

#### OTHER FEATURES IN RIO GRANDE PORT

Within the Rio Grande port a number of companies have already installed several terminals including those for refrigerated meat and fish.

The necessary port services now completed involved ballasting of the rail link, construction of a port highway, building of a road freight terminal, construction of a . . . 10,000 ton cold storage warehouse area, reconstruction of the linking causeways and the dredging of a new channel at the Atlantic bar to a depth of 14 metres, 200 metres wide for nearly one kilometre. This work also comprised the installation of electrical sub-stations, stores, offices and two canteens.

Works now in hand include the extension of the general cargo quays to total 2,000 metres, with an improvement of the paved service area. Installation of the two new container handling assemblies. The preparation of the support area, together with a large area of fill to provide ample service space for incoming road transport.

Adjacent to the port, areas have been set aside for the expansion of both light and heavy industries. The environment has been protected and a tourist area set up. A nearby housing area is arranged close to a University campus adjoining the green belt.

Full completion of the total project is not far away, while in the meantime a considerable increase of ocean traffic is already using this opening to one of the richest States in Brazil. This is one of the newest of Brazil's modern ports.

### Amazonia is dependant on water transport

In a speech outlining the development of the Amazon region Engineer Arno Oscar Markus, president of Portobrás, pointed out that this northern area of Brazil represents the largest hydrographic basin in the world. As a result, development is intimately linked with the expansion of navigation which, in turn, depends on the availability of suitable ports on the Amazon and its tributaries and the Tocantins river.

At many of these river ports the seasonal rise and fall of the waters of this vast basin makes it necessary to install floating landing stages linked to the bank by intermediary floating pontoons. These ports during a large part of the year are the only link with the rest of the world via Brazil's . . . 20,000 or more kilometres of navigable waterways the great majority of which comprise this basin.

Within the national plan now being implemented, improvements to many of these river ports have already begun, since they are so vital to communications and the future development of the region. Details of some of the works in hand are as follows:

#### BELÉM

The Companhia Docas do Pará is one of the mixed economy companies with Portobrás as a majority shareholder, whose purpose, in this case, is to administer the

ports in the State of Pará, including Belém, the capital of the State, and Santarém on the Tapajós river.

Apart from operating general cargo, Belém, on the Guamá river, handles much of the timber, partly industrialized, going out of this area of Brazil. For this purpose two new warehouses of 120 x 20 metres are nearing completion, providing the port with a total of 18 warehouses inside the docks area.

In addition, a new port is under consideration for Belém at Vila do Conde, in conjunction with the Companhia Vale do Rio Doce.

#### SANTAREM

Santarém, close to the Amazon river is situated on the Tapajós river, where it is some 15 kilometres wide. This situation as an outlet for minerals, agricultural and cattle products from Amazonia amply justifies the expansion and improvements made to the port by the Companhia Docas do Pará.

With efficient port services and adjusted port dues, Santarém has already considerably increased maritime traffic which is expected to expand even more when the Cuiabá-Santarém highway is complete. In addition, this port is also in the Transamazonian Highway overall scheme.

#### MANAUS

The principal port of Amazonas, Manaus is situated on the north bank of the Negro river. Studies are under way for the installation of a new port to serve this important area. The existing floating quays are to be extended as also the warehousing area. Considerable new equipment is on order, among which is a 100 ton floating crane.

#### ITACOATIARA

This port, on the Amazon river below Manaus, is to have a 440 ton floating quay supported by 20 pontoons. The piling and anchorages are almost complete and the installation is programmed to be in operation by January 1977. This is one of the few port which already has a road link with Manaus. Warehouses are under construction.

#### PARINTINS

Below Itacoatiara, on the Amazon, and above Santarém, Parintins will have a new fixed quay, an intermediary floating pontoon of 48 tons and a floating landing stage of 87 tons. The anchoring dolphins are already in place. Warehouses on shore are under construction and the project should be in operation by November next.

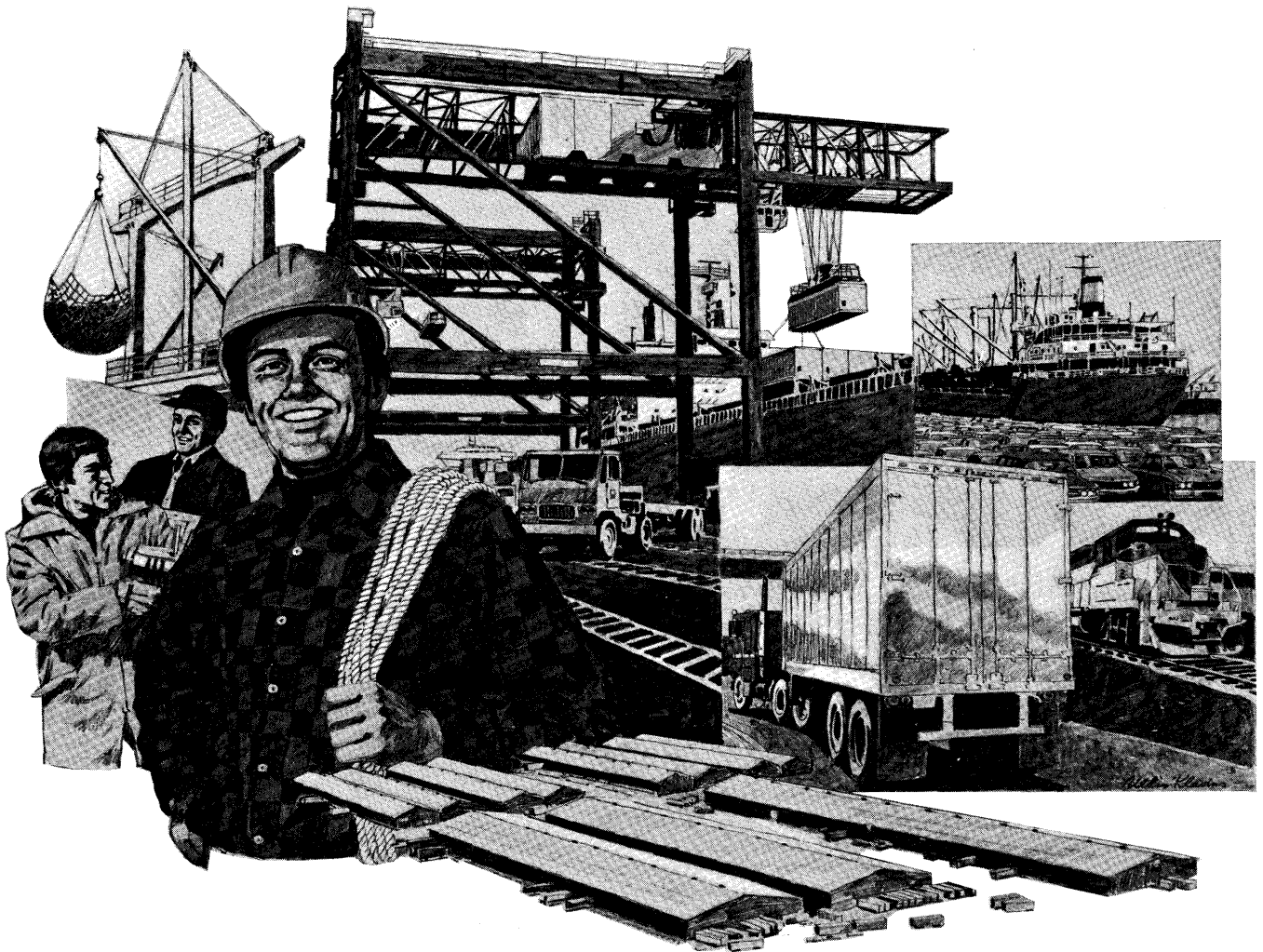
#### COARI

Situated on the Solimões river (upper Amazon) Coari will have an 87-ton hinged gangway to an intermediary pontoon secured by piles now in place. The main floating landing stage of 440 tons will be secured by anchorages already located and warehouses are under construction. The port is due to be ready in October this year.

#### TABATINGA

A port at the highest point on the Brazilian Amazon on the borders of Peru, it is subject to considerable variations in river level and consequently has a 167-ton hinged bridge connecting the intermediary pontoon to the shore. The main floating landing stage weighing 440 tons is now ready and anchored to dolphins. Electric illumination is installed and the entire project should be in service by August 1976,





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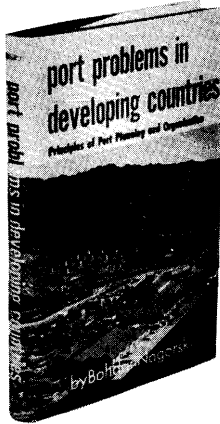
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complete with winches.

## HUMAITÁ

At the point where the Transamazonian Highway crosses the Madeira river, 600 kilometres or so south of the Amazon river, Humaitá has now been fitted with a new floating landing stage, warehouses and administrative buildings. The final piling will be completed when the river level subsides and the project should be ready for service by October 1976.

## PORTO VELHO

Further up the Madeira river this port has also been fitted with a floating quay and warehouses. Administration buildings and equipment for the new workshops under construction are on hand.

## Santa Catarina ports getting facelift

The ports of São Francisco do Sul, Itajaí and Imbituba, all located in the State of Santa Catarina, have come in for their full share of attention from Minister of Transport Dyrceu Nogueira and the Portobrás President Engineer Arno Oscar Markus, both of whom keep in touch with work in progress in the area, while also providing Cr\$68.4 million in the way of Federal funds for the current year.

### SÃO FRANCISCO DO SUL

Shipping handled through São Francisco do Sul tends to centre on liquid and solid bulk cargoes, with soya, beans, meal, pellets and oil, leading in the exports loaded at this port. The importance of São Francisco do Sul can be gauged by the fact that it is the only port in Santa Catarina that integrates with both the rail and road network thus serving the west and south of the State of Paraná and the west of Santa Catarina.

An agreement is in force between the port and the Companhia Catarinense de Comércio e Armazenamento—Cocar, covering the leasing of an area of ground on which Cocar are installing bulk cargo storage for solids as also soya oil tanks.

Dredging has been undertaken in São Francisco do Sul in the turnaround area of the port and by a channel dredged to 8.20 metres, some 251,800 cubic metres of material has been removed by the dredge "Thiers Fleming".

Portobrás will be arranging for the dredge "Rio de Janeiro" to be moved from Paranaguá, where it has been operating, to work at São Francisco do Sul, probably in October. This will enable the access channel to be dredged to 9 metres depth. Estimates place the amount of material requiring to be removed at 1,100,000 cubic metres.

Modernization of port installations is to cost Cr\$8.9 million for which funds have been allocated by Portobrás, to be applied during 1976, while a new grain terminal is planned to be ready within the next 3 years.

### ITAJAÍ

Itajaí formerly a lumber loading port for the State of Santa Catarina, at the mouth of the river of the same name, is now diversifying cargoes to include items such as cotton yarn, musical instruments, textiles, refined sugar, soya in sacks and soya oil, frozen poultry and pork, in addition to tobacco, cellulose and fish.

To handle this expansion, repairs to the moles are in hand, at a cost of Cr\$11,803,880, to be ready by December

next, while the new 4,800 square metre covered warehouse now building is to be finished by November at a cost of Cr\$9.6 million.

Frozen foodstuffs will be taken care of in the expanded and improved refrigerated warehouse, and an additional area is being paved for the container traffic. Other improvements include the building of a water reservoir and liquid bulk cargo storage tanks to hold 300 tons, already in use for soya oil for export. Repair facilities for fork lift stackers complete this work.

Total funds being made available by Portobrás to Itajaí, within the 1976 budget, are Cr\$32.5 million, to enable the port to serve adequately the micro-region through which the Itajaí river flows.

### IMBITUBA

Imbituba serves almost exclusively as a coal loading port for the Santa Catarina coal mines and, though integrated with the road network and waterways of the country, its rail connexion with the rest of Brazil is limited to the Estrada de Ferro Dona Tereza Cristina, a small railway connecting the port with Lauro Müller, Criciúma, Orleães exclusively, all coal producing areas.

This 230 kilometre railway suffered serious damage due to floods in 1974, but repairs, undertaken by the Empresa de Engenharia e Construção de Obras Especiais—ECEX, were completed in record time and the railway was back in service within two months and six days. A new 260 metre bridge was built over the river Tubarão in just over five months and the Criciúma bypass, begun in 1967 but subsequently left idle, was terminated in 7 months.

Alongside the Imbituba port area, the Indústria Carboquímica Catarinense—ICC, is building a plant for manufacturing sulphuric acid from the coal pyrites. It is also intended to use the sulphuric acid together with ammonia anhydride and potassium chloride to make fertilizers.

Since fluorite mines are also located in this area and their export has been authorized by the Federal Government, it is expected that this mineral will also be shipped through Imbituba.

Imbituba is expected to be handling some 3.6 million tons per annum of coal by 1985, in addition to becoming the centre of a carbo-chemical industrial area. Expansion of the facilities for coal handling and dealing with the products connected with the ICC project involve the acquisition of two 1,000 tons/hour coal loaders and construction of a yard for stockpiling 225,000 tons of coal. The general cargo handling area will be extended by another 15 metres on which two existing cranes will be installed. Funds amounting to Cr\$17 million have been earmarked for Imbituba.

With the proposed installation of a steel mill in Imbituba, new iron ore handling facilities will be required for this port.

### LAGUNA

A fishing port, Laguna is to be provided with a new ice-making plant costing Cr\$10 million. These funds have also been supplied by Portobrás.

## Port of Recife Expansion Plan

With the object of adapting Brazilian ports to the impending service in which they are becoming involved as a

result of the growth in Marine transport, while scaling down to practicable operating costs the loading and discharge of cargoes by the modernization of the port facilities and installations, Portobrás and Geipot, under joint agreement, have completed the studies covering the setting up of the Plano Diretor Portuário—PDP, an overall Port Directive for Recife.

This study refers to that part of the PDP drawn up for the whole of Brazil which specifically relates to the port of Recife, laying down the required policy that will accommodate a considerable increase of traffic during the coming decade, while at the same time permit reconstruction along the entire length of the 10-metre quay.

The study incorporates a reconstruction programme that will avoid any possible collapse of the quay, while reducing to a minimum any interruption in the expanding use of the port.

The Recife PDP pinpoints some of the bottlenecks present in the handling of cargo, such as:

- 1—The handling of fertilizers and sulphur in bulk is slow and inefficient, demanding specialized equipment and storage facilities.
- 2—The equipment now in use for the unloading of wheat is inadequate and involves considerable delays for the ships carrying this cargo.
- 3—The handling of general cargo is made difficult by the narrow width of the quay platform and particularly due to the situation of the small platform in front of the transit warehouses. The congestion on the general cargo quay is increased still further due to the system of direct delivery associated with the offloading of fertilizers and sugar which involves a considerable movement of trucks along the quay.
- 4—The general cargo cranes are old and inefficient, unsuited for modern cargo handling. In addition, the port does not possess any facilities for handling heavy items such as containers.

On receipt of the Recife PDP studies report, the top Brazilian Ports Authority—(PORTOBRAS) immediately put in hand the necessary measures outlined and recommended in the report.

For this purpose, Portobrás called a public tender for the drawing up of the final project together with the engineering involved for the work to be undertaken, the Consórcio Sondotécnica A.A. Noronha S/A having been the successful competitor.

Without delay these services were put in hand and the final engineering project is nearly ready covering the work that comprises the general layout. Designed to provide the port with the means and equipment on a level with the handling of the large variety of types of cargo that occur, the following additional projects are being included:

- Dredging of the access channel (depth 11.5 m)
- Dredging of the manoeuvring basin
- Berths for tankers to tie up
- A quay to berth bulk molasses carriers
- New stretch of the 60-metre quay in front of the existing 10-metre quay.
- Special installations for handling fertilizers
- Four general cargo berths fully equipped
- Modernization of the wheat unloading wharf
- General supply installations
- Construction of the administration and workshops building.

## QUAY FOR GENERAL CARGO AND FERTILIZERS

The quay-side work will involve the present wharf to an extent of around 900 m, comprising 5 berths, of which 4 are for general cargo and fertilizers.

The new quay will extend 60 m beyond the width of the present quay along a length of 540 metres in the area between the present Nos. 6 and 2 warehouses. In the remainder of its length there will be an increase of only 10 m.

## FERTILIZER TERMINAL

The fertilizer warehouse will cover an area of 4,650 m<sup>2</sup>, with 13 bins with a total capacity of 37,920.87 m<sup>3</sup> (for 45,000t at a mean specific weight of 1.38t/m<sup>3</sup>).

The warehouse will be provided with three overhead travelling cranes and unloading belts with a capacity to handle bulk cargo from their own derricks at 1,000t/h.

The loading of the material into trucks and rail wagons will be done simultaneously through a system of hoppers installed throughout the length of the warehouse, on the waterside.

## MOLASSES TERMINAL

Among the works envisaged for the molasses berth, the following are included: the construction of an 80 m extension of the existing quay to the north of the I.A.A. sugar and molasses terminal (I.A.A.=Institute of Alcohol and Sugar); dredging of the Beberibe basin to 10 m, facing the former Naval Base; increase of the present pumping capacity to 263.00 m<sup>3</sup>/h; over 5,000 m<sup>3</sup> increase in the molasses terminal storage (50% of the present capacity of the terminal).

The loading of the molasses will be carried out by pumping, two pumps functioning in tandem, with a capacity of 131.50 m<sup>3</sup> each, making possible the loading of a 20,000 dwt ship in 48 hours.

In addition to the work described, mobile wheat unloading installations are programmed with capacity increased to 300t/h, located on the quay of warehouse No. 9 Recife Mill, and the quay of warehouse No. 1 CACIP. In addition, there will be two general cargo warehouses each with an area of 7,500 m<sup>2</sup> (150 m × 50 m), backed by an infrastructure which will enable the whole ensemble of installations which will comprise the new port of Recife to function smoothly.

In the planning of the facilities a certain degree of flexibility has been incorporated to allow for future development, resulting from unforeseeable variations in the nature of the traffic to be handled.

The whole programme outlined here, involving the Expansion and Improvement of the Port of Recife, will enable this harbour to offer better services to its users, in line with the Transport Policy of the Federal Government and the State Government.

# Management Accounting & Reporting in a Multiple Ports Authority—II (Concluded)

**Mr. John Rippin F.A.S.A.**  
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**Papua New Guinea Harbours Board**  
**P.O. Box 671, Port Moresby**  
**Papua New Guinea**

(Continued from March 1977 Issue)

## Problem Areas

At this point it would be worth commenting on some of the particular problems which were encountered in changing to the new accounting system. The biggest single problem was a psychological one, in that for many years the Board's staff at all levels had become accustomed to thinking of revenue in terms of money collected after an event, rather than as charges raised concurrently with services being rendered. Considerable difficulty was encountered in convincing the staff who were involved in these matters that the actions of raising a charge and subsequently collecting payment for that charge, whilst being related, were two separate transactions. In the same way, in accounting for expense, which also had been conducted on a cash basis, there was difficulty in communicating the fact that the act of incurring of a debt and accounting for it was not directly connected with the payment of creditors.

In practical terms the results of this psychological "barrier" involved considerable delays in the rendering of periodical revenue reports from ports to Head Office, with the inevitable result that the reporting system lagged so far behind the actualities of port operation as to be considerably less than useful. Part of this delay was due to a reluctance to forward a periodical revenue report until every single item on that report had actually been paid, in spite of frequent advice from Head Office that such delays were not only unnecessary but disastrous. Other delays resulted from the fact that manifests are often amended, and given foreknowledge of such cases ports would commonly delay their revenue reports until final manifests had been lodged and correct charges assessed.

There were other problems of course. Whilst the Harbours Board By-Laws do not permit the granting of credit there is in fact a short period of grace allowed for payment of port charges, and thus there is a lag between the raising and the collection of charges in any port. The accounting system made provision for this by the use of an Income Clearing Account for each port to which was debited the total amount of revenue charged in each period, the other (credit) end of the transaction going to the various port income accounts. The Income Clearing Account was credited with the collections for that port, and thus any balance in the account should have represented revenue uncollected at any point in time. This balance should have been capable of reconciliation with periodical lists of outstanding charges provided by the port, while inability to reconcile the Income Clearing Account generally would mean either that revenue had not been reported, i.e., it had been omitted from the revenue report, or

John Rippin, F.A.S.A., is the Secretary of the Papua New Guinea Harbours Board, which is the national ports authority controlling a present total of sixteen ports spread throughout that country. In this article Mr. Rippin describes briefly some of the problems involved in accounting and reporting in an organisation having a wide geographical spread and yet requiring centralised control. The methods adopted to meet the Board's management reporting requirements are also discussed. A few of the problems met with may be peculiar to the industry, but the general principles involved in their solution are no doubt capable of wider application.

incorrect figures had been picked up from the revenue reports in Head Office and posted to the account. In theory this was the perfect system, but due to delays in rendering revenue reports and other factors several periods elapsed before any attempt at reconciliation was made, and by that time the task was virtually impossible. Errors in the cash collection transactions were rare, because receipts were reconciled with banking returns and these in turn were linked to bank reconciliations.

Throughout the 1974/75 year a great deal of time and effort was expended in identifying the problem areas in the system and devising ways and means of dealing with them. It was clear that the biggest bugbear was delay in rendering periodical returns. The reporting system was rendered inaccurate to say the least, if the data on which it was based were incomplete and in dealing with a multiplicity of ports (the number had by now grown to 13) it was imperative that all returns should be available for processing promptly. The purpose of the reporting system, apart from measuring the performance of individual ports, was also vitally concerned with the Board's overall operational performance. Here again there was another psychological point involved, in that where four weekly reports were required there was an almost irresistible temptation for the compilers of the reports to utilise the whole of the ensuing four weeks (and often more) for completing their periodical returns. The logical conclusion to be drawn from all this was that a system of more frequent reporting was required. Weekly reporting would be desirable, but the resultant volume of processing (and at this point processing was still carried out manually) was frightening to contemplate. At this stage, fairly late in 1974/75 financial year, two decisions were taken which together appear to have provided answers to most if not all of the problems described above. The first of these was prompted by the availability in Papua New Guinea of a reliable electronic accounting machine with good back-up services—the NCR 299. Given the decision to utilise this machine the system of weekly processing became a viable proposition, and it was decided that this would be instituted with effect from the start of the 1975/76 financial year.



## Weekly Reporting & Processing

As a first step a billing system was devised which would lend reality to the concept of raising charges concurrently with the rendering of services, and at the same time simplify the task of port clerical staff in frequent reporting to Head Office. The system of four-weekly revenue reports was done away with, and three new forms, all of which were accountable (i.e., numbered) documents were introduced. These three forms, the Port Charges Invoice, the Port Charges Debit Note and the Port Charges Credit Note were printed in sets of four using self-carbon paper and bound in pads of 50 sets. The Port Charges Invoice, (PCI), which is the main form of the three, is now used to raise all vessel-related charges, and it contains pre-printed spaces for every conceivable charge of this nature. With regard to wharfage there are four separate sections (for overseas inwards and outward cargo and coastal inward and outward cargo) each with six lines containing a description of the six classes of cargo specified in the rate schedules for each general group, and with the appropriate unit rates pre-printed in every case. For every separate class of cargo the PCI provides a space, not only for the money amount, but for the tonnage statistics. Similarly in the case of berthage which, with the adoption of metric measures, is now charged on a metre/hour basis, provision is made for overseas and coastal vessels with spaces for statistics as well as money values. Similarly spaces are provided on the form for all other conceivable vessel related charges and wherever practicable the relevant rates are printed on the invoice. The principle of operation of the PCI, to which rigid adherence has been insisted on, is that the invoice is raised immediately upon receipt of the ships manifest whether or not this is known to be subject to amendment, and the instant the ship has completed working and left the wharf the invoice is rendered to the ships agent and the charges are payable forthwith.

The Port Charges Debit Notes and Credit Notes (which also show statistical data) are used where any amendment is necessary to the original invoice. Normally, this results from an amendment to the manifest, which may result from short-shipping at the port of origin, or short-landing at the port of destination, although there may be other reasons for amendments to a PCI. Of the four copies of each form, the top copy goes to the ships' agent, the second copy to Head Office for processing, the third copy on to a file in the Port Office which in effect represents a record of debtors, while the fourth copy remains fast in the book. Provision is made on the back of the third copy of the PCI for a record of payment, and this also provides for any debit or credit notes which may be issued in respect of that particular invoice.

For the purpose of reporting to Head Office, weeks run from Thursday through to Wednesday, this system having its origin in the original four weekly accounting periods which were linked to the fortnightly Wednesday pay periods. Suitable document control sheets are provided and after the close of business on each Wednesday the Port Offices assemble together all the appropriate copies of the PCIs, PCDNs, PCCNs, Sundry Charges Invoices and Cash Receipts, together with duplicates of Bank Deposit Slips and a Weekly reconciliation of outstanding (i.e. unpaid) charges. Depending on the distance of the port concerned from the Board's Head Office in Port Moresby these weekly batches of documents arrive in Head Office usually within

two to four days, where they are immediately fed into the mechanised accounting system.

Naturally, the new weekly system was subject to some teething problems in the initial stages, but these were overcome in a surprisingly short time. In the light of experience modifications were made to some of the reconciliation forms provided for use by the Port Offices and before many weeks had past there was a smooth flow of documents into Head Office with a maximum delay between the close of the working week to the time of posting to the accounts of about two weeks. All the primary documents are checked at Head Office prior to posting and their design is such that errors are very easily detected, and in fact these errors, when they do occur, can usually be quantified and corrected without reference back to the originating port.

The NCR 299 accounting machine is fully programmable and in addition to carrying out all the normal accounting functions a simple programme has been evolved which permits the cumulative recording of all the weekly wharfage and berthage statistics. As has been noted previously cargo falls into four main classifications, namely overseas inwards & outwards and coastal inwards & outwards, and within each of those four main classifications there are six classes of cargo specified in the wharfage rate schedules. This gives twenty-four different sets of statistics which may be accumulated in respect of tonnages handled for each port, to which must be added the two classes of berthage statistics, i.e., overseas and coastal metre/hours, giving a total of twenty-six individual items of data to be tabulated and accumulated for each port each week. By a happy co-incidence the NCR 299 has a capacity for twenty-six individual totalling banks. The value of this statistical data in the analysis of cargo tonnages handled is self-evident, and for budgeting and traffic projection purposes it is invaluable, since very detailed breakdowns of tonnages handled by each port are now available whereas previously statistics were only available covering to totals of the four main classes of cargo, overseas inward & outwards and coastal inward & outward.

In addition to being collected on a series of dissection sheets for each port, the wharfage and berthage statistics are also posted to the appropriate income ledger cards at the same time as the financial data are entered, and thus the task of compiling the four-weekly periodical reports for Management and the Board is vastly simplified.

In summary, it can be said that the introduction of weekly reporting and continual processing in Head Office has proved to be an unqualified success. Delays in reporting and processing have been almost completely eliminated, simply because the batches of data to be processed are smaller and more easily controlled. In the Port Offices the regular task of assembling and forwarding data to Head Office is simplified, again because the quantities of documents involved are small and easily controlled. Where there are errors or queries, the elapsed time before detection is so short that correction is a simple matter.

Accounting for expenditure is also carried out on a weekly basis, and in this instance of course the change in procedure which was required was minimal, vouchers simply being batched weekly instead of four-weekly.

## Form of Reports

The end result of the system which has been described  
(Continued on next page bottom)



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- Wharfage tonnages & income, by class;
- Berthage statistics & income, by class;
- Operating Expenses (in total)
- Cash Surplus (or Deficit) from operations;
- Depreciation & other provisions; and
- Net Surplus (or Deficit) from operations.

A summary in the same form is prepared for all ports, and another similar set of revenue reports compares revenue for the period and year to date in the current year with the same periods in the previous year. Expense reports are prepared in their normal way for every budget centre showing results for the current period and year to date and an overall income and expense summary is produced which brings into account non-operating income such as interest on investments.

There is a slight deviation from the principles of responsibility accounting in that depreciation on port assets, though strictly speaking a General Management responsibility, is actually reported in the individual port summaries. This saves a good deal of mental arithmetic and is more in line with reality, besides being compatible with the performance measures mentioned below.

The project agreement with the World Bank covering the Board's development finance specifies two measures of

performance, namely the return on average net fixed assets employed, and the rate of debt service coverage. The individual port revenue reports and the all ports summary make provision for the first of these two performance measures, while the overall income and expense summary for all the Board's operations quantifies both measures. In this context it is worth mentioning that as at the 30 June 1975 the Board revalued its operating assets, i.e., its wharves, facilities and port buildings, to replacement cost value. The basis of this revaluation was a detailed study carried out by a firm of Consulting Engineers, which not only provided an up-to-date valuation of all operating assets on a replacement cost basis, but also provided an appropriate index based on a number of weighted components which may be used for periodical updating of asset values. This is done annually and provision for depreciation is made on the basis of these replacement cost values, and since the Board carries no inventories to speak of, the result has been a virtual adoption of Current Cost Accounting. However, that is another story.

— Concluded

# Port of Québec (Qué), Canada

Port of Québec  
(National Harbours Board)

## ● Extracts from " Québec 1975— Port Guide and Directory "

### 1. Advertisement

You're going to feel DEEPLY about this.

The Port of Québec is not only a harbour deep enough for large ships requiring fifty feet of water, it's also located 850 miles closer to the great markets of North America and is open year-round.

To reach the Port of Québec, ships sail straight up the St. Lawrence River, full speed ahead, with no locks or extra pilotage charges to contend with.

Here you'll find everything you need to speed your cargo to major markets of Canada and USA,

via all modes of transportation. Coastal navigation, rail service by the two great Canadian trans-continental railways and long distance trucking through nearby Trans-Canada highway. Toronto, Buffalo, Detroit, Pittsburg, Philadelphia, New York and Boston are only one day away. You'll also find facilities for containers, dry and liquid bulk cargo, warehouses, grain elevators, Ro-Ro, Immigration, Customs, Coastguard and Shipyard.

Also of noteworthy interest are the Beauport Flats where 1500 acres of land are being reclaimed for Maritime and Industrial purposes.

The Port of Québec. It's a DEEPLY moving experience for you and your cargo.

### 2. Port Facilities

The Port and Industrial Area has:

- Thirty berths with a total length of 20,000 feet.



The Old Port and Beauport flats development—Port of Québec.



Port of Quebec, Canada—Wolfe's Cove area including container terminal.

- Ten transit sheds with a total floor area of 750,000 square feet.
- One bulk marine terminal, operated by St. Lawrence Stevedoring Co. Ltd., with three bridge towers having a loading capacity of 2,000 tons per hour. The 2,800 feet of dock frontage has a depth of up to 50 feet at the lowest tide.
- Two container berths used by C.P. Ships for weekly service to Rotterdam, London and Le Havre. The 18 acres terminal has a capacity of 2,400 containers. The two portainer cranes have respectively 35 and 40 tons capacity and can manipulate 80 containers per hour.
- Grain elevators, operated by Bunge of Canada Limited, with a storage capacity of 8,000,000 bushels and a loading capacity of 72,000 bushels per hour.
- One roll on/roll off berth which has a length of 962 feet and a depth of 40 feet at the lowest tide.
- Rail service by the two great Canadian Transcontinental Railways: the Canadian Pacific Railway and the Canadian National Railways.
- A dry-dock, operated by Davie Shipbuilding Limited, for vessels up to 80,000 D.W.T.
- Approximately 1,500 acres are being reclaimed for maritime and industrial purposes.

## ● Other Information Supplied

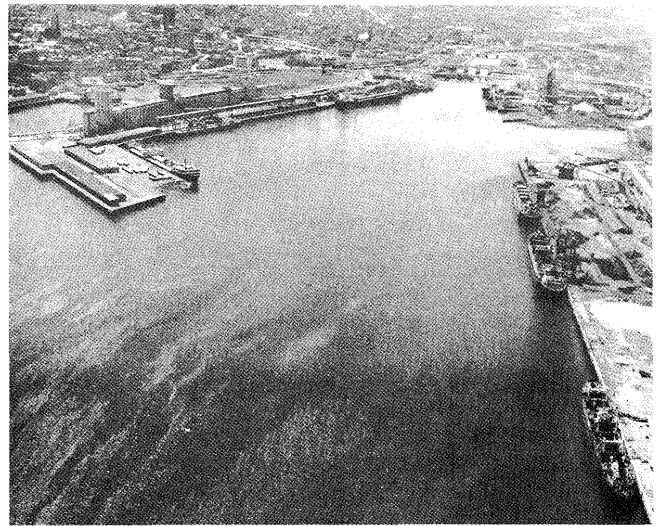
### 1. Description of Port

Quebec is the capital of the province of that name situated at the confluence of the St. Lawrence and the St. Charles Rivers. Pulp and paper, lumbering, mining and many other industries in addition to agriculture centre around the City of Quebec. It is a port of call both ways for the principal steamship lines on the St. Lawrence routes, cargoes and passengers being landed or taken aboard and is a terminal for crude oil, containers, grain, automobiles, asbestos, etc.

An active waterborne coasting trade is carried out during twelve months of the year between Quebec and other Eastern Canadian centres.

### 2. Traffic

In 1975, there were 383 ships engaged in foreign trade



Port of Quebec, Canada—St.-Charles River Estuary

which called at the port and their registered gross tonnage totalled 6,694,000 tons, this compared with 481 ships in 1974 with a registered gross tonnage of 7,260,000.

A similar decline was noted with regard to ships using the port facilities which were engaged in domestic trade, with 999 arrivals during 1975 compared with 1,259 arrivals during 1974.

Also, the total tonnage handled decreased from 13,929,997 tons in 1974 to 12,695,398 tons in 1975, and the amount of general cargo loaded and unloaded in the port decreased as well, 659,563 tons being handled in 1975 compared with 1,222,855 tons in 1974.

A dockers' strike lasting a month and a half and a slow resumption of work contributed substantially to this decline. In addition, the port suffered from the adverse effects of industrial strikes which took place during 1975 in the asbestos and the pulp and paper industries as well as the national and world-wide economic recession.

On the other hand, the Port of Quebec recorded a very noticeable increase in the grain, coal, sulphur and scrap metal traffic in 1975.

### 3. Study on Economic Impact

Main facts of the Study on Economic Impact of the Port of Quebec, published by the Quebec Port Authority in May 1974:

The Port of Quebec employs 2,438 workers directly and 2,387 indirectly including 286 in the metropolitan area of Quebec.

\$39,116,000 is distributed annually in wages to these 4,825 workers.

The total impact resulting from harbour operations amounts to \$103,198,200 annually.

The direct impact resulting from the handling of one ton of general cargo is estimated around \$30.00.

The sectors which benefit the most from port operation are:

1. Truck and Rail Transport	\$4,258,000
2. Retail Business	\$4,045,000
3. Insurance and Real Estate	\$3,775,000
4. Telephone and Telex Services	\$2,394,000
5. Wholesale Business	\$2,081,000

(Continued on next page bottom)



# "My Port, My Work" — View Over the Harbour

Extracted from  
"Haven Amsterdam"  
November 1976

Enthusiasm ran high at a recent HAVEN MANIFESTATIE organised by the trade unions, the municipality, the port management and various port organisations including The Amsterdam Port Association, publishers of HAVEN AMSTERDAM.

Using the theme, 'My port, my work' a number of speakers, including Amsterdam Burgomaster Dr. Ivo Samkalden, the Alderman for the Port, Dr. C. H. Goekoop, Mr. E.G. Stijkel, chairman of the Amsterdam Chamber of Commerce and Industry; Mr. R.J.H. Fortuyn, chairman of the Amsterdam Port Association and Mr. H.I.Möller, chairman of the Shipping Association North—the Port Employers' Association noted recent trends in the port and saw signs of encouragement.

Speaking for the trade unions Mr. G.J.C.A. Persoon and Mr. J.H. Schroër, noted the cooperation between the port management and industry there and the workers. At the manifestatie, there was a feeling of unity and faith in the future of the port.

The proposed deep water port facilities adjoining the Amsterdam harbour mouth at IJmuiden were touched upon by a number of speakers who deemed it necessary for the unhindered growth of the Amsterdam Port areas.

Mr. Stijkel sharply criticised Dutch government policy in putting off a decision on the outerport. He cited the fact that the Dutch government had pushed ahead with the Rhine-Schelde Canal, making easier access to the Rhine and thus the European hinterland for the Port of Antwerp. At the same time, the Amsterdam-Rhine Canal, undergoing improvements, still will not be able to handle unbroken push barge convoys until 1981. 'I defy you to name a country which neglects the port of its own capital and favours one of a foreign country—in this case, Belgium and Antwerp'.

Other speakers at the manifestatie noted that the outerport project would provide an additional 28,000 jobs and Dr. F.W. Adriaanse, adjunct director of the Amsterdam

Municipal Port Management said that about 45,000 of Holland's 230,000 unemployed at present live in the Province of North Holland which centres on the North Sea Canal area.

The proposed deep water outerport to be built to the south of the southern mole of the present harbour mouth at IJmuiden would be accessible eventually to vessels in the 180,000 ton range. Ultimately the deep water facilities would cover about 500 acres and have a draught limit of 19 metres.

The North Sea Canal, leading from IJmuiden to Amsterdam has a draught limit of 15 metres making it accessible to vessels in the 100,000 ton range.

The outerport would be limited to traditional port activities and would handle vessels requiring fast turn-around times, such as container and ro-ro ships as well as bulk carriers too large to get into Amsterdam. If this deep water port is built, it is estimated that the Amsterdam ports—the outerport, IJmuiden, Velsen, Zaanstad and Amsterdam itself—would handle some 64 million tons annually by 1990, compared to about 35 million tons today.

According to Alderman Goekoop, Amsterdam now handles only about 10 percent of the cargo handled in Rotterdam at present. If the 1990 estimations are correct, Amsterdam would still only handle 12 to 14 percent of the Rotterdam figure in that year. The main point of Amsterdam's argument favouring the deep water port at IJmuiden is that it is in the national interest and that traffic would not be taken away from other Dutch ports in the future, but would ordinarily go to ports in other countries.

This argument would seem to be true. Costs of the outerport are estimated at f 500 million. Yet the Belgian Port of Zeebrugge has just announced a f 2 thousand million expansion programme; France has completed a vast new project near Le Havre, called Cap d'Antifer. Perhaps the best argument can be seen in West Germany.

When Bremerhaven was developed about 30 years ago, it didn't detract from Bremen or Hamburg at all; rather it helped develop the entire Wezer area and all ports are prospering as never before.

The Port of Amsterdam is continuing to develop favourably. New lines are attracted and new facilities constantly being developed. The point is that it will develop even more satisfactorily if the Dutch government gives the green light to the deep water port facilities at IJmuiden.

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6. Financial Institutions	\$1,969,000
7. Oil Production	\$1,531,000

The total amount of direct and indirect taxes and other parafiscal payments received by the Provincial and Federal Governments amount to \$8,900,000 and \$8,127,000 respectively, that is a total of \$17,027,000.

The City of Quebec collects annually from the Port of Quebec and its principal lessees over \$1.2 million in subsidies in lieu of taxes.

The average salary paid annually by the firms which depend directly on port activity is approximately \$10,682.00.

Some 15,000 persons depend on the Port of Quebec if we assume that each worker has two dependents.



# Rotterdam-Europoort Information

Extracts from  
"Rotterdam Europoort Yearbook  
1977"

## Prospects based on confidence

The port of Rotterdam was not left unscathed by the world-wide depression of 1975. The decline in world trade reduced port activities and the consequences made themselves felt well into 1976. The big question is what world economy is going to do in the coming years.

An important aspect is that the years of very rapid growth of world trade are generally thought to be behind us, and that growth will be slower over the next few years than it has been in the recent past. The impulses accelerating the expansion of world trade over the past decade are now spent.

In many sectors of the world economy structural changes are perceptible. These changes demand adjustments in government and management policies. Following economic recovery this too will result in the growth of world trade proceeding at a generally slower pace in the next few years than what we have become accustomed to.

What are the implications for a port like Rotterdam? In answering this question it should be remembered that as the largest port in the world Rotterdam has managed to keep its head above water during the slump. The decline in handling was greater in most of the other ports than it was at Rotterdam. This implies structurally sound development of the port rooted no doubt in the port policy conducted over the past few decades. This policy has been characterised by justified expansion of capacity in response to the growing demand for services, rapid modernisation of plant and accommodation linked with expansion in shipping, and specialisation in transshipment.

Apart from the advantages derived from Rotterdam's strategic location it is this expansion and modernisation that will be important to the shippers and recipients of goods over the coming years, with the slowing down in the growth of world trade. In years of lesser growth it is of even greater fundamental importance than in years of large turnovers to watch the cost of transport and handling. These costs weigh additionally heavy, and it is at such times that speed and efficiency in a port are important factors. At Rotterdam no-one has doubts about the recovery and progressive increase in goods traffic in the port. True, the very optimistic forecasts of the pre-oil-crisis period have now been adjusted, but new estimates are still being based on the transshipment volume doubling by 1990, which is equivalent to an annual growth rate of 5 or 6 per cent.

Faith in the future is indispensable if living and working are to be worth while. Rotterdam has its connection and friends all over the world, in countries rich and poor. The majority of people are still poor. And it is by being an important link in relations with the still underdeveloped countries that a port like Rotterdam can operate in a really meaningful way. So that in the third world too there can be economic growth towards prosperity.

## The Port of Rotterdam Authority

The port of Rotterdam belongs to the local authority: the dock basins, the quays alongside them and nearly all the sites in the dock area are the property of Rotterdam and as such are the responsibility of the corporation. The port policy is decided upon by the Rotterdam Council. The docks and the operations associated with them form the biggest pillar of the greater Rotterdam economy. The local authority's aim, bearing the Rotterdam community's material interests in mind, is to have the port running optimally in respect of transport, commerce and industry.

The corporation has charged a separate organisation with running the port: the Port of Rotterdam Authority. This authority is responsible for the entire infrastructure of the port: dock sites, quays and basins, and for the general running of the port. The superstructure (sheds, derricks, pipelines, factories) and the handling, processing and production of goods are in the hands of private enterprise.

The Port of Rotterdam Authority backed up by a team of technical, economic and nautical experts runs the port to meet the local authority's requirements and works in close collaboration with the users, private enterprise.

Among the infrastructure aspects are expansion, improvement and maintenance work planned by the Authority and executed on its behalf. To ensure efficient, safe operations in the port the Authority performs certain duties which are delegated to the Docks and Pilotage department and the Docks Police. The Docks and Pilotage department takes care of the allocation of berths, maintenance of the order and safety of the heavy shipping traffic, piloting seagoing vessels and assisting in fire control in the port area. The Authority is also responsible for keeping records of the goods and shipping traffic. To support port operations the Authority conducts public relations activities in the Netherlands and abroad, where possible in collaboration with industry and commerce.

The Authority is a business and not a local authority department, i.e. it has to be self-supporting. Operating losses are borne by the Authority. Income and expenditure estimates are submitted to the Rotterdam Council every year. Most of the Authority's revenue comes from the dues levied on sea-going and inland shipping, quayage, demurrage and the proceeds from leases of ground rents.

## Rotterdam: Distribution Centre

Rotterdam's function as a distributor has experienced marked expansion over the past few years. The slogan: "Rotterdam, distribution centre for western Europe", has really come to mean something in view of the growing storage, handling and processing of arriving goods, which are subsequently distributed in smaller loads to many destinations in Europe and beyond.

Among the goods for which Rotterdam acts as a distribution centre there is a growing volume of intermediates and industrial end products as well as the usual

(Continued on next page bottom)

# Mackay Harbour Board Chairman's Report

## Extracted from Annual Report 1975/76

Mackay, Queensland, Australia:—

### TRADE

For the 1975/76 year, I am pleased to again report that a significant increase in trade accrued, with a total of 1,226,250 tonnes of cargo being handled, not far short of a 6.3% increase over the 1974/1975 year when 1,153,605 tonnes of cargo passed over the wharves. Exports for 1975/76 were 926,726 tonnes, with sugar representing 839,244 tonnes. Imports totalled 299,524 tonnes. The time is not far off when yearly exports should exceed the 1 million tonnes, indeed the shipment of 1 million tonnes of sugar yearly from Mackay Harbour should be achieved within a few years.

### SUGAR

Sugar has always been the major trade for the port and the moderate expansion of the sugar industry as implemented early in 1975, resulted in Mackay District participating substantially in the increased production required.

Many mill areas in Queensland are not able to take up their full share of expansion due to unavailability of suitable land—Mackay District is generally more favourably placed in this regard, and therefore in any further sugar industry expansion, should benefit handsomely. An additional sugar storage shed is to be built at Mackay Harbour in the near future which will make Mackay the largest Sugar Terminal in the world.

### GRAIN STUDY

The development of coalfields west of Mackay has given Mackay hinterland a new dimension, with a rail link as well as a greatly improved road system. With suitable transport facilities the production of grain in Mackay's hinterland is therefore more likely to become a reality. During the year, careful study has been in progress to assess when and what facilities Mackay Harbour Board should provide to meet the requirements of grain producers, and a decision should be made in the near future. Messrs. Ullman and Nolan (Consulting Engineers) are carrying out a thorough investigation into all aspects of Mackay Harbour Board becoming involved with the export of grain, and as part of the study, all landowners in the Mackay hinterland were circularised

(Continued from page 29)

raw materials, minerals and agricultural and forestry products.

With regard to raw materials and bulk cargoes the arrival of even larger vessels on the scene has favoured expansion in the storage, handling and processing of goods. The shipment of large quantities in large vessels make storage at and distribution from the port of discharge an economically attractive proposition.

Another important factor is the trend from general cargoes to bulk cargoes. Many of the goods that used to be shipped overseas as general cargo in bags, bales or other units in line vessels are now carried across the oceans in larger quantities at lower cost in the holds of bulk carriers. As it is not always possible to find an immediate purchaser for these larger quantities and direct shipment to the hinterland is not always desirable, this development is also supporting the receiving port in its job of distribution.

Distribution has also been stimulated as a result of shippers' efforts to streamline the "physical distribution" of their products. This is the complex of factors influencing a product's journey from manufacturer to the consumer. The prime factor is transport, but then there is packaging, capital invested in stocks, loss of interest during transport, assembly, processing, invoicing, etc. Together these factors determine the cost of the journey from the place of production to the place of ultimate consumption. In this complex of physical distribution the choice of a particular port to set up a distribution centre for a large market has an important part to play.

The port's distribution function is evident in the greatly increased demand for and the provision of facilities for temporary storage. Another illustration is the establishment of Rotterdamse Silo Combinatie (Rosilco) in 1972, a

business fully equipped as a distribution centre for high-grade minerals. The storage depots built over the past few years for products like sulphur and borax, and the distribution centres for sawn timber, reels of paper, cellulose, etc. are also of interest. This last development has been aided by efficiency measures in sea transport involving specialist vessels, which has reduced the number of suitable ports.

In recent years special terminals have been built at Rotterdam for a large number of other products: for citrus fruits, bananas, tree trunks, iron and steel, meat, heavy general cargo and (of course) containers. This specialised handling and storage in the docks has had a favourable effect on distribution. Nevertheless, specialisation in handling and storage is only justifiable once there is a guaranteed continuous flow of traffic.

In the general cargo sector there are numerous distribution depots. They are run on behalf of foreign shippers. The reason for their presence is that a growing number of foreign companies and central export organisations are now shipping their entire exports to Europe in one go.

For instance, many firms and export organisations in the United States, Japan, India, Israel and other countries (including developing countries) have chosen Rotterdam for setting up their centres for distribution throughout Europe.

These developments and trends are naturally not peculiar to Rotterdam. Other ports are also benefiting from the tendency to establish distribution centres at strategic points in a large market area. Assuming that growth in goods traffic over the coming years will be less rapid, it is not inconceivable that competition between ports will become more highly geared to facilities in the distribution sector.

to obtain relevant information to assist the Board in making its decision.

### PORT INDUSTRIAL ESTATE

Throughout the year, the Board continued with its programme of land development, and 4.7 hectares were prepared for industrial usage. This area has been taken up as an industrial site by A.W. Rasmussen Pty. Ltd., who are to develop a Transport Terminal on the 4.7 hectares which is at the corner of Harbour Road and Slade Point Road. Other tenants to take up land on lease were:

Mr. A.R. Morgan (Scrap Metal Merchant) 1.119 ha.

Mr. R. Fuller (Fencing Contractor) (Transfer from M.T.M. Kennedy) 1611 m<sup>2</sup>.

Walter Wright Queensland (Crane Hire and Heavy Transport Depot) 6650 m<sup>2</sup>.

Messrs. C.L. & P. Ruthenberg (Sand and gravel supplier) 3000 m<sup>2</sup>.

### MULTI-MODAL ACCESS CORRIDOR

A part of the Board's planning in recent years has been in connection with future access to Harbour land and facilities for road, rail and services. This multi-modal corridor concept for the purpose of linking Mackay Harbour with Erakala, was adopted by the Board. The necessity for this planning was highlighted during the year, when it became evident that the railway bridge over the Pioneer River linking Mackay City and the Harbour, had a limited life, and urgent action was necessary if rail connection to the Harbour were to continue. With the construction of a new road bridge over the Pioneer River at Rockleigh being proceeded with, it became necessary to consider how traffic using the bridge at Rockleigh would be routed to Mackay Harbour. The Board's decision was that the multi-modal corridor concept was most suitable for use by both rail and road authorities, and representations have been made to Pioneer Shire Council and the Co-ordinator-General's Department, requesting action along these lines.

### LAND FOR HARBOUR GROWTH

Being aware that a harbour is a facility that cannot be provided at random anywhere on the coastline, the Board took the decision that to provide for future needs, it was essential that adequate lands be retained adjacent to the Harbour, so that Harbour growth would not be retarded. With this in view, the Board has made representations to appropriate Government Departments requesting that Crown lands in the McCready's Creek area be reserved for Harbour purposes. Decisions by Government Departments are still awaited.

### LANDSCAPING

Beautification of the Harbour area is continuing. Further park improvements were effected. An expert on landscaping was engaged to provide information on how to acquire the best results. His report and recommendations have been received, and initially it is proposed to proceed with a beautification programme on property along Harbour Road from Slade Point turnoff to Harbour Lights Restaurant.

### RECREATION

Mackay Cruising Yacht Club approached the Board during the year for a site for a Clubhouse. A suitable site was selected, and an attractive Clubhouse was opened in April. The facility is proving to be very popular.

### DRY DOCK

A dry dock facility was used at Mackay Harbour to construct caissons for the duplication of port facilities at Hay Point. The Board had entered into an agreement with Utah Development Company to restore the site to its original state when they had no further use for the dry dock facility. However, the dry dock has been retained in case a further use for the facility might be required in the foreseeable future. Utah Development Company recomended the Board to cover the anticipated cost, should the Board itself have to restore the dry dock site to its original state.

### WORKS

The main project on which the Board workforce was engaged during the year was the replacement of the Breast Wharf on the southern breakwater. This installation is now well advanced, and should be completed during the current year. Other projects included the fitting of a new crane and winch equipment on the grab dredge "James Pearce", and a start was made on a new 40 feet steel work boat. Funds were received by the Board under the R.E.D. Scheme, and these were used to stone-pitch a major drain through Board property for a distance of 1.07 kilometres.

### FINANCE

Although inflation has resulted in substantial increases in the cost of the Board's operations, due to a steady increase in cargo handled, it has been possible to keep Harbour Dues at existing levels. However, during the year it was decided that to ensure that the Board had sufficient funds to meet commitments in the future, a 20% increase in Harbour Dues should be applied from 1st July, 1976. This is the first overall increase in Harbour Dues since 1961.

### THE BOARD

The three year term of the Board expired with the Local Authority elections early in 1976, and a new Board was constituted on 28th May, 1976. I would firstly express my sincere thanks to retiring Board Members Bob Hobbs, Les Dwyer and Bill Garnham for the contributions they each made to Board affairs during their period as members. With the newly constituted Board, a representative from Belyando Shire joins the Board for the first time. The representative is Councillor A.L. (Les) Corbett, and a warm welcome is extended to Belyando Shire and particularly Les Corbett. Alderman P.W. Goldston (Mackay City Council), Councillor A.C.H. Faux (Mirani Shire Council), and Councillor W.E. Nicholas (Broadsound Shire Council), joined the Board as from 28th May, 1976, and I trust these members will find their service on the Board interesting and enjoyable.

### THE PORT

Some events of public interest can be recalled. The "Atlantic Hero" which sailed and Cyril Gillanders, who will have both retired by the time this report is published. Sam Ford for 21 years, was the Board's Storekeeper, whilst, Cyril Gillanders held the position of Piermaster for 16 years. Many have assisted in the smooth operations of the Port—I thank the Harbour Master, Shipping Agents, Tug Personnel, Waterside Workers, Shippers and Terminal Operators for their co-operation and assistance. The Board has

(Continued on next page bottom)

# Port of Le Havre As Of 1st January, 1977

## Port of Le Havre Authority

The results for 1976 are satisfactory:

- the traffic reached 81.7 million tons, showing an increase of 10.6% in comparison with last year's figures.
- After having received the first ship, in April, the Port of Le HAVRE-ANTIFER was officially inaugurated by the Minister of the "Equipement" on 25th June 1976. Within 9 months, this port had managed to secure a traffic of nearly 20 Mt. Three quarters of the ships that entered the port could not have entered Le Havre fully loaded, and many of them had to lighten or disperse their (1) cargo, which confirms the international function of the Port.

- (1) In order to supply a port which is not as deep as Le Havre-Antifer Port, with large ships, the lightening or dispersion methods can be used.
  - Lightening: This enables large ships to continue their journey with a reduced draught, after having unloaded only part of their shipment.
  - Dispersion: This consists in re-loading the cargo on smaller ships.
  - New equipments were laid out, such as ore ship station for 120 000 t ships, derricks for handling heavy parcels weighing up to 650 t, new container terminal in the Ocean Open Basin.
  - The Port of Le Havre has created a new "industry-commerce formula, specially adopted to the new needs of developing countries. In accordance with the terms of the agreement signed on 28th April 1976 by the Minister for the Brasil Project and by the French Minister of the "Equipement", a Brazilian stage will be created in Le Havre.
  - Last, but not least, the traffic of general cargo, which development is the main objective of the Autonomous Port, increased by 18.2% in 1976.

In 1976, the Port of Le Havre became the first French port for general cargo. The development of container traffic was spectacular: 45% between 1975 and 1976. The development of the general cargo traffic (from 5.3 Mt in 1975 to 6.3 Mt in 1976) is partly due to the economical recovery, following the "gloomy" year of 1975. But it also shows an important development of

the role of the Port of Le Havre in the international traffic. The Port of Le Havre did his part towards solving the economical problems of our country:

For the first time in the history of the Port of Le Havre, the traffic for exportation of general cargo exceeded the importation traffic, and importations in the incoming and outgoing traffic jumped from 42% in 1970 to 50.5 in 1976. We must also point out that the action undertaken in 1976 to prevent diversion of traffic to foreign ports has already brought positive results. However, we must wait another year in order to be able to assess the benefits of this action.

Last year, 20 new regular lines were opened and 3 armament units have created new regular stopovers in Le Havre for the Far East range. Last, but most important, Le Havre is now served by 3 armaments using the Port of Le Havre as a regrouping port for their container traffic.

After a rather slow year, 1976 saw the development of the cross-Channel traffic thus proving, should it be necessary, its vivacity. A new development of the activities is forecast in various fields, such as the development of week-end trips for British and French tourists, and the development of additional traffic, specially containers, between the British ports and Le Havre.

We wish to stress that over 2 million tons bound for or coming from Le Havre hinterland use foreign ports, which results in a great loss of activity (50 to 150F per ton) for our economy.

- (2) It is known that the "containerization" brings a concentration of the traffic in certain ports. The container ships are in fact very expensive to operate, and the time losses involve important expenses from the point of view of the equipment. In view of this, some shipping companies collect the freight in various ports using small ships to take the merchandise to a main port where large ships stopover.

During 1977, the Port of Le Havre will intensify its action in view of developing its traffic. This will particularly involve the development of the activities related to the new means, lighting at Le Havre-Antifer Port, handling of heavy parcels, and development of the coal traffic.

This action will also apply to the main fields of traditional general cargo traffic. Various specialized equipment projects and various measures related to the reorganization of the structure of the equipments, will enable to improve the competitiveness of the port for various types of traffic.

But it is in the field of general cargo traffic by container ships or carrier ships, that the Port of Le Havre seems to possess most assets. It is in these techniques which are more and more used that the development was most spectacular: the average increase was about 20% per year since 1970, and it jumped to 45.5% between 1975 and 1976.

A third terminal for containers will be inaugurated in the Ocean Open Basin. It will consist of a 700 m long wharf, 35 ha of ground, (of which approximately 20 ha will be used for storing the containers), two cranes

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kept in close contact with parliamentary representatives and I express thanks for their advice and guidance from time to time.

Congratulations are extended to the Hon. A.M. Hodges on his recent appointment as Minister for Tourism and Marine Services and best wishes go to him in his new portfolio. The Director of the Department of Harbours and Marine (Mr. A.J. Peel), along with his Departmental Officers, are also thanked for their attention to the many submissions made to them during the year. Finally, I am appreciative of the support and loyalty given by fellow Board Members.

E.J. CLIFFE (Chairman).

(there will soon be another one), and a warehouse with a surface of 1 500 m<sup>2</sup>. It will immediately be used by the new container service to South Africa, as well as by other ships which activities will be transferred there, thus relieving the terminal of the Atlantic wharf which facilities will soon reach saturation. The works required to equip the Ocean Open Basin will continue in 1977, and the works for the first stage of the construction of a large storage area will start. This area located along the new container terminal, offers possibilities for approximately 100 000 m<sup>2</sup> of covered surfaces. It is also there that the "industry-commerce platforms" will be set up. An area of 400 ha surrounded by 4 500 m of wharf, located between the future naval repairs Center, to the East, and the Eastern bank of the Ocean Open Basin, will be used for general cargo traffic.

The important investment plan agreed by the "Plan VI" will have to go on during the "Plan VII". In fact, (and this is part of the priority action n° 9 of "Plan VII"), along with the country's effort to export, and in order to retrieve the diverted traffics, and to enable Le Havre to operate transit or transshipment traffics, it is indispensable to possess modern and competitive means.

An example which illustrates this fact, is the François Lock which is presently the largest lock in the world. It was opened in 1972. Within five years, it will be unable to meet the ever increasing demands and will require new works!

The development of the general cargo traffic is presently the main objective of the Port of Le Havre.

However satisfactory were the 1976 results, we must bear in mind that we shall probably encounter difficulties in 1977 due to the uncertainty of the economical situation. Even though the re-opening of the Suez Canal to maritime traffic was beneficial from a global point of view, it leads us to think that the Port of Le Havre will have to face new and rough problems. But we have major assets, particularly in the field of container traffic, which is surely the traffic with best prospects.

- The port equipment and handling facilities are particularly competitive tools. The comparisons made with other large foreign ports prove this fact. The social climate of 1976 was excellent.
- The port of Le Havre is opened every day, which is certainly not the case of other foreign ports.
- Le Havre is now visited by all the container ships.
- The port has become the "turntable" of the container traffic and now leads the French ports and is among the most important European ports.
- The position of Le Havre in the container traffic, has been constantly improving, since, in the past five years the tonnage of container traffic has trebled and the part taken by the container traffic has risen from 20% in 1971 to 45.5% in 1976, for the general cargo traffic. In the past, the North Atlantic, the Mexican Gulf, and the Far East, first adopted the containerization traffic. In future it will be South Africa and for the whole COA the container rate reach approximately 30%. So, containerization goes on developing, and the part played by the Port of Le Havre in this traffic, is very promising.

In order that a large port can reach the international

level which is the case of the Port of Le Havre for the traffic of containers, various conditions must be fulfilled.

- First, the geographical location (close to important sea routes) must be such that ships can avoid long detours.
- A sufficient "business" is necessary, not only in order to feed traffic, but also for making the stopovers profitable. In fact, the shipowner must consider the time lost by the ship, and the cost of an additional stopover, the solution consisting in re-grouping the containers in a specified port, transporting them either by means of feeder ships, or by road transportation.
- The port must be sufficiently far from other ports already served by containerized armaments.
- and the ships must have easy and quick access at any time of the tide.

It is because the Port of Le Havre fulfilled all these conditions, that it was able to win the battle started in 1969, at the beginning of the "containerization age". We have now managed to firmly establish ourselves, thanks to our terminal, handling facilities, and commercial and transportation networks.

A part from Le Havre, only a few European ports have managed to play a part in the strong international competition of the container traffic. The hinterlands of these ports soon increased considerably.

The hinterland of the Port of Le Havre, which first concentrated its activities on the Paris area, expanded, due to containerization, to a large part of the national territory. It even goes beyond the borders. But this hinterland is also coveted by the foreign ports which used to hold important places.

French importers and shippers must by all means be aware of the fact that the Port of Le Havre can, for container traffic, offer them similar and even better service than the foreign ports.

By using the Port of Le Havre, they will often save money and time, and at the same time they will contribute, by using the services of a French port, to the stability of our commercial balance.

The ambition of the Port of Le Havre is to become a "fortress" for sea-borne foreign trade. This ambition corresponds to the needs of the national economy. It can be achieved taking into account the privileged situation of the Port of Le Havre on the French coasts, and taking into account the economical data available for the international maritime traffic which implies a concentration of the containerized traffic in the main ports.

The achievement of this ambition requires not only adequate port equipment, but also alert commercial assets, and in close cooperation with the users of the port, members of the "Union Maritime et Portuaire", the Autonomous Port of Le Havre is ready to make the necessary efforts in order to overcome the aggravated international competition climate.



# ICHCA Conference — Melbourne

## 17-21 April, 1977

### ICHCA Press Information

London, 9. 2. 77 (ICHCA=International Cargo Handling Co-ordination Association):—Since its formation in 1951, ICHCA has been at the forefront of the introduction of new techniques in transportation and cargo handling. At its conference to be held in Melbourne, Australia, 17-21st April this year, on the theme “Cargo Handling in a World of Differing Economies”, ICHCA has addressed itself to the problem of reconciling these new technologies with the inability of many countries to employ them, due to local economic conditions.

“The theme of the Melbourne Conference, “CARGO HANDLING IN A WORLD OF DIFFERING ECONOMIES” expresses lucidly the dilemma that the transport world faces—not the existence of advanced cargo handling technology, but the inability of many countries to employ such technology because of incompatibility with existing local economic conditions”, says R.P. Holubowicz, Chairman, Executive Board and Council of ICHCA.

ICHCA will not seek to present in Melbourne a prescription for solving all the problems of cargo handling in a world of differing economies. ICHCA's role is to provide a forum for discussion of this important topic, and thereafter to be a principal source for published information relating to the question.

In keeping with this philosophy, the papers presented at the conference will cover a broad spectrum:—

**Bulk Cargoes** — whilst not as widely known as the so-called “container revolution” a revolution of almost equal proportions has taken place in the technology of bulk cargo handling in recent years.

The ICHCA conference will examine some of the major technical developments which have occurred in this area, and will explore the implications of them.

**Breakbulk (Conventional Cargoes)** —

even today a high proportion of the world's general cargo shipments are still handled by conventional breakbulk methods. The conference will explore methods of improving breakbulk cargo handling without large investment—continuing an activity in which ICHCA has been deeply involved since its inception.

**The Ramifications of Containerisation and Palletisation** —

The key to greater efficiency in cargo handling is bound up with the concept of unitization and through transportation. The conference will examine the extent to which containerization and palletisation (both of which are forms of unitization) can be utilized to improve the efficiency and economy of trade with the less developed nations.

**Special Cargoes** — Special cargoes includes cargoes requiring a controlled environment (for instance goods requiring refrigeration or chilling) and heavy or awkward loads, which require special handling and storage. The conference will examine developments in the handling and transportation of these commodities, which form a large and expanding traffic for countries with rapidly growing economies.

**Ro-Ro Cargoes** — Roll-on/Roll-off, has rapidly established its place on the world transport scene, and has shown itself capable of bridging the cargo-handling gap between countries with differing economies. The Melbourne conference will examine the capabilities of ro-ro, and assess the role it has to play in transportation to developing countries.

Following the papers and discussions on these topics, further papers will explore Trends in Port Development, Developments in the Air Cargo Field, and Transport Developments to the Year 1990.

As will be seen from the topics listed above, ICHCA views the term “cargo-handling” in its broadest sense, so that it covers every function or activity involved in the transport of cargo from origin to destination.

In holding a conference on “Cargo Handling in a World of Differing Economies”, and in choosing Melbourne, Australia as the conference venue, ICHCA has reaffirmed its commitment to Southern Hemisphere countries, and to the “third world” countries, in whose transport development ICHCA has the ability to play a vital role.

ICHCA's XIIIth Biennial Conference, on the theme “Cargo Handling in a World of Differing Economies” will be held at the Melbourne Hilton Hotel, Australia, 17th-22nd April 1977.

Conference fees: ICHCA members Aus. \$200.  
non members Aus. \$250.

The conference will feature papers by nine distinguished speakers, plus forums on topics of interest to delegates. An extensive social programme and a ladies programme have been arranged.

Arrangements for the conference are going extremely well, delegates from over 20 countries having already registered.

Conference papers will be published in English and French, and simultaneous translation facilities will be provided in English, French and Spanish.

ICHCA will be publishing the full conference proceedings as “Progress in Cargo-Handling Vol. VII”.

For further information contact:

Brian Abbott—Technical Secretary,  
ICHCA Central Office,  
Abford House,  
15 Wilton Road,

(Continued on page 37 bottom)

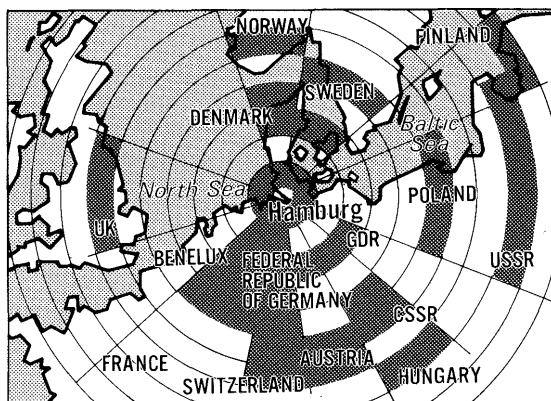


## This is Wilhelm Meyer-seen privately.

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# Orbiter Probe

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## FIATA 15th World Congress

Zurich, Switzerland (FIATA News 76/4)—Los Angeles, California, U.S.A., is the place of the 15th World Congress of FIATA=International Federation of Freight Forwarders Associations, to be held from September 25th to 29th 1977.

## “Portos e Navios” November '76

Rio de Janeiro, Brazil (Selected titles from November 1976 issue of “Portos e Navios”):—

### Merchant Marine & Transportation

- According to Portobrás informations, coastal and overseas trade handling increased 13% during the period from January through August.

### Ports & Waterways

- At the Port of Salvador, cargo handling reached 796.000 tons, in September; about 50% of that figure are represented by solid bulk cargo; general cargo, liquid bulk cargo, containerized and frozen cargo, in this order, totalize the remaining 50%.
- Connection of the Rivers Jacuí and Ibicuí: A protocol was signed on October 4, being present the Ministers of Transport and Home Affairs, the State Governor and the Mayors of 36 Rio Grande do Sul State Municipalities.
- Portobrás signs contracts for the purchasing of equipment for several ports.
- The Port of Paranaguá exported one billion dollars up to the 15th of September.
- Companhia Docas do Rio de Janeiro contracts with CBD the dredging of Sepetiba Port.
- Brazil and France sign agreement: Establishment of industries at the Port of Le Havre.

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(Continued from page 34)

London SW1V 1LX.  
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Evenings:—Bagshot 71329

or

ICHCA Conference Secretariat,  
13th Biennial Conference,  
Box 2239T,  
G.P.O. Melbourne  
AUSTRALIA 3001.

## Mr. Flowers now Port Controller

According to a recent newspaper report in Nassau, Bahamas, Mr. Leon H. Flowers has been appointed to the newly created post of Port Controller.

The post is comparable to and replaces the post of Port Director, as a result of the coming into force of the new Merchant Shipping Act.

Mr. Flowers whose substantive position in the Port Authority was Deputy Port Director, acted as Port Director for several years prior to his promotion to this new position. (Refer to “Ports and Harbors” March, 1969 page 19 “IAPH Trainee from Bahamas at Maryland Port Authority Baltimore”.)

The announcement of Mr. Flowers’ appointment was made Friday by Minister of Transport George A. Smith. An Exumian, Mr. Flowers, 41, has been with the Port Department for the past 26 years.

As Port Controller, he will be responsible for Administration of the Port Department, the Port Authoritys Act, the Boat Registration Act, The Water Skiing and Motor Boat Control Act, as well as the Administration of the Light House Service.

Born at Farmer’s Hill, Exuma on May 22, 1935, Mr. Flowers received his early education at Roker’s Point and later at the Western Senior School in Nassau.

In 1951 at the age of 16 he joined the Port Department as a Messenger Clerk and was promoted to Chief Clerk in 1964. Early in 1969 he was appointed Deputy Port Controller and later in the same year upon the retirement of the Port Director. Mr. Flowers was appointed to act in that position, an appointment which he held until his recent promotion.

From 1969, Mr. Flowers gained valuable practical experience in his Acting Appointment and also attended several courses in Port and Public Administration abroad which will be very useful in the performance of his duties.

In 1968, he attended a Port Administration Course in Baltimore, United States; in 1970, a Port Executive Development Seminar in New Orleans, sponsored by the American Association of Port Authorities and in 1974, he completed a Port Administration Course in Gothenburg, Sweden sponsored by UNCTAD. Last year he attended a UNCTAD Seminar on Berth throughout in San Jose, Costa Rica.

Mr. Flowers is a Director and Member of the Executive Committee of American Association of Port Authorities and a Director of the International Association of Ports and Harbors.

He is married to the former Una Sears and is the father of seven children, two boys and five girls.

## Port Manager resigns

Nanaimo, British Columbia, Canada ("Nanaimo Harbour News" January 1977):—Doug Greer, Chairman of the Nanaimo Harbour Commission, has announced the Resignation of John Dunham as Port Manager, effective December 31, 1976.

In making this announcement, Mr. Greer said that the Commission was sorry to see Mr. Dunham leave at this time. However he, together with the other Commissioners, wished him every success in his future endeavours.

Mr. Dunham was the first employee of the new Nanaimo Harbour Commission when it officially came into existence on January 1, 1961. At that time total revenues were about \$100,000. Since then the figure has climbed steadily to over \$1 million in 1973 and \$1.6 million in 1975.

Mr. Dunham first came to Nanaimo in 1950 as an officer on a ship scheduled to load lumber here. "In those days", he commented in an article in an earlier issue of the Nanaimo Harbour News, "the Port of Nanaimo consisted of an old sawmill and one berth in dilapidated condition."

Three years later, Mr. Dunham returned to Nanaimo to become manager of Blackball Ferries and then, in 1961, as Port Manager.

At that time, the newly created Harbour Commission took over 11 acres of land and two berths, both of creosote pilings and timber decks.

The first action of the Harbour Commission was to put in cement decking and then, in 1962, to build a warehouse.

From the early days, Mr. Dunham saw the port expand to cover a total of 40 acres and three berths and the number of employees increase to a total of 13.

Mr. Dunham was in the British Navy during the war and has travelled around the world. He became a member of Rotary in 1957 and was president in Nanaimo in 1964. He is also very active in the Greater Nanaimo Chamber of Commerce.

## Invitation to Canadian Shippers

Montréal, Quebec, Canada (Port of Montreal, Automne/Fall 1976):—The theme of the Canadian Port and Harbour Association for the business year which ended last September was "The Community Which We Serve". I was honoured with the presidency of the association during that period and I felt that one of our major accomplishments, in keeping with the theme, was the inauguration of an annual Canadian Port Week, the first of which was held during the week beginning September 27, 1976. The purpose of port week is not only to familiarize the populace with the manner in which Canadian ports serve them but also to point out the ways in which the citizens of Canada can aid their ports, with beneficial effects on the community, the national economy and the people themselves. An article in this issue provides more information on Canadian Port Week.

One of the concerns of port operators in this country is the fact that there are some Canadian importers and exporters whose shipments to and from Canada are routed via an American port. This may be attributable to one of a number of reasons. Through lack of concern, they may sometimes leave the selection of the shipping route to others who, due to business connections or other personal

reasons, may exercise a preference for some U.S. East Coast ports.

As Port Manager of Montreal Harbour, I urge any Canadian importers and exporters who are using an American Atlantic port to make a careful examination of the facilities and services which we have to offer and the cost of shipping via Montreal. I suggest that they will learn that our costs are competitive, that our services are equal to or better than those of any competitive foreign port and that there are numerous advantages to be derived from the use of the Port of Montreal.

Earlier issues of this newsletter provided some information concerning our marketing program. I am highly gratified by the success of these efforts thus far. The increase in cargo tonnage this year has been beyond my expectations. I am even more encouraged by the optimistic outlook of our terminal operators who feel that the growth will continue.

N. BESHWATY  
Port Manager

## New Commission Chairman elected

Toronto, Ontario, Canada, January 21, 1977 (The Toronto Harbour Commissioners):—A university geography professor has been elected chairman of the Board of Toronto Harbour Commissioners.

Dr. H. Roy Merrens, 45, a City of Toronto appointee to the five-man board, succeeds Donald J. Wright as chairman. Mr. Wright resigned late last year.

Commissioner Merrens, who teaches historical geography at Toronto's York University, was first appointed to the board in 1973.

"As chairman, I would like to consolidate the changes that have been achieved on the Toronto waterfront in the last few years," he said, "particularly the board's sensitivity to public needs."

## Dundalk Terminal handles one-millionth container

Baltimore, Maryland, January 27, 1977 (News From Maryland Port Administration):—Only a decade after heavy container flows first moved across its berths, the port of Baltimore's Dundalk Marine Terminal this week handled its one-millionth container.

According to the Maryland Port Administration, owner and operator of the 550-acre facility, the one-millionth container was handled at Dundalk on Wednesday, January 26th. The date was determined by the fact that as of the end of the previous day, the terminal had registered an overall total of 999,853 containers. Dundalk normally processes about 3,000 of the metal shipping boxes during an average working day.

An exact determination of the one-millionth container was not possible since there were several ships at berth and working as well as considerable truck and rail traffic moving through the terminal during the course of the day.

As the port of Baltimore's center for container activity, Dundalk is coming off of a record year in 1976 in which 198,771 containers registering 2,352,698 tons of cargo were handled. The facility accounts for about three-fourths



of Baltimore's annual portwide container totals, which are the second largest among all U.S. Atlantic and Gulf coast ports.

What is today Dundalk Marine Terminal was 20 years ago a municipal airport known as Harbor Field. When purchased by the MPA in 1959, the terminal originally was conceived as a facility for conventional breakbulk (non-containerized) general cargo.

However, by the mid-1960s the main thrust of MPA planning for Dundalk was to prepare for extensive container capabilities. In 1967, two of eight existing berths at Dundalk were adapted for container handling and two of the terminal's four 50-ton gantry cranes were fitted with special equipment to handle the shipping boxes. That year, the terminal's first in container handling, Dundalk registered 1,726 boxes and 24,164 tons of containerized freight.

In late-1969, Dundalk's first specialized container crane was placed into operation. By 1971, two additional container cranes were added, and in mid-1973, four new container cranes, two consolidation sheds and nearly 24 acres of paved container backup area were dedicated at Dundalk's berths 11 and 12.

Today, with seven container cranes at five berths, three sheds totaling 192,500 square feet of space and 120 acres of paved open container storage, Dundalk features some of the world's most modern container facilities. By 1976, the MPA had invested a total of \$55 million in expanding and improving Dundalk's container capabilities, a figure expected to ultimately grow to \$90 million.

During the period 1967-76, these facilities registered 985,061 containers and 11,939,119 tons of containerized freight.

There are currently 26 regular major container services calling at Dundalk Marine Terminal. These include Puerto Rico Marine Mgmt.; U.S. Lines; Atlantic Container Line; Japan Line; Mitsui O.S.K. Line; N.Y.K. Line; K Line; Y.S. Line; American Export Line; Hapag-Lloyd; Seatrain Lines; Maersk Line; Orient Overseas Container Line; Baltic Shipping Co.; Atlantica Line; Dart Containerline; Polish Ocean Line; Italian Line; Moore-McCormack Line; Korea Shipping; Evergreen Container Line; Netumar Line; Blasco Line; Fesco Line; Dafra Line; and Scimitar Line.

Other container lines to call at Dundalk during the past 10 years include American President Line; Zim Line and Finn Line.

Dundalk is the only public container terminal in Baltimore. The port's only other specialized container handling area is privately-operated by Sea-Land Service at the Sea-Girt Terminal, owned by the Canton Company.

The sprawling Dundalk terminal also has six berths devoted entirely to handling breakbulk cargoes.

## More trade development services

Charleston, South Carolina (News Release from South Carolina State Ports Authority):—A staff realignment which is designed to expand Trade Development Division services of the South Carolina State Ports Authority has been announced by Trade Development Director Charles A. Marsh.

Edward R. Berti has been named New York regional manager, succeeding Anthony P. Ricardi, recently promoted to Piedmont regional manager and transferred to the

Ports Authority's Piedmont Inland Port office at the Greenville-Spartanburg Airport in Greer, S.C.

Berti, who joined the Ports Authority staff in January, 1976, as assistant regional manager in New York, will be succeeded in that post by Kenneth J. Harris, who recently joined the Authority.

Ricardi, a native of Newburg, N.Y., and a 19-year veteran in the domestic and international transportation field, will be responsible for the Ports Authority's Piedmont-Central South territory.

Berti, a graduate of Staten Island Community College and Pace University, has a background of sales and marketing experience in the New York area that includes former posts with two leading trade and transportation-oriented firms.

Harris, who served for the past four years as U.S. Project/Traffic manager for Exporters Forwarding Co., Inc., of London, England, has spent most of the past three years in the field of major projects shipping. His background includes 16 years in international sales, marketing and traffic positions with several leading firms in London.

At Charleston, headquarters port of the South Carolina State Ports Authority, Marsh also announced the addition to his staff of Glenn G. Cobb, sales representative trainee. A recent transportation management graduate of Arizona State University, Cobb will report to Charleston-Southeast Regional Manager Donald C. Bradham.

"These staff promotions and additions in our U.S. offices will provide new capability in line with our rapidly expanding business at the Port of Charleston," Marsh said. "We are pleased to have Mr. Harris and Mr. Cobb joining our staff at this particular time, and we are confident that Mr. Ricardi and Mr. Berti will continue, in their new posts, to exercise the diligence and proficiency they have always shown in developing new business for the South Carolina state Ports Authority."

In addition to the U.S. offices, the Trade Development Division also operates overseas offices in Brussels, Belgium; Tokyo, Japan; Sydney, Australia and Hong Kong, China.

## New Port Director

Duluth, Minnesota, February 7, 1977 (Seaway Port Authority of Duluth):—Paul D. Pella, formerly acting director of the Chicago Regional Port District, has assumed the position of executive director for the Seaway Port Authority of Duluth.

Prior to his appointment to the Duluth post, Pella had served as assistant general manager of the Chicago district.

A graduate of the U.S. Merchant Marine Academy at Kings Point, New York, Pella is a member of the American Association of Port Authorities and the International Association of Great Lakes Ports.

The new director brings a diversified background to the position. Before serving with the Chicago port, Pella worked as water transportation manager and supervisor for the Marquette Cement Manufacturing Company in Chicago, as area representative of Federal Barge Lines/Gulf Canal Lines in St. Louis, Missouri, and served as a lieutenant in the U.S. Naval Reserve.

Pella indicated that he sees the Port of Duluth as fulfilling two roles within the region and state it serves.

# Free Zone of Puerto Cortes, Honduras —The Key to Central America

## Puerto Cortés Empresa Nacional Portuaria Honduras

San Pedro Sula, Cortés, Honduras:—E.N.P. (Empresa Nacional Portuaria), an autonomous institution under the management of its own board and the patronage of the Government of the Republic of Honduras, takes great pleasure in presenting FREE ZONE facilities in Puerto Cortés in the near future. This Free Zone promises excellent opportunities for industrial and commercial investments for distribution to the Central American Common Market, the Caribbean area, México, and especially to the eastern half of the United States.

The Central American Common Market serves an approximate population of 16.5 million inhabitants. The statistics collected by the Central American Bank (BCIE) show that in 1973 the gross national product for the area was US\$7,254.8 million. Total exports from Central America in the same year were US\$1,265.7 million and a total of US\$1,466.7 accounted for imports from all destinations.

In addition to the figures above, a consideration of trade statistics produced by Mexico, the countries in the Caribbean and the United States, permit us to forecast a continuous flow of large scale commercial transactions for the firms that establish their distribution centers in the Free Zone of Puerto Cortés.

### IDEAL LOCATION

Puerto Cortés is located on the Atlantic Coast of Honduras, in the heart of the Americas, at 15° 51' 00" North; 87° 58' 00" West. It is the natural center for shipping, commerce and transport with the sula valley, Honduras' richest industrial and agricultural region. Centrally placed in the Valley (one-hour's driving distance from the port) is San Pedro Sula, the country's main industrial city (pop. 150,000).

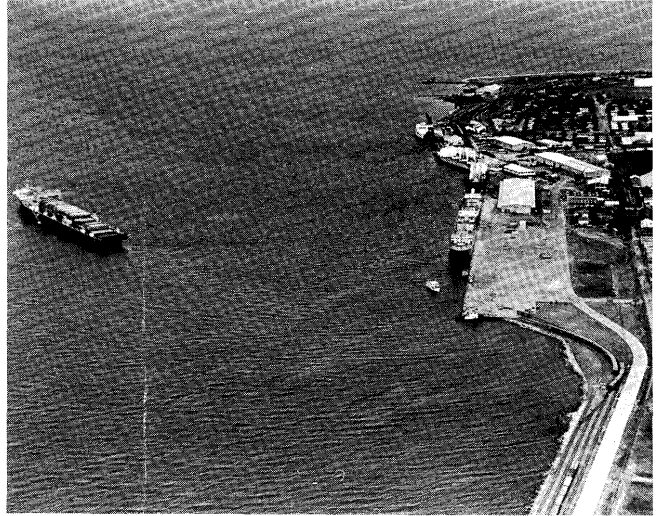
In launching the Free Zone project, E.N.P. considers the advantageous location of the country, one of its most valuable assets. Honduras, has land borders to the west with Guatemala, to the South with El Salvador and to the East with Nicaragua, through which Costa Rica is easily reached.

Its Atlantic Coast faces the countries of the Caribbean that, due to established trade routes and relatively short distances, are easily accessible.

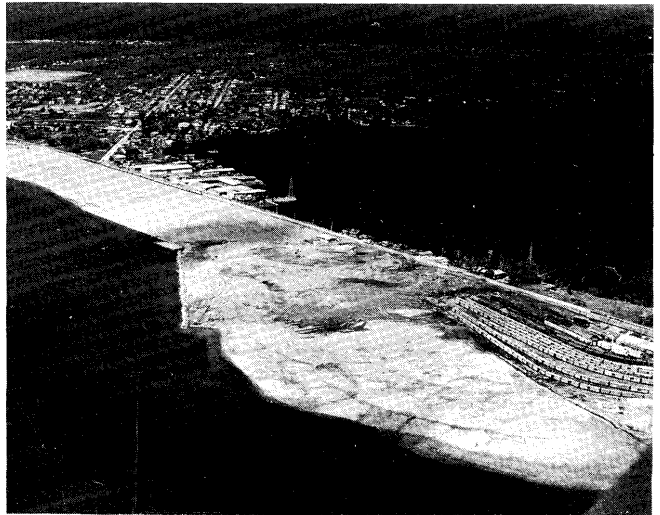
### BACKGROUND INFORMATION

Since 1965, Puerto Cortés has been the object of various development projects that have greatly contributed to its modernization. This is why now, even more than in the past, it can boast of its ranking as the largest and most efficient port in Central America. Despite the dynamic and constant level of investment, it also offers the lowest operational costs among the Central American ports.

Among E.N.P.'s expansion plans, the establishment of



Puerto Cortes, Honduras.



Puerto Cortes, Honduras. Reclamation area for Free Zone.

the Free Zone has been given top priority. It is being established on a ground area of 30 hectares (75 acres), which have been reclaimed from the sea by dredging and land fill.



Los Angeles, Calif.(Port of Los Angeles):—Nate DiBiasi, right, president of the Los Angeles Board of Harbor Commissioners, made two presentations on board the T.S. Golden Bear when the training ship from the California Maritime Academy made its first call at the Port of Los Angeles on January 22, 1977. First he presented the Harbor's first arrival plaque to Captain W.D. Craig, second from right, master of the Golden Bear. He also presented a valuable envelope to Rear Admiral J.P. Rizza, left, president of the Academy. The envelope contained the index to a list of 70 documents from the Port's archives for the permanent retention of the Academy library. Second from left is Captain Manny Aschemeyer, local district manager for Prudential Lines, who served as host for the Golden Bear at their passenger terminal at Berth 154.

## Record tonnage in 1976

Houston, Texas, January 27, 1977 (Port of Houston News Release):—Total tonnage moved through the Port of Houston topped the 90 million ton mark for the first time in history in 1976.

Heavy increases in crude petroleum imports during the year helped raise the total figure to 90,001,400 tons, as shown in preliminary statistics just released by the Port of Houston Authority.

The record-setting tonnage figure reflects a 7.5 per cent increase over the 1975 total of 83,674,037 tons.

Crude petroleum movements increased by 19 per cent for 1976 with 22.3 million tons being handled at the Port as against 18.7 million tons for 1975.

Automobile imports also jumped to a record high in 1976 with 179,886 cars being brought in over the wharves as compared to 139,822 for 1975—an increase of 28.5 per cent.

The Port's total foreign trade for 1976, including bulk and general cargo, was up seven per cent at 41,340,521 tons, compared to 38,575,950 tons for the previous year.

High revenue producing general cargo, including all commodities not moved in bulk shipments, showed a three per cent increase for the year at 6,686,493 tons in 1976 as against 6,465,643 tons for 1975. The total figure includes both foreign and domestic shipments and receipts.

Total tonnage moved across the public Port of Houston Authority wharves came to 11,367,893 tons, a seven per cent increase over the 1975 figure of 10,625,301 tons.

Despite the increase in tonnage, 67 fewer ships called at



Los Angeles, Calif., (Port of Los Angeles):—Nate DiBiasi, right, president of the Los Angeles Board of Harbor Commissioners, presents a plaque commemorating the first arrival at the Port of Los Angeles of the Evergreen Line ship, Ever Modest, to Captain Hwang Shi Pi, master of the vessel. Participating in the ceremony were, from the left; Oliver Henry, Southern California Area Representative for the Maritime Administration; Captain Oded Rozen, president, Evergreen-United Corporation; William M.C. Wang, president, Evergreen Marine Corporation (California) Ltd., Captain Hwang Shi Pi and Commissioner DiBiasi. The Ever Modest called at the Port of Los Angeles on its maiden voyage.

the Port of Houston in 1976 than in 1975 with 4,524 ship arrivals last year as opposed to 4,591 for 1975.

Of the total, 1,043 were American flag vessels. Tanker arrivals totaled 1,657, including both foreign and American flag ships.

Liberian flag vessels were the second most frequent arrivals with 680 ships in 1976, followed by vessels under the flags of Great Britain at 391, Greece at 381, and Norway at 359 ships calling during the year.

Information on commodities moved through the Port and foreign trading partners will be released as it becomes available.

## Colored brochure available

Jacksonville, Florida, January 7, 1977 (Jacksonville Port Authority News Release):—The Jacksonville Port Authority now has available a new four-color brochure describing its two deepwater marine facilities, Blount Island and Talleyrand Docks and Terminals, jointly known as "JAXPORT."

The brochure, designed by the JPA Public Information Office with the assistance of the Information Services Division of the City of Jacksonville, includes color aerial photos of Blount Island and Talleyrand Terminals and several other pictures of port activities.

A harbor chart traces the entire 38-foot deep ship channel from the Atlantic Ocean to Downtown Jacksonville with all of the major rail and highway routes included.

There also is a detailed description of the facilities available at both JAXPORT terminals, a chart of the network of Southeastern cities served daily, and a listing of the JPA's branch offices in New York, Chicago and Tokyo, Japan.



Los Angeles, Calif., (Port of Los Angeles):—Los Angeles Harbor's tenth and newest container crane takes shape at the American President Lines Terminal. Here, workmen and a 250-foot mobile crane position the second half of the crane's machinery house. The 40-ton, \$2.7 million crane is expected to be operational at Berth 89 by May 1, 1977 and will bring Los Angeles Harbor's combined container lifting capacity to 277 per hour.

Copies of the brochure are available free of charge in the JPA's Public Information Offices.

## Long Beach cargo tonnage reaches record level

Long Beach, Calif., 021477 (Port of Long Beach News):—The Port of Long Beach handled an all-time record total of 31,431,485 revenue tons of cargo valued at nearly \$7.3 billion during calendar 1976, an increase of more than two million tons over the fiscal 1975-76 figure.

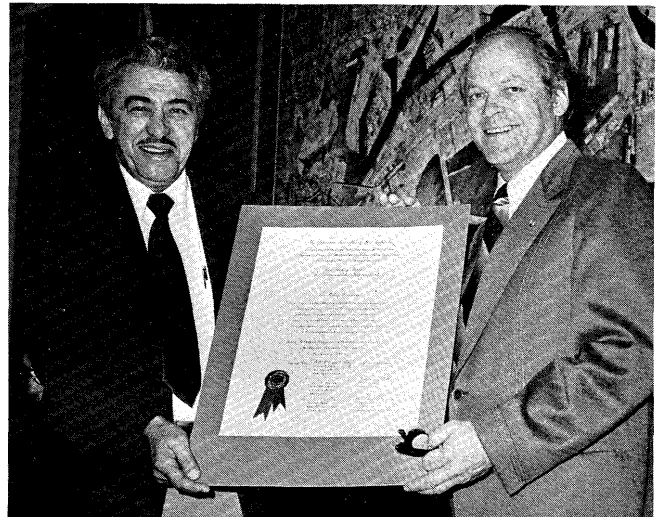
Long Beach also set new highs in virtually every category, including number of ship calls, container movements, general cargo shipments, total value of cargoes handled and economic benefits to the community.

During the calendar year ending December 31, a record 2984 vessels berthed at Long Beach Harbor's deep water berths, including tankers as large as 165,000 deadweight tons. Not surprisingly, bulk petroleum led all other products handled by a wide margin, with a total of 18,373,604 tons (that's over 114.3 million barrels) accommodated via the Port's marine oil terminals. Economic benefit of this single commodity was over \$110 million.

A record 8,403,419 tons of high-value general cargo were also handled during the 1976 period, and this movement generated almost \$200 million in benefits within the community. Nearly 5.5 million tons were carried in more than 500,000 containers for yet another Long Beach record.

Dry bulk products, such as petroleum coke, totaled 4,419,757 tons and their economic benefits were some \$25 million. Liquid bulk other than petroleum accounted for the balance.

Inbound cargo reached 20,397,894 revenue tons, while outbound shipments registered 11,033,591 tons. The total



Los Angeles, Calif., (Port of Los Angeles):—The Port of Los Angeles was the recent winner of the 1976 Certificate of Award for Environmental Improvement, here displayed proudly by Los Angeles Harbor Commission President Nate DiBiasi, left, and Harbor General Manager Fred Crawford. Awarded by the American Association of Port Authorities, in conjunction with the U.S. Coast Guard, U.S. Dept. of Commerce, U.S. Maritime Administration and the U.S. Environmental Protection Agency, the honor was bestowed for the Port's continuing environmental protection efforts and the related program of public information. The Port of Los Angeles is now recognized as one of the cleanest commercial harbors in the world.

economic effect of this international commerce on the greater Long Beach market area is estimated at more than \$333 million.

Long Beach Harbor is currently in the final stages of a two-year \$3 million study of the environmental and economic feasibility of creating a three-berth oil transfer terminal to accommodate petroleum from the North Slope of Alaska, which in turn will reduce America's dependence on foreign oil. This facility is considered a vital part of Project Independence.

Other projects already under way or planned for the near future include doubling the loading capacity of the grain terminal, conversion of a break-bulk cargo pier into an omni-terminal, installation of a high-speed bulk loading system on Pier D and construction of a petroleum terminal for MacMillan Ring Free.

Forty-four steamship lines call regularly at Long Beach, where cargo tonnage handled today is two and one-half times what it was 13 years ago. Interestingly, Long Beach Harbor had 323 employees in 1964; today, in 1977, it has 323 employees.

## Port of Long Beach looking for chief harbor engineer applicants

Long Beach, Calif., 021677 (Port of Long Beach News):—With the retirement at the Port of Long Beach this spring of Chief Harbor Engineer Bob N. Hoffmaster, the Long Beach Harbor Department is launching a nationwide search for applicants to the post, which has a salary range



New York, N.Y., February 11, 1977 (The Maritime Association of the Port of New York):—**SIGNING UP FOR THE BIG SHOW.** Representatives of manufacturers of marine safety equipment sign up for display space at the First Port of New York Navigation and Communications Exposition. It will be held at the Seamen's Church Institute, 15 State Street, New York, on March 23, 24 and 25, and is sponsored by the Maritime Association of the Port of New York. Above, shown with Susan McRoberts, Maritime Queen of the Port of New York, are (left) Raymond Yurraspe, Director of Marketing, Griffith Marine Navigation, Inc., and William T. Dupre, Vice President, Marketing, Konel Corporation. The display of marine navigational and communications equipment by 16 of the world's most renowned manufacturers is the first of its kind ever to be held in lower Manhattan, convenient to the headquarters of steamship companies and agents. The Exposition will feature the display of latest equipment, all-day seminars, luncheons with authoritative speakers from either government agencies charged with regulation of the safety equipment aboard vessels, or from industry, yet unannounced, and cocktail receptions. Tickets, at \$60 for the three days, are obtainable from the Maritime Association of the Port of New York, 80 Broad Street, New York, N.Y. 10004.

of \$35,500 to \$43,600. Hoffmaster recently announced he will close out his 39-year career at Long Beach, effective June 30, 1977.

Port Administration Director Loren T. Cornish listed the following as requirements for consideration: registration as a Professional Civil Engineer in California and a minimum of ten years' experience as a Professional Engineer, including at least five years supervision in Planning, Design, Construction and Maintenance of facilities at a major port.

During his long career, Hoffmaster was in charge of the design and construction of what grew from a minor West Coast harbor into what is today widely regarded as America's most modern port. Subsiding land areas from oil production required massive filling projects to keep berths above water, while hundreds of acres of new Harbor District land were created along the City oceanfront by dredging the main channel to over 60 feet.



Oakland, Calif., February 2, 1977 (Port of Oakland):—**FESCO FANFARE**—A new Soviet containership entered trans-Pacific service from the Port of Oakland recently, and Port officials presented Captain Vadim A. Vigovski with a congratulatory plaque to display aboard the M.S. Khudozhnik Zhukov. Greeting Fesco Line's latest vessel were Ben E. Nutter, executive director of the Port of Oakland, at right, and Walter A. Abernathy, Port deputy director.

Applications will be confidential and should be sent to Mr. L.T. Cornish, Director of Port Administration, Port of Long Beach, P.O. Box 570, Long Beach, CA, 90801.

## Computerized Container Processing System

New York, December 1976 ("Via Port of New York-New Jersey):—A new computerized container traffic processing and classification system is now in operation at Maher Terminals, Inc., at the Elizabeth-Port Authority Marine Terminal. The installation at Maher Terminals, the largest public container facility in the United States, utilizes cathode ray tubes with "real time" (immediate access) computer hookups, to keep constant track of the positions, identification, and ownership of all trailers, chassis, and containers moving in or out of the terminal. Purpose of the system is to get a motor carrier fully processed from entrance to exit in less than an hour.

The system works as follows: the motor carrier enters the Maher container facility through one of six gates, each of which is equipped with both a cathode ray tube and "Regiscope." The gateman uses the CRT unit to confirm identity and ownership of the chassis and container. The regiscope is then used to photograph the driver, his license, and registration. The driver's papers then go via pneumatic tube to clerical personnel. Following this, the driver is directed to a scale where his container is weighed by an automatic combination scale - indicator - printer device. His vehicle is then sent to one of 19 inspection lanes. After inspection the carrier proceeds to a specified row where he leaves the container and heads for the clerks' office. There all dock receipt and gate pass data are entered into the real time computer system.



# Dedication Ceremonies Held at Oakland Outer Harbor Container Terminal

Oakland, Calif., January 21, 1977 (Port of Oakland):— Amid formal purification rites by robed Shinto priests—including participation by American and Japanese shipping and port executives in the ceremonial handling of huckleberry branches and the breaking of a cask of rice wine—the Port of Oakland's eighth container terminal was dedicated today in the Oakland Outer Harbor.

A flight of white doves released from a flower-banded globe—the traditional kusudama ritual—climaxed the dedication simultaneously of the \$2.5 million Paceco container cranes that will serve the new Port of Oakland Outer Harbor Container Terminal.

The 32-acre facility on Oakland's waterfront was designed to meet the growing needs of the four-line



January 4, 1977:—Outer Harbor Container Terminal, Port of Oakland, operated by Oakland Container Terminal, Company for Consortium of 4 Japanese Lines:  
Japan Line

“K” Line  
Mitsui-O.S.K. Lines  
Yamashita-Shinnihon Line



January 4, 1977:—Container Cargo Crane at Outer Harbor Container Terminal.

consortium of Japanese steamship companies whose eight ships alone account for over 40 percent of the West Coast's trans-Pacific container trade.

The lines, whose weekly joint service from Oakland offers the largest container capacity to the Far East in the trade, are Japan Line, "K" Line, Mitsui O.S.K. Lines and Y.S. Line. They have called at the Port of Oakland since 1968, originally operating from an 8-acre facility at the Port's Seventh Street Terminal.

The Port of Oakland Outer Harbor Container Terminal encompasses 51 acres overall, and provides users with two 40-ton gantry container cranes. An 18-acre segment is still under construction, but the Four Lines yard operated by the Oakland Container Terminal Company is now in full daily use.

Built at a cost of nearly \$9 million—construction funds realized from the sale of revenue bonds to be reimbursed from dockage, wharfage and other fees—the new Outer Harbor Container Terminal brings the Port of Oakland's container marshalling area to over 350 acres.

This is more than twice the capacity of any other U.S. Pacific rival, and with 16 container cranes now in operation on Oakland's waterfront, represents the greatest container lifting arsenal in the entire Pacific Basin.

The Port of Oakland Outer Harbor Container Terminal occupies a site first developed for deep-water shipping operations in the 1920s, by the Parr Terminal Company.

The land has been owned by the City of Oakland since the early years of this century. Construction of the Outer Harbor Container Terminal—undertaken after extensive negotiations leading to a long-term pact between the Port of Oakland and the Japanese Four Lines—actually reduced the pier-head line extending into the Bay in this area by some 600 feet, with removal of an existing oil pier.

Bishop Fumio Matsui, of the Konko Churches of America, presided over the unusual Shinto rite by which gratitude and hopes for future prosperity for the terminal



San Francisco, Calif., 2/4/77 (Marine Exchange of the San Francisco Bay Region):—KEY NEW YORK SURVEY was recently made as part of an industry-Maritime Administration study and systems evaluation of the feasibility of a nation-wide ship traffic and vessel intelligence network. Participants included Robert H. Langner, executive director of the Marine Exchange of the San Francisco Bay Region, N. "Nick" Cretan, New York Maritime Association executive director, and Dr. Robert Powell, a chief scientist, of ARINC Research Corp., Annapolis, Md. The Exchange, prime contractor with MARAD for the year-long effort, is overseeing engineering services of ARINC, systems consultants. Twenty-two ports have been surveyed, with the completion of the two-day study in New York, arranged by Cretan with the cooperation of the National Customs Brokers and Forwarders Association of America. The proposal would provide a cooperative system for inputting and exchanging key ship traffic and related information among most U.S. ports, with possible international tie-ins.

are customarily expressed in Japan.

Following purification prayers and the laying of huckleberry branches on an altar, Oakland Board of Port Commissioners President William Walters struck a sake cask with a wooden mallet. The ceremony, known as kagami-wari, ended with toasts of sake drunk by participants from a wooden measure, or masu.

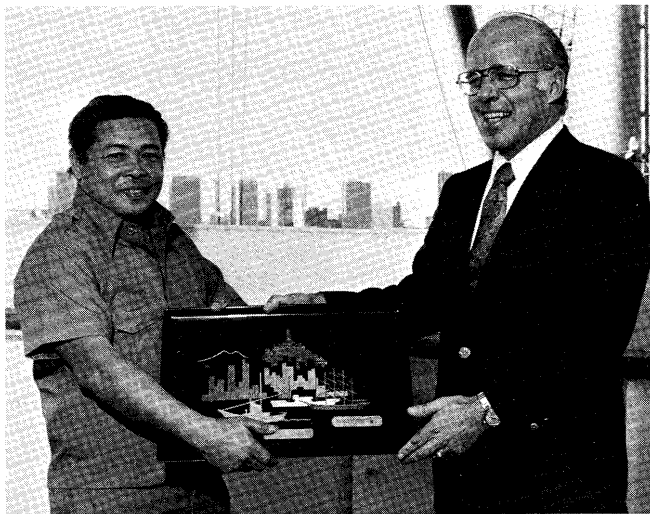
Earlier, dedication of the terminal crane was capped by the release of white doves over San Francisco Bay from a large decorated sphere suspended from the crane lifting mechanism.

Taking part in the colorful program were Oakland Mayor John H. Reading; T. Okuda, managing director of Japan Line; S. Ogawa, managing director of "K" Line; G. Shibayama, director of Mitsui O.S.K. Lines; and Ben E. Nutter, executive director of the Port of Oakland.

A reception and Japanese buffet for members of the San Francisco Bay Area maritime and shipping communities, held by the Port of Oakland in the terminal's 7,000-square-foot maintenance building, followed the Shinto rites.

## Inland Rail Rate Committee

New York, February 2, 1977 (New York-New Jersey Inland Rail Rate Committee):—Dr. William J. Ronan,



San Francisco, Calif., 1/13/76 (Marine Exchange of the San Francisco Bay Region):—Marine Exchange maiden voyage tray mirrored the City's skyline during the welcoming ceremony aboard the M.S. Marguerite Venture. Chief Officer Leoniso Paschue accepted the commemorative engraved tray from William F. Bosque, Marine Exchange director and partner, J.E. Lowden & Co. Also participating were Furness Intercocean Corp. representatives, agents for the Polynesia Line vessel.

Chairman of the Port Authority of New York and New Jersey, today was elected Chairman of the New York-New Jersey Inland Rail Rate Committee at the organization meeting of the group at the World Trade Center.

The Inland Rail Rate Committee was established last fall to improve the competitive position of the bi-state Port in regard to inland railroad freight rates to other United States ports. In addition to the Port Authority, the Committee includes 36 trade, civic and labor organizations in the Port District and seven other governmental bodies.

Members of the Committee have met with officials of ConRail, the new government financed railroad which took over the New York-New Jersey area operations of the Penn Central, Erie-Lackawanna, Reading and Jersey Central. There have also been meetings with executives of the Chessie System and the Delaware and Hudson Railroad which also provide limited rail service to the metropolitan area.

Among the subjects which were impressed upon the rail executives were the need for the continuance of a full line of freight rates on export-import traffic moving in conventional rail cars to Brooklyn and other parts of the harbor for on-rail delivery, and the vital need for improvement in the port's competitive position as to rail movements of containers and trailers to and from the Midwest. Since the rates now being applied are mileage rates, the New York-New Jersey Port's disadvantage vis-a-vis the other North Atlantic ports has worsened whenever the railroads have made general rate increases.

In reviewing the progress made by the Committee in its first months of work, Dr. Ronan noted, "We had a constructive meeting with Mr. Richard Spence, President of ConRail in December, and I am encouraged that they will give favorable consideration to our suggestions."

Other members of the Executive Committee elected



San Francisco, Calif., 2/11/77 (Marine Exchange of the San Francisco Bay Region):—DIVERSION OF U.S. EXPORTS via Canadian ports will be halted by Federal Maritime Commission action under a cease and desist order filed against a Detroit freight consolidator, according to Karl E. Bakke, FMC chairman (third from left). The regulatory agency official was speaker at a special San Francisco luncheon, co-chaired by Thomas Stone (left), West Coast editor of *Brandon's*, and Peter Hughes, traffic manager of Norton, Lilly & Co., Inc. The Pacific Traffic Association represented by president C.O. Bottjen (2nd from left), was joined in sponsorship of the event by the Marine Exchange of the S.F. Bay Region, represented by president Paul O'Leary; the San Francisco Customs Brokers and Freight Forwarders Association, headed by William Bosque, and the Oakland World Trade Club, represented by president Ernest Figueira, all of whom were on hand for the Mark Hopkins Hotel luncheon meeting.

today are:

- Oscar Bakke, Executive Director, Newark Transportation Council
- Richard C. Hanel, President, New York Foreign Freight Forwarders and Brokers Association, Inc.
- James P. McAllister, President, New York-New Jersey Port Promotion Association (also Chairman, Harbor & Shipping Committee, New York Chamber of Commerce & Industry).
- Hon. Angelo Martinelli, Mayor of Yonkers.
- Alexander J. Mautner, Administrator, New York City Transportation Administration.
- Clifford M. Peake, President, Eastern Union County Chamber of Commerce
- Anthony M. Scotto, Vice President, International Longshoremen's Association.
- Clifford B. O'Hara, Director of Port Commerce, The Port Authority of New York and New Jersey (Secretary).

## CAPA members propose rate increases

San Francisco, Calif., February 17, 1977 (CAPA=California Association of Port Authorities):—The 11-member California Association of Port Authorities today (Thurs., Feb. 17) announced a proposed increase in dockage and wharfage rates to become effective July 1, 1977. Wharfage rates presently carried at \$2.25 per ton will be increased to \$2.60, and all other wharfage rates will be increased approximately 15% rounded off to the nearest whole cent, with certain exceptions, largely on bulk commodities.

Dockage rate increases will be announced as soon as cost studies have been completed.



San Francisco, Calif., 1/19/77 (Marine Exchange of The San Francisco Bay Region):—OAKLAND—The Warmth of Russian hospitality was extended by Capt. Vadim A. Vigovskiy (center right) of the Fesco M.V. Khudoznik Zhukov during his ship's maiden voyage to the Golden Gate. During the welcoming ceremony, the Captain was presented with plaques by the Director of the Port of Oakland, Walter Abernathy and by Marine Exchange director, William Wagstaffe. Pictured with the Captain are: James Davis, vice president & general manager of Moram Agencies (agents for Fesco), Maritime Princess Chris Herring of the Atlantic Companies and William Wagstaffe, Exchange director and general traffic manager, Del Monte Corporation.

CAPA member ports are Hueneme, Long Beach, Los Angeles, Redwood City, Richmond, Oakland, Sacramento, San Diego, San Francisco, Stockton and Encinal Terminals.

## Customs collections jump in 1976

Savannah, Georgia, January 27, 1977 (Georgia Ports Authority News Release):—U.S. Customs collections in the Savannah Customs District increased by more than 34% in 1976, according to an announcement by Mrs. Marion Faircloth Baker, District Director of Customs. The Savannah Customs District includes the ports of Brunswick and Savannah and Atlanta.

1976 Customs collections totaled more than \$70 million, compared to \$52 million in 1975.

Customs collections in the Ocean Ports of Savannah and Brunswick totaled more than \$56 million, compared to more than \$40 million in 1975. Atlanta's Customs collections were \$13.6 million last year, up from \$12 million in 1975.

The increase in port activity indicated by the Customs collections does not reflect a greater number of vessels calling at the ports, according to Charles Simon, Assistant Director of Customs. "Rather," says Simon, "The collections figures indicate that larger sized vessels are using the ports."

Much of the increased tonnage evolved, according to Simon, "because the Georgia Ports Authority continues to be progressive and maintains the most modern advances in the South Atlantic."

George J. Nichols, Executive Director of the Georgia Ports Authority, said the increase in tonnage volume, "under-scores the importance of the Ports Authority's \$52 million expansion program, which is eighty percent completed."

## Foreign Trade Conference hosted

Savannah, Georgia, February 3, 1977 (Georgia Ports Authority News Release):—The Port of Savannah will host the 11th Annual Georgia Foreign Trade Conference April 19 through the 21.

As in years past, the Foreign Trade Conference will be headquartered at the DeSoto Hilton Hotel.

The Foreign Trade Conference traditionally brings together shipping and commerce interests from all over the world.

Several nationally prominent speakers will participate in the Foreign Trade Conference. They will be announced at a later date.

## Long-time Director of Trade Development retires

Seattle, Washington, January 31, 1977 (News Release from Port of Seattle):—Robert O. Edwards, long-time director of Trade Development for the Port of Seattle, today announced his early retirement effective February 28, 1977.

With over 30 years of dedicated service to the Port, Edwards has played an important role in the tremendous growth in the Port's domestic and world trade position.

When Edwards became director of the Trade Development Department in 1954, he had a staff of six. Today there are over 50 scattered from New York to Hong Kong. The department encompasses activities of the Export-Import Rate Bureau, OCP (overland common point) cargo control, advertising, marketing and field offices in New York, Chicago, Spokane, Alaska, Tokyo and Hong Kong. It is the principal force which has made the Port of Seattle one of the most competitive in the world and one of the nation's leading seaports.

It was the Port's early decision in July 1955 to establish its first field office in Spokane, followed by offices throughout the world in the Port's program to become personally involved with shippers and carriers in the international trading community. Such action, under Edwards' direction, coupled with the substantial commitment of the publicly elected Port Commission and of the community in providing the finest harbor facilities in the country, has been largely responsible for the Port's success to date.

The Port of Seattle is today the No. 1 OCP port for goods entering west coast ports and destined for delivery beyond a common point (usually the Rockies) to the rich markets of the mid-west and the New York/mid-Atlantic area. The terms "Gateway to the Orient" and "Gateway to Alaska" took on added meaning because of the department's efforts and innovative uses of other Port services.

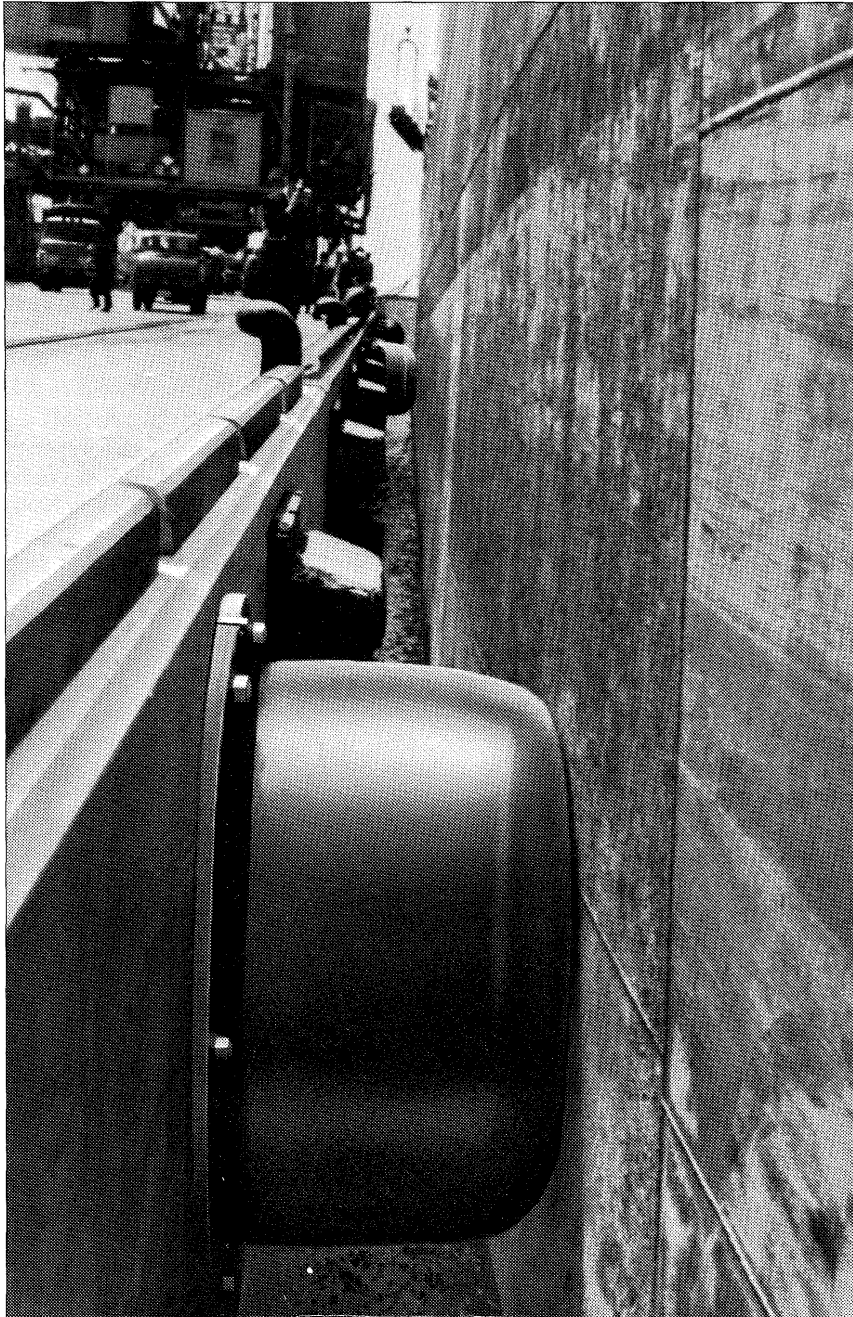
Edwards joined the Port in 1936, almost "the day after being graduated" from the University of Washington from which he took a degree in business, majoring in foreign trade and accounting.

He joined the U.S. Navy as ensign at the outbreak of World War II and spent about eight years in that conflict and in the later Korean action. He retired as captain, U.S. Navy Reserve, only last year.

Edwards' successor has not yet been named and an interim director will head the department to assure continued service to Port customers.



# ABF's Assure Perfect Berthing & Mooring



ABF's (Air Block Fenders) are epoch-making pneumatic rubber fenders, featuring bolt installation on the quay wall, developed by Yokohama Rubber.

The low reaction force of ABF's assures less stress to quay wall and vessel, inclined berthing can be enlarged, while contact pressure performance is outstanding.

ABF's are excellent against rolling, swaying, yawing and all other forceful movements of wind and waves.

This means maximum safety and shock-protection whether berthing or mooring — with no possibility of damage to the ship hull nor berthing structure.

Several years of severe testing in Japan under adverse conditions have proven the quality and performance of this important harbor equipment.

An additional advantage is that problems inherent in solid type fenders are solved by the new ABF design.

#### Recommendable for following installations:

- \* Wharves subject to high waves and strong wind conditions.
- \* Pier-type wharves where reaction force should be lessened.
- \* Wharves where usually the curved face of a ship's bow or stern is subject to contact.
- \* All wharves that must provide special protection to ship hull.

#### Available sizes:

from 300mmH × 400mm $\phi$   
to 1,500mmH × 2,000mm $\phi$ .

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Antwerp:—"Stocatra" ore transshipment plant, new canal dock and twin locks.



Antwerp:—Concentration of barge traffic.

## Cargo traffic: 9 months 1976

Antwerp, 8/12/1976 (Port of Antwerp Promotion Association Press Release):—Monthly statistics of the Harbour Master's Office, Quays and Sheds, reveal that the cargo traffic in the port of Antwerp develops even more positively.

Figures covering the month of September last show that every sector of the cargo traffic is on the increase, in comparison to the same month of 1975. The most remarkable fact remains, however, the arrival of general cargo, which almost doubled in September 1976 as compared to September 1975, which can be partly ascribed to the continuous growth of overseas iron and steel products imported.

Apart from the general cargo which in its various forms is on the increase (i.e. container, Ro/Ro, iron and steel, and other conventionally handled general cargo), a continuous growth of the dry and wet bulk cargo is also recorded.

The favourable development of the month of September is also apparent from the traffic during the first 9 months of this year, as compared to the January-September period of last year. The total cargo traffic from January up to and including September 1976 amounts to 50,277,707 tons, which means an increase of c. 10% as compared to January-September 1975.

For the first time this year, and this after 9 months, mention can be made of an increase of the total general cargo handled (+1%) as against the first 9 months of 1975, which on a yearly basis leads to an expected increase of the general cargo traffic in 1976.

Furthermore these first 9 months show a distinct growth of the bulk cargo traffic, viz. by +15% (and this for incoming cargo: +11%, as well as for outgoing cargo: +25%).

The most important gains are on the account of the coal traffic (+72%) and of the cereals traffic, which latter traffic almost doubled as against the January-September period of 1975, and which apparently will exceed the 5 million tons level.

Taking into consideration the figures covering 8 months of container traffic 1976, and the partly known figures of September, this traffic will have increased by almost 12% in comparison to the same period of 1975.

The same trend also is reflected in the Ro/Ro-traffic which reaches almost the same level as during the top year 1974.

## Unique source of documentation

Antwerp, 7/12/1976 (Publitra):—"With the quadrilingual Vade-Mecum of the port of Antwerp we have the avail of a unique source of documentation regarding port customs, local charges and other information, which all ports in the world can envy us". This Mr. L. Delwaide, Alderman of the Port, declared on the occasion of the official presentation of the 1976-1977 edition of this manual which gives a complete survey of all regulations and tariffs directly or indirectly connected with the port of Antwerp.

As a result of the merging of the Vade-Mecum of the Antwerp Shipping Federation with the publication realized under the auspices of the City of Antwerp and the Port of Antwerp Promotion Association, this fourth edition, indeed, covers an even wider scope of information and grew into an initiative which can be considered to be unique among the port editions.

The book contains a large quantity of data which total 352 pages, being subdivided into two main groups.

The first group of information relates to the structure of the Antwerp port administration and of the central services connected to the functioning of the port. Next all companies in the port and in the related branches are listed, classified according to some 60 branches of activity (in total about 800 companies figure). That first chapter of the Vade-Mecum, which is conceived as a "Who is who?", also contains a complete survey of all shipping lines calling at Antwerp.

Part II deals with the regulations and tariffs of the port. This chapter has been realized in consultation with all services and associations concerned and in close collaboration with the Antwerp Shipping Federation. Within the framework of this cooperation the quadrilingual Vade-Mecum of the port of Antwerp has been completed with the texts of the previous Vade-Mecum of the aforementioned Federation. Thus the book becomes the **unique source** for a number of very interesting tariffs and regulations.

(Continued on next page bottom)

# Vigorous marketing brings an upturn in trade

**James P. Davidson**  
**Deputy Chairman and Managing**  
**Director, Clyde Port Authority**

Glasgow, January 1977 (Clydeport News):—During the year the country's economic problems reached alarming proportions and I think it fair to say that by now most responsible thinking people have a very real awareness of the dangers to our recovery if inflation continues unabated. On the Clyde we have already felt the chill wind of a downturn in traffic, such as hit us at the latter end of 1975 and continued into the first three months of the current year and we can only be thankful that trade took a turn for the better in the late Spring. While the resurgence has not reached anything like the level we would like to see, it has been encouraging in certain areas, albeit that in others we are still suffering from a marked lack of business.

The container terminal unfortunately has not yet returned to its pre-1974 level of traffic and the Ardrossan Harbour Company continues to be affected adversely, both as a result of the Irish problems and the current economic climate. The upper reaches at Glasgow, however, showed an encouraging upswing in some trades and we will continue to market vigorously the many advantages of Glasgow for handling break-bulk general cargo. I am sure that the efforts of the past year have borne fruit in this regard.

On the whole, the port has had a not unsuccessful year; indeed it has been much better than we dared hope in the early Spring. However, looking to 1977, we have to face the reality that certain trades which we enjoyed, even in part in 1976, will no longer be with us and, as a result of North Sea oil, the use of the estuary for oil imports to Finnart will be greatly reduced below the volume we have known for some years past. At the same time, the construction of the ore terminal at Hunterston progresses steadily and in the future we anticipate seeing a substantial increase in iron ore and coal shipments and in the use of the estuary by the large bulk carriers which the Clyde is so naturally suited to handle. Our road haulage and warehousing subsidiaries will, I hope, find an improving business climate in 1977 and we look forward to the Rhu Marina being in operation by the late Spring.

With the many changes in the shipping industry, due to

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In order to constantly provide the users with an up-to-date reference book, a subscription system is introduced by means of which the changes in the respective texts occurring in the course of the year will be sent to those interested.

When considering the possibilities of use it offers, it undoubtedly concerns a publication, the possession of which is a must for all port users. The book is on sale at the publishing company PUBLITRA, Brouwersvliet 33, Box 4, B-2000 Antwerp. The selling price is BF 395,-, V.A.T. and postal rate excl.

technology and economic forces, it behoves us more than ever to ensure that the service which we offer as a port is, above all, reliable. We are competing in certain trades with ports which have the advantage of much larger hinterlands than we enjoy and if we are to survive we can only do so by being both efficient and dependable. If we are not we cannot expect trade to come to us since no one owes us a living. I am confident, however, that if we maintain an appreciation that our customers must at all times be our first concern we will continue to uphold our reputation as the port which provides service second to none.

To all who have contributed to the well-being of the port and its subsidiaries during the year, on behalf of the Authority, I extend sincere thanks and every good wish for the New Year.

## Computer will speed flow of containers

Glasgow, January 1977 (Clydeport News):—A computerised control system for the movement of boxes through the Clydeport Container Terminal is to be introduced this year. It will benefit shipping companies and shippers by speeding the throughput and minimising the chance of delays to vessels or road transport. It will also increase the terminal's capacity for handling a large number of boxes, fast.

Documentation, presently processed by hand, will be produced by the "electronic brain" and the staff who are responsible for receiving and despatching containers will have all the information they need flashed to them on a TV-style screen.

The system, which will be geared to process data on individual containers at a rate of one a minute, is being devised and installed by the Authority's computer bureau, Clydeport Data Management Ltd.

Though, in operation, the new control system will be simplicity itself, the creation of the necessary programs—or formula to which the computer works to perform its task—is a complex business. Its introduction will therefore, be phased over a period of about 18 months.

The hardware involved comprises the mini-computer, which will be installed in the administration building at the terminal, and four out-stations—each consisting of a visual display unit and a printer—two of which will be located in the documentation office and one each at the export grid and the import grid.

Existing clerical staff involved in documentation will be trained to use this new equipment.

Initially, the mini-computer will be delivered to Clydeport Data Management's computer centre at King George V Dock where it will be used to develop the programs.

It is scheduled to move to Greenock in the late summer, where the system will have a running-in period of about three months.

Then the first phase, covering imported containers, will be in commission around the end of the year with the

second phase, for export boxes, coming in during the summer of 1978.

For import boxes, the system will work like this: when a lorry arrives at the documentation office to collect a container, the computer will print out the necessary "Interchange"—the paperwork which must be completed each time a container changes hands en route—bearing details of the box, its contents, origin and destination, report of any damage and confirmation of Customs clearance.

At the same time, the computer will flash a message to the import grid calling up the container and identifying for the straddle-carrier driver its precise location in the 40-acre parking area.

For exports, the computer will once again prepare the necessary inter-change document and indicate the correct spot for parking as well as weighing the container automatically.

It will also be able to provide customers with a list of boxes for each ship, arranged by port of destination and weight, which will facilitate stowage on board. Meetings will be arranged with the container lines which operate out of Greenock to explain the system and suggest how they may derive maximum benefit from it.

As well as speeding day-to-day operations, the computer will "memorise" the details of every box, including time of receipt and despatch, for quick and easy future reference.

## Chairman and GM in trade mission Down Under

Bristol, February 2, 1977 ("Portfolio", A Newspaper For the Port of Bristol):—Docks Committee Chairman, Councillor Wally Jenkins and Port General Manager Stanley Turner will visit Australia and New Zealand in April to promote trade for the Port of Bristol.

Whilst in Melbourne, Mr. Turner the present International President of the International Cargo Handling Coordination Association, will attend its Biennial General Assembly and Technical Conference.

There Mr. Turner, who has now completed two 2-year periods as President, which is the maximum allowed by the Constitution of ICHCA, will officially hand over to the President Elect, Mr. A.S. Mayne, Chairman, Melbourne Harbour Trust Commissioners.

It is anticipated that the conference will be attended by several hundred world-wide delegates of standing in the fields of shipping, importing and exporting.

Australia and New Zealand represent important trading areas for the Port of Bristol in that it is hoped that we shall retain most, if not all, of the non-containerised meat traffic and in addition are, at this moment, developing export services to this part of the world.

## Charges Increase

London, 30th December 1976 (PLA News):—The Port of London Authority is to increase its schedule charges by 10% from 31st January 1977. The increase in schedule charges will be the first for thirteen months despite the continuing high rate of inflation.

Certain other charges will be increased by between 7% and 11%. Existing specially negotiated contract rates will be

the subject of separate discussions with the customers and port users concerned.

The Port Users' Consultative Committee, who have been consulted with regard to the new proposals, have been informed that PLA hope to hold the new charges until the end of 1977.

## Bright future for South Wales Ports

London, 3 February, 1977 (British Transport Docks Board):—The British Transport Docks Board were confident that the South Wales ports had a bright future and would continue to develop their present diversified pattern of trade on the basis of first-class service to the customer, Mr. Keith Stuart, general manager of the Docks Board, said during a visit to Cardiff today (Thursday, 3 February).

"There is ample evidence that the standard of service given is highly attractive to port users, and this in turn encourages the British Transport Docks Board to plan further capital investment to enable the group to meet new customer requirements," he said.

Mr. Stuart cited negotiations which were currently in hand for new developments at Cardiff and Barry.

"At Cardiff, we are discussing with GKN an important development at Bell's Wharf to serve the company's new rod mill, and at Barry we are planning a new high-speed conveyor system for National Smokeless Fuels Ltd. for shipping coke exports world-wide," he said.

"It is particularly encouraging that these two projects will cater for export traffic, an area in which the South Wales ports have great scope for further growth," Mr. Stuart added.

Mr. John Williams, port director, South Wales, said that the ports had recovered well from the worst effects of the trade recession in 1975 and had succeeded in attracting a substantial amount of new business during 1976.

## Fleetwood traffic trebles in two years

London, 11 February 1977 (British Transport Docks Board):—Traffic through the port of Fleetwood has trebled in two years. Figures for 1976 issued by the British Transport Docks Board show that total traffic reached 1,591,199 tonnes, which was a 40 per cent increase on 1975, and treble the 1974 figure of 446,000 tonnes. Imports during 1976 reached 740,264 tonnes, and exports 850,935 tonnes.

Mr. Tony Winfield, Fleetwood's docks manager, said that the major factors contributing to the port's success had been the establishment of the Pandoro roll-on/roll-off service to Ireland, which had its first complete year of operation in 1976, a new grain terminal, and traffic in scrap metal. "The Docks Board has invested nearly £2 million in the last three years, with developments planned for new traffic," he said. "The port has captured fresh trades which have expanded in 1976. I am confident that the growth which Fleetwood has experienced over the last two years will continue, as the port can offer an excellent service to a wide variety of trades."

Imports of grain started to arrive at the port 18 months ago and cargoes of around 2,500 tonnes now arrive regularly from EEC countries. Over 108,000 tonnes were

handled in 1976, and there are plans to increase the capacity of the silos which were built at Fleetwood by Sheard Stubbs (Liverpool) Ltd.

Exports of scrap metal which began at the port four years ago dropped slightly to 43,000 tonnes because of fluctuations in the international metal market, but are expected to pick up again in 1977.

The largest increase in the port's trade was due to traffic carried on the Pandoro roll-on/roll-off service between Fleetwood and Ireland, and the number of units handled in 1976 increased by 58 per cent compared with the previous year. Fleetwood has the capacity for further roll-on/roll-off developments, and has the necessary Parliamentary powers to build three more roll-on/roll-off berths.

The redevelopment of the port's fish dock facilities was completed at the beginning of 1976, but fish landings at the port dropped to 28,500 tonnes because of the decline of the fishing industry.

Passengers using the summer service operated by the Isle of Man Steam Packet Company between Fleetwood and Douglas, Isle of Man, increased from 112,000 in 1975 to over 117,000. The Steam Packet Company introduced a car ferry service on to the route during 1976, and over 2,000 vehicles were carried. The Company will operate a similar service of up to five sailings a week during the 1977 summer season.

## Brochure for King's Lynn

London, 17 February, 1977 (British Transport Docks Board):—A new eight-page colour brochure for the port of King's Lynn has been published by the British Transport Docks Board, setting out details of the facilities and services offered by the port.

Details are given of the two docks at the port—the Bentinck and the Alexandra—and of the various types of cargo handling equipment and storage space available there. Information is also given on the many kinds of cargo which are shipped through King's Lynn, and on the excellent road and rail links.

The brochure is highly illustrated with numerous colour photographs showing all forms of dock work at King's Lynn, together with a map showing King's Lynn's location in relation to England's major industrial towns, and a detailed dock plan.

Copies of the brochure are available, free of charge, from the British Transport Docks Board, Dock Office, King's Lynn, Norfolk PE30 2EU.

## London Venue for RO-RO '77

**Conference Programme will spotlight the need for on-shore efficiency to match the large numbers of new Ro-Ro ships about to enter service.**

London, 3.2.77 (Ro-Ro 77 News Release):—This year's Ro-Ro Conference and Exhibition—Ro-Ro 77—will be held on June 21-22 in the London Hilton Hotel. The meeting will take place against a background of continued acceleration in international Ro-Ro traffic, with new ships increasing the world Ro-Ro cargo fleet by as much as 40% by the end of the year. By far the most active sector of the marine market, each day sees further reports of new contracts for

this type of ship.

A comprehensive programme of international speakers is now being finalised and authors are invited to submit subjects for papers to the Secretariat at 2 Station Road, Rickmansworth, Herts WD3 1QP, England. The scope of the meeting will focus on every link of the Ro-Ro chain—the ships, the trailers, the linkspans, the berths—and various other aspects of Ro-Ro technology and trades.

Reflecting the interest shown at the very successful Ro-Ro 76 meeting, it is intended to include a panel session on the activity in the Mid East, providing a much needed opportunity for an open exchange of views between shipper, ship operator and the ports—bringing delegates up-to-date on the latest situation. The inherent flexibility of Ro-Ro, for both mixed or containerised trailer loads, has been used to ease the congestion problem—estimated to have cost \$5 billion last year. However, the rapid disgorging capacity of the Ro-Ro ships has created its own problem, shifting the bottleneck to the on-carriage shore systems. Efficient port management can unblock the problem by providing the right type of handling gear, maintenance, stevedoring and documentation processing. In many cases, only minimal shore-side supervision may be available, and a shipowner seeking to extend into unfamiliar territories is faced with the decision whether to invest in his own on-shore back-up, thus ensuring that the remainder of the through service can match his ships and schedules.

Much ingenuity has gone into providing ports with "instant" Ro-Ro capacity, but with varying degrees of success. Speakers will study these and other developments in linkspan and terminal technology.

The meeting will continue the debate between the advocates of slave trailers versus road trailers. New designs of vehicles are emerging which are specially suited to the arduous conditions of the deserts of the Mid East.

Papers in the ship design session of the Conference will include an examination of the claims made for the stowage and handling rates of Ro-Ro. Successive design improvements to the larger vessels now report stowage factors approaching cellular ships and roll-off rates of 10,000 tons in a working day makes the conventional cargo liner look ridiculous in comparison. Moreover, the success of the basic Ro-Ro hull has influenced naval architects to adapt the concept to other forms of sea transport such as barges and pontoons, and these will be studied at the Conference.

The rapid advance in the size and scope of the Ro-Ro ship has raised questions of safety. Areas of concern to be stressed at the meeting include the unknown trailer load, the condition of the vehicles, and the attitude of the regulatory bodies towards the ships. The need for shipboard safety has recently been underlined by a condition of the Saudi Arabian Authorities who have decreed that any cargo found damaged on arrival will not be allowed to discharge and that the shipowner is responsible for its disposal.

Ro-Ro delegates will have the opportunity to see at first hand some of the latest developments in Ro-Ro technology and hardware which will be on display adjacent to the conference hall. The conference area will be larger than that used for the previous meeting which was over-subscribed some weeks before the event.

# Le Havre Flashes, December, 1976

Le Havre, France (Port of Le Havre Flashes, December, 1976):—

## ● Franco-Japanese Day

Le Havre was the venue on October 13th for a most interesting Franco-Japanese Day, which underlined the important role played by the port in France's maritime trade with the Far East. The guest of honour was H.E. the Japanese Ambassador to France, Mr. Hideo Kitahara, and the worlds of shipping, industry and commerce were all very well represented. The working session was largely given over to talks on the best way of selling French products to Japan and on the lessons to be drawn from Japanese management methods. The meeting was of far more than local importance and was of value both to people who already have dealings with Japan and to those who would like to trade with her in future, whether in the field of exports or imports. An increase in trade between the two countries is bound, moreover, to be of benefit to Le Havre, which has well-established maritime links with Japan.



## ● New Service

A British company, Quayport Ltd, has started a regular fortnightly service to Apapa, in Nigeria, using small vessels that do not need to queue for long periods before unloading, as is often the case in that part of the world. The agents here are Collard & Cie (71 Boulevard de Strasbourg, Le Havre) and the first sailing was made on October 19th by the Suzanne Flindt, a Danish vessel under charter.

## ● Heavy loads for U.S. nuclear power stations

On September 20th the Atlantic Container Line's Rodin took on 124 separate items made by the Compagnie Electro-Mécanique du Bourget for a nuclear power station in course of construction at Forked River in the United States. They weighed a total of 1,154 tonnes and were brought here by road on fifty-nine 12-metre trailers, 32 of which were flat-trailers and 27 slave-trailers. The operation was organised by the Compagnie Générale Maritime's inland transport office in Le Havre, in conjunction with the Compagnie Maritime Française Internavis and the C.E.M.

The cargo was discharged at the nearest port to Forked River, Camden, close to Philadelphia, on September 28th.

## ● Japanese employers in Le Havre

A delegation from the Japanese Employer's Federation, Keidanren, visited the port of Le Havre on October 23rd during its fact-finding tour of Europe. Le Havre was included on account of its high volume of trade with Japan.

## ● Container giant's first call

It has been calculated that an extra 25,000 tonnes of general cargo are being handled here each month as a result of the TRIO, ScanDutch and ACE groups using Le Havre as a scheduled port of call for vessels engaged on their Far Eastern services. One of the highlights of early October was the first visit to Le Havre of a 3rd generation vessel belonging to an ACE group partner, Orient OVERSEAS Container Line, whose general agents in France are Jokelson & Handtsaem. She was the Hong Kong Container, a vessel 264 metres long and 32 metres wide (866 ft x 105 ft) that can carry 2,068 twenty-foot containers at a service speed of 26 knots.

## ● K Line agency

Currie & Cie (109 Boulevard de Strasbourg, Le Havre) inform us that they have been appointed French agents for the Japanese Kawasaki Kisen Kaisha company of Tokyo. This is a shipping company that provides a regular outward container service from the principal European ports, and especially Le Havre, to Formosa, South Korea, Malaysia, Singapore and Japan. As K Line is part of the ACE group, it is able to provide regular sailings every 10 days from Le Havre to the Far East. (Photo shows Kawasaki's Container-ship "Seven Seas Bridge" in Le Havre.)



## ● Le Havre gets anti-pollution float

A hydrocarbon recovery float is soon to be brought into service in the port of Le Havre. It is one of the most powerful self-contained anti-pollution craft at present in existence anywhere in the world and was built up on a pontoon hull bought long ago by the port of Le Havre as

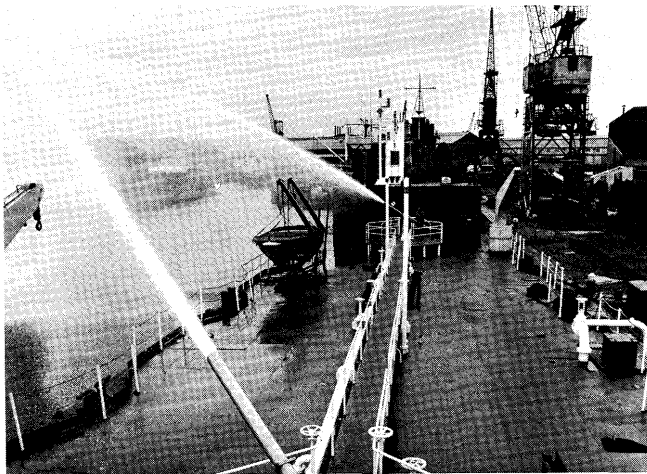


American surplus material and used for many years by the Société Maritime de Dégazage for washing out oil tankers and clearing them of ballast.

The float is 67 m long and 12 m wide (220 x 39 ft) and has been designed to suck up oil slicks and carry the oil away in its storage tanks, which can hold up to 1,600 cubic metres (56,500 cu.ft). It has a maximum recovery rate of 320 cubic metres (11,300 cu.ft) an hour, using four Cyclonet 120 suction pumps, made under Alsthom Neyrpic licence and each 1.20 m (3 ft 11 in) in diameter, which are automatically brought up on deck when the float is on its way to a spill.

The craft is comfortably fitted out for its 6-man crew and carries highly effective rescue apparatus, as well as fire-fighting equipment for its own protection. To cut out the risk of an explosion, all equipment on board is hydraulically operated. Moreover, it has two powerful pumps for transferring recovered oil either to another ship or to shore storage tanks.

The new float will be able to travel under tow to the scene of any pollution incident occurring within 100 miles of its base in Le Havre and will provide us with a most effective means of dealing with any pollution that may occur in the twin ports of Le Havre and Antifer.



● **Big oil cargo**

The 392,000 dwt Liberian tanker Berlin discharged 387,244 tonnes of crude at Antifer on November 7th, the biggest load to be discharged there since the Batillus set up a record of 412,282 tonnes on September 12th. The Berlin was the 78th tanker of 200,000 dwt and over to tie up at Havre-Antifer since the new terminal came into service on April 13th.

● **Car ferry's unusual cargo**

On November 6th an unusual piece of cargo went aboard the Normandy Ferries car ferry Léopard in the form of a low-loader carrying a gigantic bottle-washing machine made in Belgium for an English factory near Southampton. The machine weighed 85 tonnes and was 19.50 metres long, 4.61 metres wide and 4.15 metres high (approx. 64 x 15 x 13½ ft). It was the biggest single item ever carried on a Normandy Ferries boat.

## First month at Le Verdon Terminal

Bordeaux, France, 21st December, 1976 (The Port of Bordeaux Authority Press Release):—November 1976, was the first month of full activity for the New Terminal at Le Verdon. During that time the terminal's throughput amounted to some 14,000 tonnes of containerised goods, bringing the total tonnage in containers of the Port of Bordeaux to over 23,000 tonnes for the month.

At the end of the 11th. month of the year, container traffic passing through the port of Bordeaux has reached a figure of nearly 180,000 tonnes, showing an increase of 71% over the same figure last year 105,000 tonnes). Much of this increase comes in the export field. With a figure of over 102,000 tonnes, containerised exports have doubled the 1975 total.

With Le Verdon now fully operational, the 200,000 tonnes of containerised goods, peak figure, should be passed by the end of the year. Already five shipping lines have brought in regular services to widely varying destinations, the West African Coast, the West Indies, the North American Continent and Australia. Over twenty vessels are calling there each month.

## February 1977 Board Meeting

Dunkerque, France (Port Autonome de Dunkerque, Service de Presse):—

**A new iron ore and coal berth in Dunkerque-West**

The Board decided upon the building of a new iron ore and coal berth in the western port. The location was decided whatever ICI's decision to come or not to Dunkirk may be. The locations aims:

- at a commissioning of the berth as early as 1979;
- at a quicker and easier settlement of a new methane (L.N.G.) terminal at Dunkerque-West if need be;
- and at a saving on infrastructure costs at Dunkerque-West including the building cost of the bulk terminal itself.

The new bulk terminal will therefore be built on the western bank of the Atlantic Dock (North-South) over 670 metres (2,100 ft) in the first place. The terminal will accommodate ships up to 175,000 Dwt at first (66 ft draft); later one berth for ships up to 300,000 Dwt and another one for bulk carriers up to 100,000 Dwt will be provided. Two bulk gantry-cranes will discharge the ships at the rate of around 2,000 tons per hour at first stage either onto a prestorage zone close to the quay or onto a back storage. When the inland navigation network is connected to the western port, a barge loading station will be built further to the rail loading station.

**Equipment tariffs**

The Board decided upon a uniform rise of equipment tariffs by 6.5% as from March 1, 1977. This increase accounts for the Barre Plan instructions and in fact, the yearly increase only represents 5.4%. The limitation at this moderate level placed Dunkirk favourably compared to its competitors.

# “EUROPORT SOUTH”, November 1976

## Extracts from “Marseilles/Fos Europort South”, The Monthly magazine of the Port of Marseilles Authority

### EDITORIAL

This is the first time I have had the honour of expressing myself in the columns of our magazine since I succeeded to President BLUM one month ago. This succession takes place at a difficult time for the general economic situation, which directly affects the ports. The situation therefore demands a united effort on the part of all those responsible for the Port of Marseilles Authority, and also on the part of all those who participate in the life and prosperity of the Port. It is in this way, and only in this way, that we will be able to get through this difficult situation and work our way month by month towards better days. In order to achieve this objective, we must make every effort to win new traffic so as to develop, in particular, our “general cargo” throughput, which is the biggest creator of employment. It is to this task that we must dedicate ourselves, confident in the knowledge that we can rely on the whole-hearted support of all those who use our Port.

**P. TERRIN**  
President of the Board of the  
Port of Marseilles Authority

### The Rhone-Rhine waterway

On the Rhône, two major excavations have still to be completed in order to ensure the passage of large barges from the sea to Lyons. Work on the Péage de Roussillon site, which was slowed down in 1975 for financial reasons, is going ahead at a normal rate this year and is expected to be completed by the end of 1977.

The development of the Vaugris site was declared of public utility on 18th February 1976 and work on the site is expected to start at the beginning of 1977 and be completed by May 1980, or perhaps by the end of 1979.

On the Saône, work is going ahead normally and the present situation is as follows:

- Couzon lock: in service,
- Thoisy-Drace lock-dam: in service by mid-1977,
- Gigny-Ormes lock-dam: in service by 1978,
- Charnay-Ecuelles lock-dam: in service,
- Pagny-Serre lock-dam: in service by early 1977.

The dredging now going on will enable pushed convoys to reach Villefranche and Mâcon by the end of 1977 for early 1978, and Châlon by the end of 1978 or early 1978.

As regards the Saône-Rhine link, work on this section is scheduled under the No. 6 priority action plan of the VIIth Plan. The Public Utility Enquiry is being prepared and the Declaration of Public Utility is expected for the beginning of 1977.

### Modernization of La Joliette Passenger Terminal

P.M.A.'s Board of Directors has adopted the decision to go ahead with the second stage, costing 9.3 million francs, of the modernization of La Joliette Passenger Terminal. The first stage rationalized and improved the circulation of cars and passengers for the car-ferries to Corsica and North Africa. The second stage aims at improving the passenger installations and extending the terminal to deal with the increase in this traffic and in cruise ships and local services to the Frioul Islands.

### First call of the “Rostand”

Returning from its maiden voyage on the South Pacific run, the new RO/RO ship “Rostand” made its first call at Marseilles on 13th October. The “Rostand” is the second of series of three sister ships (completed by the “Rodin” and “Rousseau”) belonging to the Compagnie Générale Maritime. The “Rostand” can carry 1467 20 ft containers and has a deadweight capacity of 21,700 tonnes; she has five decks and is equipped with an angled ramp aft on the starboard side.

### Port traffic in September

Traffic through the Port in September was marked by an increase of 548,123 tonnes (+ 6.4%) in relation to the same month of 1975.

The increase is due to general cargo traffic (+ 22,379 tonnes or + 5.1%) and oil products (+ 5.1%) and oil products (+ 710,643 tonnes or + 9.8%). On the other hand, bulk solids (– 155,972 tonnes or – 22.2%) and liquids (– 28,927 tonnes or – 23.2%) dropped considerably.

For the first nine months of the year, the traffic through Marseilles-Fos has increased by 4,284,796 tonnes or 6%. General cargo traffic is practically the same as last year, bulk liquids up by 8%, oil products up by 7.5%, and bulk solids down by 5.4%.

With the total traffic for the first nine months at 75,689,792 tonnes, there is a good chance that 1976 will see the come-back of Marseilles-Fos into the group of ports exceeding 100 million tonnes of traffic annually.

### Changes in the Board of Directors

President BLUM having resigned as Administrator of the P.M.A., the Marseilles Chamber of Commerce and Industry decided at its General Meeting of 17th September 1976 to appoint Mr. José VAN ZANDYCKE, who therefore becomes Administrator of the P.M.A. as from 1st October.

President BLUM becomes Honorary President of the Board of Directors.

The Presidency of the Board of Directors being vacant, the latter elected Mr. Pierre TERRIN to this office, who becomes President of the Port of Marseilles Authority as from 23rd September.

### 1,141 new business starts

This figure represents 10% of the national figure for new

business starts and places the region in second position after the Paris region and ahead of the Rhône-Alpes region; it demonstrates the continued healthy renewal of the commercial and industrial fabric of the area.

#### 5th General Meeting of the North Western Mediterranean Ports Coordination Committee

The N.W.M.P.C.C. held its Fifth General Meeting in September at Toulon and Marseilles under the General Presidency of Mr. DAGNINO, President of the Port of Genoa. Numerous personalities in the Italian, Spanish, Arabian and French economic worlds participated at the meeting.

Among the subjects discussed were the strengthening of inter-Mediterranean relationships, the need to pursue the current studies on industrialization, simplification of Customs procedure, and relations with conference lines, and new proposals were formulated for discussion with shippers' associations and owners of RO/RO ships.

Solutions to a number of problems specific to Mediterranean ports, such as radioelectric aids to navigation, and the TRIM (computerized freight management) system, were proposed, and the development of the RO/RO fleet in the Mediterranean, was discussed.

Finally, at the end of several days rich in intensive discussion and exchange of ideas, the closing address was given by Mr. Michel D'ORNANO, the French Minister for Industry, who underlined the importance of maritime industrial zones in the economic future of the Mediterranean ports.

### 8% Growth in Tonnage

Amsterdam, December 1976 (Amsterdam News Letter):—During the first eight months of 1976, the Port of Amsterdam recorded a growth of almost eight percent in total tonnage handled, compared with the same period in the previous year.

Interestingly, this growth was achieved with fewer ships than actually transited the Port in 1975, reflecting the increased capacity of individual vessels.

The world-wide economic recovery, which began late in the summer of 1975, has manifested itself at the Port of Amsterdam since early 1976, with particularly notable upturns in the receipt and/or transshipment of molasses (+52.5%), coal and cokes (+23.6%), and general cargo—including container traffic—(+15%). As a result of the new oil tanker facilities in the Western Port area the volume of liquid fuel handled also rose by nine percent.

Future prospects are likewise promising. The infrastructure of the Port is being continually upgraded, and more and more emphasis is being placed on its role as a multi-purpose transit traffic and industrial port.

Recently, the specialized facilities available have been attracting shippers of lumber and forest products in growing numbers. In addition with the introduction of new container services—such as that operated by the Great Lakes and European Lines between the Great Lakes and Western Europe, and the just initiated Carol service to the Caribbean—more cargo of this type is anticipated.

### Contract for Shah Bandar Abbas

The Hague, Holland, 17 February 1977 (Press Release from NEDECO=Netherlands Engineering Consultants):—The contract for the supervision of construction of the new port of Shah Bandar Abbas—a commercial port on the Persian Gulf about fifteen kilometers from the existing port of Bandar Abbas has been signed by P.S.O. of Iran (Port and Shipping Organization) and NEDECO (Netherlands Engineering Consultants, The Hague).

The P.S.O. is part of the Iranian Ministry of Roads and Transport. NEDECO is an organization under which a number of Dutch consulting firms work together on projects abroad. In this case the leading partner is the firm of HASKONING, consulting engineers and architects.

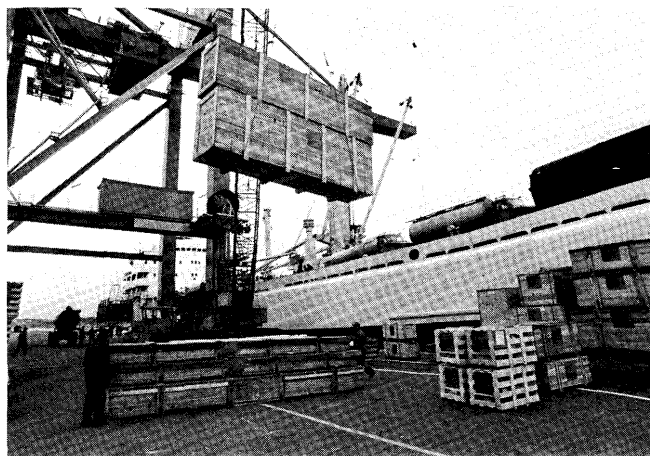
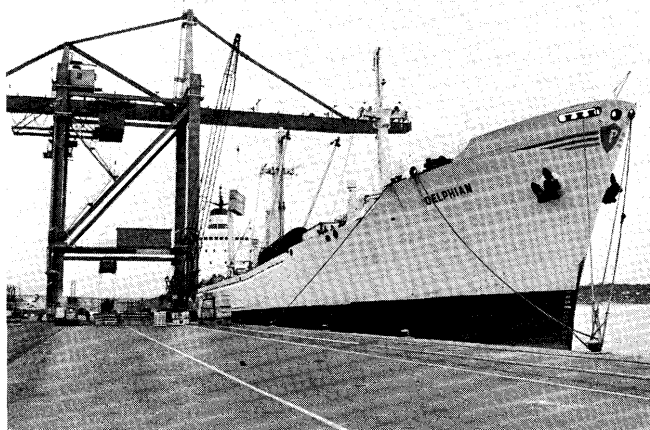
Construction of the port is being undertaken by the Italian consortium of contractors ITALCO, who have also prepared the design. The costs of construction will be in the region of 2,000 million Dutch guilders and the project will take about four years to complete.

The work of NEDECO/HASKONING—with a value of almost 60 million guilders, one of the biggest ever for Dutch consultants—includes the checking of the design, the quality control, and the progress control of the work of the Italian contractor ITALCO.

The works involve the construction of five to six kilometers of breakwaters; about 40 million cubic meters of dredging; 9 million cubic meters of earthworks; the construction of general cargo, container and other quays to a length of about six kilometers; the construction of warehouses, administration buildings, water and electricity supplies, roads and railways; in short, all that is necessary for a complete new port complex.



## Port of Gothenburg Today



Arya National Shipping Lines of Iran has started a regular direct service between Gothenburg and Iran. The first call in Gothenburg was made by the m/s Delphian, and the cargo loaded was mainly equipment for chemical factories to be built ab. 300 miles south of Tehran.

### Iranian transport of SCr 200 million chemical factory equipment from Sweden to Iran

The first parts of the equipment for a number of chemical factories, which the Iranian government has bought from the Swedish company Nobel-Chematur, were recently shipped from the Skandia harbour of the Port of Gothenburg on board the "Delphian" of the Arya Shipping Lines.

The destination harbour for this transport was Bandar Shahpour, from where the goods were sent to a district about 500 km. south of Teheran where a large chemical industry centre will be built up within a five-year period.

The value of the total order which Nobel-Chematur, a daughter company of the Swedish Bofors company, has got from Iran, is around 200 m. Swedish Kronor and the delivery of the equipment will take place successively during the next years to come.

This delivery of the extensive and heavy Swedish equipment has been one of the main reasons for the Aryan National Shipping Lines to open a regular monthly sailing on the Port of Gothenburg.



Atlanticargo is the market name for Atlantic Cargo Services, the new Finnlines subsidiary which carries on the old AGS service between North European and US Gulf ports. The new company flag was hoisted for the first time on board the m/s Finnhawk in the port of Gothenburg shortly before Christmas. Seen here are Captain A. Korpela of the Finnhawk (left), and Mr. C. Cinthio, general manager of Atlanticargo.

### Atlanticargo, a new daughter company of Finnlines, continues the traffic earlier managed by AGS

Following the ceasing at the end of 1976 of the Finnlines-Broström joint shipping company Atlantic Gulf Service (AGS), which at that time had been working for six years, Finnlines has decided to continue the services with a wholly-owned Gothenburg-situated daughter company which has got the name Atlantic Cargo Services AB, or Atlanticargo as the market name will be. Managing director of the new company is Mr. Christer Cinthio, who earlier held the same post at the AGS.

The reason why the co-operation between Finnlines and Broström come to an end was that Broström, when taking over the Dutch Intercontinental Transport (ICT) BV also through the Dutch company was represented on routes similar to those of the AGS.

The same seven cargo ships used by AGS in their service between Europe and Florida, Gulf and Mexico harbours will go on to run as before, but now flying the Atlanticargo flag. The ships are well equipped for the carrying of all sorts of cargoes—conventional as well as containerized, frozen, bulk etc.

With the main office at Gothenburg and with three sailings per month from this main port of Scandinavia it is believed that the new line will contribute a good deal to a growing quantity of cargoes carried between Gothenburg and the ports of Miami, Houston, New Orleans, Mobile and

Tampa, USA and Vera Cruz, Mexico; and vice versa.

### Mexican Line starts Gothenburg—Mexico cargo service

The state-owned Mexican Line, or Transportacion Maritima Mexicana as the whole official name is, has opened a monthly cargo service between the Port of Gothenburg and harbours in Mexico—Vera Cruz, Tampico and Coatzacoalcos.

The two Mexican Line semicontainer ships “Monterrey” and “Toluca” of about 16.000 tons gross are now regularly visiting Gothenburg as the last European harbour before leaving for Mexico, which means that Swedish companies will have a new fast connection for their export goods to Mexico.



Port of Gothenburg's new sea-truck type working boat is a handy roll on/roll off vessel. It will be used against oil pollution within the harbour area, but also for transport purposes of many kinds.

### New multipurpose “sea-truck” service boat taken in use by the Port of Gothenburg

A new service boat of “sea-truck” type has recently been delivered by the Swedish navy yard Marinvarvet at Fårösund to the Port of Gothenburg.

The boat will be used in many services within the port's district as well as in the waters outside the port.

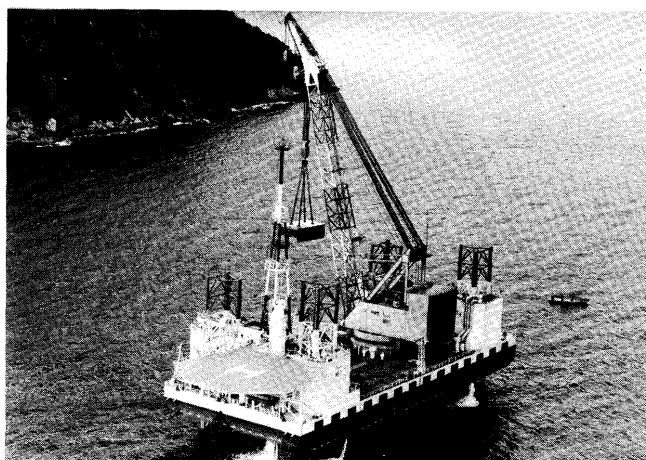
Equipped with a hydraulically operated ramp and with a

free deck area of 11 × 5 metres the sea-truck can serve as a roll on/roll off carrier of for example oil-sucking vehicles if a spillage of oil should occur in any of the port's harbours or in the nearest water districts.

The boat can also be used for the transport of special cargoes to and from the islands in the Gothenburg archipelago at the mouth of the River Göta, as well as in the sea-mark and buoy-service etc.

The sea-truck is 18,6 metres in length, has a beam of 5,4 metres and a draught of only 0,75 metre. Equipped with two engines and two rudders and propellers the boat is easy to manoeuvre in narrow and shallow waters. The two-man crew has a 3,25 ton crane available for lifts.

## World's largest maintenance platform completed



Tokyo, Japan, Feb. 2—IHI (Ishikawajima-Harima Heavy Industries Co., Ltd.), Japan, recently completed a self-elevating maintenance platform, called the “ARB-1”, at its Nagoya Works. An order for this platform, worth approximately 27 million dollars, was placed with IHI in May 1975 by Aramco Overseas Company of the Hague, Netherlands.

This platform, the largest of its kind in the world, was completely designed by IHI and will be used for maintenance work on offshore oil production plants and other marine facilities of various types. It employs the “IHI teeth and teeth jacking system” with a lifting capacity of about 12,000 tons, and is installed with an IHI marine type revolver crane with a lifting capacity of 500 tons.

Shipped on board a huge towing barge on January 20 from the port of Aioi, Hyogo Pref., the platform will arrive in Saudi Arabia around the end of February and will enter into operation in the Arabian Gulf in April, after completion of the necessary restoration work at Ras Tanura.

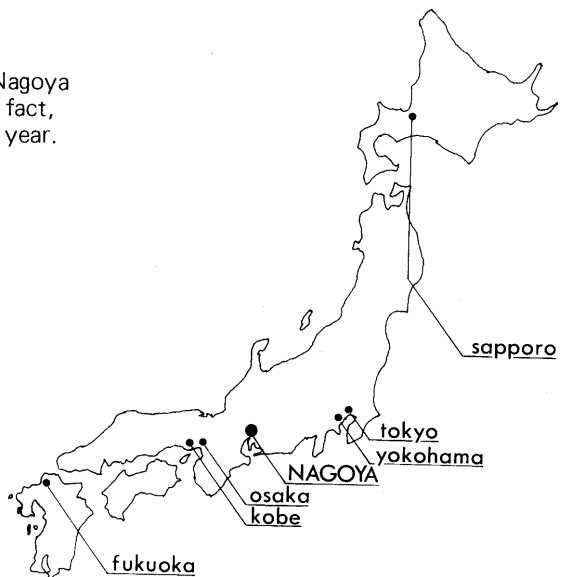


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Industry is still growing fast in Central Japan. And Nagoya Port is in the very center of this exciting activity. In fact, we handled more than 100 million tons of cargo last year. And we're growing year by year. Completely modernized, completely containerized, we can move your cargo faster, more efficiently, more economically. We provide a total transportation system, too. By rail, truck or ship, we get your goods out in a hurry. After all, in Nagoya you're closer to everywhere in Japan.

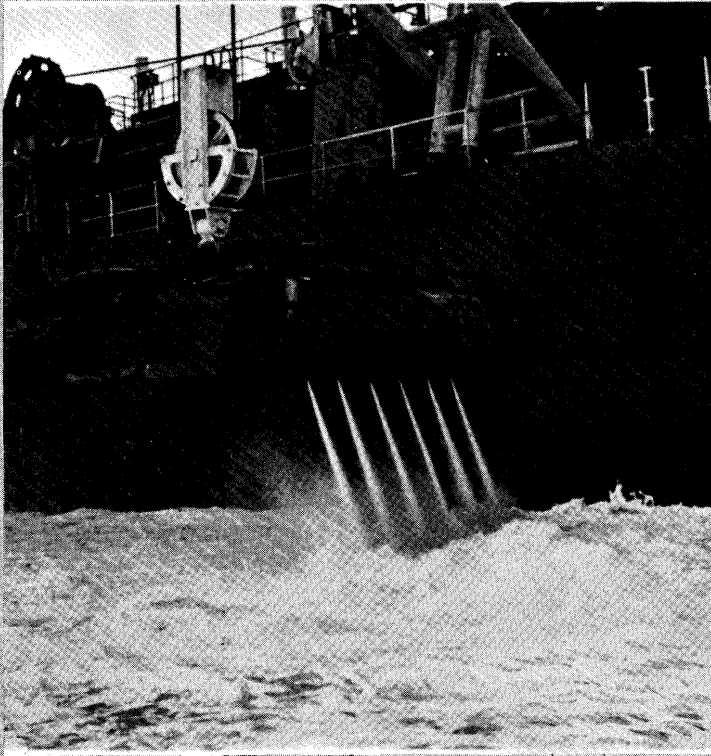


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# NAGOYA PORT AUTHORITY

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### Principal Particulars

Gross tonnage.....	6,251.21 tons
Hopper capacity.....	4,000 cubic meters
Hopper loadage.....	5,600 tons
Dredging pump.....	10,000 cubic meters/hour x 2
Jet pump.....	800 cubic meters/hour x 2
Dredging depth.....	max 30 meters
Positioning system....	Coordinate display
Distance meter.....	AUDISTER (electronic distance meter)



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 Shiba Nishikubo, Minato-ku, Tokyo  
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# Container Traffic Up 40% at Helsingborg

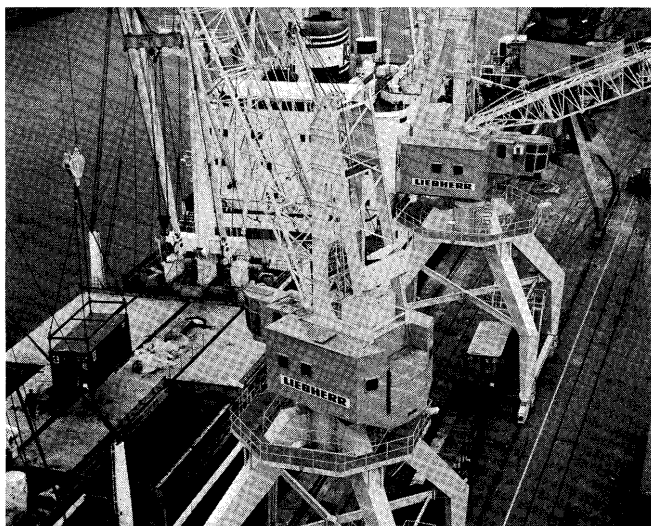
**Press-Release  
Port of Helsingborg  
Sweden  
January 31, 1977**

(See front cover also.)

Reduced trade has characterized the economy of Sweden during the past year. However, Port of Helsingborg has enjoyed continuous success with increased employment in all sectors and nice traffic figures as a result. The total cargo turnover came to 7.466.849 tons, which is an increase of 754.456 tons or 11.2 pct. The number of ship arrivals and departures in 1976 arrived at 140.556 corresponding to 81.185.782 nrt, which is 1.9 million more than in 1975.

## Unitized Cargo Predominating

The largest contribution is attributed to the unit cargo, which had an overall increase of 297.447 tons. More than one third of this is related to the Container Terminal, where the cargo volume increased by a record 40 pct. Unit cargo to and from Elsinore by train ferries (DSB/SJ) and car ferries (Linjebuss) rose by 35 and 7 pct respectively making 335.462 tons for DSB/SJ and 1.008.183 tons for Linjebuss. On top of this unit cargo by the services to Travemünde/Lübeck has broken all previous records with a total



## PORT OF HELSINGBORG—South Harbour

The crane park at the South Wharf with 10.5 m water depth has recently been enlarged with two 30-ton-capacity combined container/general cargo cranes. Thus the terminals of the South Harbour render great flexibility and a most modern service to both full- and semi-containerships as well as to general cargo liners in deep sea traffic.

turnover of 563.610 tons, meaning an improvement of 8 pct in comparison with 1975. Taken together the unit traffic by RoRo and LoLo increased by 15 pct to 2.280.214 tons.

Ferried railway cargo has taken a great step forward to 1.940.867 tons meaning an addition of 16 pct. Exactly the same increase in per cent had mineral oils, which now has reached 993.520 tons. The turnover of conventional general cargo (454.736 tons) is as good as in the year before, which is also the case with the turnover at the Copper Works Harbour (1.556.144 tons).

## 16.3 Million Ferry Passengers—1.4 Million Motor-cars

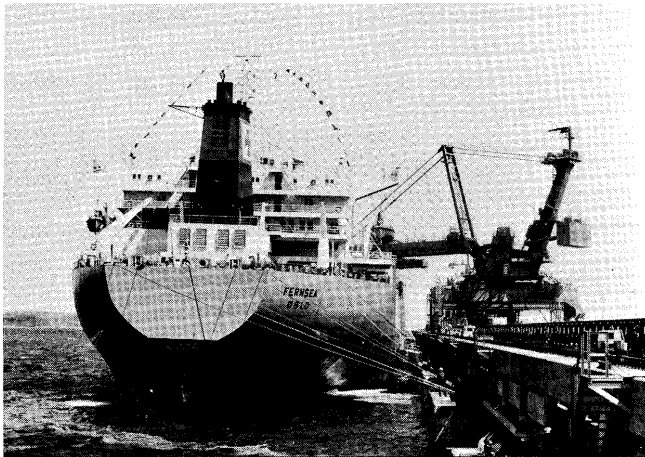
Again the ferry traffic at Helsingborg has excelled itself at the same time as many other ferry ports have experienced great drops. The number of passengers has never been as high as last year's 16.290.065, which means 112.027 more than the year before. The number of ferried motor vehicles came also to a record and reached 1.393.609, up 82.603.

Linjebuss is still the leading ferry line when it comes to passengers and motor-cars while on the other hand the railway ferries (DSB/SJ) take care of two thirds of the cargo. However, the train ferries (DSB/SJ) have reduced the lead as to passengers and carried 408.083 more making a total of 6.573.280 as against 6.737.400 for Linjebuss. The passenger service of Sundsbussarna carried 2.356.658 travellers, the Snekkersten Line 377.791 and finally the services to Travemünde/Lübeck 222.047.

Neither DSB/SJ nor Linjebuss have previously reached as high figures as those in 1976 in the carriage of motor-vehicles. The two lines have increased sharply, DSB/SJ more than its competitor but despite this Linjebuss is enjoying a clear dominance with 762.548 vehicles compared with 558.142 for DSB/SJ. The number of automobiles to and from Travemünde/Lübeck came to 72.830, which actually means a slight reduction although the cargo volume rose by almost 8 pct.

The number of railway wagons by the train ferries (DSB/SJ) shows a fine improvement to 193.991 meaning an addition of 18.5 pct.

## Rubber fender used at world's largest jetty



Tokyo, February 22, 1977 (Yokohama News Release):—Twenty-four of The Yokohama Rubber Co., Ltd.'s largest pneumatic rubber fenders are currently being used at one of the world's largest jetties in Saldanha Bay, approximately 100 km northwest of Cape Town, South Africa.

The 627m x 33m jetty was constructed in September 1976 to accommodate ore carriers loading iron ore from the nearby Shinsen Mine, which will export approximately 18 million tons of high-quality ore annually.

The jetty is equipped with eight 3.3m x 10.6m extra large and sixteen 3.3m x 6.5m large Yokohama pneumatic rubber fenders, which are to be used in the docking of ore carriers of up to 350,000 dwt. Two spare fenders are also at the site.

The Yokohama Pneumatic Rubber Fenders' high energy absorption and low reaction force were instrumental in their selection over conventional solid rubber fenders. Equally important were the Yokohama Fenders' ease of installation, maintenance and inspection. The use of the pneumatic fenders also simplified the requirements of the jetty design, thereby reducing the cost of construction.

Yokohama Rubber has also supplied pneumatic rubber fenders for the ore terminals of the British Steel Corporation and the National Steel Corporation in the Philippines.

## Gray Mackenzie Monthly Bulletin December 1976

### • Bahrain

During December, 1976, 58 ships called at Bahrain to discharge 87,797 tons and to load 240 tons. In the same month of the preceding year 61 vessels discharged 31,215 tons and loaded 1,381 tons.

Vessels were subject to a berthing delay of 32 to 38 days throughout the month which position is expected to continue during the month of January 1977.

75 tankers called at Sitra during the month compared with 49 in December, 1975.

The Government of the United Arab Emirates, the State of Bahrain, the Republic of Iraq, the Kingdom of Saudi Arabia, the State of Kuwait, the Sultanate of Oman and the State of Qatar have signed and ratified an agreement with respect to formation of "The Bureau of Gulf Ports Union" with its headquarters in Dammam, which will have the following objectives:

- (a) To consider all means and methods for the development of Gulf ports according to international standards.
- (b) To conduct studies and researches into finding the best means of overcoming the phenomenon of congestion in Gulf ports.
- (c) To co-ordinate and render advice with regard to the following matters:
  - i) Organization of work in the aforementioned ports.
  - ii) Drawing up a development plan for the work of the aforementioned ports.
  - iii) Application of international and local expertise and services in these ports.
  - iv) Organization of means whereby some Gulf ports may benefit with respect to their requirements of equipment, machinery and expertise which are available with the ports of the contracting parties or others.

### • Abu Dhabi

74 vessels called at Abu Dhabi during the month of December with 99,653 deadweight tons of cargo on board for discharge. Imports consisted of 56,902 tons general 15,266 tons steel, 12,480 tons cement, 4,415 tons pipes, 7,620 tons timber and 2,970 tons bitumen.

Additionally, one taker called at Mina Zayed for the purpose of discharging gas oil.

December berthing delays varied between 32 to 35 days but a slight improvement in this position may be anticipated during January with delays averaging between 28 to 30 days. The number of vessels awaiting berths has reduced from 60 to 50.

Preliminary dredging work has commenced to convert berths 1, 2 and 3 to deep water berths.

### • Khorramshahr

During December 71 vessels discharged a total of 405,842 tons of import cargo.

Berthing delays ranged from 10 to 15 days.

## Port Tonnage at Penang

Penang (Berita Pelabuhan, October 1976):—In the period April to June 1976, the Port of Penang handled a total of 1,068,513 tonnes of cargo. This is 9.2% higher than the volume of cargo handled for the same period in 1975.

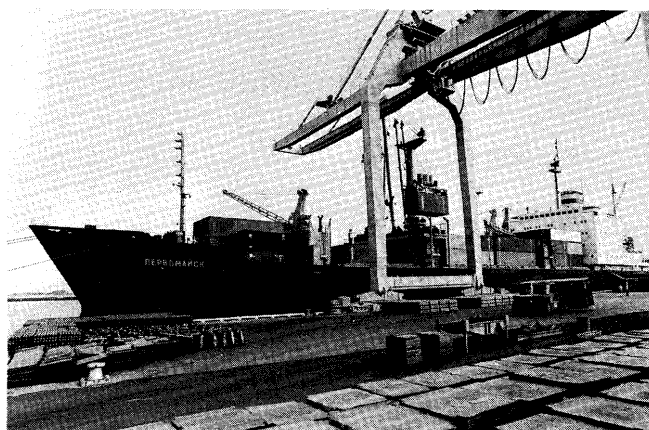
General cargo recorded an increase of 14.8%. Timber which is one of the major export commodities showed an increase of 69.4%. There was however, a drop in the export of rubber, from 122,096 tonnes in 1975 to 118,118 tonnes in 1976.

Of the import commodities, raw materials such as fibres and petroleum products showed significant increases.

In Bulk cargo, the import of petroleum dropped by 5.1%, while the export of bulk palm oil and bulk latex increased by 56% and 50.4% respectively.

# Townsville will be at the IAPH Conference

## Townsville Harbour Board Queensland, Australia



Russian ships are now operating a regular shipping service from Townsville, Australia to Kobe and other Japanese ports. Here the PERVOMYSK loads containers of palletised nickel. Quick and efficient handling of containers at Townsville is resulting in growth of container shipment from the Port.

Among the delegates who will be attending the 10th I.A.P.H. Annual Conference at Houston, U.S.A., will be two representatives from the progressive Port of Townsville in North Queensland, Australia. Townsville Harbour Board Chairman, Mr. A.G. (Bert) Field, who will be attending his third I.A.P.H. Conference with fellow-Board member Mr. E.S.P. (Eric) Netterfield, O.B.E. who has had distinguished service on the Townsville Harbour Board since 1963.

Mr. Field has earned a place of prestige as a dynamic leader in Port development in his State of Queensland. He was recently re-elected for his third term as Chairman of the Townsville Harbour Board and his second term as Chairman of the Queensland Harbour Boards' Association. He has recently announced extensive developments for Townsville which will attract new and extensive bulk cargoes as well as more general containerised cargo through the Port.

In addition, as the spokesman for the Queensland Harbour Boards' Association, he has led strong delegations to Government and shipping authorities to preserve and augment Australian coastal shipping services which are at present facing difficulties in operating under complicated Federal-State conflicting regulations.

Mr. Netterfield was honoured by H.R.H. Queen Elizabeth in 1973 with the Order of the British Empire in recognition of his services to the grazing industry and the community through local government leadership. With this background he has brought a wealth of experience to the Townsville Harbour Board administration. Currently he is also serving his 20th year as Chairman of the vast McKinley Shire which covers an area of 40,750 square kilometres in

the resource-rich mineral and grazing hinterland to the West of Townsville. Mr. Netterfield represents the Shires of Flinders, Richmond and McKinley on the Townsville Harbour Board. These Shires total an area of 110,000 square kilometres and collectively this area provides the majority of primary production which is exported through Townsville in the form of frozen beef, live cattle, wool and sheep.

Recent developments with rail and road transport, which over many years had traditionally moved primary products to the Port of Brisbane for export shipment, will mean that these exports will be increasingly handled through the Port of Townsville in the future. This will provide considerable savings in freight costs for the primary producer and as the shipping services develop and expand to Asian Ports and using the 'around the top of Australia' route via the Suez Canal to Europe, savings to the ship owner and more economical landed costs of these products will result.

## Gladstone Harbour Board Chairman's Review 1975-76

Gladstone, Queensland, Australia:—It is with a note of disappointment that I record a decrease in trade through the Port of Gladstone for the year ended 30th June, 1976. Cargo handled fell by 8.8% over the previous year's figures, to 14,340,531 tonnes.

This fall in trade, mainly in the area of Coal Exports, combined with rising costs, forced the Board to adopt a cautious outlook in the administration of the Port.

It was unfortunate that a Dredging Programme planned to increase the Channel depth to 11 metres, had to be postponed, mainly because of the matters mentioned earlier, together with delays to other proposed new developments at the Port.

The Board considers the drop in trade only to be temporary, and in fact, there was some indication of recovery during the last quarter of the financial year. It is felt however, that any really significant improvements will not be forthcoming until early 1977.


It was heartening to see that Grain Exports showed a 50% increase to 236,915 tonnes, during the year. This evidences the contention that the provision of Grain Handling Facilities at Gladstone has done much to further the Grain Growing Industry of Central Queensland.

There is no doubt in the minds of the Board, that the Port of Gladstone will witness tremendous development in the years to come, and our talks with Industry Leaders during the year under review, have reinforced that view.

It has always been Board policy that the Port must be ready to accommodate new Port Industry. With this in mind, a full Works Programme was continued throughout the year, which has resulted in additional Facilities being provided to cope with the future.


Two (2) projects readily come to mind. Firstly, the completion of an Earth Embankment which will carry services to future Berths in the Clinton Area west of Auckland Point. Secondly, the acquisition by the Board, of a Bulk Products Shed at Auckland Point. This Shed is





*Container Terminals in OSAKA BAY*

**HANSHIN (OSAKA BAY) PORT DEVELOPMENT AUTHORITY**



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equipped with Bulk Unloading and Loading Facilities linked to the Board's Bulk Shiploader.

The Official Opening on 27th August, 1975, of the Board's New Administration Building, by His Excellency the Governor, Air Marshal Sir Colin Hannah, K.C.M.G., K.B.E., C.B., K.St.J., D.G.U., marked another milestone in the history of the Board.

The spacious 3-storey Building further evidences the Board's faith in the future.

As with most other Authorities throughout the country, the high inflation of the past few years has had a marked effect on the Board's operations.

Whilst every endeavour has been made to retain the present low level of Port Charges, it appears inevitable that a general review of Charges will be necessary in the forthcoming financial year.

Several changes took place in the personnel of the Board during the year. In September, 1975, Mr. R.H. Swenson resigned and was replaced by Mr. H. Anderson representing the Town of Gladstone.

Following the Local Authority Elections, the Board was re-constituted in May, 1976. Mr. D.H.N. Neill-Ballantine, Mr. J. Grant and Mr. H. Anderson did not return to the Board Table. These men had given great service to the Port of Gladstone, and on behalf of the Board, I offer them sincere thanks and our best wishes for the future.

We welcome Ald. F. Waterson, (City of Gladstone), Cr. A.C. Shepherdson, (Shire of Banana), and Cr. E.A.D. Cameron, (Shire of Calliope), to the Board, and look forward to their participation in Board affairs.

On behalf of the Board, I extend thanks to those who

have assisted us during the year. We especially thank the Queensland Government, and in particular the Minister for Tourism and Marine Affairs, Hon. T.G. Newbery, M.L.A., for continued support. At the time of writing this Report, advice was received that The Hon. A.M. Hodges, M.L.A. had succeeded The Hon. T.G. Newbery, M.L.A. in this portfolio. The Board wishes Mr. Hodges well and looks forward to working with him.

The Officers of the Department of Harbours and Marine, headed by the Director, Mr. A.J. Peel, have greatly assisted the Board in the administration of the Port.

Shipping movements have been efficiently handled by the Harbour Master, Captain M. Hanson and his Pilots, and we offer them our sincere thanks for their co-operation.

The Board extends its gratitude to the administrative and operational staff for their loyal service during the year.

On 4th March, 1976, Gladstone was proclaimed a City. The Port is an integral part of the City and its surrounding districts, and the Board offers its congratulations to the citizens on this historic event.

I know that the advances we have witnessed over past years in Central Queensland will be dwarfed by the development which is yet to come. One thing is certain, the Port of Gladstone will always be to the fore in that development, and will continue to serve Central Queensland as an outlet for the bountiful mineral and agricultural wealth of this highly productive region of Australia.

W.R. Golding  
Chairman

# Fremantle Port Authority Board Chairman's Report

## Extracted from "Annual Report 1975-1976 Fremantle Port Authority Western Australia"

It is with pleasure that I submit the 77th Annual Report of the Fremantle Port Authority for the 1975/76 financial year.

Substantial wage increases and spiralling costs generally, presented a number of problems which were aggravated by a slight downturn in the number of ships using the port and an associated fall-off in the volume of general cargo handled. As recorded in the financial section of the report, the major port charges which had remained unaltered since July 1973, were increased in the first half of this year. In view of the overall circumstances it is very gratifying to report an unappropriated surplus of \$185,680 for the year.

Total trade of 17,558,146 tonnes was 300,000 tonnes down on the previous year, with exports showing an increase of 3.3% and imports falling by approximately 6%.

The increase in exports was largely due to increased tonnage of refined alumina and primary products, principally grain and wool.

The fall-off in import tonnages was attributable to a number of factors, not the least of which was the cessation late in 1975 of the regular container ship service between Fremantle and the Eastern States. Import tonnages carried by this service fell from 547,000 tonnes in 1974/75 to a total of 308,000 tonnes in the year under review.

Fuel oil bunkers loaded also fell from 654,000 tonnes in 1974/75 to 545,000 in the year under review.

The number of ships entering the port, 1,719, was 23 less than the number for the previous year. Of the 1,313 ships entering the Inner Harbour 400 were foreign fishing vessels and research ships which do not contribute to cargo tonnages but take on substantial quantities of fuel and stores while in port.

Construction work on the Kwinana Grain Jetty was finished during the year and it is anticipated that the completion of associated grain handling facilities will enable the first consignment of bulk grain to be shipped from this berth during the 1976/77 grain export season.

The Authority was represented during the year at the 6th Conference of the Western Australian Port Authorities' Association held at Esperance in October 1975, and at the various Council meetings of the Association of Australian Port & Marine Authorities.

I wish to express my sincere thanks to the members of the Board for the time, thought and co-operation they have given during this year.

Due to changing work methods and technological progress in general, staff numbers have been allowed to decrease through natural attrition over a period of years. However, technological progress in itself has opened up new

fields such as careers for a number of officers associated with the introduction of an NCR 8200 computer during the year.

On behalf of the Board of Commissioners, I express my appreciation to the General Manager, Executive Officers and all Staff for their conscientious and loyal services which have assisted in achieving such a pleasing result for the year.

T.J. LEWIS,  
Chairman

## Fremantle Port Authority Act 1902-1969

The Fremantle Port Authority is a corporate body established by the Fremantle Port Authority Act 1902.

Under the terms of the Act the Authority has exclusive control of the Port and is responsible for:

- (a) The maintenance, operation and leasing of all property vested in it.
- (b) The construction, completion, and maintenance of port works such as roads and approaches, wharves, jetties, landing stages and slipways.
- (c) The provision of transit sheds, cranes etc. for facilitating the loading and discharging of ships.
- (d) The dredging or widening of channels.
- (e) The establishment of buoys, beacons and other navigational aids.

The Authority also—

- (a) Undertakes the shore handling, of cargo for which purpose it acts as wharfinger, employs labour and operates mechanical and other equipment.
- (b) Undertakes the mooring and unmooring of ships.
- (c) Supplies fresh water for shipping.
- (d) Operates the Port's pilotage and signal services.

Funds for capital works undertaken by the Authority are provided by allocations from the State's General Loan Fund, by private borrowing against debentures or inscribed stock and by retention of depreciation from revenue.

## Commissioners

The Authority is comprised of five Commissioners appointed by the Governor in Executive Council who hold office for a term of three years and are eligible for re-appointment from term to term. One of the Commissioners is annually appointed as Chairman

The Board of Commissioners since 1st January 1975 has been Messrs. T.J. Lewis, J.G. Manford, C. Carter, J.R. Watson and P.W. Ireland.

Mr. T.J. Lewis was appointed Chairman for the years 1975 and 1976.

# Whangarei Board Chairman Speaks at the Annual Meeting

Extracted from  
"Points North", No. 3, 1976  
(Published by the Northland Harbour  
Board, Private Bag, Whangarei, New  
Zealand)

The Hon. D.N. McKay, former Minister of Health, has been re-elected for his third consecutive term as chairman of the Northland Harbour Board.

At the board's annual meeting in November, Mr. McKay was returned unopposed, as was the deputy chairman, Mr. J.C. Blacklock.

In his annual report for the year ended September 30, Mr. McKay said board revenue reached a record \$4.5 million, up \$700,000 on the previous year.

But costs also rose, from \$3.5 to \$3.8 million.

"Maintaining a favourable cash flow in spite of increased costs has been achieved through improved control over the allocation and productivity of labour and resources, as recommended by the board's economic survey committee," Mr. McKay said.

"However, a board such as our's cannot continue to absorb rising costs in every sphere of its operations, and all charges need to be reviewed regularly."

He said the asset structure was "extremely sound" with assets now tallying more than \$23.3 million (\$21.5 million a year before), while the public debt was only \$8.1 million (\$7.5 million previously).

## "Favourable Pattern"

"Whilst no major increase in trade or profitability is forecast in the 1976-77 fiscal year, it is anticipated that this board will continue to produce, by prudent management, a favourable trading pattern for the forthcoming year."

As an example of that management, Mr. McKay said staff numbers had been reduced 7% by not replacing personnel who left.

Among the year's activities Mr. McKay noted:

- 592 vessels traded to and from Marsden Point and Port Whangarei, while 44 visited Opuā.
- Cargo tallied 7,356,055 tonnes (as against 7,512,186 tonnes last year and 7,907,990 tonnes the year before).
- Work was substantially completed on a new barge canal serving the Kaituna Block, one of the board's industrial subdivisions.
- Full services had been provided for a boating complex at Parua Bay, where the Whangarei Cruising Club and Out-board Boating Club had new clubhouse facilities.

## Giant Visitor

- At Port Whangarei, the slipway was occupied for 227 charged days—92 for maintenance of board craft, and 135 for 13 other vessels.
- Marsden Point was visited by the largest ship ever to call at N.Z., the 113,000-tonne tanker Mobil Brilliant.
- September saw completion of a change-over in the

Marsden Point signal station's radio equipment, to single band, at a cost of \$17,500 in equipment and some 3,000 man-hours.

- The same month a new barge and crane arrived in the Bay of Islands to take over the work of an old pile frame barge which had laid moorings up to now.

- The year also brought 10 recorded oil spills of varying degree, involving the board in clean-up costs of \$25,000.

"As further evidence of the board's concern on pollution and the environment, discussions were held with ecologists and environmentalists on matters related to harbour planning and disposal of dredgings," Mr. McKay said.

## Future Plans

Looking ahead to the future, the chairman continued: "As the board's principal revenue is derived from the oil industry, it is extremely susceptible to any changes within that industry.

"The proposed extension of the oil refinery should increase board revenue, but this could be offset by loss of revenue caused by the proposed pipeline to carry refinery products to Auckland.

"It is, therefore, prudent to examine other possible sources of revenue.

"In the last 10 years, three major surveys have been made on the economic development potential of Northland.

"Those have all concluded that the future will depend upon farming, fishing, forestry, tourism and the expansion of existing industry.

"During the year under review, planning has been active in the development of industrial land; export potential of forest products; the future expansion of the N.Z. fishing industry; maritime aspects of tourism; and continual examination of the possibility of increasing the local export of primary produce."

## Vigilant Team

He went on: "I wish I could conclude with an optimistic prediction of increased affluence, but I believe 1976-77 will require vigilance and energy to maintain financial stability."

Costs would continue to rise. And that could only be combatted by the board increasing its charges, or by compensating through increased trading and diversification.

"To the general manager and every member of his staff, I extend my sincere thanks for their help, loyalty and tolerance during the year's period of reorganisation and adjustment to changed financial circumstances.

"In all sincerity, I must thank board members for their conscientious acceptance of duties outside normal board meetings; their representations on behalf of their electors; and their loyalty and helpfulness at all times.

"I have been proud to be chairman of such a unified team."

# Ro/Ro Vessel on Maiden Voyage

## PSA Press Release



### RO/RO VESSEL ON MAIDEN VOYAGE

Picture shows Capt. F.E. Cizeksky receiving the salver from Mr. Cheng Tong Seng. In the background are two visiting executives of States Steamship Company, U.S., Messrs. Warren B. Penland (left), Vice President; Los Angeles and J.S. Butler (right), Vice President, Traffic. (Port of Singapore Authority)

Singapore, 3 February 1977 (Port of Singapore Authority):—The latest type of American Ro/Ro (Roll-on/Roll-off) vessel called at Singapore on 27 Jan 77 on her maiden voyage from the Persian Gulf.

The 208.5-metre long State Line's SS Nevada features a unique starboard quarter ramp, 7.3 metres wide, capable of accommodating the largest local tidal fluctuation with a safe working load of 65 tonnes. Due to its inclined angle of the ramp to the wharf edge the vessel can operate from any conventional wharf without the need of a purpose-built shore ramp.

Truck-mounted palletised and containerised cargo (20' and 40' containers) are driven on and off the vessel through the ramp and are loaded/off loaded by forklift trucks stationed at designated points. Internal ramps provide rolling access to all cargo decks. and ship-borne heavy forklifts with a lifting capacity up to 20 tons supplement shore operations.

The 19,543 DWT vessel berthed at Godown 47 at Keppel Wharves and loaded some 1,400 tonnes of timber and rubber for USA. Our staff from Zone 'C', were given the opportunity to meet the challenge of loading the Nevada in this new ro/ro concept for the first time. And this, they did vary efficiently by completing the operations in around 15½ hours utilising some 9 PSA trucks and 12 forklifts.

A total of seven points, each point comprising of three lorries, four forklifts and four workmen and a maximum of three points at any one time, were worked for the whole loading operations. This performance proves clearly that

our portworkers can easily meet any challenge in cargo operations.

To commemorate the maiden voyage of SS Nevada, a ceremony was held on board the vessel where Mr. Cheng Tong Seng, Deputy Director (General Services), PSA, presented a pewter salver and the book "East Meets West" to the Master, Captain F.E. Cizeksky.

Speaking at the presentation ceremony, Mr. Cheng said that it was a significant occasion not only because the vessel was on her maiden voyage, but also that it was the first time a full-fledged Ro/Ro vessel with a thorough transportation concept called at the PSA wharves. He hoped that the owners were satisfied with our performance and with the completion of PSA's Ro/Ro berth under Container Terminal's Phase II Development, more shipowners concerned will make Singapore as one of the ports of call for their Ro/Ro services.



Picture shows Mr. Henry Chang Superintendent (Bunker Fuel & Water) presenting a pewter salver to Capt. Chen Ching Chien, master of the asphalt tanker, MT "Eastern Sea" during a simple maiden voyage presentation ceremony on board the vessel when she called at the Port of Singapore on 5th February 1977. The 3,094 GRT tanker from the Asakawa Shipyard in Japan has a cargo tank capacity of 3,530 cu. metres and plies regularly to Hong Kong, Malaysia and Singapore. (Port of Singapore Authority)

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☆ Completely sound-proofed and air-conditioned rooms.  
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## 5 Ships Carrying Fertilizer Due Shortly

Karachi, Pakistan, November 15th, 1976 (K.P.T. News Bulletin):—Five ships carrying fertilizer are scheduled to reach Karachi in November, it was disclosed by Shaikh Mohammad Rashid Federal Minister for Food and Agriculture, here on November 1st, 1976.

Talking to newsmen after an hour-long visit to the Port, he said that so far 1.37 Lakh tons of fertilizer had reached Karachi since the beginning of the current fiscal year.

Besides, he said, two ships carrying about 22,000 tons of nitro-phosphate were waiting off the port.

He said the imported fertilizer was despatched to various points in country direct from the port to ensure sufficient supplies of fertilizer to the growers for the ensuing Rabi season.

He also inspected wheat stored at the Port. He was informed that there were about 20,000 tons of wheat at the port.

He said that delay in despatch of wheat was due to short storage capacity in the provinces, but now it was being transported to Sind and other agencies at the rate of about 2,000 tons daily.

## Cargo handled during Oct., 1976

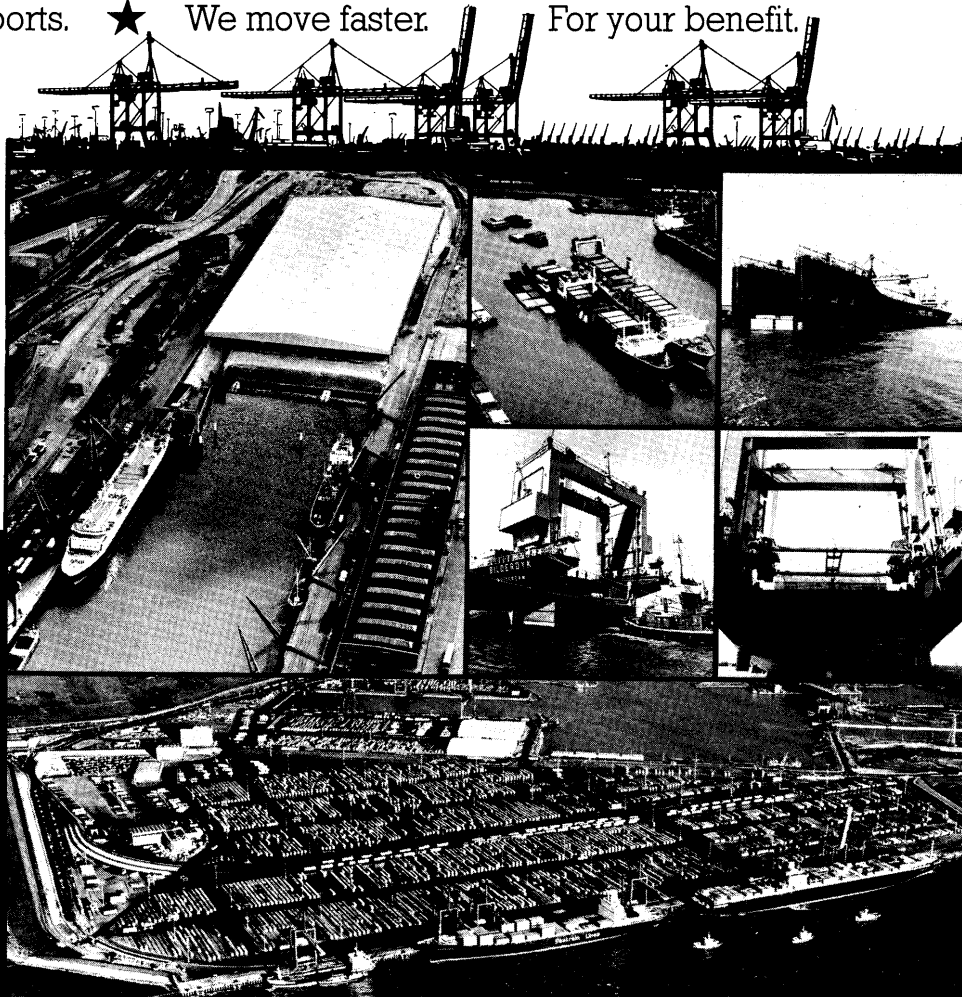
Karachi Pakistan, December 1st, 1976 (K.P.T. News Bulletin):—The total 904,428 metric tons cargo handled during October, 1976. The Import Cargo handled during October, 1976 was 698,606 metric tons and Export Cargo was 205,822 metric tons.

Bulk imports handled during October, 1976 was 75,262 metric tons as compared to 38,222 metric tons during September, 1976.



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# MITSUI Computer Control System for Container Terminals

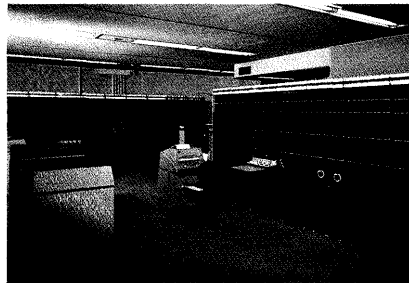
**Huge piles of data!  
How do you process them for efficient handling of containers?**

Our System can help solve your problems and enable you to reap the true benefits of container transportation. Developed in 1972, this System has proved its efficiency at the busy Ohi Pier, Port of Tokyo, and we are now prepared to aid you in solving your terminal problems, particularly those in the fields of cargo information and operations systems.

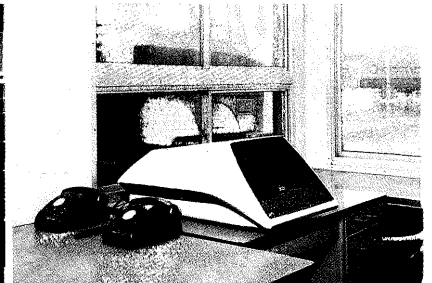
## Major Application Software

1. Planning Support & Management System
2. Receiving/Delivery Operations System
3. Loading/Unloading Operations System
4. Marshalling/Shift Operations System
5. Report Generating System
6. Inquiry System
7. Back up & File Control System

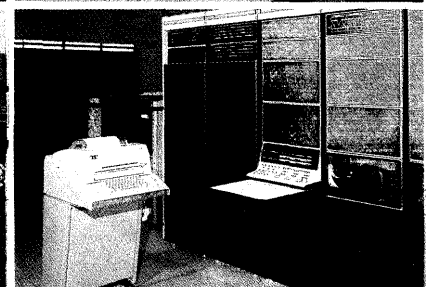
COMPUTER ROOM



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CENTRAL CONTROL UNIT



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**10th  
I.A.P.H. Conference  
April 24-30, 1977  
Houston, Texas**

**Under the theme of**

**“World Ports’ Role In Economic Development”**

# 10th Conference Program

## April 23 (Sat)

- 0900/1000 Constitution & By-Laws Special Review Committee  
1000/1200 Joint Meeting of Finance Committee & Membership Committee  
1300/1400 Executive Committee  
1400/1500 Nominating Committee  
1500/1700 Committee on Large Ships  
1800/2000 Secretary-General's Reception

## April 24 (Sun)

- 0900/1030 Joint Meeting of Board of Directors & Executive Committee  
1300/1400 Committee on Containerization and Barge Carriers  
1400/1500 Committee on International Port Development  
1500/1600 Credentials Committee  
1500/1600 Bills and Resolutions Committee  
1600/1700 Ways and Means Committee  
1830/2100 "Welcome to Houston" Reception

## April 25 (Mon)

- 0930/1030 Opening Ceremony  
1100/1145 Official Courtesy Visit to Mayor's Office  
1100/1145 Committee on Legal Protection of Navigable Waterways  
1145/1330 Reception & Luncheon  
1400/1530 First Plenary Session  
1545/1630 Panel Chairmen & Panelists' Meeting  
1815/2030 Reception & Dinner at River Oaks Country Club

## April 26 (Tue)

- 0800/0845 Bills & Resolutions Committee  
0800/0900 Finance Committee  
0930/1130 Panel Session No. 1  
– Problems of Port Congestion  
1145/1330 Reception & Luncheon  
1400/1545 Open Symposium  
– Committee on Containerization and Barge Carriers  
– Committee on Large Ships

- 1600/1745 Open Symposium  
– Committee on International Port Development  
– Committee on Legal Protection of Navigable Waterways

- 1700/1800 Honorary Membership Committee  
Evening Free

## April 27 (Wed)

- 0800/0845 Bills and Resolutions Committee  
0845/1000 Second Plenary Session  
1030/1145 Panel Session No. 2  
– The Port of Future—  
1145/1330 Reception & Luncheon  
1345/1500 Panel Session No. 3  
– Port Contribution to International Trade & Development  
1530 Bus Leaves  
1630/2100 Valley Lodge Berbecue, Rodeo, Arts & Crafts

## April 28 (Thu)

- 0800/0845 Credentials Committee  
0800/0845 Bills & Resolutions Committee  
0900/1030 Third Plenary Session  
1100 Bus Leaves  
1145/1330 Barbours Terminal Dedication & Luncheon  
1400/1630 Tour of NASA  
1930/2200 Reception & Buffet at Petroleum Club

## April 29 (Fri)

- 0800/0845 Bills & Resolutions Committee  
0900/1030 Panel Session No. 4  
– Environmental Problems of Ports—  
1045/1200 Closing Session  
1215/1400 Reception & Luncheon for New Officers  
1430/1700 Joint Meeting of Board of Directors and Executive Committee  
1930/2300 IAPH Conference Reception & Dinner/Dance

## April 30 (Sat)

- 0730/1000 Informal Farewell Breakfast  
1000/1200 Meeting if scheduled

### Time Capsule (Related News: Page 13 Ports and Harbors)

It was decided by the Port of Houston that the April issue of the journal, IAPH Membership Directory 1977 and IAPH Constitution and By-Laws will be sealed in the Time Capsule which is to be un-sealed in 2014 when the Port of Houston celebrates its 100th Anniversary.

## Organizing Committee, 10th IAPH Conference

Address: P.O. Box 2562 Houston, Texas U.S.A. 77001

# We look forward to seeing you in Houston

This page is particularly dedicated to introduce to you the Chairman and Members of the Conference Organizing Committee, in addition to their lists on page 12 of the April edition, so that all delegates will get acquainted with these ladies and gentlemen who will serve you while you are in Houston. (Head Office)



Mr. Fentress Bracewell—Host Chairman



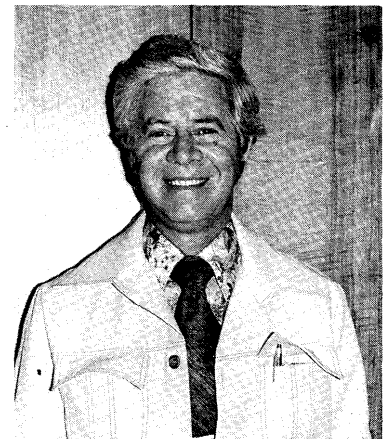
Mr. George W. Altvater—General Chairman



Mr. Michael Scorcio  
Conference Coordinator



Mr. J.K. Henderson  
Finance



Mr. Bruce Lyle  
Registration



Mrs. Debbie Plaehn  
Registration



Mrs. Ivonne Brieger  
Secretarial



Mr. Bill Cook  
Transportation



Miss Middy Randerson  
Publicity

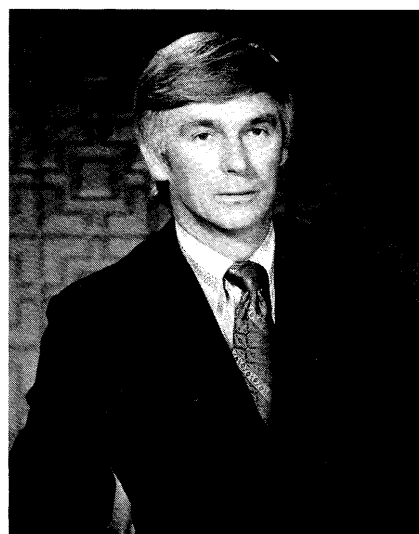


# Introducing You Two Luncheon Speakers



(Speaker for Monday, April 25)

**ROBERT R. HERRING**  
**Chairman of the Board and Chief Executive Officer**  
**Houston Natural Gas Corporation**  
**Houston, Texas**



(Speaker for Tuesday, April 26)

**CAPTAIN CERNAN, Former Astronaut**

## Business Summary:

- 1950–1952 – Fish Engineering Corporation, Vice President
- 1952–1958 – Fish Service Corporation, President
- 1958 – merger of Valley companies into Houston Natural Gas Corporation on November, 1963–Valley Gas Production, Inc., President
- November, 1963–June, 1965–Houston Pipe Line Company and Valley Gas Transmission, Inc., transmission subsidiaries of Houston Natural Gas Corporation, Vice President and General Manager
- December, 1964 to date–Houston Natural Gas Corporation, Director
- June, 1965–December 8, 1967–Senior Vice President, Houston Natural Gas Corporation (continued as Vice President and General Manager of transmission subsidiaries)
- December 8, 1967–December 7, 1973–President and Chief Executive Officer, Houston Natural Gas Corporation
- December 7, 1973–June 7, 1974–Chairman of the Board, President and Chief Executive Officer, Houston Natural Gas Corporation
- June 1974 to date–Chairman of the Board and Chief Executive Officer, Houston Natural Gas Corporation

## Presently he is:

- Director, Texas Commerce Bank
- Past Director, Texas Mid-Continent Oil & Gas Association
- Director, Proler International Corporation
- Past Director, Energy Research & Education Foundation
- Gold Good Citizenship Medals, Sons of the American Revolution

Captain Cernan flew two Apollo missions to the moon, being the last man to leave his footprints while he was commander of Apollo 17 in December, 1972. He also was the pilot of Gemini 9 in 1966 when he became the second American to walk in space. During the joint US-USSR mission he was named Special Assistant to the Program Manager which required several visits to the Soviet Union and a development of a close liaison with his Soviet counterparts. Captain Cernan's responsibilities throughout his career in our nations space program required extensive travel not only in the United States, but also in many foreign countries where he had broad contact with the citizens and leaders in the nations of the world.

Captain Cernan was one of fourteen astronauts selected by NASA in October 1963.

He occupied the pilot seat alongside of command pilot Tom Stafford on the Gemini 9 mission. During this 3-day flight which began on June 3, 1966, the spacecraft achieved a circular orbit of 161 statute miles; the crew used three different techniques to effect rendezvous with the previously launched Augmented Target Docking Adapter; and

(Continued on next page bottom)

- Past Vice Chairman, United Fund of Houston and Harris County
- Past Trustee, World Health Foundation of the United States of America
- Past Co-chairman, Houston National Alliance of Businessmen
- Member, Executive Board, Sam Houston Area Council, Boy Scouts America
- Director, The Prudential Insurance Company of America
- Member, Board of Visitors, U.S. Air Force Academy



**Member of Alabama-Coushatta Indian**

**On Wednesday, April 27, all delegates will be taken to Valley Lodge Barbecue, Rodeo, Alabama-Coushatta Indian Art & Crafts where you will enjoy a performance of the tribal dance and music. (Photo and caption are courtesy of the Alabama-Coushatta Indian Reservation)**

## **REVIVED TRIBAL DANCES BLEND MUSIC, COLOR, AND CEREMONY**

Music, color, and ceremony are intrinsically blended together in the exciting performances at the Alabama-Coushatta Indian Reservation of the Na-Ski-La Indian Dancers.

With a repertoire of dances as varied as the traditional and highly rhythmical Green Corn Thanksgiving Dance and competitive Fancy War Dances to the slow and symbolic Buffalo and Snake Dances to the audience-participating Friendship Dance, the Na-Ski-La Dancers, have become one of the most popular attractions at the Reservation.

The group, in fact, has gained notoriety throughout the Southwestern United States as well as Mexico with its many performances, both on and off the Reservation.

Ironically, some of the dances performed by the dancers today are not native to the Alabama and Coushatta tribes.

Many of the tribal dances were lost when a missionary arrived at the Reservation in 1881 and urged the Indians to drop the "pagan" religious practice.

Once the Indians became converted, the tribes were convinced the dances "were instruments of the devil," according to historians.

Since customs, such as folk dances, are handed down from generation to generation, many Indian families refused to let their children learn the precise dance steps, and the tribal dances almost died out.

But after careful research and with the help of Dance Leader Jack Battise, the Na-Ski-La (which means dogwood) Dancers have brought back many of the native dances and added to them a variety of other American Indian dances.

Cernan, the second American to walk in space, logged two hours and ten minutes outside the spacecraft in extravehicular activities. The flight ended after 72 hours and 20 minutes with a perfect reentry and recovery as Gemini landed within 1-1/2 miles of the prime recovery ship USS WASP and 3/8-of-a-mile from the predetermined target point!

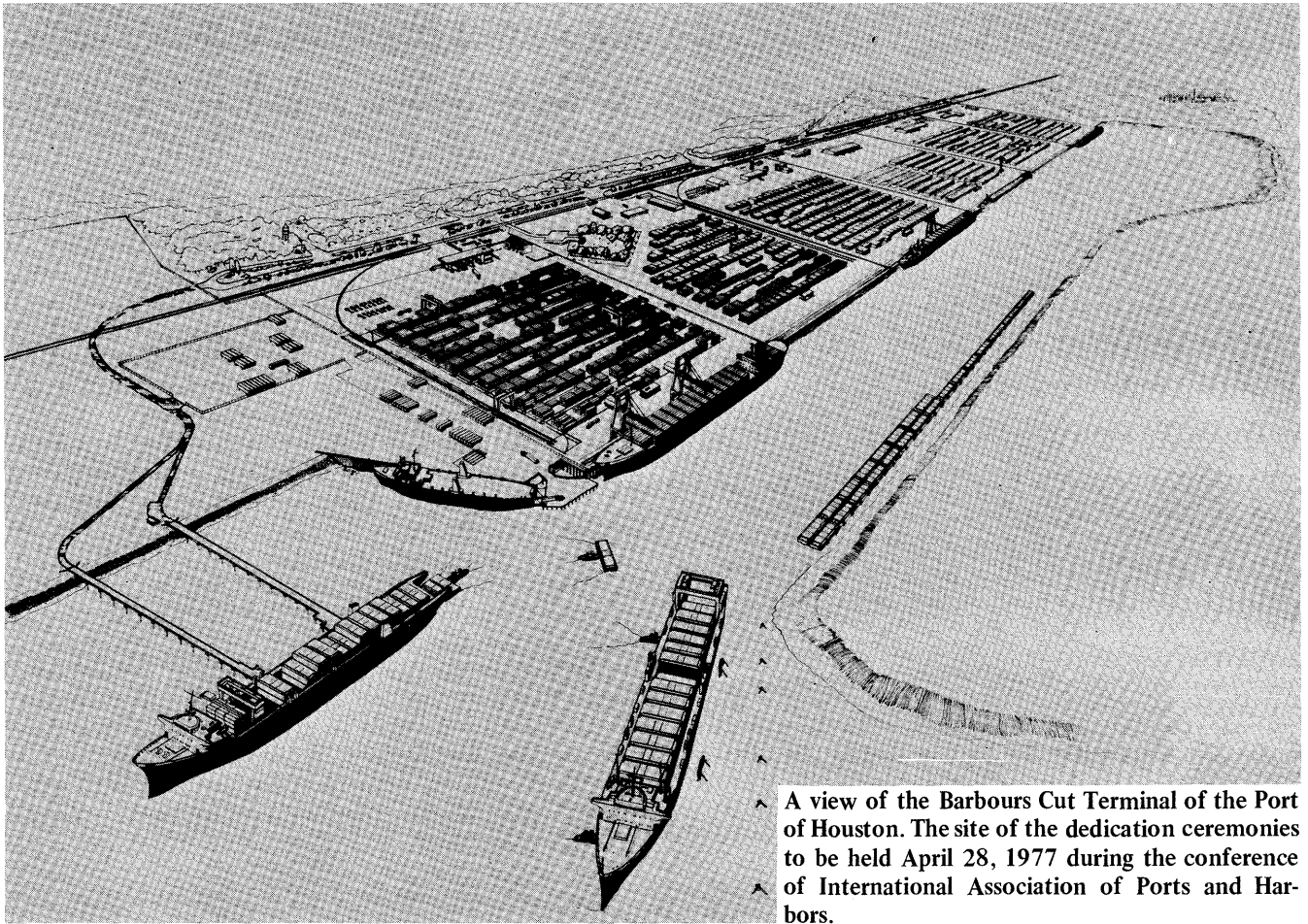
Cernan subsequently served as backup pilot for Gemini 12 and as backup lunar module pilot for Apollo 7.

On his second space flight, he was lunar module pilot of Apollo 10, May 18-26, 1969, the first comprehensive lunar-orbital qualification and verification flight test of an Apollo lunar module. He was accompanied on this 248,000 nautical mile sojourn to the moon by Thomas P. Stafford (spacecraft commander) and John W. Young (command module pilot). In accomplishing all of the assigned objectives of this mission, Apollo 10 confirmed the operational performance, stability, and reliability of the command/service module and lunar module configuration during translunar coast, lunar orbit insertion, and lunar module separation and descent to within 8 nautical miles of the lunar surface. The latter maneuver involved employing all but the final minutes of the technique prescribed for use in an actual lunar landing, and allowed critical evaluations of the lunar module propulsion systems and rendezvous and landing radar devices in subsequent rendezvous and re-docking maneuvers. In addition to demonstrating that man could navigate safely and accurately in the moon's gravitational fields, Apollo 10 photographed and mapped tentative landing sites for future missions.

Cernan's next assignment was backup spacecraft commander for Apollo 14.

He made his third space flight as spacecraft commander

of Apollo 17—the last scheduled manned mission to the moon for the United States—which commenced at 11:33p.m. (CST), December 6, 1972, with the first manned night launch, and concluded on December 19, 1972. With him on the voyage of the command module "America" and the lunar module "Challenger" were Ronald Evans (command module pilot) and Harrison H. (Jack) Schmitt (lunar module pilot). In maneuvering "Challenger" to a landing at Taurus-Littrow, located on the southeast edge of Mare Serenitatis, Cernan and Schmitt activated a base of operations from which they completed three highly successful excursions to the nearby craters and the Taurus mountains. This last mission to the moon established several new records for manned space flight that include: longest manned lunar landing flight (301 hours, 51 minutes); longest lunar surface extravehicular activities (22 hours, 4 minutes); largest lunar sample return (an estimated 115 kg (249 lbs.)); and longest time in lunar orbit (147 hours, 48 minutes). While Cernan and Schmitt conducted activities on the lunar surface, Evans remained in lunar orbit aboard the "America," completing assigned work tasks requiring visual geological observations, handheld photography of specific targets, and the control of cameras and other highly sophisticated scientific equipment carried in the command module SIM-bay. Evans also completed a 1-hour, 6-minute extravehicular activity on the trans-earth coast phase of the return flight, successfully retrieving three camera cassettes and completing a personal inspection of the equipment bay area. Apollo 17 ended with a splashdown in the Pacific Ocean approximately 0.4 mile from the target point and 4.3 miles from the prime recovery ship USS TICONDEROGA.



A view of the Barbours Cut Terminal of the Port of Houston. The site of the dedication ceremonies to be held April 28, 1977 during the conference of International Association of Ports and Harbors.



A view of the Port of Houston looking toward the Turning Basin.

# POST-CONFERENCE TOURS

## *ALTERNATIVE 1: Disneyworld & Miami 6 Days* Estimated Cost—U.S. \$380

Discover and enjoy the incredible fantasies of Disneyworld and follow the sun to relaxation at an oceanfront beach hotel . . . Join us on . . .

- April 30 By air from Houston to Miami. Transfer to your hotel . . . remainder of the day free to relax at your hotel's private beach.
- May 1 A morning tour of Miami and Miami Beach, which will include Coral Gables, the famed race track at Hialeah, Coconut Grove and Miami Springs . . . the University of Miami will also be visited before you return to your hotel via the famed "hotel row" of Miami Beach.
- May 2 Transfer to airport for short flight which will bring you to Orlando . . . here you will be met and transferred to your hotel in in the magic land of Disneyworld.
- May 3 During these days, you will say goodbye to the world of reality . . . and enter the magic world of  
and "make-believe" . . . you will be provided with  
May 4 admission to 16 of the fabulous Disney attractions.  
Admission will also be provided to Sea World . . . a beautiful 125-acre oceanarium 75 miles from the sea.
- May 5 Farewell to the "Magic Kindgom" as you transfer to the airport for return flight to Houston.

*TOUR INCLUDES:* Air, Houston/Miami/Orlando/Houston: all transfers and portage: top first class hotels with private bath: sightseeing and admission to Disneyworld attractions as described.

## *ALTERNATIVE 2: Holiday in Mexico 7 Days* Estimated Cost—U.S. \$426

MEXICO—so near—yet centuries away in atmosphere—colorful—an exotic blend of three dynamic cultures—massive pyramids and sculptured temples, Baroque Cathedrals of Spanish Colonial days, bold towering skyscrapers, a perfect climate—miles of sunny beaches—exciting village fiestas, magnificent natural scenery, mariachi and marimba bands. Tour includes Mexico City, Taxco, and Acapulco . . . Join us on . . .

- April 30 By air from Houston to Mexico City. Transfer to your hotel . . . remainder of day free to stroll along the broad boulevards and spacious plazas.
- May 1 Attend world-famous Ballet Folklorico . . . exciting pageant of native songs and dance. Visit Museum of Anthropology with its precious relics. An afternoon excursion to romantic Floating Gardens of Xochimilco.
- May 2 A morning tour of the city, including Metropolitan Cathedral, the National Palace with Diego Rivera's murals and the famed "Zocalo".
- May 3 By motorcoach through the Mexican countryside to Taxco, a lovely town perched on the hills. En route you will pass the famed resort of Cuernavaca. Over-night in Taxco.
- May 4 Short flight and you're in Acapulco, mecca of the International Set.

- May 5 Free during the day to relax and enjoy the Mexican sunshine.

An exciting evening is planned for you . . . see the world famous daredevil divers at La Perla.

- May 6 "Adios" to Mexico as you transfer to the airport for return flight back to Houston.

*TOUR INCLUDES:* Air, Houston/Mexico and return: all transfers and portage: top first class hotels with private bath: Continental Breakfast Daily: sightseeing as described: services of courier throughout.

## *ALTERNATIVE 3: Las Vegas-San Francisco 7 Days* Estimated Cost—U.S. \$569

Las Vegas spells Entertainment—Casinos Chorus Lines—Celebrities—Good Food—Beautiful Ultra-Modern Hotels—Glitter Galore! San Francisco, considered "Everybody's Favorite City." Shop along Fisherman's Wharf, take a ferry to Sausalito, have dinner in Chinatown, drive down flower banked Lombard Street, "the crookedest street in the world," ride the BART subway, the Cable Cars, visit famous museums, Ghiradelli Square and the Cannery . . . Join us on . . .

- April 30 By air from Houston to San Francisco. Transfer to your hotel . . .  
In the evening, enjoy a delicious exotic dinner in San Francisco's famed Chinatown.

- May 1 A morning tour of San Francisco which will include all the famed sites from Golden Gate Bridge to Bay Bridge and Treasure Island.

- May 2 An excursion to Oakland where you will see the wild fowl sanctuary . . . a visit to the great University of California at Berkeley . . . and a return via Oakland By Bridge.

- May 3 An exciting journey to the kingdom of 1000 year-old giants . . . California's famed redwood trees, more than 300 feet tall. Your drive to Muir Woods will take you through Sausalito, where the houses cling to steep hills that rise straight up from the water.

- May 4 Short flight today brings you to Las Vegas . . . fun capital of the world. Transfer to your hotel. Tonight, enjoy a delicious dinner while you marvel at one of Las Vegas' famed shows.

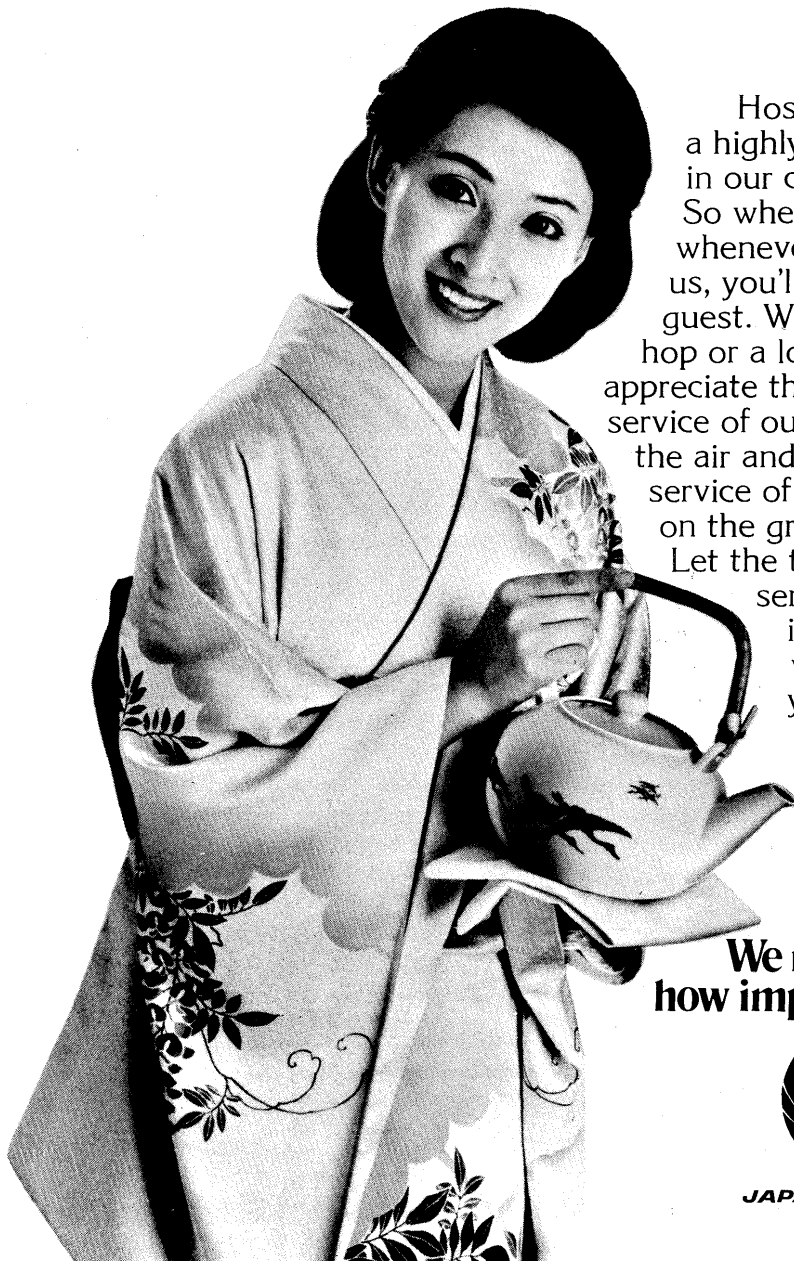
- May 5 Day free to enjoy the many attractions of this fabulous city . . . your hotel is right on "the Strip" so everything is right on hand.  
Your day does not end without your attending another gala show.

- May 6 Transfer to airport for return flight to Houston.

*TOUR INCLUDES:* Air, Houston/San Francisco/Las Vegas/Houston: all transfers and portage: top first class hotels with private bath: Dinner in San Francisco: American Breakfast daily in Las Vegas: Dinner and admission to two shows in Las Vegas: services of courier throughout.



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